

July 31, 2018

**VIA E-MAIL**

Aida Camacho-Welch  
Secretary of the Board  
New Jersey Board of Public Utilities  
44 South Clinton Avenue, Suite 314  
Trenton, New Jersey 08625

**Re: Initial Comments  
In the Matter of the New Jersey  
Solar Energy Pilot Program**

**Docket No. QO18060646**

Dear Ms. Aida Camacho-Welch,

On behalf United States Solar Corporation, I respectfully submit the attached *Initial Comments* in response to the Board's July 6, 2018 request for comments in the above-mentioned docket.

Please do not hesitate to contact me if you have any questions.

Sincerely,

s/ Ross Abbey

Ross Abbey  
United States Solar Corporation

STATE OF NEW JERSEY  
BEFORE THE  
BOARD OF PUBLIC UTILITIES

Joseph L. Fiordaliso  
Mary-Anna Holden  
Dianne Solomon  
Upendra Chivukula  
Bob Gordon

President  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the New Jersey  
Solar Energy Pilot Program

DOCKET NO. QO18060646

**INITIAL COMMENTS**

US Solar is a community solar farm developer/owner/operator that is currently developing projects in four states, with over 50 MWs of community solar installed and subscribed to date.

We attended and participated in the July 24<sup>th</sup> stakeholder workshop, and respectfully submit these initial comments in response to both the Board’s July 6 request for comments and to the discussion at the stakeholder workshop meeting.

**I. Workshop Topic I: Siting and Project Size**

***a. The Board should allow subscription portability anywhere within the utility territory***

A clear majority of speakers at the July 24<sup>th</sup> workshop, including Atlantic City Electric, argued against the adoption of an arbitrary “minimum proximity” requirement for community solar subscribers (*i.e.*, a contiguous-county rule).

Conversely, many speakers agreed that it would be reasonable to limit each community solar facility’s potential subscriber pool to electric distribution company (EDC) customers located in the same EDC territory as the facility – in effect, allowing for subscription portability anywhere within the EDC’s New Jersey service territory. This is the approach that Illinois recently adopted for community solar under its Future Energy Jobs Act.<sup>1</sup>

US Solar supports this approach as the best practice for community solar. While it would be preferable to allow subscriptions to be portable across all four of New Jersey’s EDC territories

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<sup>1</sup> Illinois Future Energy Jobs Act, section 1-75(c)(1)(N) (“the Commission shall allow subscriptions to community renewable generation projects to be portable ... [meaning] that subscriptions may be retained by the subscriber even if the subscriber relocates or changes its address within the same utility service territory”).

(thus allowing subscribers that move cross-state to retain their subscriptions), basic portability within each EDC territory is a must. Without this feature, there would be an unnecessarily high rate of subscription turnover, which would harm both (i) developers, who would face the challenge of keeping their solar gardens fully subscribed, and (ii) subscribers, who would lose the ability to benefit from their subscription. Because most people tend to move only short distances, these types of hurdles could be largely mitigated by merely allowing subscriptions to move with the subscriber within the same EDC territory.

***b. Without a proximity requirement, what makes it “community” solar?***

The community in “community solar” does not refer to a discrete neighborhood. Rather, it refers to a solar garden that is shared by multiple subscribers in a defined geographic area – in this case, the EDC territory. This is in contrast to on-site solar, which is typically only available to a single offtaker – such as a homeowner on whose home the solar panels are located or a manufacturing facility that has built a distributed generation facility within its fence. Importantly, community solar gardens are available to all members of the broader community that satisfy basic eligibility requirements. This allow for the delivery of solar-economic benefits to members of the community (subscribers) that have, up until now, not had an easy way to participate in the fast-growing solar economy.

In other state’s programs, this must-serve imperative is structurally reinforced by compensating the community solar project directly for any unsubscribed energy, but at a significant discount to the normal subscriber bill-credit rate.<sup>2</sup> This market dynamic helps to ensure that projects that don’t attract sufficient community support (in the form of contracted subscribers) do not move forward.

Subscribers can be either residential (renters, homeowners) or non-residential customers, including community institutions that employ and serve members of the community (e.g., school districts, housing agencies, municipal governments, large employers). Moreover, when local governments and school districts participate in community solar, their energy savings can go towards improved service and lower property taxes for the community that they serve.

Beyond providing economic benefits to its subscribers, community solar also provides benefits to other community members – including by generating and delivering clean, distributed energy to the utility’s distribution feeder (where it will power daytime loads for local households and employers located on the same feeder), and providing local investment, lease revenues and construction and maintenance jobs.

***c. The pilot program’s 150-MW per year capacity would allow for enough individual projects to kick-start beneficial competition for subscribers***

We support the Coalition for Community Solar Access (CCSA)’s proposal for a 450-MWac pilot program, spread out over three program years and four EDC territories. This annual pilot size, combined with CCSA’s proposed 5-MWac maximum project size, would allow for 90

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<sup>2</sup> As in Minnesota’s Xcel Energy’s Section 9 program tariff, at Sheet 72-73.

or more projects to be developed under the pilot, which should be enough to kick-start beneficial market competition for subscribers on price and quality.

Like CCSA, we propose a 5-MWac maximum project size for community solar projects, but limited to brownfield sites, including landfills and parcels located in New Jersey Urban Enterprise Zones, and parcels owned by a unit of state or local government.

In addition, the Board should adopt a smaller, 2-MWac maximum project size for community solar projects sited on greenfields, including private property owned by farmers and other rural landowners. This would create a structural incentive for developers to maximize opportunities on brownfield sites, without unfairly preventing rural landowners from hosting a community solar farm to provide clean, locally generated electricity for use by utility customers connected on the same distribution feeder.

During the pilot program, we believe the subscriber bill-credit rates for the two project categories (up to 2 MW and 5 MW) should be the same, allowing the Board to collect useful data for development of the full program. Specifically, the ratio of project types built could allow the Board to determine whether or not the cost efficiencies of the larger project size (*e.g.*, lower per-watt engineering, procurement, and construction costs) are enough to offset the additional cost and timeline of developing on brownfield sites (due to *e.g.*, legacy conditions, landfill settling, title clearance, environmental liability, and finance due diligence).

***d. Local governments should be allowed to lead on solar land-use permitting.***

In our experience, most states regulate land use decisions at the local county or municipal level, at least for ground-mounted solar farms as a principal use (aka primary use, as opposed to a secondary or accessory use). Typically, the local land-use authority will choose to permit or limit solar farm siting in various land-use zones, and may adopt or modify a model solar-farm ordinance, such as those provided online for no cost by the Great Plains Institute.<sup>3</sup>

Because local governments in New Jersey already have jurisdiction over community solar farm siting in the 2-5 MW size range, the Board should avoid imposing additional limits on solar siting unless it is legally required to do so.<sup>4</sup>

Finally, as discussed at the July 24 workshop, the vast majority of land parcels across the state are unlikely to be optimally sited on the EDC's distribution grid for cost-effective interconnection. Placing burdensome program-level restrictions on project siting decisions – on top of existing grid limitations, local regulation and ordinances, and on-the-ground siting restrictions (*e.g.*, forest cover, surface bedrock, excessive slope, etc.) – would risk stifling near-term project development during the program's important three-year pilot phase.

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<sup>3</sup> Brian Ross, *Solar Toolkits*, at <http://www.betterenergy.org/blog/solar-toolkits/>.

<sup>4</sup> Solar farms must also of course comply with all applicable state-level regulations, including stormwater management plans.

***e. The Board should set reasonable minimum standards to ensure responsible solar-farm development on farmland and greenfields.***

When developed properly, 2-MW community solar farms can be a key tool for preserving farmland and benefiting rural communities. Hosting a solar farm will increase and diversify the landowner's income via long-term lease payments, without requiring a land transfer, subdivision, or the installation of permanent buildings, foundations, or infrastructure like sewer lines, drinking water lines, or public roads.

In fact, under standard development practices, a ground-mounted solar farm can easily be decommissioned and removed from the parcel at the end of the facility's working life. By locking up and protecting tillable farm acres from permanent development, solar farms help to maintain open space during the term of the solar lease, for the benefit of future generations.

In the context of community solar farms, the Board has been directed by the legislature to establish "standards to limit the land use impact of a solar energy project as required in subsection r".<sup>5</sup> Subsection r of Section 48:3-87 requires that, in order to be designated "connected to the distribution grid", a proposed solar facility must *inter alia* show that it "would not significantly impact the preservation of open space in this State."<sup>6</sup> By its own terms, however, the subsection r permit is only required for solar facilities that are seeking the "connected to the distribution grid" designation. That designation, in turn, qualifies the solar facility to sell its SREC to utilities for their compliance use under New Jersey's renewable energy portfolio standard.<sup>7</sup>

In other words, subsection r is one path to reserving (and receiving) an SREC purchase agreement under New Jersey's current SREC market. But subsection r does not require a showing for community solar projects that intend to use their renewable energy credits in some other manner. Likewise, S. 2314 does not require community-solar facilities to secure a subsection r permit.

Instead, the legislature directed the Board to establish "standards" to limit the land use impact of community solar projects.<sup>8</sup> The Board should read "standards" as requiring a formal set of minimum standards that will apply to all community solar projects that choose to site on greenfield or farm parcels. Fortunately, experience from other states has helped identify two key standards for ensuring that community solar farms have a beneficial impact on rural land use, which the Board could require for greenfield projects under the pilot program:

- (1) require that the developer provide a written plan and budget for end-of-life project

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<sup>5</sup> NJ S. 2314 section 5(b)(6) (citing NJ Rev Stat § 48:3-87, subsection r). S. 2314 does not state that community solar projects must apply for (or receive) a subsection r permit in order to develop projects under the community solar pilot project.

<sup>6</sup> Section 48:3-87, subsection r (1). In practice, it does not appear that the Board has ever bestowed the "connected to the distribution grid" designation on a solar facility, likely because doing so would increase the supply of SRECS, in violation of the subsection r (2)(a) command to "not have a detrimental impact on the SREC market".

<sup>7</sup> See NJ Rev Stat § 48:3-87, subsection d(3).

<sup>8</sup> NJ S. 2314 section 5(b)(6).

- decommissioning that restores the site to its former use; and
- (2) require that the developer plant and maintain native, pollinator-friendly vegetation under and around the community solar farm.

“Pollinator-friendly” solar standards were initially adopted in the United Kingdom, then in Minnesota, and now across a range of states including New York and Maryland.<sup>9</sup> The establishment of a minimum standard is popular with both traditional farmers and farm owners (who benefit from the new pollination services) and habitat conservation groups – two groups that don’t always see eye-to-eye, but do agree on this best practice.<sup>10, 11</sup>

***f. The Board should also incentivize the siting of projects on hard-to-develop brownfield, landfill, and urban enterprise zones.***

As discussed above, the Board should avoid placing a top-down, one-size-fits-all restriction on where solar farms may be developed. Limiting the pilot program to only brownfield, landfill and similar sites would only serve to stifle the amount of community solar development and construction that actually takes place during the three-year pilot project.

That does not, however, preclude the Board from adopting incentives to encourage development in certain parcel categories that have proven difficult to develop to date – such as brownfields, landfills, and urban enterprise zone (UEZ) parcels.<sup>12</sup>

Specifically, the Board could incentivize these sites by: either (1) providing a subscriber bill-credit adder (so customers can see extra value in supporting / subscribing to these projects), or (2) setting a larger 5-MWac cap on these solar facilities (to enable economies of project scale). Of the two incentive options, the second (structural) incentive would likely lead to more brownfield redevelopment over the coming years – although in theory, a large enough bill-credit adder could drive the same outcome.

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<sup>9</sup> See Fresh Energy, *Minnesota leads on solar for pollinators and crops*, at <https://fresh-energy.org/19302/>; New York League of Conservation Voters, *New York Pollinator-Friendly Solar Bill Unanimously Passes Assembly and Senate*, at <http://nylc.org/press-item/5128/>; Maryland Dept. of Natural Resources, *Solar Generation Facilities - Pollinator-Friendly Designation*, at <http://dnr.maryland.gov/pprp/Pages/pollinator.aspx>.

<sup>10</sup> See, e.g., GreenBiz.com, *The business case for pollinator-friendly solar sites*, at <https://www.greenbiz.com/article/pollinator-friendly-solar-sites>; Rutgers Cooperative Extension, *Let Native Pollinators Add To Your Farm’s Bottom Line*, <https://sustainable-farming.rutgers.edu/let-native-pollinators-add-to-your-farms-bottom-line/>; Elizabeth Schuster, *Wild Pollinator Habitat Benefits Agriculture*, at <https://blog.nature.org/science/2013/08/06/wild-pollinator-habitat-benefits-agriculture/> (reporting on economics benefit to New Jersey farmers).

<sup>11</sup> See, e.g., Minnesota Conservation Volunteer, *Solar Sites Double as Pollinator Habitat*, at <https://www.dnr.state.mn.us/mcvmagazine/issues/2017/may-jun/solar-site-pollinators.html>; New Jersey Department of Environmental Protection, Division of Fish and Wildlife, *The Plight of Pollinators*, at <https://www.state.nj.us/dep/fgw/ensp/pollinators.htm> (“It will take a concerted effort on the part of state and federal regulators, farmers, industry, homeowners and others to halt the decline of pollinators.”)

<sup>12</sup> See NJ S. 2314 section 5(d). For a range of reasons, solar development on these parcels generally takes longer and is more difficult due to legacy conditions, site-readiness issues (e.g., landfill settling), title clearance, environmental liability, and third-party finance concerns.

## **II. Workshop Topic II: Low- and Moderate-Income Access**

At the July 24<sup>th</sup> workshop, CCSA proposed a 15-percent program capacity target for low- and moderate-income (“LMI”) subscribers.

Based on the significant challenges around credit-qualifying LMI customers seen in other community solar programs, we do not think that achieving a 15-percent LMI goal is realistic – unless the program makes it easy to identify qualified LMI subscribers and sign them up for a utility-provided on-bill repayment option. As the Low-Income Solar Policy Guide explains, on-bill repayment of solar loans (or here, community-solar subscriptions) can significantly reduce the barriers to LMI credit-qualification and participation.<sup>13</sup>

## **III. Workshop Topic III: Value of the Subscriber Bill Credit**

We agree with CCSA that the subscriber bill credit should be at the class-average full retail rate, as it is under Minnesota’s Solar\*Rewards Community program.<sup>14</sup> As CCSA explained in its presentation, this is a reasonable approach that parallels the net metering framework.<sup>15</sup>

It also allows for a tiered subscription rate structure (based on the existing retail rate structure) that encourages community solar developers to preferentially seek out and contract with small businesses and residential subscribers, despite the higher cost per kilowatt-hour of serving these smaller subscribers.

Note, this higher cost to serve smaller customers is not new, nor limited to community solar farms. Ever since Thomas Edison’s first power plant on Pearl Street, it has cost more to deliver electricity service to smaller, more dispersed customers. And regulators have overcome that accessibility challenge largely through the establishment of a tiered rate structure that incentivizes the utility to invest in the higher cost of serving residential and small-business customers. Maintaining that retail-rate differential for subscribers also makes sense here.

According to the U.S. Energy Information Administration, in 2016 New Jersey’s state-wide retail-rate average was 13.38 cents/kW.<sup>16</sup> Broken down by customer class, but averaged

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<sup>13</sup> Low-Income Solar Policy Guide, *On-Bill Recovery / On-Bill Financing*, at <http://www.lowincomesolar.org/toolbox/on-bill-recovery/> (citing a NYSERDA pilot program initiated in October 2015). See also Financing Solutions Working Group, *Financing Energy Improvements on Utility Bills: Market Updates and Key Program Design Considerations for Policymakers and Administrators* (May 2014), at 1-2 (noting that at least thirty utilities offer some form on-bill-repayment for loans used to install energy-efficiency improvements); *id.*, at 6 (Noting that California, Hawaii, and Oregon have also launched on-bill-repayment pilots).

<sup>14</sup> See Minnesota’s Xcel Section 9 tariff, at Sheet 64, 69 (“The Standard Bill Credit is based on the applicable retail rate, which shall be the full retail rate, including the energy charge, demand charge, customer charge and applicable riders, for the customer class applicable to the Subscriber receiving the credit, and shall not reflect compensation for RECs.”). Note, the Minnesota program has since migrated to a fixed-escalator “VOS” bill-credit rate for new project applications.

<sup>15</sup> July 24, 2018 CCSA presentation, at 11.

<sup>16</sup> EIA (2016), State Electric Profiles at <https://www.eia.gov/electricity/state/>

across EDCs, New Jersey's 2016 state-wide-average retail rate was 15.72 cents/kWh for residential customer meters, 12.26 cents/kWh for commercial meters, and 10.16 cents/kWh for industrial meters.<sup>17</sup>

At these approximate rate levels, a well-designed pilot program (as suggested here) should see robust community-solar development and subscriber participation, even without a pre-established off-taker for the projects' renewable energy credits (RECs).

Regardless of the eventual REC off-taker, the community solar project should have the option to bank these credits itself so that the RECs can be sold on the open market or provided to project subscribers to demonstrate compliance with their internal carbon-reduction programs. We do not believe that the community solar facility should be required to sell their RECs to the local utility as a condition of participating in the pilot program.

#### **IV. Workshop Topic IV: Applications and Interconnection**

*a. The Board should adopt a standard 25-year program contract for community solar facilities that qualify under the pilot program*

As experience in other states has shown, the success of a community solar program at scale depends on establishing uniform program rules and procedures that are simple and easy to implement, and that support the subscriber-rate certainty that enables robust project subscription, financing, and capital formation.

For this reason, the Board should set out key program terms (including the subscriber bill-credit rate structure) in a standard long-term contract that each utility must offer to community-solar facilities that qualify under the pilot program.

The standard program contract should have a 25-year term to ensure long-term subscriber-rate certainty, as suggested by CCSA at the July 24 workshop.<sup>18</sup> This approach has been implemented with successful results in Minnesota's Xcel Energy community solar program, and would be consistent with the New Jersey statute.<sup>19</sup>

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<sup>17</sup> *Id.*

<sup>18</sup> July 24, 2018 CCSA presentation, at 11 ("Bill credit should be maintained for 25 years").

<sup>19</sup> See Xcel Energy's Section 9 program tariff, at Sheet 72 ("Term of the Contract' . . . shall be the same as for the Interconnection Agreement applicable to the Community Solar Garden, and shall begin when this Contract is signed by the Parties and end twenty five (25) years after the Date of Commercial Operation"). See also NJ Section 48:3-87, subsection m ("The board shall ensure the availability of financial incentives under its jurisdiction, including, but not limited to, long-term contracts . . . to ensure market diversity, competition, and appropriate coverage across all ratepayer segments").

***b. Allocation of the program capacity to qualifying community solar projects should be on a “first ready, first served” basis***

As discussed at the July 24<sup>th</sup> workshop, community solar projects generally need two things before they can begin marketing capacity to subscribers and project financiers:

- (1) a capacity reservation against the program’s annual capacity limit; and
- (2) a fixed, grandfathered subscriber rate (or “rate reservation”) that will be paid to the project’s subscribers, so long as the project achieves commissioning within a specified period of time (e.g. 30 months) of the rate reservation attaching to the project.

This approach (implemented in states like Minnesota, Colorado, and Illinois) allows subscribers and financiers to contractually commit to a given community solar project so that the developer can then proceed with equipment procurement, site mobilization and construction.

Given the limited MW capacity available under the pilot program, however, the Board may consider adopting “project maturity” requirements, which must be demonstrated before a project is granted a capacity and rate reservation.

US Solar suggests that the required “project maturity” requirements include:

- project site address;
- evidence of site control;
- completed program application;
- interconnection capacity pre-screen report; and
- completed interconnection application.

If requested by the EDCs, the Board could opt to not require a formal capacity study (or utility-proffered interconnection agreement) as a pre-requisite for the Year 1 application window – so as to allow the EDCs time to ramp up their engineering-study resources. In such event, the Board could choose to add such additional project-maturity requirements to the program in the coming years.

***c. The Board should establish a Program Administrator for the pilot program***

The Board should also consider establishing a single, state-wide third-party program administrator, as was recently established in Illinois.<sup>20</sup> As evidenced in other states, managing the implementation and ongoing administration of New Jersey’s community solar pilot program will likely be a full time job.

The reach of New Jersey’s community solar program will extend beyond any one utility territory. As such, there would be clear efficiencies to having a single program team that can accept

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<sup>20</sup> On July 12, 2018, the Illinois Power Agency announced that it has selected InClime, Inc. as the administrator for its Adjustable Block Program, at <https://www2.illinois.gov/sites/ipa/Pages/News.aspx>

and process project applications from across the state (*i.e.*, via a single web portal). Such team could also hold regular meetings for all developers within the program, as opposed to each EDC holding its own developer workgroup meetings.

A single program administrator, which would run a unitary application process for the program, could also provide regular reporting to the Board, including data regarding the number of applications (*e.g.*, by utility territory, project type, and stage of application progress, etc.) and the number and type of subscribers served under the program.

This is consistent with the statute, which requires that the “board shall make available on its Internet website information on solar energy projects whose owners are seeking participants.”<sup>21</sup> Rather than building and maintaining this program/subscriber portal itself, or requiring each EDC to develop their own such portals, the Board could delegate this task to the third-party administrator. The Board could also choose to delegate other elements of the program’s administration, such as implementing the statutory requirement that “[p]rojects approved by the board shall have at least two participating customers.”<sup>22</sup>

Finally, structurally separating the program administrator (which would report to the Board) from the interconnection utility would also reduce the potential for program disputes, improve dispute resolution (so that fewer disputes would come to the Board), and reduce the utilities’ program-related workload.

## **V. Workshop Topic V: Customer Subscriptions, Consumer Protection**

In other third-party community solar markets, like Colorado and Minnesota, community solar developers quickly migrated to a “no-money-down, save-as-you-go” offering for both residential and non-residential subscribers.

Under this approach, the subscriber does not pay a penny until the solar facility is built, commissioned, and selling electricity into the local distribution grid. So long as New Jersey’s pilot program allows for subscriber energy savings and robust competition among developers for subscribers, the same offering likely will become available here as well.<sup>23</sup>

Under this no-money-down approach, community solar subscribers are already shielded from most categories of potential risk. Implementing rules that allow for a fixed bill-credit and subscription portability anywhere in the EDC territory (as suggested in these comments) would help reduce subscriber risk even further.

For these reasons, the Board should resist the implementation of proscriptive, program-level consumer protection rules that are specific to community solar. New Jersey residents are already protected by *status quo* laws and regulations around marketing, telemarketing, contract

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<sup>21</sup> NJ S. 2314 section 5(c).

<sup>22</sup> NJ S. 2314 section 5(d).

<sup>23</sup> To the extent that a given developer may request a down payment, reservation fee, earnest money, or similar from potential subscribers, the Board may be justified in requiring any such customer funds to be kept in an escrow account until the community solar facility is commissioned and generating actual subscriber bill credits.

formation, trademarks, fair competition, and consumer fraud. Likewise, we expect that the state's attorney general and court system stand ready to hear and address any subscriber complaints or disputes that may arise in the future.

**VI. Conclusion**

For the reasons set forth above, we respectfully request that the Board adopt the recommendations set forth herein.

Sincerely,

s/ Ross Abbey

Ross Abbey  
Senior Development Specialist,  
United States Solar Corporation

A handwritten signature in black ink, appearing to read 'R. Richerson', is written over a horizontal line.

Reed Richerson  
Chief Operating Officer,  
United States Solar Corporation