September 6, 2018

Mr. Kenneth Sheehan
Director, Division of Clean Energy
New Jersey Board of Public Utilities
44 S. Clinton Avenue
Trenton, NJ 08625

Dear Mr. Sheehan:

Enclosed please find preliminary comments and responses to the discussion questions released by the Energy Master Planning Committee in advance of this Friday's workshop. SEIA will file more formal comments by the October deadline. Thank you. Please contact me with any questions about this document.

Respectfully submitted,

David Gahl
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Solar Energy Industries Association
Initial Comments for Energy Master Plan Stakeholder Meeting
The College of New Jersey
September 7, 2018

Summary/Overview

My name is David Gahl and I am the Director of State Affairs Northeast for the Solar Energy Industries Association ("SEIA"). Thank you for the opportunity to speak today. In addition to oral comments, I am submitting initial comments regarding the creation of the 2019 New Jersey Energy Master Plan ("EMP").

We appreciate the commitment of the Murphy Administration to transition to a clean energy future and we look forward to working with the Board of Public Utilities (the "Board" or the "BPU") to provide a bright future for solar power.

SEIA is the national trade association of the United States solar energy industry. SEIA represents approximately 1,000 firms across the county, with many of these firms doing business in New Jersey, and nearly 40 member firms that list a specific New Jersey operating address. SEIA member companies in operation in New Jersey are working in all market segments. They provide solar panels and equipment, financing and other services to a large portion of New Jersey solar projects.

SEIA files these initial comments today and briefly provides answers to a number of the discussion questions posed for consideration. These answers are included in Appendix A. We will file more detailed comments – including a more robust discussion of long-term solar goals – in the formal written comments due on October 12, 2018.

a. SEIA Strongly Supports the Long-Term 100 Percent Clean Energy Goal

SEIA strongly supports the long-term goal of having 100 percent of the state's electricity come from clean energy resources by 2050. At nearly 5 percent of the state's energy mix, solar power already plays a vital role in the meeting the state's energy needs. As the State moves toward 100 percent clean energy, solar power will increasingly play an important role as a source of power and creator of in-state jobs.

While the Governor's long-term clean energy goals are laudable and necessary, the Board faces a series of important near-term decisions that will either make the goal attainable, or make the long-term goal harder to achieve.

The stakes are high. Near-term decisions by the BPU on the following issues are critically important to preserve the state's more than 7,000 solar jobs. That local industry will be the foundation for New Jersey increasing its solar energy generating capacity. SEIA urges the Board to set the state on the right path by addressing the following issues.

b. The BPU Must Provide More Clarity Regarding SREC Market Closure

The Board must provide additional clarity regarding the recently published Solar Renewable Energy Credit ("SREC") market closure rules. The BPU's proposed language – on which we will be filing formal comments by the October deadline – is silent on several key issues that are of great interest to market participants.

Most notably, the regulatory proposal does not clarify exactly *how* the BPU will determine that the goal for solar generation contributing to the overall electric supply has been reached.

Failure to provide additional regulatory detail will cause uncertainty in the coming months, cast a shadow over the solar market, and result in the transfer of solar investment to other states.

We urge the BPU to close the market based on actual "attainment" of the goal per P.L.2018, c.17. The BPU should close the market upon the installation or interconnection of solar projects in the amount of 5.1% of total electricity demand. Then the BPU should exercise its authority to raise the RPS slightly to accommodate projects in the pipeline at the time of the closed market.

The market should ***not*** be closed based on counting currently installed projects as well as Solar Registration Program ("SRP") applications totaling 5.1% of electricity demand.

Basing the decision on actual "attainment" of the solar goal will provide runway for the solar industry, and allow for a more orderly transition to the next solar incentive program. Otherwise, the BPU is likely to face a gap that would stall the solar market.

c. The BPU Must Begin Designing the Next Solar Incentive Program Immediately

To maintain progress toward the state's long-term clean energy objectives, it is critical that the BPU have a new program ready to accept projects upon the closure of the current SREC program.

Based on the current build rates, SEIA's internal modeling shows that is very likely New Jersey will reach its solar RPS objectives sometime next year. Therefore, design of the next solar incentive program, or even a "bridge program" should begin immediately.

The following principles should guide program design. The next program should:

- be consistently available, with a predictable structure that provides uninterrupted support to all market segments of the solar industry and avoids the "boom/bust" cycles that have plagued the current program;
- have a transparent program structure that gives market participants a clear understanding of likely incentives, or ranges of incentives, over time;
- be simple to implement without conducting significant new outside analysis or engaging in lengthy litigated proceedings;
- be based on existing program designs that have a proven track record for achieving solar deployment goals; and
- be lower-cost to ratepayers than the status quo, while adequately compensating solar for the full range of grid benefits that solar provides.

With these principles in mind, and given the limited timeframe to design and implement a successor to the current SREC program, SEIA recommends that the Board expedite the creation of an "SREC II" program.

The Board would be following a similar evolution in program design conducted by Massachusetts as it restructured its SREC program before moving to its yet-to-be implemented new tariff structure.

By lowering the solar alternative compliance payment, employing the use of factoring, and having the Board become a more active market manager by setting targets for solar market sector development, SREC II can be designed to provide compensation for the many additional benefits that solar provides to the electric system but at a significantly lower cost than the current program. Again, based on SEIA's initial modeling given the program design changes described above, a sizable SREC II program can conceivably cost half as much as the current SREC program.

SEIA intends to provide more detail about its proposals for program mechanics in the coming months, and we urge the Board to begin its deliberations about successor program design as

soon as possible to ensure a smooth transition to a new program and prevent solar market disruptions.

d. The Board Should Revisit Class 1 REC Eligibility for Solar Projects

The newly passed 50 percent by 2030 Renewable Portfolio Standard ("RPS") significantly increases the demand for renewable energy in New Jersey, mostly within Class I market. This statutory goal is an important milestone on the way to reaching the 100 percent clean energy goal of the 2019 EMP.

In order to reach the 50 percent mandate the Board must revisit its exclusion of out of state solar from the Class I market. The BPU has previously ruled (N.J.A.C. 14:8-2.5(b)2), that only those solar facilities that qualify for SRECs (i.e. in-state and small scale solar projects) are eligible to receive Class I RECs, and only after the SREC eligibility period for such facilities has ended. This interpretation is inconsistent with the statute.

The Board's current exclusion of regional solar power from Class I eliminates one of the fastest growing and least expensive resources in the PJM power market. There are now 20,000 MW of solar power in the PJM queue outside NJ. Excluding these solar projects, which have become the least-cost resource in several states in PJM is contrary to the goals of the recently passed Clean Energy Law and the long-term goal of the EMP.

Given the renewable energy goals of the Murphy Administration, the Board must revisit its interpretation of the RPS language and open the Class I market to all forms solar power.

e. The Board Should Adopt the Community Solar Pilot Program Without Delay

In addition to these important near-term measures, establishing a community solar pilot program, currently being developed by the Board, will also help set the state on the right path toward meeting the 2030 statutory goal and the long-term EMP objective.

A robust community solar pilot program will allow this market segment to grow, bring a considerable amount of clean energy onto the grid, provide access to the benefits that solar provides to constituencies who current do not have it, and provide an important test-bed for policy makers as they consider expanding these programs. The Board should adopt the community solar pilot program without delay.

f. Concluding Remarks

The New Jersey solar market is at a critical juncture. Decisions that the Board is facing today can set the state on the most direct route to reaching the long-term 100 percent clean energy goals of the 2019 EMP.

We urge the Board to provide more clarity on SREC market closure rules, ensure a smooth transition to a new incentive program, begin the process of designing the successor to the SREC program, revisit its interpretation of excluding large scale solar from the New Jersey Class I market and adopting a community solar pilot program without delay.

Thank you for the opportunity to speak today. For more information, please contact: David Gahl, Director of State Affairs, Northeast (518) 487-1744 or dgahl@seia.org.

APPENDIX A

Answers to Questions Posed by Board of Public Utilities Staff

Discussion Points General

1. For the purposes of the Energy Master Plan (EMP) and reaching Governor Murphy's goal of 100% clean energy usage in New Jersey by 2050, how should clean energy be defined?
    a. Any definition of clean energy must include solar power. Solar is a pollution free, cost effective resource that provides distribution grid and resiliency benefits to all the ratepayers of New Jersey.
2. Should the definition of clean energy contain flexibility between now and 2050 to allow for transitional fuels to be used and phased out over time? What intervening steps should be taken to complete the transition?
    a. No comment at this time.
3. What is the most significant obstacle to getting to 100% clean energy by 2050? How can the state address it?
    a. While the focus on the long-term is important, decisions that the Board is facing today can set the state on the most direct route to reaching the long-term 100 percent clean energy goals of the 2019 EMP. Therefore, we urge the board to provide more clarity on SREC market closure rules, ensure a smooth transition to a new incentive program, begin the process of designing the successor to the SREC program, adopt a community solar pilot, and revisit its interpretation excluding large scale solar from the New Jersey Class I market. These near-term decisions can ensure the state moves rapidly toward achieving progress on its clean energy goals.

Transition and Technology

4. How can the State immediately begin to transition to clean energy production and distribution? What intervening steps should be considered to clean existing technology? How should stranded costs be addressed?
    a. To maintain progress toward the state's long-term clean energy objectives, it is critical that the BPU have a new solar incentive program ready to accept projects upon the closure of the current SREC program. Based on the current build rates, SEIA's internal modeling shows that is very likely New Jersey will reach its solar RPS objectives sometime next year. Therefore, design of the next solar incentive program, or even a "bridge program" should begin immediately. Furthermore, additional state policies that encourage utility investment in grid infrastructure that enables distributed generation from renewable resources should be pursued to reach New Jersey's clean energy goals.

5. How should the state analyze the construction of additional fossil fuel infrastructure during the transition? How can the state plan to accommodate this infrastructure in both its short-term and long-term clean energy goals? What statutory or regulatory changes will be needed for the state to make and implement these determinations?

    a. No comment at this time.

6. How should the state invest in and encourage innovative technologies for renewable energy and energy efficiency?

    a. Given the energy benefits, grid benefits, customer savings and pollution reduction benefits of solar power, New Jersey should begin the process of designing the next solar incentive program or a bridge program immediately. The following principles should guide program design. The next program should:
        - be consistently available, with a predictable structure that provides uninterrupted support to all market segments of the solar industry and avoids the "boom/bust" cycles that have plagued the current program;
        - have a transparent program structure that gives market participants a clear understanding of likely incentives, or ranges of incentives, over time;
        - be simple to implement without conducting significant new outside analysis or engaging in lengthy litigated proceedings;
        - be based on existing program designs that have a proven track record for achieving solar deployment goals; and
        - be lower-cost to ratepayers than the status quo, while adequately compensating solar for the full range of grid benefits that solar provides.

    With these principles in mind, and given the limited timeframe to design and implement a successor to the current SREC program, SEIA recommends that the Board expedite the creation of an "SREC II" program.

    By lowering the solar alternative compliance payment, employing the use of factoring, and having the Board become a more active market manager, SREC II can be designed to provide compensation for the many additional benefits that solar provides to the electric system but at a significantly lower cost than the current program.

State Policy

7. Evaluate existing clean energy policies and programs: where are they most/least effective, and are they aligned with the 100% clean energy by 2050 goal? If not, what modifications can be made, if any?

    a. The current SREC program was tremendously successful in promoting solar power. As a result of the SREC program, New Jersey installed more than 2.4 GW of solar, enough to power nearly 400,000 homes. Adding in the current pipeline, and there will be more than 3 GW of solar installed in the state. Very soon, New Jersey will get more than 5 percent of its electricity from solar power. The solar industry has created more than 7,100 jobs in New Jersey and more than $10 billion has been invested in solar projects throughout the

Garden State. But as the costs of solar continue to fall, adjustments to the solar incentive programs must be made. By lowering the solar alternative compliance payment, employing the use of factoring, and having the Board become a more active market manager, SREC II can be designed to provide compensation for the many additional benefits that solar provides to the electric system but at as much as half the cost of the current program.

8. How should the state integrate low use property, such as brownfields and blighted zones, into new clean energy economy development?

    a. Brownfields and blighted zones have considerable potential as locations for solar projects and New Jersey should consider additional measures to encourage project development on remaining, suitable sites. And, given the amount of parking lots and low-density commercial development, the state should also investigate how to maximize the potential of parking lots to host clean energy generation. Solar carports are already online in New Jersey and other major solar markets, but these are among the most expensive types of solar development (due to the additional structures required to build over parking spaces). Efforts should be made to help reduce these costs.

9. How should the state address the baseload needs v. intermittent elements of clean energy generation? What is the role of energy storage in the conversion to 100% clean energy?

    a. Battery storage is going to play an increasingly important role in managing the electric grid both at the wholesale and distribution levels. Increased investment in battery storage will allow deeper penetration of intermittent technologies, such as solar. Reaching the 100 percent clean energy goal would be impossible without significant increased investment in battery storage.

Planning and Zoning

10. How can clean and reliable power support the expansion of clean transportation?

    a. Electric vehicles will play a critical role in meeting New Jersey's pollution reduction and clean energy goals. For those benefits to accrue, electric vehicles must also be powered by clean energy, such as solar power. We are in the early stages of developing electric vehicle goals and charging strategies for New Jersey. Clean energy generation paired with storage can also be deployed for mass transit, such as NJ Transit. This can help with load reduction, voltage regulation, and other electricity-related costs. The Southeastern Pennsylvania Transit Authority (SEPTA) already has a similar project online using energy storage.

11. Is there a role for communities in local energy planning and, if yes, what should it be? Are there opportunities for public-private partnerships to aide communities undertaking this planning?

    a. No comment at this time.

12. What portfolio mixtures can the state utilize in achieving its 100% clean energy goal? What can a transition portfolio mixture resemble in 2030 and what portfolio mixtures can the state utilize in 2050?

    a. SEIA will provide more detailed analysis in its formal comments due in October.

13. Should changes be made to zoning and planning laws and requirements to allow for the development of clean energy generation?

    a. SEIA recommends New Jersey revisit land use rules to encourage the siting of solar projects on appropriate "greenfield" sites. While not all property is suitable for hosting solar projects, certain agricultural lands and other vacant property should be eligible for solar project development, provided that developers follow a set of best practices for construction. Best practices include establishing limitations on concrete and soil disruption, thoughtful project siting such as avoiding wildlife corridors and critical habitats, and establishing decommissioning requirements. These policies and practices have been used successfully in other states and should be adopted by regulators. Making certain agricultural property eligible for solar project development can also provide farmers with a steady income stream that can offset some of the price risk associated with farming and make farm operations generally more viable.

Economic Growth and Workforce Development

14. How should the state address the workforce development needs associated with the transformation to 100% clean energy?

    a. No comment at this time.

15. How can the transition to 100% clean energy grow New Jersey's economy and create new innovative and high paying careers for New Jersey residents?

    a. No comment at this time.

16. How can the State encourage, require, or otherwise develop a robust supply chain for all clean energy industries?

    a. No comment at this time.

Environmental Justice

17. How will the State consider and integrate overburdened communities into clean energy advancements?

    a. Design features of the successor solar incentive program can be used to ensure overburdened communities have access to clean energy. The use of factors or multipliers in an SREC structure can ensure that affordable housing units or projects serving low-income customers can remain economic and provide increased access to solar for low and moderate-income constituencies.

18. What efforts are most successful towards making clean energy and energy efficiency measures affordable and accessible to all?

    a. See above.

19. How can the state play a role in ensuring that disproportionately impacted communities receive opportunities and benefits connected to the clean energy economy?

    a. See above.