New Jersey Resources

July 31, 2018

Via email: Rule.Comments@bpu.nj.gov

ATTN: Ms. Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Ave, 3rd Floor – Suite 314
CN 350, Trenton, New Jersey 08625

Re: In the matter related to Docket No. QO18060646

Dear Ms. Camacho-Welch,

New Jersey Resources ("NJR") appreciates the opportunity to submit written comments to the staff of the New Jersey Board of Public Utilities ("BPU") on the development of the Community Solar Energy Pilot Program ("Pilot Program"). NJR, through our subsidiary NJR Clean Energy Ventures, has been a leader in the New Jersey solar market, investing in projects that have added nearly 200 MWs to date, including serving nearly 7,000 residential customers who participate in our Sunlight Advantage® solar lease program.

As described in the Notice of the Stakeholder Meeting for Docket No. QO18060646 published on July 6, 2018[1], the Clean Energy Act[2] directs the BPU to adopt rules and regulations to establish a Pilot Program by December 19, 2018. The objective of the Pilot Program is to "permit customers of an electric public utility to participate in a solar energy project that is remotely located from their properties but is within their electric public utility service territory to allow for credits to the customer's utility bill equal to the electricity generated." The BPU has stated an interest in ensuring that low- and moderate-income ("LMI") customers are able to access community solar, and that the Pilot Program is consistent with current New Jersey statues and regulations. The BPU expects that the Pilot Program will lay the groundwork for the development and implementation of a permanent Community Solar Energy Program within 36 months of the launch of the Pilot Program, as per the Clean Energy Act.

The BPU has requested stakeholders submit comments on five topics as further outlined by 38 questions in the Notice of the Stakeholder Meeting. At a high-level, NJR has the following recommended principles for the Pilot Program for the BPU to consider.

- Community solar projects should contribute to the creation of a stronger, fairer economy and support low to moderate income communities, contribute to economic development, and help develop our workforce. The Pilot Program should primarily apply to residential and small commercial customers that are most likely to have restricted access to cost-effective solar generation due to economic or siting constraints.

[1] http://www.bpu.state.nj.us/bpu/pdf/publicnotice/Solar-Energy-Pilot-Program_Docket%20No.%20QO18060646.pdf

[2] The Clean Energy Act, or P.L.2018 C.17, was signed into law on May 23, 2018

- The Pilot Program should support a diversity of projects to gain experience and inform the design of a permanent community solar program. To ensure that a wide range of experience is achieved, NJR recommends that the Pilot Program market design strive for simplicity with a minimal amount of limitations. The Pilot Program should prioritize innovation and evaluate the use of price adders over prescriptive set asides.
- To encourage a diverse range of community solar projects, incentives will be necessary to stimulate project development. In addition to providing incentives, SRECs have been essential in contributing to the development of New Jersey's in-state solar market, which will remain important for community solar projects. NJR estimates that within the current energy year it is likely that New Jersey will have a sufficient quantity of SRECs to realize its transitional solar Renewable Portfolio Standard ("RPS") target of 5.1%. Therefore, the BPU would need to consider the detrimental impact that community solar projects seeking designation as connected to distribution would have on the SREC market. To support the Pilot Program, NJR recommends that the BPU consider either exercising its statutory authority to expand the RPS target and allow the Pilot Program projects to generate Solar Renewable Energy Credits ("SRECs") or create a new funding mechanism.
- The BPU should require projects in the Pilot Program to include sufficient prerequisites for community solar to ensure proposed projects are viable and potential subscribers have confidence in the program.

The following tables include NJR's responses organized by topic to the questions posed by BPU staff. NJR firmly believes that with the proper design the Pilot Program can provide a firm foundation for a successful, full-scale Community Solar Energy Program. We look forward to working with the BPU and other stakeholders in designing and participating in the Pilot Program.

Sincerely,

L. Barth

Larry Barth
Director, Corporate Strategy

CC: Mark Valori, Vice President, NJR Clean Energy Ventures
Chris Savastano, Managing Director – Development, NJR Clean Energy Ventures

New Jersey Resources Summary of Planned Comments
BPU Community Solar Energy Pilot Program
Docket No. Q018060646

Topic I: Siting and Project Size

#	Question	NJR Response
1	What should the annual Pilot Program capacity limit be?	A primary objective of the Pilot Program is to gain experience to inform the design of a permanent Community Solar Energy Program, requiring consideration of a diversity of project sizes, locations, configurations and subscribers, with differing project economics and incentive levels. To determine the appropriate Pilot Program capacity, it is necessary to understand the funding mechanism available to provide the incentives necessary to support community solar projects. The RPS schedule set forth in A3723 sets the maximum New Jersey solar demand at 5.1% of retail sales. At an assumed retail load of 75 million megawatt-hours (MWh), the market needs to supply a maximum of 3.8 million MWh to meet its RPS compliance. According to the NJ Clean Energy Program, year-to-date, there is approximately 2,540 megawatts (MW) installed in the state, with a pipeline of 574 MW and a monthly new approval rate of 35MW. Factoring for a scrub-rate of 20% on the existing pipeline, assuming 1200 MWh/MW, it is likely that within the current energy year New Jersey will have a sufficient number of SRECs from installed and approved projects to meet the 5.1% target Therefore, to support this Pilot Program there is a need for the BPU to either exercise its statutory authority expand the RPS target and allow Pilot Program projects to generate SRECs, or create a new funding mechanism for the investments required for these projects beyond bill credits. In terms of project size caps, the Clean Energy legislation is clear that projects should not exceed 5MW. In addition, NJR recommends that final project sizes should be limited to no more than 100% of the initial annualized load from subscribing customers. This appropriate restriction in the Pilot will ensure that projects are not oversized and to minimize administrative and billing issues associated with excess generation.
2	How should the annual Pilot Program capacity be allocated between Electric Distribution Companies (EDCs)? How should	To ensure a wide range of experience is gained, NJR recommends that the Pilot Program market design strive for simplicity with a minimal amount of limitations. The pilot should use price adders to prioritize innovation and gain experience over the use of prescriptive set asides.

	excess annual capacity be reallocated if not used?	An overly prescriptive capacity allocation would increase the prospects that the annual capacity limit would not be met. Any unused capacity allocation would be a missed opportunity for community solar generation innovation and would limit the broad-based experience needed by the BPU to design a permanent program. NJR recommends that the Pilot Program provide for a minimal amount of capacity within each EDC service territory by offering a small incremental price adder. Encouraging community solar projects in each EDC service territory would provide experience for each EDC and help validate required administrative system expansions such as billing and settlement for community solar projects. Once the minimum target has been reached for an EDC service territory, no further incremental price adder for the project category need be offered.
3	How should the Pilot Program annual capacity limit be divided among different project categories? What should those categories be (e.g., "small," "brownfield, landfill, historic fill," and "LMI" project types)?	NJR recommends that the Pilot Program incentivize a minimum target of capacity among different project categories to achieve the greatest variety of experience available. A small incremental price adder by project category could be offered to support achieving the minimum capacity targets. Once the minimum target has been reached, no further price adder for the project category need be offered (see similar response to EDC service territory in answer to (2)).
4	Should co-location of solar projects be allowed? What conditions or limits should apply?	Yes, NJR recommends the Pilot Program allow co-location to allow successful community solar projects to expand with a growing number of subscribers. Given land use constraints, finding suitable sites can be challenging. Co-location allows for the full development of the best sites and can result in increased economies of scale to the benefit of participating customers. Further, reduced program costs from lower incentives can benefit all New Jersey rate-payers.
5	What should the geographic limitations for community solar Pilot projects and subscribers be (i.e., how far from the project can subscribers be)?	To balance the need for locally sited projects with siting challenges in the most densely populated state in the nation, community solar Pilot projects should be given flexibility to seek subscribers within the same EDC service territory where the project is located. NJR recommends that under the bill credit that subscribers receive they would continue to pay the costs of the local distribution infrastructure (i.e., the bill credit would not apply to distribution charges). Since distribution costs are being paid by subscribers, they should be able to access community solar projects anywhere within the EDC's service territory (i.e., have access to the EDC's distribution infrastructure).
6	What land use restrictions and limitations, if any, should apply to siting community solar Pilot projects? Should siting of	Current land use restrictions will provide appropriate limitations for the Pilot Program. If the BPU wishes to avoid or encourage development in certain land uses not currently regulated, the Pilot Program should include price adders or discounts to achieve those objectives. For example, community solar projects on more desirable land uses (e.g., brownfields) could receive a price adder to encourage such development (see answers to (3) above).

	community solar Pilot projects be restricted to certain areas?	
7	Provide recommendations on alternative siting and creative land use in sites other than "brownfield, landfills, areas designated in need of redevelopment, in underserved communities, or on commercial rooftops." For instance, are parking lots, road rights-of-way, multifamily buildings, or schools appropriate locations for community solar?"	NJR agrees that the suggested alternative siting locations identified in this question are all appropriate locations to explore community solar. Consistent with our responses in earlier questions, NJR believes the Pilot Program provides the greatest benefit when the largest array of options is available for community solar development. Allowing alternative siting or creative land use supports this concept. In parallel with the Pilot, NJR supports ongoing stakeholder efforts to expand potential land use opportunities to encourage large scale project development, which generally offers the best project economics and requires the least incentive.
8	What liability, provisions, and exemptions should apply to community solar developers and subscribers for projects located on landfills and/or contaminated land?	NJR has experience with these project locations and the cost of developing on these sites is reflected in their underlying economics. NJR notes that constructing and operating solar projects on these sites can introduce liabilities that should not be borne by the owner/operator of the solar project. The BPU should consider some form of limitation of liability for projects granted exemptions under the program, reducing project costs and the market potential of the community solar program.

Topic II: Low- and Moderate-Income Access

#	Question	NJR Response
9	Provide recommendations on the definition of LMI community solar projects, with appropriate justification	To reduce the complexity of the Pilot Program, NJR recommends that the BPU leverage existing definitions of LMI for community solar projects. Using an existing definition reduces the need for new stakeholder consultation and allows for better alignment with other LMI initiatives in New Jersey. For example, the community solar project definition of LMI could use the Low-Income Home Energy Assistance Program ("LIHEAP") definition of "a gross income at or below 200% of the federal poverty level." NJR estimates that roughly 20% of New Jersey residents would qualify for this definition.[3]
10	Provide recommendations on what LMI eligibility criteria should be accepted to qualify a subscriber and/or a project as LMI. Include	As discussed in (9) above, NJR recommends that the LMI definition should leverage an existing definition from other New Jersey LMI programs (e.g., LIHEAP). There are two general options for LMI eligibility, individual subscriber-based or project-based. An individual subscriber-based option could provide an LMI price adder for each subscriber that meets the LMI definition.

[3] See Census Reporter Table C17026: Ratio of Income to Poverty Level of Families for New Jersey

	consideration of how many times or how often LMI subscribers should be required to submit proof of eligibility.	Alternatively, a project-based LMI eligibility could require the project to have a minimum percentage of subscribers that meet the LMI definition to qualify for an LMI price adder (e.g., 25% of total capacity of the project subscribed by LMI customers). NJR recommends the project-based option for its simplicity and for the support in developing community solar projects for LMI customers. In the interests of reducing administrative burdens and in contributing toward the goal of reducing poverty, during the Pilot Program, there should be no requirement to demonstrate that LMI subscribers meet the LMI definition after the eligibility criteria has been satisfied. This recommendation can be reconsidered as program experience is gained.
11	The BPU is considering a number of different approaches to encourage development of LMI community solar Pilot projects, including, but not limited to: Dedicated capacity; Procedural; and Financial. Which approach, or combination of approaches, should the BPU implement in order to most effectively support LMI access to community solar projects, in conformance with the Clean Energy Act.	As discussed in responses to earlier questions, NJR believes that the Pilot Program will be most successful with the minimal number of prescriptive caps by market segment. NJR supports a financial approach through a price adder for eligible LMI projects (e.g., community solar projects with at least 25% of the project capacity subscribed by LMI customers). Price adders encourage the development of community solar pilot projects that support LMI customers without adding additional complexity to the Pilot Program as a whole. Further, a price adder can be adjusted in the permanent program depending on the amount of LMI development that occurs to meet the objectives of the Clean Energy Act.

Topic III: Value of the Credit

#	Question	NJR Response
12	Please define the following terms: "value of solar", "retail rate", and "avoided cost of wholesale power".	Value of Solar (VOS) attempts to measure the marginal economic value of distributed solar installation to the electricity system. VOS includes the value of energy, capacity (i.e., generation, transmission & distribution capacity), grid support services (e.g., reactive supply, voltage control, regulation and frequency control, etc.), reduced financial risk (e.g., fuel price hedge), reliability & resilience, environmental and societal benefits. NJR does not endorse an explicit VOS approach in the Pilot but supports utilizing VOS as a reference in considering the benefits of bill credits and incentives. (Note as of this date, NJR has not been able to receive and review the VOS cited study by Rutgers University mentioned in the July 27 stakeholder meeting)

<table>
<tr><td></td><td></td><td>Retail rate is the bill charges to supply electricity to retail customers (e.g., residential customer, commercial customer, etc.) derived from traditional ratemaking approaches and regulatory proceedings. Retail rates include Basic Generation Service ("BGS") (i.e., costs for energy, generation capacity and transmission), distribution charges and additional regulatory and market charges (e.g., Societal Benefit Charge (SBC), Green/RGGI charge, Solar Pilot Charge, etc.). In the Pilot, NJR advocates for bill credits based on BGS rather than full retail rate.

For purposes of the Pilot, NJR defines avoided cost of wholesale power to be equivalent to the BGS credit.</td></tr>
<tr><td>13</td><td>Value of credit scenario analysis</td><td>NJR has performed qualitative and quantitative assessment on the four scenarios proposed by the BPU for the three primary EDC service territories. Subscribers would receive a bill credit for the energy produced by the solar system equal to the sum of the BGS plus a portion of the SBC charges in that territory. Incentives would be required for certain projects depending on location, project size and configuration, and are calculated under the following assumptions:
- Installations require the use of union installation labor at prevailing wages
- Incentives are expressed on a levelized basis, assuming a 25-year payment matched to benefits derived from the system.
Install costs for each scenario with the derived incentive requirements are indicated in full detail in Appendix A: Value of Credit Scenario Analysis, and summarized in the table below:
<table>
<tr><th>Project Definition</th><th>Incentive ($/MWh)</th><th>Comments</th></tr>
<tr><td>>4.5 MW Landfill/Brownfield (BPU Scenario 1)</td><td>-$0</td><td>Based on NJR solar development experience (see answer to (8) for further information).</td></tr>
<tr><td>Locational incentive adders for EDC service territories</td><td>PSEG-$0
ACE-$25
JCP&L - $35</td><td>Derived from existing BGS and SBC in for each EDC.</td></tr>
<tr><td>Small rooftop/ground-mount projects (<4.5MW) (BPU Scenario 2 & 4)</td><td>$80</td><td>Small Rooftop and Ground-mount projects, while beneficial, are more expensive than larger systems</td></tr>
<tr><td>Canopy (parking lot) projects (BPU Scenario 3)</td><td>$110</td><td>Based on experience and recent pricing, NJR believes commercial & industrial rooftops to be 40%-45% less than canopies and ground mounted systems to be over 60% less.</td></tr>
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		In the case of PV solar systems, all things being equal, system size matters. Systems approaching the maximum size of 5MW generate less expensive energy as major cost elements such as development, permitting and interconnection are amortized over a larger system. As system sizes decrease, these cost items do not decrease proportionally, raising the cost of energy produced, and the need for incentives to offset these higher costs.
14	How should the community bill credit be administered? Should an annualized period mechanism be used for community solar? If yes, should the annualized period be set once per Pilot Project, or once for each individual community solar subscriber?	NJR believes that the EDC's are best positioned to administer the community bill credit. Subscribers would receive a bill credit for the energy produced by the solar system equal to the sum of the Basic Generation Service ("BGS") for the most attractive EDC service territory plus a portion of the SBC charges in that territory. NJR recommends that the community solar bill credit use an annualized period mechanism that is set once per Pilot Project. This approach will allow the production of community bill credits to match the expected operating life of the community solar project (i.e., 25 years). An annualized period mechanism also compensates for changing consumption patterns during different periods of the year (i.e., higher consumption in the summer compared to fall and spring periods).
15	Identify best practices in EDC administration of community solar billing in other states and explain how they can and should apply specifically to the New Jersey Pilot Program.	As with traditional 3rd party supply arrangements, NJR recommends that EDCs, as the primary billing entity, should bill and collect for solar payments and remit funds to solar providers, and administer bill credits to customers to simplify the customer experience. EDCs should apply bill credits to the accounts of participating subscribers based on their proportional subscriptions to the community solar facility. Communication between community solar providers and EDCs for the purposes of calculating, assigning, and applying bill credits should be handled via efficient electronic systems that result in timely, accurate bill crediting, with the capability to update subscriber lists monthly. NJR expects that some of the billing protocols that have been developed to accommodate retail competition are likely to be well suited to community solar.
16	What should happen to excess credits on a subscriber's bill at the end of a year?	While limiting overall system sizing and individual subscriber participation to 100% of annualized consumption, if excess credits are generated over an annual period, NJR recommends that these are compensated at the avoided cost of wholesale power. ,
17	Are their charges on subscriber's utility bills towards which community solar bill credit should not be able to be applied?	Yes, NJR recognizes that community solar projects will use EDC's distribution networks to delivery community solar energy production to subscribers and therefore believe it is prudent and justified for community solar subscribers to continue to pay the applicable costs associated with the use of the distribution system as specified in the subscriber's electricity tariff. Further, any reasonable administration fees for billing and regulatory costs for the community solar program should not be deducted from participating customers' bills and therefore not included in community solar bill credit.

		The community solar Pilot Program provides a societal benefit broadly by providing access to clean, cost-effective, community-based generation. The Societal Benefit Charge (SBC) may fund a wide range of initiatives. Therefore, NJR recommends that the BPU allow community solar subscribers to apply bill credits against the 50% of the value of the SBC in recognition of the clean energy benefits of these projects, while including payment for SBC elements such as "Unaccounted for" and the Universal Service Fund.
18	Should unsubscribed energy be purchased by the EDCs at avoided cost or area locational marginal price (LMP)? Or should the community solar Pilot project bear the loss of unsubscribed energy?	Unsubscribed energy delivered to a distribution network provides value to the EDC and should be compensated at the avoided cost of wholesale power. The avoided cost of wholesale power is a better indicator of the value of solar energy than is the LMP.
19	Should Pilot Projects be eligible for solar renewable energy certificates ("SRECs")?	One of the objectives of the Clean Energy Act is to close the SREC program to new applications upon the attainment of the target of 5.1 percent of the energy sold in New Jersey, and to develop a successor incentive program within 24 months. NJR assumes that a new incentive program will not be developed in sufficient time to support the Pilot launch. NJR interprets NJ statutes to require that community solar projects petition the BPU to be designated as connected to the distribution system, and if so designated, be eligible for SREC's. NJR believes SREC's are a proven mechanism to encourage in-state solar development, and as such are important to the developing of distribution energy infrastructure in-state, supporting local jobs, and other local benefits. NJR analysis indicates that within the current energy year New Jersey will have a sufficient amount of installed and approved projects to satisfy the RPS target of 5.1%. (see answer to (1) for more information). If there is no funding mechanism other than SRECs available to the Board, then the RPS should be increased from 5.1% to the level that fully accommodates the amount of Community Solar added during the Pilot Program. NJR's understanding of the statutes is that the BPU has the authority to increase the RPS target. Recognizing that different community solar projects will require different incentives, the SREC for each project type should be fractionalized to provide the target incentive value, and the RPS should be increased by the amount factoring in estimated project mix, with a true-up as necessary based on actual project installations.
20	What components of the Community Solar Energy Pilot	NJR recommends that EDCs should receive rate recovery for the credit risk from uncollectable payments from subscribers to community solar projects. One of the BPU's objectives for

	Program should be eligible for rate recovery by the EDCs? Include specific references to what costs should be included to implement and comply with the Pilot Program. What should be the process for determining eligible costs? What should the process be for reviewing eligible costs and proposed mechanism for recovery?	community solar is to provide access to such programs to LMI customers who have the greatest credit risks. For these customers to be fully served it makes sense for the EDCs to continue to manage this credit risk. The EDC rate -recovery processes better enable them to manage this risk and to do so at a lower cost than community solar developers. Furthermore, consistent with the approached used with other 3rd party suppliers, EDCs are the primary billing entity and therefore should administer community solar bill credits including collection responsibilities. While NJR believes that the bill reductions realized by LMI customers will likely result in bad debt expenses for EDCs, to the degree that there are any additional prudently incurred costs required to administer community solar bill credits (e.g., investment in billing and settlement systems, collection duties) the EDCs should be able to recover these through rates. An objective of the Pilot Program should be simplicity of design and leveraging existing processes and procedures. As discussed in earlier responses, NJR believes community solar subscribers should pay EDC's for the costs of using the distribution network. These payments provide funding for rate recovery of the development, operation and maintenance of the EDC distribution system.

Topic IV: Application and Interconnection

#	Question	NJR Response
21	Please provide specific comments on how the Pilot Program application process should be organized, including 1) what items should be included in the application, and 2) what specific criteria should the BPU use to rank applications	NJR believes a principle of the Pilot Program application process should be to ensure that proposed community solar projects can demonstrate an appropriate level of project viability at the application stage, with the corresponding appropriate amount of due diligence. Following the approval of an application, the Pilot Program process should expect a community solar project to proceed expeditiously in completing development, construction and reaching commercial operation in addition to securing the appropriate number of subscribers to deliver the community solar project. To accomplish the objectives of the Pilot Program, the application process should include the following requirements: • Information on the community solar provider including company name, address, primary contact; • Demonstration of site access rights (e.g., ownership, option to purchase, lease, or option to lease);

		• Identification of proposed point of interconnection, with the submission of an interconnection request, along with an acknowledgement by the EDC that the interconnection request has been submitted; • Preliminary community solar system information including project name, project location, project size (kW), estimated commercial operation date, and details on unique land classification (e.g., landfill, brownfields); • Customer acquisition targets (i.e., number of subscribers); • Identification of any price adders requested for the project corresponding to the program design (e.g., LMI, priority site locations) along with supporting documentation such as LMI eligibility, land use categorization documents, etc.; • Submission of an application deposit, with such application deposition consistent with prior practice. Deposit should be held until the community solar project has reached commercial operation within a set timeline or formally withdrawn from the community solar program; and, • Payment of a non-refundable application fee. The BPU should consider mandatory time limits for subscriber signups once project approval has been granted. For example, one might expect it to take about one-month post approval to prepare the marketing effort and then about two months per MW of sales to recruit subscribers. Final application approval should also accommodate variances to project size based on actual subscriber signups and loads of those subscribers.
22	What specific measures should be implemented to ensure an effective and streamlined interconnection process for community solar Pilot projects?	NJR recommends that the interconnection be streamlined and transparent. EDC practice of identifying circuits that are unable to support additional interconnection has enhanced the transparency of the interconnection process. Additional efforts could include: 1. EDCs meeting with community solar project developers to discuss potential project sites and provide high-level, non-binding feasibility assessments for potential points of connection. The feasibility assessments could be standardized, and time limited to provide quick and clear feedback to community solar project developers to help them determine which projects are viable from a connection capability perspective, and which should be abandoned. 2. The BPU should consider instituting mandatory time limits based on community solar project sizes for EDCs to grant connection approval. For example, smaller projects (e.g., <500 kW) may require EDCs to offer an interconnection agreement within a short timeline while larger projects (e.g., >1 MW) may require longer interconnection process times. To

		mitigate the risk of EDCs being overcome by connection requests, the BPU may require community solar generation developers to complete the Pilot Program application process before being allowed to access the streamlined interconnection process.
23	What measures can be implemented to minimize negative impacts and maximize grid benefits to the distribution system of an EDC?	Information should be provided on where in an EDC's system connection capability exists (i.e., where community solar projects can reasonably expect to be able to secure a cost-effective connection with the EDC). Connection capability information can help guide community solar project siting and, over the long run, reduce the EDC's level of effort in assessing connection requests. Further, the BPU may wish to investigate where a price adder should be offered for optimal locations within an EDC service territory (e.g., where a community solar project could avoid required distribution system investments). The optimal location would be determined by the EDC's assessment of their distribution system.
24	Should existing solar projects be allowed to reclassify as community solar projects?	NJR analysis suggests that community solar projects are likely to be a net benefit to rate-payers, particularly compared to wholesale or net metered projects currently supported under the SREC program. Therefore, providing that an existing solar project is not accepting SREC payments or has forgone SREC payments, solar owners should be permitted to leverage the asset to provide the benefits of solar to interested customers. Analysis by NJR indicates that after existing New Jersey solar project's eligibility to generate SRECs expires, the revenues that these projects generate are likely to be insufficient to cover significant incremental capital expenditures (e.g., replacement of inverter). Therefore, rather than have such projects retire or have the clean energy that these projects produce be resold in other jurisdictions where they may qualify for additional revenue support that New Jersey would be better served by allowing these projects to be reclassified as community solar projects.
25	How can community solar subscription organizations most efficiently submit all required information regarding individual subscribers to both the BPU and the relevant EDC? In the case of a replacement subscriber in an existing community solar project, should the subscriber organization be allowed to provisionally accept a new subscriber, subject to BPU review and right to disapprove	As subscribers are signed up for a community solar project, the subscription organization should update and maintain an online subscriber database that is accessible to the BPU and the applicable EDC. If the community solar project is seeking subscriber-based price adders (e.g., for serving LMI customers), supporting documentation demonstrating that eligibility criteria are being satisfied also should be submitted for approval.

	within 30 days? What should that requirement information be?	
26	What reporting requirements should apply to EDCs with respect to the Pilot Program	EDCs should publish the number of operating community solar projects in their service territory and community solar projects under development.
27	What specific measures, if any, should apply to multi-family buildings?	No specific measures should apply to multi-family buildings in NJR's opinion.
28	What specific measures, if any, should apply to master-metered buildings in terms of eligibility for a Pilot Project?	No opinion
29	What information regarding community solar Pilot projects should be made available on the BPU website? Should website publication be automatic upon approval of the project by the Board, or only upon request from community solar project owners?	As a Pilot Program with the objective of gaining experience to assistance in the development of a permanent program, NJR believes transparency and sharing of information is important to ensure the most successful outcome for community solar in the long-term. Therefore, NJR recommends that the following information be published automatically upon approval of the project by the Board: • Project name • General location (e.g., town, region, etc.) • Project owner • Project size (MW) and estimated annual energy production (MWh) • EDC service territory • Project status (e.g., under development, under construction, in operation) • Price adders received • Commercial operation date -actual or targeted
30	What specific elements should the BPU consider ensuring a smooth transition from the Pilot Program to a full-scale Community Solar Program?	The lessons learned from the Pilot Program should be ongoing and should be shared before the conclusion of the program. The BPU should consider establishing regular stakeholder consultation sessions throughout the Pilot Program to discuss obstacles that community solar projects are facing and potential solutions. The stakeholder sessions should also discuss what is working in the Pilot Program and what improvements could be made. Prior to the closing of the Pilot Program, the BPU should begin to draft and seek stakeholder input to the full-scale Community Solar Program design with the objective of closing the Pilot Program and launching the full-scale program with the least amount of disruption for participants.

Topic V: Customer Subscriptions, Customer Protection

#	Question	NJR Response
31	Should there be a minimum number of subscribers per community solar project? If so, what should it be?	There should be minimum number of two subscribers per community solar project.
32	What should be the maximum subscription size for each subscriber? Should specific limits be placed on residential versus commercial subscribers?	The maximum subscription size for each customer should be based on 100% of its annual energy consumption over the most recent twelve months. Each subscriber will receive the rights to energy production based on their allotted capacity in the community solar projects. Community solar bill credits should be determined by the percentage of allocated capacity to total installed capacity for the project. For example, if a subscriber is allocated 10 kW of a 1 MW community solar projects, that subscriber can received 1% (i.e., 10 kW / 1000 kW = 1%) of energy production from the community solar project. The minimum allocated capacity should be based on reasonable billing and settlement system accuracy for billing credits. Each subscriber should be able to subscribe up to 100% of their billed consumption measured during the 12-month period prior to subscription. No specific limits should be placed on residential versus commercial subscribers. Instead, preferred customers composition should be incentivized by price adders reflected in previous NJR comments. NJR's vision for the Community Solar Energy Program is focused on residential and small commercial customers that have the least opportunity to realize the benefits of cost-effective solar energy.
33	What specific measures should be enacted for both community solar subscription organizations and the BPU to manage subscription effectively? Please provide specific churn rate assumptions.	NJR recommends that subscriber contract terms not be prescriptive and be left to the market to determine what is appropriate (e.g., no standard for length of subscriber contract term or format). NJR supports consumer protection measures where appropriate.
34	Should subscriptions be portable? If yes, under what conditions?	Subscriptions should be portable within an EDC service territory. For example, if a subscriber moves but remains in the EDC service territory they should be able to retain their community solar subscription.
35	Please identify what specific limits, if any, should be placed on the transferability of subscriptions, in accordance with applicable statutes,	If a subscriber moves out of the EDC service territory, the subscriber should be forced to cancel the subscription. The subscriber organization should be allowed to secure a new subscriber to replace the cancelled subscription. The subscriber organization will be obligated to inform the

	rules, regulations. If the BPU were to determine that transcriptions are fully transferrable (i.e., able to be brokered and sold), what consumer protections should be established?	EDC and BPU when subscribers move or cancel a subscription. The subscriber organization should also be obligated to inform the EDC and BPU when replacement subscribers are secured. Potential subscribers should have an opportunity to be identified by marketers through an opt-in listing and EDC's should provide timely usage history with electronic release forms.
36	Please provide comments on consumer protection measures, including ideas and language for consumer protection rules, and a proposed customer disclosure form	NJR supports consumer protection measures where appropriate. If consumer protection measures are adopted, NJR recommends that an objective of the consumer protection measures is that they be simple and easy to interpret for both community solar developers and potential community solar subscribers.
37	Besides NJ building codes and standards, what specific technical standards should BPU cite in its rules and regulations for community solar Pilot projects?	Continuing the theme of our comments, NJR believes the Pilot Program would benefit from simplification and leveraging existing definitions, codes, rules and standards. Therefore, no addition technical standards should be cited.
38	Please provide general comments on any issues not specifically addressed in the questions above. Please do not reiterate previously made comments, keep these comments succinct, and make specific reference to their applicability in the New Jersey context.	In addition to the Pilot Program, the Clean Energy Act includes supporting initiatives for a wide range of new innovations and technologies. NJR recommends that the BPU consider how those initiatives could be supported or explored by the community energy program including: • A value adder for energy storage that is deployed with community solar projects. Including energy storage would enhance the value offered by the project by providing additional electricity supply when wholesale prices are high. In addition, the energy storage facility could be used by the EDC to manage the output of the community solar project and provide additional valuable electricity services (e.g., ancillary services, reliability services, load balancing on circuits, etc.) • The community solar Pilot Program offers an opportunity to explore remote mobile metering for electricity vehicles (EVs). Remote mobile metering allows EV owners to charge their vehicle anywhere in an EDC's service territory and the EDC would compile all settlement charges (e.g., residential and EV) under a single bill. Using community solar bill credits to offset EV charging costs can allow the BPU and rate-payers to gain experience with reducing transportation sector Greenhouse Gas (GHG) emissions through community solar projects. • The community solar Pilot Program could offer a value adder when a community solar project is combined with energy efficiency investments. For example, a price adder could be offered to a community solar project if all or most of the project's subscribers utilize approved energy efficiency rebates (e.g., clothes washer, dryer or refrigerator

		rebates). Combining community solar bill credits with energy efficiency rebates could provide additional incentive for participation.

New Jersey Resources – Value of Credit Analysis
BPU Community Solar Energy Pilot Program
Docket No. Q018060646

New Jersey Resources Value of Credit Analysis (31-Jul-18)	Unit	Scenario 1 Residential 5 MW Landfill w/lease	Scenario 2 Residential 400KW Rooftop on Highschool	Scenario 3 Residential 1MW canopy parking lot/urban	Scenario 4 Residential 200KW rooftop multi-family LMI
Equipment Maintenance ($/kW installed)	$/kW installed	$22.00	$22.00	$22.00	$22.00
Lease Payment ($/year)	$/year	$6,000.00	$0.00	$0.00	$0.00
EPC	$/year	$8,245,000.00	$776,000.00	$2,910,000.00	$388,000.00
Financing	$/year	$200,000.00	$50,000.00	$100,000.00	$40,000.00
Customer Subscription	$/year	$500,000.00	$40,000.00	$100,000.00	$20,000.00
Interconnection	$/year	$250,000.00	$50,000.00	$100,000.00	$25,000.00
Development/Permitting	$/year	$500,000.00	$160,000.00	$350,000.00	$100,000.00
Internal	$/year	$340,000.00	$160,000.00	$180,000.00	$120,000.00
BGS + 50% SBC (JCP&L)	$/kWh	$0.10	$0.10	$0.10	$0.10
Adder (JCP&L) - 2019	$/kWh	$0.03	$0.11	$0.15	$0.11
BGS + 50% SBC (PSEG)	$/kWh	$0.13	$0.13	$0.13	$0.13
Adder (PSEG) - 2019	**$/kWh**	**$0.00**	**$0.07**	**$0.11**	**$0.08**
BGS + 50% SBC (ACE)	$/kWh	$0.11	$0.11	$0.11	$0.11
Adder (ACE) - 2019	$/kWh	$0.02	$0.10	$0.13	$0.10

Assumptions

Return Expectations	8% IRR
Federal ITC	2019 -30%
Price support term	Life of the project (i.e., 25 years)

EDC	Units	BGS	SBC	50% SBC
JCP&L	$/kWh	$0.09307	$0.00719	$0.00359
PSEG	$/kWh	$0.12823	$0.00787	$0.00394
ACE	$/kWh	$0.10436	$0.00828	$0.00