Members of the Board of Public Utilities,

Subject: Docket #QO18060646

Black Bear Energy Background: Black Bear Energy represents a number of large real estate property owners as well as commercial and industrial customers in various states as they pursue renewable energy opportunities whether it be onsite solar, hosting solar that supplies the GRID, hosting solar systems for community solar projects, and even being potential off-takers of community solar electricity.

In order to maximize the chances of success for New Jersey's Community Solar Energy Pilot Program, we would encourage the Board of Public Utilities (The Board) to review and evaluate other state community solar programs to from a best practices perspective. Roughly 16 states as well as the District of Columbia have enacted some form of community solar with additional states, such as NJ, considering such legislation. These programs vary widely and over time some strategies and policies have been more successful than others. Based on the Notice for Comments issued by the BPU on July 6, 2018, the intent of this letter is to address the specific areas the Board requested is investigating through the lens of past successes and failures in other states.

The first area the Board was concerned with is siting and project size. With regard to project size, as was demonstrated in the first iteration of Minnesota's community solar program, the ability to co-locate projects was an objective mistake. Solar developers used that flexibility to get control of very large swaths of land, usually located far away from urban centers and the largest electrical loads, and essentially attempted to build utility-scale solar arrays of 20 MWs or greater that they could then sell through the community solar program. This structure was not the intent of the community solar program, developing large tracts of useable agricultural land and creating a serious interconnection burden. As a result of this miscalculation, Minnesota had to undergo extensive legislative and legal proceedings to correct the program such that it would support the development of "community" projects instead of utility scale arrays being sold as community solar.

For example, the Massachusetts new SMART program set a new standard by offering different financial incentives based on the type of site. Minnesota's updated program also attempted to do this through a value-of-solar rate calculation that paid a premium for projects that were located in areas that would benefit the grid (i.e. close to the load, areas of high congestion). Massachusetts looked at siting of projects through the lens of efficient land use, which will be critical in a densely populated state like NJ. Massachusetts offered significant incentives for rooftop, carport, and landfill solar arrays as well as a rate reduction for greenfield developments. The result was to encourage solar to be deployed on already developed property and preserve open land. A secondary benefit was that the most economically attractive solar was located close to the load in areas that benefited the grid.

In regards to project size, 2-5 MWs has proven to be an effective size for meeting the intent of a community solar program. As outlined in the Minnesota example above, however, co-location should be disallowed. We saw the impact of unintended consequences of that experiment. Our proposed definition of co-location would not mean installations on a single site that may include both roof mounted solar and carport solar. There should be no limit on the size

of rooftop and/or carport solar again, to further the goal of putting solar on previously developed land instead of developing greenfield projects.

One last issue is the overall size of the program. Minnesota represents an interesting case study in regards to program size. The reason being that by using a value-of-solar credit and having an uncapped program, Minnesota has found an ideal path to maximize the useful and valuable solar that can be installed without compromising utility economics or grid reliability. Essentially, Minnesota structured its rate such that the financial viability of projects acts as a natural limit to the amount of solar to be installed. By making the rate associated with a project based on its location and benefit to the grid, it forced to developers to put the solar where it was financially viable. As these opportunities reached capacity, the projects with less locational and grid value got built less frequently because of the less attractive economics. In short, while some states have elected to put a quantifiable limit on the amount of solar, financial constraints applied on a project-by-project basis allows a high volume of beneficial projects to be constructed while minimizing the projects that present a lesser benefit. Unlike a quantifiable limit, this structure avoids less beneficial projects potentially taking capacity that would have otherwise been allocated to the more beneficial ones.

The Board also requested comments on Low and Moderate Income (LMI) Access. There are a few main strategies to achieve sufficient LMI access. As seen in Massachusetts and Illinois, there is a significant financial incentive for subscribing such customers. However, financial incentives are often not enough standing along. The two main challenges related to LMI access include customer acquisition and creditworthiness of such customers. While no such program currently exists, there have been pilot programs aimed at addressing these issues.

In Illinois for example, Elevate Energy is a non-governmental organization that aggregates LMI customers interested in solar. They then charge solar developers a small fee to place them in the community solar gardens. As a result, this greatly reduces the cost of customer acquisition for the solar developer. Greenbank in New York piloted a program whereby they would backstop LMI customers as a form of "credit-enhancement" addressing the most difficult aspect of LMI customers. Often, it can be difficult to finance projects with a high percentage of LMI customers because the credit risk is challenging to underwrite. Lastly, Massachusetts offered incentives for solar garden that increased based on the percentage of LMI customers. This allowed solar developers to find an appropriate mix of LMI and non-LMI customers whereby the project was financeable, but still offered incentives to include LMI. Achieving adequate levels of LMI participation is perhaps the most ambiguous question surrounding community solar and will likely require some creative thinking outside of the suggestions listed in this letter.

The next area the Board wanted to analyze was the value of the solar credit. It goes without saying that the larger the credit, the more financially attractive the market will be for solar development. As discussed earlier, the credit should be variable based on a variety of factors (type of off-taker, location, benefits to the grid, etc.). In Colorado for example, the incumbent utility runs an RFP for capacity allocations under their community solar program. The RFP is based on solar providers bidding a renewable energy credit price which the utility then purchases to meet their RPS requirements. This has been somewhat successful though there have been some legislative and financial challenges, in addition to the fact it does not encourage efficient land use decisions or address any grid constraints. On the other end of the spectrum is Massachusetts, whereby the rates and incentives are set, and decline based on how early a project receives its capacity award. In practice, a hybrid approach whereby the rates and incentives are

fixed like in Massachusetts, but are awarded based on project criteria instead of merely time would present an ideal environment for utilities, solar developers, and customers to recognize beneficial results.

In terms of applications and interconnection, the main takeaway point here comes from New York. When the New York program opened, there were very little requirements to enter the program, essentially requiring nothing more than an option on land. The result was that projects with little or no chance of success got submitted, received valuable awards, but could not progress to commercial operation. As a result, viable projects were delayed and/or cancelled and projects that were never going to succeed sat idle in the queue for years. New York ultimately had to revise the program to clear out the queue and establish a system that rewarded projects with a higher likelihood of success.

Illinois is a good example of how to ensure only projects with a strong likelihood of success receive capacity under the program. In order to apply for capacity under the IL program, the project essentially needs to be ready for construction (site control, interconnection, and all required permits), as well as have a certain amount of customers. The one issue with this structure is that with limited capacity, developers are asked to spend a significant amount of time and resources on projects that may not ultimately be awarded capacity. In order to address this, developers need to be given some degree of certainty around these projects. This can be achieved by making firm timelines for utilities to review interconnection applications, permitting the use of options to demonstrate site control, creating a public, transparent, and up-to-date interconnection queue, and publishing a map of areas of the grid where solar would be beneficial. If solar developers had access to this level of information, they could make an informed decision about the viability of the project prior to dedicating resources to it.

Lastly, in terms of customer subscriptions and customer protection, any documents should be standardized and approved by the state itself. Illinois and Massachusetts have standardized documents that have been approved by state regulators to minimize confusion and avoid any consumer protection issues. This is also a benefit to the solar project owners as it facilitates their legal and customer acquisition processes.

As a company that has been involved in community solar around the country, Black Bear Energy believes that using the lessons learned from other states developing Community Solar Programs, NJ has the potential to be the most successful community solar program in the nation. It could potentially set the standard and form the framework for additional states to follow by emphasizing efficient land use, appropriate financial incentives, and an expeditious and transparent interconnection and application process. We appreciate the opportunity to comment and please do not hesitate to contact the company with additional questions.

Respectfully,

Zachary Friedman
Black Bear Energy
Vice President of Renewable Transactions and Regulation
1216 Pearl Street Boulder, CO 80301
303.357.3885
zfriedman@blackbearenergy.com