

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger  
Nancy Lange  
Dan Lipschultz  
John A. Tuma  
Betsy Wergin

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the Petition of Northern States  
Power Company, dba Xcel Energy, for  
Approval of Its Proposed Community Solar  
Garden Program

ISSUE DATE: August 6, 2015

DOCKET NO. E-002/M-13-867

ORDER ADOPTING PARTIAL  
SETTLEMENT AS MODIFIED

**PROCEDURAL HISTORY**

**I. Initial Filings and Orders**

On September 30, 2013, Northern States Power Company, d/b/a Xcel Energy (Xcel or the Company), filed a petition for approval of its proposed community-solar-garden program under Minn. Stat. § 216B.1641.

In an April 7, 2014 order, the Commission directed Xcel to modify certain aspects of the program to ensure that it would reasonably allow for the creation and financing of community solar gardens.

On May 7, 2014, Xcel filed a revised proposal incorporating the changes ordered by the Commission.

On September 17, 2014, the Commission issued an order approving Xcel's solar-garden program with further modifications.

**II. Program Launch**

On December 12, 2014, Xcel began accepting applications from developers wishing to construct and operate community solar gardens. The response to the program exceeded expectations. By mid-January 2015, Xcel reported that it had received solar-garden applications totaling 431 megawatts (MW).

The Company stated that the majority of the proposed solar gardens were clustered in a few sites surrounding the Twin Cities urban core. Xcel stated the largest of these "co-located" solar-garden projects—including one 40 MW in size—resembled utility-scale projects that the Company would ordinarily procure through a competitive-bidding process.

In February 2015, Xcel filed comments setting forth its concerns regarding the co-located garden projects that developers were proposing:

- They may affect the transmission system, implicating the jurisdiction of the Midcontinent Independent System Operator (MISO), which operates the Midwestern transmission grid, and the Federal Energy Regulatory Commission (FERC), which oversees regional energy markets.
- Their subscribers are likely to be mostly large commercial and industrial customers, contrary to the legislative intent to give residential and small-business customers greater access to solar generation.
- Because garden subscribers receive a rate premium that is funded by all Xcel customers, the initial wave of projects will have a significant impact on the electricity bills of nonparticipating customers. Xcel estimated that the average customer would see a bill increase of nearly two percent if all 431 MW currently in the solar-garden queue came online at current rates.

### **III. Xcel's Initial Proposal for Co-located Gardens**

On March 4, 2015, Xcel filed comments proposing to administer the solar-garden program as follows:

- Process applications proposing solar gardens that are 1 MW or less.
- Consider gardens to be co-located if they exhibit characteristics of being a single development.
- Process co-located applications from a single developer provided that, in the aggregate, they do not exceed 1 MW.
- Process applications for multiple gardens at a single site provided that any one developer's gardens do not exceed 1 MW in the aggregate.
- Decline to consider applications from a single developer in excess of 1 MW who is simply dividing up a utility-scale project into multiple smaller gardens.

On March 10, 2015, the Commission notified Xcel that it intended to take up potential program adjustments in late spring or early summer 2015. The Commission stated that, in the meantime, it expected Xcel to administer the program consistent with the solar-garden statute and Commission orders.

On March 13, Xcel notified the Commission that it would convene stakeholder workgroup meetings in March and April to try to resolve some of the outstanding program-implementation issues, including co-location.

### **IV. Xcel's Notice of Intent to Administer the Solar-Garden Program Consistent with Its Interpretation of the Statute**

On April 28, 2015, Xcel filed a notice that it intended to begin administering the solar-garden program consistent with its previous proposal. The Company stated that the implementation

workgroup had been unable to reach consensus and stated that it would begin scaling down co-located projects to 1 MW within 31 days.<sup>1</sup>

On April 29, a group of solar developers calling themselves the Solar Garden Community (SGC) filed a petition for expedited relief in response to Xcel's notice.<sup>2</sup>

SGC argued that the actions Xcel was proposing were inconsistent with the Commission's orders establishing the solar-garden program, would harm solar-garden developers, and could have far-reaching effects on the distributed-solar market in Minnesota. SGC requested that the Commission enforce its orders and refer any violations to the Minnesota Department of Commerce and the Minnesota Attorney General.

On May 1, the Minnesota Department of Commerce (the Department) filed a motion requesting that the Commission order Xcel to show cause why the Commission should not (1) find the Company's proposal in violation of the Commission's orders in this docket and (2) order the Company to process applications consistent with the Commission's orders.

On May 11, the Commission notified parties that it intended to meet on June 25, 2015, to consider co-location and other disputed issues.

On May 18, Xcel filed comments arguing that SGC's and the Department's motions were not ripe, since the Company had not issued a notice to terminate any project. Xcel recommended that the Commission address the issues raised by these parties at its June 25 meeting. The Company stated that there was now 646 MW of solar-garden applications awaiting approval.

## **V. Stakeholder Comments**

Between September 30, 2014, and the June 25, 2015 meeting, the Commission received multiple rounds of stakeholder comments on co-location, the solar-garden interconnection process, and other issues.

With respect to co-location, many commenters agreed with the Company that large groups of co-located solar gardens were inconsistent with the solar-garden statute's community focus and would harm ratepayers. However, a number of commenters took the opposite view, arguing that the statute does not preclude multiple solar gardens from being sited on a single parcel of land.

Nearly all commenters supported decisive action to allow projects to be built before the end of 2016, when a federal tax credit for renewable energy production is scheduled to expire and financing projects will become more difficult.

The following parties provided written comments, and many also provided oral comments at the Commission's meeting.

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<sup>1</sup> In practice, this would mean that the first MW of co-located solar gardens would be allowed to advance and that the applications for the remaining co-located gardens would be cancelled.

<sup>2</sup> At the time of the June 23, 2015 Commission meeting, SGC included BHE Renewables, LLC; SoCore Energy, LLC; SunEdison, LLC; Sunrise Energy Ventures, LLC; and SunShare, LLC.

*Government Entities:*

- Department of Commerce
- Office of the Attorney General – Residential Utilities and Antitrust Division (the OAG)
- Metropolitan Council
- City of Monticello
- Town of Big Lake
- Saint Paul Public Housing Authority

*Solar Industry Representatives:*

- Clean Energy Collective
- Kandiyo Consulting
- Minnesota Solar Energy Industry Association (MnSEIA)
- MN Community Solar, LLC
- NextEra Energy Resources, LLC
- Novel Energy Solutions
- Renewable Energy Partners
- SoCore Energy, LLC
- Solar Garden Community
- Sundial Solar
- Sunrise Energy Ventures, LLC
- SunShare, LCC
- A Work of Art Solar Sales
- TruNorth Solar, LLC

*Nonprofit Organizations:*

- The Affordable Housing Community, an ad hoc group of affordable-housing nonprofits<sup>3</sup>
- Catholic Charities of St. Paul and Minneapolis
- Eden Prairie Chamber of Commerce
- Fresh Energy, Environmental Law & Policy Center (ELPC), Institute for Local Self-Reliance, and Izaak Walton League of America, filing jointly
- International Brotherhood of Electrical Workers – Minnesota State Council
- Interstate Renewable Energy Council, Inc. (IREC)
- Minneapolis Chamber of Commerce
- Minnesota Chamber of Commerce
- Minnesota Center for Environmental Advocacy and the Sierra Club, filing jointly
- Minnesota Renewable Energy Society
- Minnesota Rural Electric Association
- The National Groups, an ad hoc group of public-interest nonprofits<sup>4</sup>

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<sup>3</sup> The Affordable Housing Community included Aeon, Dayton’s Bluff Neighborhood Housing Services, Metropolitan Consortium of Community Developers, Minnesota Housing Partnership, and Southwest Minnesota Housing Partnership.

<sup>4</sup> The National Groups included ELPC, IREC, and the Vote Solar Initiative.

- Oak Grove Presbyterian Church
- Saint Cloud Area Chamber of Commerce
- Saint Paul Area Chamber of Commerce
- Twin West Chamber of Commerce
- White Bear Area Chamber of Commerce

*Members of the Public:*

- Juliet Branca and Mark Thoson
- Tom Drake
- Minneapolis City Council Member Cam Gordon
- George Kinney
- Donald and Elverna Matthees
- Members of Northfield Area Community Solar
- Matt Rohn
- Erica Zweifel

In addition, the Commission received a petition signed by some 160 members of the public asking the Commission not to limit the co-location of community solar gardens.

## **VI. The Partial Settlement Agreement**

On June 22, 2015, Xcel filed a settlement agreement between the Company and several solar-garden developers.<sup>5</sup> The agreement limits the aggregate capacity of co-located solar gardens to 5 MW. For co-located gardens with applications submitted after September 25, 2015, the aggregate capacity is further limited to 1 MW.

The settlement also contains provisions intended to facilitate the interconnection of solar gardens that do not exceed the 5 MW threshold, including (1) a requirement that Xcel publish solar-garden queue information on its website, (2) a mechanism for developers to obtain engineering details about Xcel's distribution system, (3) a requirement that Xcel grant an interconnection agreement within 50 days of the date an application is deemed complete, and (4) a procedure for submitting interconnection disputes to an independent engineer.

## **VII. Proceedings Before the Commission**

On June 23, 2015, the Commission met to hear oral arguments. At that time, Xcel reported that the total capacity of solar-garden applications in the queue had grown to 912 MW. The Company estimated that limiting the capacity of each co-located group of gardens to 5 MW, as proposed in the settlement, could result in 500 to 600 MW of those 912 MW being built, causing an approximately two-percent bill increase for the average Xcel customer.

On June 25, the Commission reconvened to decide the matter.

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<sup>5</sup> Developers joining in the settlement agreement included Innovative Power Systems; MN Community Solar, LLC; Novel Energy Solutions LLC; Renewable Energy Partners; SolarStone Partners, LLC; and TruNorth Solar, LLC.

## FINDINGS AND CONCLUSIONS

### **I. Summary of Commission Action**

Having carefully considered the record and the comments of all the parties, the Commission concludes that the Partial Settlement Agreement appropriately balances competing statutory directives to (1) reasonably allow for the creation, financing, and accessibility of solar gardens and (2) ensure that the solar-garden program is consistent with the public interest. Accordingly, the Commission will adopt sections 2.2 and 2.3 of the settlement, as applicable generally to Xcel's solar-garden program, with the modifications discussed below.

### **II. Regulatory Background**

The community-solar-garden statute, Minn. Stat. § 216B.1641, establishes the framework for a program under which utility customers may subscribe to a solar generating facility (known as a “community solar garden,” or simply “solar garden”) and receive a bill credit from the utility for a portion of the electricity generated by the facility.

#### **A. Compensation for Solar-Garden Energy**

Xcel must purchase solar-garden power at the rate calculated under the value-of-solar statute,<sup>6</sup> or, until a value-of-solar rate has been approved by the Commission, the “applicable retail rate.”<sup>7</sup> Since the Commission has not yet approved a value-of-solar rate for solar gardens, subscriber bill credits are currently set at the applicable retail rate. The Commission has determined that “applicable retail rate” is the rate that a subscriber pays Xcel for electricity, including the energy charge, demand charge, customer charge, and applicable riders.<sup>8</sup>

Moreover, the Commission has decided that garden operators may elect to sell the renewable energy credits (RECs) associated with garden production to Xcel for an additional two- or three-cent premium.<sup>9</sup> These amounts are not intended to reflect a market rate for RECs but rather are simply calculated to bring the total compensation for garden energy to a financeable level, as required by the statute.<sup>10</sup> Depending on subscriber class and garden size, the total effective compensation rate for garden electricity can range from approximately 10 cents per kilowatt hour (kWh) to 16 cents per kWh.

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<sup>6</sup> Minn. Stat. § 216B.164, subd. 10. The value-of-solar statute requires the Department to establish a methodology for valuing distributed solar generation and to submit the methodology to the Commission for approval. Utilities may then apply this methodology to calculate a value-of-solar rate to replace the net-metering rates under Minn. Stat. § 216B.164, subds. 3 and 3a.

<sup>7</sup> Minn. Stat. § 216B.1641(d).

<sup>8</sup> April 7, 2014 order at 15.

<sup>9</sup> *Id.* at 16.

<sup>10</sup> *See* Minn. Stat. § 216B.1641(e)(1) (requiring that a solar-garden program approved by the Commission must reasonably allow for the creation, financing, and accessibility of solar gardens).

Xcel will recover the cost of solar-garden bill credits from all ratepayers through the Fuel Clause Rider, just as the Company does with the cost of the power it purchases from large-scale projects through power purchase agreements (PPAs). However, the solar-garden rates are significantly higher than what Xcel would pay for power produced by a competitively procured, utility-scale project. The premium paid for solar-garden power appears to be a major driver of the program's popularity with developers.

## **B. Statutory Restrictions on Solar Gardens**

The statute requires that a solar-garden program “reasonably allow for the creation, financing, and accessibility of community solar gardens,”<sup>11</sup> and that, generally, there are to be no limitations on the number or cumulative generating capacity of solar gardens.<sup>12</sup>

However, the statute places several restrictions on individual garden size and subscribership. A solar garden may have a nameplate capacity of no more than 1 MW. Subscribers must reside in the county where the garden is located or in a contiguous county. A garden must have at least five subscribers, no subscriber may subscribe to more than 40 percent of the garden's output, and each subscription must be sized to supply no more than 120 percent of a subscriber's average annual electricity consumption when combined with other distributed-generation resources serving the subscriber's premises.<sup>13</sup>

The statute contemplates that additional restrictions will be placed on a solar-garden program to protect the public interest and for consistency with other laws. It requires that any solar-program approved by the Commission be consistent with the public interest<sup>14</sup> and provides that the Commission may “approve, disapprove, or modify a community solar garden program”<sup>15</sup> accordingly. And the statute recognizes that further restrictions may be placed on a solar-garden program by other laws or regulations.<sup>16</sup>

## **III. Limiting the Capacity of Co-located Solar Gardens**

### **A. Introduction**

In previous orders, the Commission required Xcel to modify its solar-garden tariff to allow gardens to co-locate.<sup>17</sup> However, the Commission was not aware at that time of the extent to which developers planned to co-locate gardens and thus did not address whether any limits should be placed on co-location.

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<sup>11</sup> *Id.*

<sup>12</sup> Minn. Stat. § 216B.1641(a).

<sup>13</sup> Minn. Stat. § 216B.1641(a)–(c).

<sup>14</sup> Minn. Stat. § 216B.1641(e)(4).

<sup>15</sup> Minn. Stat. § 216B.1641(e)

<sup>16</sup> *See* Minn. Stat. § 216B.1641(a) (providing that “[t]here shall be no limitation on the number or cumulative generating capacity of community solar garden facilities *other than* the limitations imposed under [Minnesota's net-metering statute] or other limitations provided in law or regulations” (emphasis added)).

<sup>17</sup> April 7, 2014 order at 13; September 17, 2014 order at 14–15.

In Xcel's September 2013 solar-garden proposal, the Company defined "Community Solar Garden Site" as "the parcel of real property on which the PV System will be constructed and located." In response, at least one developer recommended that this definition be changed to allow multiple gardens to be installed in close proximity to each other.

At least one solar developer argued that a "solar garden site" should be defined based on a point of interconnection to better maximize land use and reduce system costs. The Commission agreed and in its April 7, 2014 order, required Xcel to redefine "garden site" based on the garden's point of interconnection. The Commission believed that this change would allow a solar garden to include multiple adjacent parcels of land, or multiple closely situated parcels, that could be connected to the grid through a single interconnection point and thus take advantage of economies of scale that would benefit developers, subscribers, and Xcel.

Following the issuance of the April 7 order, several parties expressed concern that the definition of "garden site" was not sufficiently clear that multiple gardens may be located on a single parcel of land. Xcel agreed that, so long as each garden had its own production meter and interconnection agreement, it would coordinate with a solar-garden developer to ensure multiple closely situated solar gardens could be located on a single parcel of land and share distribution infrastructure. Accordingly, in its September 17, 2014 order, the Commission required Xcel to expressly state in its tariff that multiple solar-garden sites may be located near each other in order to share in distribution infrastructure.

The Commission also required Xcel to further refine the definition of "Community Solar Garden Site" to refer to a "point of common coupling" for consistency with language in the Company's distributed-generation tariff.<sup>18</sup> Thus modified, the definition of "Community Solar Garden Site" stated as follows:

"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.<sup>19</sup>

## **B. Positions of the Parties**

### **1. The Settlement Signatories**

Xcel argued that the combination of the approved solar-garden pricing structure, the lack of any program caps, and the ability of developers to co-locate gardens had resulted in a situation where utility-scale projects were being pursued with the Company's large commercial customers, to the detriment of nonparticipating ratepayers, who would be required to shoulder the cost.

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<sup>18</sup> See Minnesota Electric Rate Book section 10, sheet 85.

<sup>19</sup> Minnesota Electric Rate Book section 9, sheet 70.

Xcel maintained that the statute's 1 MW limit on solar-garden size was intended to prevent a solar-garden program from becoming a "back door" for independent power producers to build utility-scale projects. For the statutory limit to have meaning, and to protect the public interest, the Company argued, the ability of developers to create utility-scale solar developments that are nominally organized as separate 1 MW solar gardens must be curtailed.

Xcel further argued that the statute was intended to create opportunities for residential and small-business customers to participate in distributed solar generation. The Company believed that a 5 MW limit would allow a small business to offset its load, while a larger limit would begin to allow medium to large businesses to offset their entire load. Xcel predicted that, even with the limits set by the settlement, Minnesota's solar-garden program would quickly become one of the largest such programs in the country.

The developers who joined the settlement argued that it represented a reasonable compromise that would allow the solar-garden program to move forward. They generally agreed with Xcel's assessment of the legislative intent behind the solar-garden statute and stated that most existing projects would remain financeable if scaled back to 5 MW.

Some expressed concern that large co-located solar gardens are causing interconnection delays for smaller projects that are more consistent with the purpose of the statute. According to them, the very large projects have an unfair advantage in competing for subscribers and are creating hostility toward solar gardens among local governments in the Metro area, where many of the large, co-located projects have been proposed.

## **2. The Department and Fresh Energy**

The Department and Fresh Energy were concerned that making changes to the solar-garden program midstream would have a chilling effect on the market. They also contended that Xcel had overestimated the rate impact of the solar-garden program. They argued that the likelihood that all proposed projects would make it through the interconnection process was small. And they questioned the avoided-cost assumptions that Xcel used in its analysis and argued that the Company failed to consider the benefits of distributed solar generation.

The Department recommended that the Commission impose a 10 MW co-location cap on solar-garden applications that Xcel has deemed complete by the date of the Commission's order, and a 5 MW cap on applications deemed complete during the 90-day period immediately following the order. The Department would limit to 1 MW applications deemed complete later than 90 days after the Commission's order.

Fresh Energy also supported a 10 MW cap, based on the 10 MW system-size cutoff in Xcel's distributed-generation interconnection tariff.<sup>20</sup>

The Department recommended that developers be allowed to transfer solar-garden applications made noncompliant by the 10 MW and 5 MW co-location caps to a new site during a 90-day post-order grace period without submitting new applications.

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<sup>20</sup> See Minnesota Electric Rate Book section 10, sheet 136.

### **3. The OAG**

The OAG recommended that the Commission (1) set a limit on the allowable annual bill impact on nonparticipating customers and (2) require Xcel to approve a certain amount of solar-garden capacity each calendar year. The OAG argued that controlling the pacing of solar-garden development in this way would both reduce significantly the harm to nonsubscribers and provide a measure of certainty for developers by incentivizing Xcel to resolve co-location and interconnection disputes expeditiously.

The OAG also suggested that these limits might be most effectively implemented through a variable bill-credit rate. However, the OAG expressed doubt as to whether the statute would permit this approach, since neither the applicable retail rate nor the value-of-solar rate is variable.

### **4. Solar Garden Community**

SGC shared the Department and Fresh Energy's position that Xcel's concerns over ratepayer impact were overstated and that making retroactive changes to the solar-garden program would have a detrimental effect on the solar industry in Minnesota. SGC argued that the current program allows unlimited co-location and that developers who have invested in large projects in reliance on the existing rules would be harmed by Xcel's proposal.

SGC proposed two alternatives for solar-garden applications submitted prior to the Commission's June 25 meeting: (1) developers would voluntarily scale down co-located projects to 20 MW or (2) developers would voluntarily scale down co-located projects to 10 MW, except that projects between 10 and 20 MW would be permitted if at least 50-percent subscribed by residential customers.

Co-located applications submitted after the Commission's meeting and before an order is issued would be capped at 10 MW. A temporary moratorium on co-location of solar gardens would begin after the Commission's order issues. SGC proposed that parties work with the Department and Commission staff during this period to develop a comprehensive proposal that addresses co-location, rate design, and transitioning to a value-of-solar rate, among other issues.

### **5. Other Industry Representatives**

Sundial Solar and A Work of Art Solar Sales, two smaller developers who did not join the settlement, agreed with Xcel's assessment of the legislative intent behind the solar-garden statute and supported a straight 1 MW cap on co-location.

NextEra Energy Resources, the developer of a 62 MW solar farm near Marshall, Minnesota, also supported a 1 MW cap. NextEra stated that it incorporated the statute's 1 MW size limit into its planning, and in doing so excluded co-location of facilities above that limit. It argued that large co-located solar gardens have a competitive advantage over traditional utility-scale solar projects because they receive the applicable retail rate.

MnSEIA stated that the existing capacity in Xcel's distribution system would determine whether many projects get built. It estimated that available substation capacity could be as low as 2 MW in some cases and could exceed 10 MW in others. MnSEIA recommended that the Commission wait to take any action limiting solar-garden capacity until the first projects are built and the impact of the program is clear.

## **6. Commenters Concerned with Rate Impact**

The Minnesota Chamber of Commerce, as well as six local chambers of commerce, filed comments expressing concern with the potential fuel-clause impact of the solar-garden program, particularly on commercial and industrial customers, who consume more electricity than residential customers. They urged the Commission to create a program that advances solar gardens without raising rates for non-participating customers.

Catholic Charities of St. Paul and Minneapolis, a large Twin Cities social-service agency, supported the comments of the OAG, Xcel, and Chamber of Commerce urging caution over the solar-garden program's rate impact. Catholic Charities stated that, while the agency supports environmental stewardship, progress should not come at the expense of those most in need.

Several members of the public also submitted written comments asking the Commission to limit solar gardens to 1 MW so as not to drive up electricity rates for nonsubscribers.

## **7. Project-Specific Comments**

The Saint Paul Public Housing Authority (PHA) stated that it has subscribed to 8.4 MW of solar-garden capacity (40 percent of 21 co-located 1 MW gardens). This subscription would allow the PHA to offset 85 percent of its annual electricity consumption at its central office and the 16 high-rise apartment buildings that it owns and manages. The PHA generally supported the comments of SGC and asked that no retroactive changes be made to the program.

The City of Monticello and the neighboring town of Big Lake expressed concern over a proposed 400-acre, 50 MW solar garden to be located just outside the Monticello city limits. The proposed project is on agricultural land in an area the city had planned to develop, and Monticello stated that developing around it would increase costs and lead to sprawl. These parties were also concerned that the developer might seek to avoid local land-use controls by having the garden permitted as a large electric power generating plant under Minn. Stat. ch. 216E.

## **C. The Partial Settlement Agreement**

The settlement agreement calls for a 5 MW co-location cap on solar-garden applications in the interconnection queue as of the effective date of the agreement, as well as on applications submitted after the effective date but before September 25, 2015. For applications submitted from September 25, 2015, to September 15, 2016, no more than 1 MW of co-located solar gardens would be allowed at any given site:

**2.2. Changes to the Community Solar Garden Program.** The Parties hereby agree to the following changes and clarifications to the Community Solar Garden Program, and, where applicable, these changes shall be reflected in the Company's tariffs. Within thirty (30) days of a Commission Order approving this Settlement Agreement, the Company will file revised tariffs that incorporate the changes and clarifications to the Community Solar Garden Program contemplated by this Agreement. . . .

**c. Co-location.** For Community Solar Garden applications in the interconnection queue as of the Effective Date of this Agreement, no more than 5 MWs (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For Co-Located Community Solar Garden applications in the interconnection queue as of the Effective Date which exceed 5 MW (AC), Xcel shall scale down such application to 5 MWs (AC), and the application deposits and fees associated with such scaled-down portion immediately refunded to the applicant. The Community Solar Gardens developed as a result of such applications which exceed 1 MW (AC) shall be referred to for purposes of this Agreement as “Non-Statutory Community Solar Gardens.” For any applications submitted after the Effective Date of this Agreement, but prior to September 25, 2015, no more than 5 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For any applications submitted after September 25, 2015, through September 15, 2016, no more than 1 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site.

The agreement defines “co-located” gardens based on whether the gardens exhibit characteristics of a single development:

Community Solar Gardens shall be considered “Co-Located” if they exhibit characteristics of a single development including, but not limited to, common ownership structure, an umbrella sale arrangement, shared interconnection, revenue-sharing arrangements, and common debt and equity financing.

In addition to the 5 MW and 1 MW caps, the settlement agreement further limits co-location by providing that Xcel is not required to undertake any material upgrades in its distribution system to accommodate interconnection of co-located solar gardens:

**b. Distribution System Upgrades.** The Parties agree that for purposes of interconnecting Co-Located Community Solar Gardens to Xcel Energy’s distribution system, Section 10 of the Company’s Minnesota Electric Rate Tariffs do not require the Company to undertake any material upgrades in its distribution system to accommodate interconnection of Community Solar Garden applications. For purposes of this Agreement, material upgrades include, but are not limited to, the addition of substation transformers, the upgrading of existing substation transformers, the installation of new feeder bays, new overhead feeders, or new underground feeders, and re-conductor and pole line work, where the cost of such upgrades exceeds one million dollars. If the Company does not undertake material upgrades, where such upgrades would otherwise be needed for safety, reliability, or

prudent engineering practice, then the Community Solar Garden will not be interconnected to the Company's distribution system.

Finally, the agreement provides that the parties will ask the Commission to determine whether co-location limits will be applied to solar-garden applications submitted after September 15, 2016, and will propose a schedule for addressing other prospective changes to the program:

### **2.3 Community Solar Garden Administration . . .**

**b. Going Forward Community Solar Program Design.** The Parties shall request that the Commission determine whether further co-location limits shall be applied for applications submitted after September 15, 2016. Provided the Commission adopts and approves this Agreement, the Parties will submit a compliance filing within 30 days of the Commission's June 25th Hearing that provides a schedule for discussing and addressing material prospective Solar Garden program design considerations, including but not limited to the size of co-located gardens . . . .

#### **D. Commission Action**

The Commission concludes that the Partial Settlement Agreement sets forth a workable solution consistent with the public interest and the statutory intent to create a solar-garden program that is community-focused. Accordingly, the Commission will adopt the provisions of the agreement that are set forth in Section III.A.2 above as applicable generally to Xcel's solar-garden program, with changes discussed below and included in the ordering paragraphs.

The solar-garden statute directs the Commission to approve a program that reasonably allows for the creation and financing of community solar gardens. However, it also imposes a 1 MW size limit and other restrictions whose apparent purpose is to ensure that solar gardens are accessible to a broad cross-section of the community. And the statute expressly authorizes the Commission to modify a solar-garden program so that it is consistent with the public interest.<sup>21</sup>

SGC argues that because each co-located solar garden has its own production meter and interconnection agreement, co-located gardens do not violate the 1 MW limit. However, Xcel and other developers argue persuasively that the legislature intended the 1 MW limit to prevent a back door for independent power producers to construct utility-scale projects under the auspices of a solar-garden program. The Commission agrees that large groups of co-located 1 MW solar gardens are inconsistent with the statute's clear community-focused purpose.

Not only would allowing unlimited co-location render the 1 MW limitation superfluous, it would result in a substantial bill impact for nonparticipating customers because of the size-price mismatch inherent in large-scale solar gardens. Xcel estimates that, if even half the projects currently in the pipeline are built, customers would see a roughly two-percent annual increase in their utility bills.

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<sup>21</sup> Minn. Stat. § 216B.1641(e), (e)(4).

With these considerations in mind, the Commission concludes that the Partial Settlement Agreement presents a reasonable resolution of the co-location issue.

The settlement calls for an initial 5 MW cap on co-location for existing solar-garden applications. After September 25, 2015, no more than 1 MW of co-located solar gardens will be allowed at any given site. The agreement does not specify any particular co-location limit after September 15, 2016, and provides that the parties will ask the Commission to determine whether further co-location limits will apply.

The Commission finds that the initial 5 MW limit protects the public interest and the integrity of the program while providing a concession for projects already in the queue. Moreover, the post-September 25 1 MW limit will help “throttle down” the initial rush of solar-garden applications to a level more consistent with the statute and give the parties and Commission an opportunity to consider holistic adjustments to the program, including revisiting the co-location cap and making potential modifications to the bill-credit rate, as suggested by the OAG and others.

The settlement agreement also provides that Xcel is not required to undertake any material upgrades in its distribution system to accommodate solar-garden interconnections. This provision appears to have the effect of limiting solar-garden capacity at a particular interconnection point to the preexisting capacity available at that point on the distribution system.

The Commission finds this provision of the settlement to be consistent with the intent of the solar-garden statute. Moreover, limiting the range and complexity of distribution upgrades that developers can request to accommodate gardens should result in a faster-moving interconnection queue, which benefits developers.

Section 2.2(c) of the settlement agreement refers to co-located solar gardens that exceed 1 MW in the aggregate as “non-statutory community solar gardens.” The Commission concludes that a distinction between “statutory” and “non-statutory” solar gardens is unnecessary and potentially misleading and will therefore modify section 2.2(c) by striking this reference:

**c. Co-location.** For Community Solar Garden applications in the interconnection queue as of the Effective Date of this Agreement, no more than 5 MWs (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For CoLocated Community Solar Garden applications in the interconnection queue as of the Effective Date which exceed 5 MW (AC), Xcel shall scale down such application to 5 MWs (AC), and the application deposits and fees associated with such scaled-down portion immediately refunded to the applicant. ~~The Community Solar Gardens developed as a result of such applications which exceed 1 MW (AC) shall be referred to for purposes of this Agreement as “Non-Statutory Community Solar Gardens.”~~ For any applications submitted after the Effective Date of this Agreement, but prior to September 25, 2015, no more than 5 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For any applications submitted after September 25, 2015,

through September 15, 2016, no more than 1 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site.

Finally, the settlement agreement defines “co-located” gardens based on whether the gardens exhibit characteristics of a single development, including common ownership structure, an umbrella sale arrangement, shared interconnection, revenue-sharing arrangements, and common debt and equity financing. These criteria are the same criteria used in Minn. Stat. § 216E.021 and Minn. Stat. § 272.0295 for determining the total size of separate yet related distributed solar generating systems.

The Commission concludes that the agreement’s definition of “co-location” is workable. However, the Commission finds that it is prudent to provide a process for resolving disputes that may arise between Xcel and developers in the application of this definition. Disputes of this nature are best resolved by a neutral party with subject-matter expertise. Accordingly, the Commission will order that if Xcel and a developer are at an impasse as to the application of the “co-location” definition, either party may ask the Commissioner of Commerce to determine the size of co-located gardens. A party that disagrees with the Commissioner’s decision may request a determination by the Commission:

Community Solar Gardens shall be considered “Co-Located” if they exhibit characteristics of a single development including, but not limited to, common ownership structure, an umbrella sale arrangement, shared interconnection, revenue-sharing arrangements, and common debt and equity financing. In the event of a dispute as to the aggregate size of co-located solar gardens, a party may request that the Commissioner of Commerce make a size determination. The Commissioner shall make that determination within 30 days. Parties that disagree may request a determination by the Commission.

#### **IV. Application Processing and Interconnection**

##### **A. Introduction**

The unanticipated level of interest in the solar-garden program has tested Xcel’s existing interconnection procedures, and the Company has struggled to keep up with the flood of applications. Moreover, disputes over the allowable level of co-location have created further delays in the program roll-out. As a result, at the Commission June 25 meeting, parties reported that only one solar-garden project had been approved for interconnection.

Developers and other stakeholders have urged the Commission to take steps to ensure that solar-garden projects can be built and interconnected prior to the anticipated December 31, 2016 expiration of a federal energy-production tax credit that accounts for a significant portion of many solar gardens’ financing. Parties suggest a number of changes to Xcel’s application and interconnection procedures, which are discussed in detail below.

## **B. Background**

### **1. The Solar-Garden Application Process (Section 9)**

Under the process outlined in Section 9 of Xcel’s tariff,<sup>22</sup> developers must apply to the Company for permission to operate a community solar garden. Xcel processes solar-garden applications on a “first-ready, first-served” basis to ensure that priority is given to those projects with the best chance of succeeding.

The process begins with a developer submitting an application, including information about itself and the proposed solar garden, an application fee, a deposit, engineering documents, and an interconnection application. Xcel then has 30 days to determine whether the solar-garden application is complete and forward it for preliminary engineering review under its interconnection tariff.

After Xcel determines initial application completeness, the developer must submit additional evidence of project readiness, including evidence that the developer has arranged for insurance, evidence that the developer has control of the solar-garden site, projected subscription at the time of construction, and signed operation and interconnection agreements. The developer has 24 months from when Xcel finds its application complete to finish the project, subject to possible extension for interconnection delays.

### **2. The Interconnection Process (Section 10)**

Separate from the solar-garden application process, solar-garden developers must obtain approval to connect to Xcel’s distribution system through the process set forth in Section 10 of Xcel’s tariff, which governs the interconnection of distributed-generation facilities 10 MW or smaller. This process entails, in part, the following steps:

- **Step 1: Application.** A developer submits a complete interconnection application and the required fee.
- **Step 2: Preliminary Review.** The engineer responsible for the area where the facility will be located reviews the interconnection request to determine whether an engineering study is needed and responds to the developer within 15 business days.
- **Step 3: Go–No Go Decision.** If Xcel determines that a study is needed, the applicant has 30 days to decide whether to proceed and pay for the study or to exit the interconnection queue.
- **Step 4: Engineering Studies.** Xcel must make all reasonable efforts to complete engineering studies within the following timeframes:

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<sup>22</sup> Minnesota Electric Rate Book section 9, sheets 64–67.

Generation System Size	Engineering Study Completion
< 20 kW	20 working days
20 kW – 250 kW	30 working days
250 kW – 1 MW	40 working days
> 1 MW	90 working days

- **Step 5: Study Results and Construction Estimates.** Xcel provides the developer with the results of the engineering studies, as well as a cost estimate and payment schedule for work required to be done by Xcel.
- **Step 6: Final Go–No Go Decision.** The developer has another opportunity to decide whether to pay for and proceed with interconnection or exit the queue.

### C. Positions of the Parties

#### 1. Concern over Interconnection Delays

Many commenters, including the Department, Fresh Energy, MnSEIA, SGC, and other developers, expressed concern over delays in the solar-garden application and interconnection process. Parties blamed these delays on several factors, including (1) the high level of interest in the solar-garden program, (2) inadequate staffing by Xcel, (3) difficulty conforming application materials to Xcel’s standards, (4) the Company’s alleged failure to follow the usual interconnection timelines, and (5) a lack of transparency as to the available capacity on the distribution system.

MnSEIA provided one example of the interconnection issues developers have experienced. Under Section 10, Xcel is generally expected to complete engineering studies for generation systems of 250 kW to 1 MW capacity in 40 working days. However, MnSEIA reported that Xcel had been quoting its members a 90-working-day turnaround for many 1 MW solar-garden interconnection studies. MnSEIA argued that Xcel should mobilize the resources necessary to meet interconnection timelines as soon as possible.

SGC identified an issue arising from the overlap between the Section 9 and Section 10 processes. SGC stated that Xcel has been taking 30 days to review applications for completeness under Section 9, rejecting applications based on flaws in developers’ engineering diagrams, and restarting the 30-day review period. SGC argued that such flaws were more properly reviewed under the shorter, 15-day timeframe in Section 10, and that Xcel’s failure to more clearly identify the deficiencies was causing unnecessary delay.

Several parties, including IREC, suggested that a comprehensive review of Minnesota’s interconnection procedures would help to identify changes needed to allow efficient interconnection of distributed resources. However, in light of the urgent need to move the solar-garden program forward, parties proposed adjustments to improve the process in the near term and suggested that the Commission examine its interconnection procedures more comprehensively at a later time.

## **2. Application Tracking and Reporting**

Several parties recommended that Xcel be required to report on the percentage of solar-garden applications that are processed within required timelines. The Department recommended that the Commission direct Xcel, as part of its current monthly solar-garden program updates, to identify

- each instance in which an application was deemed incomplete or otherwise returned to the applicant for additional information,
- the additional information being sought from the applicant, and
- the amount of additional time taken for processing the application.

With respect to the interconnection process, the Department recommended that the Commission require Xcel to identify each instance in which the Company did not meet a Section 10 tariff interconnection process timeline, or otherwise restarted the timeline, and the reason for not meeting or restarting the timeline.

The Department also proposed to devise an application-tracking process in cooperation with Xcel and solar-garden applicants and to provide the Commission and the parties with an application-processing schedule in a compliance filing. It asked that the Commission authorize it to investigate situations in which application-processing timelines are not reasonably met.

## **3. Proposed Transparency Measures**

Several commenters argued that part of the reason for the crush of solar-garden applications is that developers do not know how much available capacity exists at specific points on Xcel's distribution system, or how many projects are in the queue to interconnect to a particular substation. Without this information, developers are more likely to file applications with a limited chance of success, wasting developer and Company resources.

Commenters suggested two solutions to address this inefficiency: First, they proposed that the Commission require Xcel to develop a pre-screen or feasibility-study process under which developers could pay the Company for engineering data for a particular point in its distribution system. Second, they recommended Xcel be required to publish solar-garden applicants' queue position at each feeder so that other applicants can better evaluate their chances of success at a particular interconnection point.

## **4. Third-Party Deposit Assignment or Escrow**

Finally, SunShare, SGC, and MnSEIA recommended that Xcel allow solar-garden applicants to either (1) assign application deposits to third-party lenders or (2) transfer the deposits to a bank or escrow agent at the applicant's expense. These parties argued that allowing for deposit assignment or escrow was consistent with industry practice, would be relatively easy to accomplish, and would remove some risk for project financiers.

## **D. The Partial Settlement Agreement**

Section 2.2(a) of the settlement agreement calls for a number of interconnection-related changes designed to ensure that proposed solar-garden projects can be moved through the queue in a reasonable time.

First, the agreement requires projects larger than 1 MW with complete applications as of June 1, 2015, to provide substantial evidence of project viability by September 1, 2015. Developers with applications not deemed complete by June 1 must work with Xcel to establish a timeframe for providing evidence of viability:

### **a. Interconnection Process.**

To ensure proposed projects can be moved through the queue in reasonable time:

(i) For Community Solar Garden applications where more than 1 MW(AC) are Co-Located and are deemed complete as of June 1, 2015, applicants must demonstrate to the Company three of the following by September 1, 2015: (a) site control, (b) sufficient project financing, (c) possession of required local permits, (d) providing a certification from an officer of the applicant affirming that the project complies with the requirements set forth in Federal Energy Regulatory Commission Form 556, (e) subscriptions for at least fifty (50) percent of project output, and (f) equipment and panel procurement contracts, and (g) insurance. For Community Solar Garden applications not yet deemed complete, the Company and the Community Solar Garden applicant shall work together to establish a timeframe by which the applicants shall provide the information set forth in this subparagraph, which timeframe shall allow a reasonable demonstration that milestones will be achieved on a schedule allowing for the applicable Community Solar Garden to achieve an in-service date on or prior to December 31, 2016.

The agreement requires Xcel to post information about the solar-garden interconnection queue on its website and update it on a monthly basis:

(ii) The Company shall post on the S\*RC page of its website the size, county, substation, and queue position of each Community Solar Garden application on a monthly basis.

The agreement provides for a mechanism by which an applicant may pay to confidentially obtain information about Xcel's distribution infrastructure at a specific interconnection point:

(iii) Any Community Solar Garden applicant may enter into a reasonable and customary non-disclosure agreement with the Company to receive (a) distribution infrastructure and load analysis on a per feeder basis, and (b) study results for previously studied projects. A response to such an information request must be fulfilled

within 15 business days of the request. Information requests may include feeder specific voltage, concurrent minimum and peak loading analysis, existing distributed generation under operation, amount of distributed generation in the interconnection queue, terminated maximum distance substation, and any other pertinent information for the purposes of interconnection.

The agreement requires Xcel to grant a solar-garden developer permission to interconnect within 50 days of the date its application is deemed complete and requires each party to establish a point of contact for technical questions:

(iv) Any Community Solar Gardens that, when Co-Located in any manner, does not exceed 5 MW(AC) in capacity, shall be entitled to an interconnection agreement within fifty (50) days from the date an application is deemed complete.

(v) The Company and each applicant for a Community Solar Garden shall each identify one point of contact with technical expertise for their organizations. Upon the request of either party, bi-weekly status calls shall be established.

The agreement provides a process for submitting interconnection disputes to an independent engineer, with the costs shared evenly between Xcel and the applicant:

(v) The Company agrees, upon the request of any Community Solar Garden applicant, to submit interconnection disputes materially affecting the application to an independent engineer. The Company shall cause the selection of the independent engineer promptly following the Effective Date. The independent engineer shall be available on a standing basis to resolve disputes on the study process, including material disputes related to the Company's determination of application completeness, timeliness of application and study processing, and the cost and necessity of required study costs and distribution system upgrades. If the Community Solar Garden applicant disputes the findings of the Company, the applicant may request independent engineer review, and shall share 50% of the costs of the independent engineer. The Parties recognize and agree that the Company is statutorily obligated to provide safe and reliable service, and the safety and reliability of the system should be given paramount consideration in any analysis. A clear dispute resolution process shall be identified by the Parties following the Effective Date of this Agreement.

Finally, to minimize the possibility of future disputes, section 2.3(a) of the agreement requires that material changes to program Frequently Asked Questions on Xcel's website must be approved in advance by the implementation workgroup:

**a. Community Solar Garden Program Administration.** To minimize the possibility of future disputes, material changes to the Frequently Asked Questions (“FAQs”) on the Company’s website regarding administration of the Community Solar Garden Program, as well as changes in the Salesforce software and application requirements, shall be approved in advance by substantial agreement of the Community Solar Garden Implementation Workgroup. If there is not substantial agreement in the Community Solar Garden Implementation Workgroup, then proposed material FAQ or administrative changes must be approved through a process that the Parties will agree with thirty (30) days of Commission approval of this Agreement. Any disputes under this provision shall be resolved by the Commission.

**E. Commission Action**

The Commission concludes that the interconnection-related provisions of the Partial Settlement Agreement represent a reasonable compromise and will help ensure that a substantial number of solar-gardens can be interconnected in 2015 and 2016. Accordingly, the Commission will adopt the provisions of the Agreement that are set forth in Section IV.A.2 above as applicable generally to Xcel’s solar-garden program, with the changes and additions discussed below and included in the ordering paragraphs.

First, section 2.2(a)(i) requires that projects larger than 1 MW whose applications were not deemed complete by June 1, 2015, must work with Xcel to establish a timeframe for providing evidence of viability. To provide more certainty for these developers, the Commission will revise this section to state that garden applications not yet deemed complete shall have 90 days from the date they are deemed complete to supply evidence of viability:

(i) For Community Solar Garden applications where more than 1 MW(AC) are Co-Located and are deemed complete as of June 1, 2015, applicants must demonstrate to the Company three of the following by September 1, 2015: (a) site control, (b) sufficient project financing, (c) possession of required local permits, (d) providing a certification from an officer of the applicant affying that the project complies with the requirements set forth in Federal Energy Regulatory Commission Form 556, (e) subscriptions for at least fifty (50) percent of project output, and (f) equipment and panel procurement contracts, and (g) insurance. For Community Solar Garden applications not yet deemed complete, ~~the Company and the Community Solar Garden applicant shall work together to establish a timeframe by which the applicants shall provide the information set forth in this subparagraph, which timeframe shall allow a reasonable demonstration that milestones will be achieved on a schedule allowing for the applicable Community Solar Garden to achieve an in-service date on or prior to December 31, 2016~~ the applicant shall have 90 days from the date its application is deemed complete to meet three of these seven milestones.

Second, section 2.2(a)(v) provides that Xcel and a developer may submit interconnection disputes to an independent engineer, with the costs shared evenly between Xcel and the applicant. The Commission will revise this section to provide that the engineer be selected or approved by the Department to ensure neutrality:

(v) The Company agrees, upon the request of any Community Solar Garden applicant, to submit interconnection disputes materially affecting the application to an independent engineer. ~~The Company shall cause the selection of the independent engineer promptly following the Effective Date.~~ The independent engineer shall be selected or approved by the Department to ensure neutrality. The independent engineer shall be available on a standing basis to resolve disputes on the study process, including material disputes related to the Company's determination of application completeness, timeliness of application and study processing, and the cost and necessity of required study costs and distribution system upgrades. If the Community Solar Garden applicant disputes the findings of the Company, the applicant may request independent engineer review, and shall share 50% of the costs of the independent engineer. The Parties recognize and agree that the Company is statutorily obligated to provide safe and reliable service, and the safety and reliability of the system should be given paramount consideration in any analysis. A clear dispute resolution process shall be identified by the Parties following the Effective Date of this Agreement.

Third, the Commission concurs with the Department that Xcel should be required to provide detailed reporting on the Section 9 application process and Section 10 interconnection process, as set forth in the ordering paragraphs. Tracking this information will keep Xcel focused on meeting its obligations under sections 9 and 10, and monthly reporting will ensure that any problematic trends can be identified and addressed in a timely manner. To that end, the Commission will authorize the Department to investigate situations in which application-processing timelines are not reasonably met.

The Commission will further accept the Department's proposal to devise an application-tracking process in cooperation with Xcel and developers. The Commission will request that the Department provide the Commission and parties with an application-processing schedule in a compliance filing within 60 days of this order.

Finally, several parties requested that Xcel alleviate some of the risk associated with solar-garden financing by allowing an applicant to assign its deposit to a third party or place it in escrow. Xcel initially opposed third-party assignment, believing it would expose the Company to excessive liability. However, Xcel has since expressed openness to allowing escrow arrangements.

The Commission will require Xcel to permit the use of an escrow agreement for application deposits and facilitate the transfer of deposits it currently holds into escrow upon an applicant's request and at the applicant's cost. Removing some of the uncertainty projects face is appropriate in light of the significant delays in the interconnection process to date. Moreover, allowing escrow

arrangements for deposits is consistent with the statutory directive to reasonably allow for the creation and financing of solar gardens.

## **V. Compensation Rate for Solar-Garden Energy**

### **A. Introduction**

The solar-garden statute requires Xcel to purchase garden power at the value-of-solar rate, or, until a value-of-solar rate has been approved by the Commission, the applicable retail rate.

In its April 7, 2014 order, the Commission found that the applicable retail rate—approximately \$0.12 per kilowatt hour (kWh) for residential and small commercial customers—was too low to reasonably allow for the creation and financing of community solar gardens as required by statute. Based on developers' uncontroverted statements, the Commission determined that a total effective rate of \$0.15 per kWh was the conservative minimum needed to secure financing and make solar gardens attractive to subscribers.

Therefore, the Commission required Xcel to offer to purchase from garden operators the renewable energy credits (RECs) associated with garden energy at a rate of \$0.02/kWh for large gardens and \$0.03/kWh for small gardens. The applicable retail rates and REC-payment amounts were to be reviewed and adjusted annually and continue in effect until such time as the Commission approved a value-of-solar rate for solar gardens.

In June 2014, several parties filed comments recommending that the Commission require Xcel to purchase solar-garden energy at the value-of-solar rate. Other parties, while supportive of using the value-of-solar rate, expressed concern that that rate would not be large enough to support the creation and financing of solar gardens, at least initially. Accordingly, they recommended that the Commission continue to develop the record on what would constitute a financeable rate, including the amount of a potential "adder" to layer on top of the value of solar.

In its September 17, 2014 order, the Commission concluded that solar-garden energy should be compensated at the applicable retail rate for the present, but directed the parties to engage in further discussions and to file comments addressing the appropriate adder, if any, to apply to a value-of-solar rate to ensure that it reasonably allows for the creation, financing, and accessibility of community solar gardens.

On March 2, 2015, Xcel filed its 2015 applicable retail rates and an updated value-of-solar calculation in this docket. The Department reviewed Xcel's filings and concluded that the Company's 2015 applicable retail rates complied with the Commission's orders and that its calculation of the value-of-solar rate was correct. The Department recommended that the Commission approve Xcel's updated applicable retail rates. The Commission concurs with the Department's conclusions, finds the Company's value-of-solar calculation correct, and will approve Xcel's 2015 applicable retail rates.

### **B. Positions of the Parties**

Parties differed as to the compensation rate necessary to reasonably allow for the creation and financing of solar gardens. Most developers continued to assert that \$0.15 per kWh was the minimally financeable rate for solar gardens, pointing to their higher costs relative to ordinary

solar projects. Fresh Energy and ELPC, however, stated that the need for \$0.15 becomes less clear with large co-located solar gardens.

Xcel argued that the record lacks evidentiary support for the proposition that \$0.15 per kWh is the minimally financeable rate for solar gardens and asserted that parties have not availed themselves of opportunities to supplement the record with this evidence. In the absence of actual financial information, Xcel argued, the only evidence of the sufficiency of the applicable retail rate is market response to the program. Based on the response, Xcel argued that \$0.15 is more than adequate.

Parties proposed a number of potential rate structures. There was some consensus surrounding a declining capacity-block rate structure, under which the bill credit would be reduced as increasing levels of installed capacity are reached. Other proposals included

- a variable rate that targets installed capacity between predetermined minimum and maximum levels;
- a rate set based on competitive bidding;
- incorporating an escalation rate to ensure transparency and enhance garden financeability;
- maintaining the applicable retail rate's distinctions among customer classes to incentivize subscribing residential and small-business customers; and
- incentives designed to encourage development of underutilized urban land and brownfields.

Most commenters recommended that the Commission postpone any new rate-design decisions until 2016, when data on operating solar gardens will be available and the parties will be in a better position to brief the Commission on the most appropriate design for a value-of-solar adder. To assist in the adder design process, the Department recommended that Xcel provide a quarterly breakdown by customer class of subscribers for which the Company has received account information.

### **C. Commission Action**

The Commission concurs with the majority of commenters that any changes in the bill-credit rate design should wait until the Commission and stakeholders have gained more experience with the solar-garden program. Once it becomes clearer how many gardens can be built under the current rate structure, the Commission, Xcel, and other stakeholders will be in a better position to determine what adjustments are appropriate.

While the Commission will not take any action to adjust the applicable retail rate at this time, it will accept the Department's recommendation to require Xcel to provide a quarterly breakdown of solar-garden subscribers by customer class. This information will permit a better understanding of the mix of customers participating in the solar-garden program and the contribution that each class makes to the program's overall rate impact.

The Commission notes that section 2.3(b) of the Partial Settlement Agreement provides that the parties will submit a compliance filing proposing a schedule for addressing prospective changes to the solar-garden program.<sup>23</sup> The Commission will allow the program to further develop before setting a schedule for prospective changes.

## **VI. Payment for RECs from Unsubscribed Solar-Garden Energy**

### **A. The Issue**

In its April 7, 2014 order, the Commission authorized solar-garden operators to sell the solar RECs associated with garden energy to Xcel at a compensation rate of \$0.02 per kWh for facilities with a capacity greater than 250 kW and \$0.03 per kWh for facilities with a capacity of 250 kW or less.<sup>24</sup> However, the Commission did not specify whether or how much the Company must pay solar-garden operators for the RECs associated with unsubscribed energy.

Xcel argued that the Commission's order does not require it to pay \$0.02 or \$0.03 per kWh for RECs associated with unsubscribed energy. The Company at one point proposed to implementation-workgroup members a \$0.01 REC price for unsubscribed energy but withdrew this offer after the workgroup could not reach consensus.

MnSEIA supported a \$0.01-per-kWh REC price for unsubscribed energy, and the Department agreed that the Commission could establish a different price for unsubscribed RECs.

### **B. Commission Action**

The Commission will order Xcel to purchase the RECs associated with unsubscribed energy at a rate of \$0.01 per kWh for unsubscribed energy, regardless of garden size.

When a garden operator sells RECs to Xcel, the utility receives a benefit—it is able to use the RECs to help meet its obligations under the Solar Energy Standard. This benefit exists whether or not the energy is subscribed, and it is only fair that Xcel pay for it. However, to encourage solar-garden operators to keep their gardens fully subscribed, and increase community participation, the Commission will set the compensation rate for RECs associated with subscribed energy at a lower rate than the rate for subscribed RECs.

The Commission was clear in its original order that the REC values were not intended to reflect a market rate but would simply bring the total bill-credit compensation in line with what appeared to be the minimum rate that would support financing, as the statute requires. Similarly, here, the Commission will exercise its discretion in fashioning a solar-garden program to set the unsubscribed REC payment at a level that will help increase access to solar gardens.

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<sup>23</sup> On July 24, 2015, Xcel filed a letter proposing that the Commission open an investigation into prospective program design changes, including the bill-credit rate.

<sup>24</sup> Xcel will be able to use the RECs to satisfy its obligations under the Solar Energy Standard, which requires public utilities to generate or procure sufficient electricity from solar sources so that by the end of 2020, at least 1.5 percent of a utility's retail electricity sales in Minnesota are generated by solar energy. Minn. Stat. § 216B.1691, subd. 2f(a).

## VII. Compliance Filings

The Commission will require Xcel to make compliance filings or tariff proposals reflecting the decisions in this order within 30 days of this order. And the Commission reiterates the requirements in its April 7, 2014 order that Xcel must (1) file annual reports on the solar-garden program beginning 18 months after the first solar garden is operational and (2) report back to the Commission by September 1, 2015, on the progress toward certification of smart inverters and other relevant barriers to the broader installation and use of smart inverters for solar gardens.

### ORDER

1. The Commission adopts sections 2.2 and 2.3 of the partial settlement agreement as applicable generally to Xcel's community-solar-garden program, with the following modifications:
  - 2.2. **Changes to the Community Solar Garden Program.** The Parties hereby agree to the following changes and clarifications to the Community Solar Garden Program, and, where applicable, these changes shall be reflected in the Company's tariffs. Within thirty (30) days of a Commission Order approving this Settlement Agreement, the Company will file revised tariffs that incorporate the changes and clarifications to the Community Solar Garden Program contemplated by this Agreement.
    - a. **Interconnection Process.**

To ensure proposed projects can be moved through the queue in reasonable time:

      - (i) For Community Solar Garden applications where more than 1 MW(AC) are Co-Located and are deemed complete as of June 1, 2015, applicants must demonstrate to the Company three of the following by September 1, 2015: (a) site control, (b) sufficient project financing, (c) possession of required local permits, (d) providing a certification from an officer of the applicant affying that the project complies with the requirements set forth in Federal Energy Regulatory Commission Form 556, (e) subscriptions for at least fifty (50) percent of project output, and (f) equipment and panel procurement contracts, and (g) insurance. For Community Solar Garden applications not yet deemed complete, ~~the Company and the Community Solar Garden applicant shall work together to establish a timeframe by which the applicants shall provide the information set forth in this subparagraph, which timeframe shall allow a reasonable demonstration that milestones will be achieved on a schedule allowing for the applicable Community Solar Garden to achieve an in-service date on or prior to December 31, 2016~~ the applicant shall have 90 days from the date its application is deemed complete to meet three of these seven milestones.

(ii) The Company shall post on the S\*RC page of its website the size, county, substation, and queue position of each Community Solar Garden application on a monthly basis.

(iii) Any Community Solar Garden applicant may enter into a reasonable and customary non-disclosure agreement with the Company to receive (a) distribution infrastructure and load analysis on a per feeder basis, and (b) study results for previously studied projects. A response to such an information request must be fulfilled within 15 business days of the request. Information requests may include feeder specific voltage, concurrent minimum and peak loading analysis, existing distributed generation under operation, amount of distributed generation in the interconnection queue, terminated maximum distance substation, and any other pertinent information for the purposes of interconnection.

(iv) Any Community Solar Gardens that, when Co-Located in any manner, does not exceed 5 MW(AC) in capacity, shall be entitled to an interconnection agreement within fifty (50) days from the date an application is deemed complete.

(v) The Company and each applicant for a Community Solar Garden shall each identify one point of contact with technical expertise for their organizations. Upon the request of either party, bi-weekly status calls shall be established.

(v) The Company agrees, upon the request of any Community Solar Garden applicant, to submit interconnection disputes materially affecting the application to an independent engineer. ~~The Company shall cause the selection of the independent engineer promptly following the Effective Date. The independent engineer shall be selected or approved by the Department to ensure neutrality.~~ The independent engineer shall be available on a standing basis to resolve disputes on the study process, including material disputes related to the Company's determination of application completeness, timeliness of application and study processing, and the cost and necessity of required study costs and distribution system upgrades. If the Community Solar Garden applicant disputes the findings of the Company, the applicant may request independent engineer review, and shall share 50% of the costs of the independent engineer. The Parties recognize and agree that the Company is statutorily obligated to provide safe and reliable service, and the safety and reliability of the system should be given paramount consideration in any analysis. A clear dispute resolution process shall be identified by the Parties following the Effective Date of this Agreement.

- b. **Distribution System Upgrades.** The Parties agree that for purposes of interconnecting Co-Located Community Solar Gardens to Xcel Energy's distribution system, Section 10 of the Company's Minnesota Electric Rate Tariffs do not require the Company to undertake any material upgrades in its distribution system to accommodate interconnection of Community

Solar Garden applications. For purposes of this Agreement, material upgrades include, but are not limited to, the addition of substation transformers, the upgrading of existing substation transformers, the installation of new feeder bays, new overhead feeders, or new underground feeders, and re-conductor and pole line work, where the cost of such upgrades exceeds one million dollars. If the Company does not undertake material upgrades, where such upgrades would otherwise be needed for safety, reliability, or prudent engineering practice, then the Community Solar Garden will not be interconnected to the Company's distribution system.

- c. **Co-location.** For Community Solar Garden applications in the interconnection queue as of the Effective Date of this Agreement, no more than 5 MWs (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For Co-Located Community Solar Garden applications in the interconnection queue as of the Effective Date which exceed 5 MW (AC), Xcel shall scale down such application to 5 MWs (AC), and the application deposits and fees associated with such scaled-down portion immediately refunded to the applicant. ~~The Community Solar Gardens developed as a result of such applications which exceed 1 MW (AC) shall be referred to for purposes of this Agreement as "Non-Statutory Community Solar Gardens."~~ For any applications submitted after the Effective Date of this Agreement, but prior to September 25, 2015, no more than 5 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site. For any applications submitted after September 25, 2015, through September 15, 2016, no more than 1 MW (AC) of Co-Located Community Solar Gardens in the aggregate from any applicant shall be allowed at any given project site.

Community Solar Gardens shall be considered "Co-Located" if they exhibit characteristics of a single development including, but not limited to, common ownership structure, an umbrella sale arrangement, shared interconnection, revenue-sharing arrangements, and common debt and equity financing. In the event of a dispute as to the aggregate size of co-located solar gardens, a party may request that the Commissioner of Commerce make a size determination. The Commissioner shall make that determination within 30 days. Parties that disagree may request a determination by the Commission.

## 2.3 Community Solar Garden Administration

- a. **Community Solar Garden Program Administration.** To minimize the possibility of future disputes, material changes to the Frequently Asked Questions ("FAQs") on the Company's website regarding administration of the Community Solar Garden Program, as well as changes in the Salesforce software and application requirements, shall be approved in advance by substantial agreement of the Community Solar Garden Implementation Workgroup. If there is not substantial agreement in the Community Solar

Garden Implementation Workgroup, then proposed material FAQ or administrative changes must be approved through a process that the Parties will agree with thirty (30) days of Commission approval of this Agreement. Any disputes under this provision shall be resolved by the Commission.

- b. **Going Forward Community Solar Program Design.** The Parties shall request that the Commission determine whether further co-location limits shall be applied for applications submitted after September 15, 2016. Provided the Commission adopts and approves this Agreement, the Parties will submit a compliance filing within 30 days of the Commission's June 25th Hearing that provides a schedule for discussing and addressing material prospective Solar Garden program design considerations, including but not limited to the size of co-located gardens, how to accommodate development on marginal lands owned by governmental or quasi-governmental entities, and transitioning to new rate structures, such as the value of solar.

2. Xcel shall, as part of its monthly updates to the Commission in this docket,
  - a. identify each instance in which an application was deemed incomplete or otherwise returned to the applicant for additional information, the additional information being sought from the applicant, and the amount of additional time taken for processing the application; and
  - b. identify each instance in which the Company has not met a Section 10 tariff interconnection process timeline, or has otherwise restarted the timeline, and the reason for not meeting or restarting the timeline.
3. The Commission directs the Department to devise an application-tracking process in cooperation with the Company and all solar-garden applicants, and to provide the Commission and parties with an application-processing schedule in a compliance filing within 60 days of this order. The Department is authorized to investigate situations in which application-processing timelines are not reasonably met.
4. Pursuant to Minn. Stat. § 216B.25, the Commission modifies its April 7, 2014 Order Rejecting Xcel's Solar-Garden Tariff Filing and Requiring the Company to File a Revised Solar-Garden Plan to allow for the use of an escrow agreement for deposits made and facilitate the transfer of deposits currently held by Xcel into escrow upon the applicant's request and at the applicant's cost.
5. The Commission approves Xcel's calculation of the Applicable Retail Rate (ARR) filed in its March 2, 2015 ARR compliance filing.
6. The Commission finds Xcel's calculation of the Value of Solar (VOS) rate, as filed in its March 2, 2015 VOS compliance filing and updated according to the Department's April 30, 2015 reply comments, correct.
7. Xcel shall provide a breakdown by customer class of solar-garden subscribers and update this breakdown quarterly.

8. Xcel shall purchase the renewable energy credits associated with unsubscribed energy at a rate of \$0.01/kWh regardless of garden size.
9. Xcel shall make compliance filings and/or tariff proposals reflecting the decisions adopted in this order within 30 days of the order.
10. Xcel shall make the compliance filings required by the Commission's April 7, 2014 order, ordering paragraphs 23 and 24.
11. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf  
Executive Secretary



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