

June 21, 2021

Via Electronic Filing

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: Docket E002/M-13-867 In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy, for Approval of Its Proposed Community Solar Garden Program.

Dear Mr. Seuffert:

The Institute for Local Self-Reliance (ILSR) respectfully submits the following comments on Xcel Energy's Community Solar Garden program residential adder. In particular, we focus on the importance of the community solar program in supporting residential and low-income subscribers, share a variety of approaches used by other states to achieve similar aims, and highlight why affordable distributed community solar has significant economic benefits beyond its participants.

1. Residential subscribers (and low-income residential subscribers) are important so that solar is inclusive and more equitable

The basic concept behind community solar (or virtual net metering) is to serve the approximately 50 percent of U.S. households that can't exercise their solar rights due to a lack of a sunny rooftop they own. It could be a beautiful shade tree, a rental property, or simply the upfront cost and limited access to credit that stops people, but community solar provides folks an option to reduce their energy bill and environmental footprint, and contribute affordable electricity to the grid with solar energy.

Several studies show that solar access has, like so many technologies, skewed toward the white and wealthy among early adopters.¹ The good news is that the disparities are shrinking as

¹ https://eta-publications.lbl.gov/sites/default/files/solar-adopter_income_trends_final.pdf
<https://3vg5kdns38e1qxlmvqmrzsi-wpengine.netdna-ssl.com/wp-content/uploads/2019/01/20190110SolarDisparity.pdf>

distributed solar grows in popularity, but the gaps are unlikely to disappear without proactive policy.

A residential adder addresses the economic reality that it is more costly for a community solar project to acquire, serve, and retain dozens of residential subscribers than to maintain the same relationship with a few commercial customers. It also helps to address the economic (and racial) disparities in solar ownership opportunity: lower income Minnesotans are more likely to be renters without the opportunity to install solar on their property, and renters are disproportionately people of color. Especially with models for cooperatively owned community solar such as provided by Cooperative Energy Futures, the residential adder helps address solar disparities.

Community solar compensation in Minnesota should continue to reflect this difference by providing a disparate payment to encourage residential participation in the program, without reducing the opportunity for commercial customers to participate.

2. An assortment of state approaches to support residential subscribers

In addition to Minnesota, 19 states and the District of Columbia have enabled community solar. 13 of them, plus the District of Columbia, have included incentives for residential and/or low- to moderate-income (LMI) residential households in their community solar programs.

Many states, including Colorado, Maryland, New Jersey, and Oregon, simply reserve a portion of their program capacity for LMI residential subscribers. These states have carved out 12 megawatts², 125 megawatts³, 40 percent⁴, and 10 percent⁵ from their programs for LMI subscribers, respectively. A program carve-out is suitable for these states because program capacity is allocated under an annual cap or there is queue prioritization with regard to garden type. As Solar*Rewards Community has no program cap, and does not conduct this type of prioritization, a carve-out is not a workable solution to inequalities in the program's subscriber mix.

Rather than carving out a portion of overall program capacity, New Mexico's Community Solar Act requires that 30 percent of each solar garden serves low-income customers.⁶ While allowing a mix of residential and commercial subscribers on each garden is a way to ensure residential participation and project viability, to reserve a specific portion of garden capacity for residential

² Colorado Public Utilities Commission, Proceeding No. 16A-0055E, "In the Matter of the Application of Public Service Company of Colorado for Approval of its Solar*Connect Program," Filing Number [G 678020](#) (8/15/2016).

³ Maryland Public Service Commission, "Community Solar Pilot Program," <https://www.psc.state.md.us/electricity/community-solar-pilot-program/>.

⁴ New Jersey Administrative Code § 14:8 – 9.4, Pilot Program structure.

⁵ Oregon [Senate Bill 1547](#), Section 22.

⁶ New Mexico Legislature, 2021 Regular Session [Senate Bill 84](#), Community Solar Act.

subscribers puts the onus for subscribing residential participants onto the developer without the proper incentive or resources to do this work.

In New York, developers that will serve LMI households or affordable housing units can request resources under the state's fund for Affordable Solar and Storage Predevelopment and Technical Assistance. This fund stands to "address resource gaps and solve market barriers preventing the development of solar and energy storage installations benefitting low-to-moderate (LMI) income households."⁷ Developers can request assistance up to \$200,000 on a rolling basis through the end of 2024. The fund is administered by the New York State Research and Development Authority (NYSERDA).

Under the Illinois Solar for All low-income distributed generation program, approved solar vendors offer income-eligible residential subscribers rates of no more than half of the value they receive from their subscription. Vendors can pass on these savings because the distributed solar facilities are eligible for various renewable energy credits.⁸ The renewable energy credits for low-income community solar decrease as system size increases. The starting credit rate for low-income solar gardens 10 kilowatts and under is either \$121.99 or \$119.55, depending on the utility service territory. These credits are significantly higher than the base community solar credit. Illinois also offers a credit adder for community solar projects with significant shares of small subscriptions. The adder rate per credit is \$10.88 - \$11.17 for facilities with 25% or more small subscribers and \$21.77 - \$22.34 for facilities with 50% or more small subscribers.⁹

Illinois's budget for Low-Income Distributed Generation incentives was \$16.8 million dollars for the 2020 program year.¹⁰ One quarter of these incentives must support solar installations in environmental justice communities, as indicated by the EPA's EJScreen tool or self-designated.¹¹ This is one example of the value other states have placed on residential community solar. Rather than coming from the state, this incentive should be built into the program in recognition of the value it provides to all. The residential adder is one way to do this.

The compensation rate for Massachusetts community solar gardens is determined by a system of value adders, including the Low-Income Community Shared Solar Tariff adder set at a declining block rate with 80 megawatts awarded at each block. The low-income compensation rate adder started at \$0.06/kWh for Adder Tranche 1.¹²

⁷ New York State Energy Research and Development Authority, "[Affordable Solar and Storage Predevelopment and Technical Assistance.](#)"

⁸ Illinois Solar for All, "[Illinois Solar for All Low-Income Distributed Generation Program.](#)"

⁹ Illinois Solar for All, "[Renewable Energy Credit Prices for the Illinois Solar for All Program.](#)" (June 30, 2020).

¹⁰ Illinois Solar for All, "[Illinois Solar for All Low-Income Distributed Generation Program.](#)"

¹¹ Illinois Solar for All, "[Environmental Justice Communities.](#)"

¹² Massachusetts Department of Energy Resources, "[Capacity Block, Base Compensation Rate, and Compensation Rate Adder Guideline](#) (2020).

3. Small scale solar makes more jobs

According to data from the National Renewable Energy Laboratory, rooftop solar projects create approximately 16.3 job-years for each megawatt and community solar provides 8.4 job-years for each megawatt of capacity developed.¹³ In contrast, the same report found 6.8 job-years per megawatt of utility-scale solar. However, more recent estimates suggest a wider spread, with utility-scale solar employment per megawatt estimated around 3 jobs per megawatt of capacity and non-residential jobs closer to 22 jobs per megawatt (note: the methodologies may not be the same).¹⁴ In supporting the residential adder and the broader community solar program, the Commission supports greater and more dispersed jobs and economic impacts from the state's clean energy aims.

4. Xcel will continue to have a conflict of interest in its relationship with the community solar program

As noted in a 2019 ILSR article on the community solar program, Xcel Energy's financial incentive is to favor utility-owned generation that meets grid needs, earning shareholders a rate of return.¹⁵ While the value of solar is calculated to provide cost neutrality for community solar electricity generation, the utility often mischaracterizes the costs of the program. In particular, ILSR has explained the "farce of free delivery" that Xcel Energy and other utilities have propagated in misleading comparisons between rooftop or community solar and the cost of providing electricity from utility-scale (and presumably utility-owned) solar power plants.¹⁶ We ask that the Commission keep Xcel Energy's conflict of interest in mind when reviewing its perspective on a program that competes with the utility's shareholders for profit in providing affordable solar electricity to Minnesota customers.

Conclusion

Minnesota has a nation-leading model for effective community solar programs, as indicated in ILSR's work with advocates from states including Maryland and New Mexico that have subsequently adopted community solar policies mimicking many of the program's successful elements. However, while the program has admirably supported many commercial businesses to find the clean electricity product (and bill savings) they sought without requiring property ownership, it needs to maintain a focus on residential subscribers to reduce disparities between the folks that can own solar and those who cannot. The residential adder is working and the Commission should extend it.

¹³ "[Assessment of the Value, Impact, and Validity of the Jobs and Economic Development Impacts \(JEDI\) Suite of Models](#)," L. Billman and D. Keyser, *National Renewable Energy Laboratory*, August 2013.

¹⁴ "[Solar Jobs Census](#)," *Solar Foundation*, 2018.

¹⁵ Farrell, John. [Why Does One Minnesota Utility Have a Love / Hate Relationship with Community Solar?](#) (Institute for Local Self-Reliance, 4/8/19).

¹⁶ Farrell, John. [The Free Delivery Farce in Solar](#). (Medium, 5/6/21).

Comments of the Institute for Local Self-Reliance

Thank you for the opportunity to comment and for taking up this important conversation; we appreciate that there has not been any legislative preemption of this regulatory process.

Sincerely,

/s/

John Farrell and Maria McCoy

jfarrell@ilsr.org / maria@ilsr.org

Institute for Local Self-Reliance

2720 E. 22nd St.

Minneapolis, MN 55406