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VIA ELECTRONIC DELIVERY & OVERNIGHT MAIL

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 S. Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Re: New Jersey Solar Transition - Staff Straw Proposal

Dear Ms. Camacho-Welch:

Public Service Enterprise Group, Inc. ("PSEG" or the "Company"), on behalf of affiliates Public Service Electric and Gas Company ("PSE&G") and PSEG Power LLC ("PSEG Power"), appreciates the opportunity to provide input on this rulemaking.

PSEG supports and applauds the policy objectives of the State of New Jersey and Governor Murphy – to significantly reduce greenhouse gas emissions with the goal of 50% clean energy by 2030. Achieving this goal, while a necessary effort to address climate change, will be a challenge. In particular, as the State evaluates the future of solar as a part of its clean energy goals, many obstacles need to be to overcome, including closing the existing SREC program and transitioning the solar market, while ensuring that the cost burden to customers from the Renewable Portfolio Standard does not exceed the statutory cost caps in the Clean Energy Act.

We commend the Board for initiating a stakeholder engagement process to determine the best course of action to close the existing SREC program and put the solar market on a path to a successor program that cost effectively achieves the State's clean energy goals.

We offer this input in concert with our comments previously submitted on October 5, 2018 and November 2, 2018 relating to the Board's proposed rule to close the existing SREC program upon the attainment of 5.1 percent solar and transition the solar market, as well as comments in other related initiatives and proceedings, including the Energy Master Plan that is currently under review.

PSEG has a long history of partnering with the state and aligning its interests with those of New Jersey. It is in this spirit of partnership that PSEG offers these comments on the December 26, 2018 Staff Straw Proposal ("Straw Proposal").

General comments on the Straw Proposal:

Closure of the Legacy SREC Program

PSEG agrees with the decision to close the legacy SREC market to new applications when actual annual solar production reaches 5.1% of annual State-wide retail electric sales.

- PSEG recommends that the Board make this determination of when 5.1% has been attained based on actual SRECs generated in New Jersey as reported in PJM GATS (the State's official source of solar production data) and establish a transparent process for reporting this information.
- This will ensure that the closure of the SREC market to new applications is based on real and verified data (as contemplated by the Clean Energy Act). It will also prevent the premature closure of the Legacy SREC market, before the 5.1% has actually been attained. Relying upon estimates or projections of solar production, in lieu of actual generation as verified in PJM GATS, could cause a permanent undersupply of legacy SRECs for the duration of the Legacy SREC program and cause the Ratepayer Cost Caps to be exceeded.

SREC Transition Principles

The Straw Proposal puts forward seven transition principles:

1. Provide maximum benefit to ratepayers at the lowest cost;
2. Support the continued growth of the solar industry;
3. Ensure that prior investments retain value;
4. Meet the Governor's commitment of 50% Class I Renewable Energy Certificates ("RECs") by 2030 and 100% clean energy by 2050;
5. Provide insight and information to stakeholders through a transparent process for developing the Solar Transition and Successor Program;
6. Comply fully with the statute, including the implications of the cost cap; and
7. Provide disclosure and notification to developers that certain projects may not be guaranteed participation in the current SREC program, and continue updates on market conditions via the New Jersey Clean Energy Program ("NJCEP") SREC Registration Program ("SRP") Solar Activity Reports.

PSEG asks that the BPU carefully consider how it weights these goals in the Solar Transition.
The Clean Energy Act called for reform of the state's solar program, seeking near-term structural changes to ensure that the program is sustainable over the long term and provides tangible savings to customers. The Legacy SREC program has already come at a significant cost to electric customers. The transition to an SREC Successor Program has the potential to further burden customers with more costs.

Of specific concern, the decision in the Straw Proposal to exclude Pipeline projects (i.e., those projects that have received SRP registration but have not yet entered into commercial operation prior to the attainment of the 5.1% transition point) from the Legacy SREC program creates a risk that the Legacy SREC market once closed will be sufficiently constrained to result in high SREC prices that impose unnecessarily high costs on customers. In this case, no headroom would remain under the mandated RPS Costs Caps to achieve any continued solar development, resulting in new development being shut out by the high costs of the Legacy SREC program or the BPU having to reduce the Governor's clean energy commitments by reducing, if not eliminating, the Class I RPS targets to balance the cost of the Legacy SRECs. In either case, this is a sacrifice that would threaten the viability and success of the Clean Energy Act, and it is critical that steps be taken to reduce customer costs and ensure that the Legacy SREC program does not constrain the potential for future clean energy development.

The Board's proposal to consider Pipeline projects as separate and distinct from the Legacy SREC program is not consistent with the requirements set forth in statute. Specifically, the Clean Energy Act

states that the Board shall "adopt rules and regulations to close the SREC program to new applications upon the attainment of 5.1 percent of the kilowatt-hours sold in the State." This allows that all solar projects that have obtained an SRP Registration, even those that have not entered into commercial operation prior to the attainment of the 5.1% trigger, should be grandfathered as eligible for the Legacy SREC Program. Implementing the transition in this way, as the statute requires, would help ensure an adequate supply of Legacy SRECs and prevent Legacy SREC Program costs from jeopardizing the future Successor Program. It also simplifies the transition, since it does not require the Board to implement an entirely new program to handle "Pipeline" projects.

Importantly, in order to address any potential concern of an oversupplied market, and in order to ensure the stability of the legacy SREC market, the Board could institute an SREC floor price, or other such mechanism, to provide price certainty to the market and to achieve headroom under the RPS cost cap. The Board would need to balance the interests of solar investors, customer costs, and savings under the RPS Cost Caps when determining the SREC floor price.

Successor Program Principles

PSEG again commends the BPU for laying out a thoughtful stakeholder process that includes ample time for working groups and workshops to thoroughly consider the many important steps in the solar program transition. Further, we support the BPU raising questions to start a dialogue on the future of net metering. Any SREC successor program should identify all solar subsidies and ensure their transparency.

As the State considers how solar development can help meet the Governor's clean energy commitments, the focus of program design needs to be on determining cost effective approaches to market-based development, while prioritizing the state's public policy goals of enabling strong environmental results and affording fairer and broader access to the benefits of solar, within a system that is less regressive than the current system. Since solar is still a subsidized technology, the Board should direct the subsidies to those constituents and communities who need them more, consistent with the Governor's emphasis on fairness.

No entities are better positioned than New Jersey's utilities to support targeting low-middle income constituents. Utilities' expertise and unique customer relationship puts them in a perfect position to target these customers. Utilities' relative low cost of capital is lower than that of other participants given the market risk and inefficiencies inherent in subsidizing dependent technologies. PSEG believes that the state can achieve the above-described goals most effectively in partnership with its utilities in the following ways:

- Implementing programs so that the benefits of solar are enjoyed by all NJ citizens. Since everyone in the state subsidizes the cost of renewable energy incentives, everyone should share in the benefits.
    - Utilities (especially EDCs) are best positioned to direct development for the greatest public good, for example, to public entities and institutions. Targeting public entities under utility solar programs can help offset these entities' energy costs, with the goal of maximizing cost savings and reducing revenue pressure for these public entities, which will result in budget savings that benefit taxpayers.
    - Directing utility-sponsored solar to public entities, Low to Moderate Income (LMI) customers and urban areas further advances the promise of delivering the Governor's commitment to a fairer and stronger New Jersey by ensuring universal access to the programs and encompassing those customers and communities that are hard to reach.
    - Allowing utilities to participate in community solar projects, particularly the LMI segment the EDCs are well-positioned to serve.

- Supporting economic development of underutilized and underdeveloped land.
  - This should include continuing the Solar 4 All® program to develop solar on landfills and brownfields and optimizing land use in densely populated areas.
  - Focus next-stage solar investment on economically disadvantaged communities that would benefit most from solar investment.
- Finally, the future should focus on making solar accessible to all New Jersey households.
  - Utilities are best positioned to deliver programs that direct solar benefits to LMI customers currently underserved by the existing solar market at the most economical cost.
  - Utilities can offer equitable, effective and economic means to provide universal access to solar, enabling all NJ households to participate and benefit, not just those with the means to pay for solar.

Below please find responses to the questions posed in the December 26, 2018 Straw Proposal:

In your direct experience, how has the current SREC program functioned over the past 5 years?

The current SREC program has been successful in achieving its legislative goals; it has delivered the targeted amount of solar output, making the state a national leader in solar development and creating a robust local market. However, the existing SREC program has come at a significant cost to electric customers. The cost of SRECs has averaged around $200/MWh over the past several years. This is ~6x the cost of on-peak energy prices and has resulted in a significant rate increase for all customers. A structure of longer-term price certainty should reduce these unit costs. PSEG supports maintaining New Jersey's place as a national leader in solar, but every effort should be made to minimize the resulting rate impacts. The expense of the SREC program to customers and the competitiveness of the market must be addressed in both the Legacy and Successor market design.

How should any proposed SREC Successor Program be organized in conformance with the Clean Energy Act and Staff's SREC Transition Principles?

The SREC Successor Program should be structured to achieve the following goals:

1. Achieve lowest cost to ratepayers within the overall price cap established in the Clean Energy Act, while achieving the State's goals for solar development
2. Ensure competitiveness in the market
3. Provide price transparency and clear price signals

Assuming there is head room under the RPS cost caps to achieve these goals, PSEG recommends an SREC Successor Program modelled on the following concepts:

- Competitive procurement of SRECs (similar to the NYSERDA's Renewable Energy Standard Request for Proposals model)
- Program would have established MW targets per annual auction. In order to direct benefits of the program to projects with the highest societal benefit and emphasize environmental justice, a carve-out of program capacity should be made to public entities, schools, municipalities, landfills, etc.
- Auction-awarded price is fixed for a defined term (e.g. 10 years) with the payment obligation residing with a clearinghouse (similar to the BPU's Offshore Wind Renewable Energy Certificate (OREC) program)

- Winners receive blocks of capacity (not required to be tied to specific projects) and are given a set time period (e.g. 18 months) to develop, construct and interconnect, with penalties due for missing milestones, backstopped by development security (e.g. a letter of credit)
- All projects will be grid connected, with energy sales sold into PJM
- All developers and EDCs can participate in the auction
- If the public entity carve out target capacity is not fully met at the winning auction price, EDCs shall be the provider of last resort for the balance of capacity

PSEG recommends this approach as it satisfies many of the SREC Transition Principles:

- A competitive solicitation for long term fixed price SRECs through a clearinghouse, should *provide maximum benefit to ratepayers at the lowest cost*
- This model can cost effectively *support the continued growth of the solar industry* in New Jersey
- By delivering the most solar capacity at the lowest cost, this will help the State *meet the Governor's clean energy commitments*, while putting an emphasis on environmental justice with the carve out for public facilities
- This approach would *comply fully with the statute, including the implications of the cost cap* as long as the additional cost and benefits and of the SREC Successor Program are not overshadowed by the continued high cost of the Legacy SREC Program.

How should Legacy SRECs be valued? Should these Legacy SRECs be valued under the SREC Successor Program or valued separately?

Legacy SRECs should be valued based on the already established market. In order to control costs and provide certainty to the market and the create headroom under the RPS cost caps, PSEG recommends that both Legacy SRECs and Pipeline SRECs be included together in the current market, as the statute contemplates. The Board may implement an SREC floor price or other such mechanism to ensure the stability of the market.

How should Pipeline SRECs be valued? Should these Pipeline SRECs be valued under the SREC Successor Program or valued separately?

a. Should the Board continue the current SREC program as a separate program? If so, how?
b. Should the Board include the current SREC program within the SREC Successor Program? If so, how?

Under the Clean Energy Act, the Board was directed to stop issuing new SRP registrations when 5.1% of the actual kilowatt-hours sold in the state come from solar electric power generators. Therefore, all Pipeline projects by law are part of the Legacy program and the value of their SREC should be determined in the current market.

The BPU could institute an SREC floor price or other such mechanism to ensure the stability of the existing market, both providing certainty to price and achieving headroom under the RPS cost cap. This solution benefits Pipeline projects by providing certainty of a price and program, without needing a new transitional program.

For any solar transition, should the Board set a megawatt ("MW") target for annual new solar construction? If so, should those targets be defined as percentage of retail sales or a set MW cap? Under what circumstances and/or assumptions is this target achievable?

Under PSEG's proposed model, a MW target for annual auctions would be set according to a targeted level of solar deployment in the state over time. Importantly, in order to comply with the Clean Energy Act's ratepayer cost cap, the annual proposed target would need to be capped according to available/expected headroom under the ratepayer cost cap and the final amount of MWs awarded would also need to be capped depending on the competitiveness of the SREC price auction and the impact of the procured SRECs on the RPS cost cap. In this way, the state could achieve competitive, cost-effective solar development that does not exceed the statutory cost caps.

In any SREC Successor Program, should the Board seek to set annual MW capacity caps for new solar construction or percentages of retail sales? Why or why not? If yes, what should be the value through 2030 and why? If yes, should the Board seek to set differentiated capacity caps under the solar RPS based on project type?

The Board should seek to set a pathway to reach the 50% renewable by 2030 target from a mixture of SRECs, Class 1 RECs and ORECs – this should be in denominated in RECs or MWhs. Since the ORECs are excluded from the cost caps considerations, the interim targets for SRECs and Class 1 RECs will likely be dictated by their relative costs over time. The REC or MWh (percent of load targets) could be translated into MW targets, if only for convenience.

If the goal is to reach 50% renewables by 2030 in the least expensive way possible, then any project type set-asides or quotas will serve to increase the cost of compliance, which would serve to increase the risk of program cost capping.

There should only be consideration of differentiated caps to encourage projects that benefit public entities to ensure that benefits of solar accrue to best societal benefit.

In the SREC Successor Program, should the Board provide differentiated SREC or solar value incentives to different types of projects? Should such differentiated SREC compensation be created through SREC multipliers, through an add-on valuation, or through some other method? Based on what factor(s) should any SREC compensation be differentiated?

No. The SREC Successor Program should be premised on getting the most MWs of solar developed at the lowest cost. It should not determine differentiated SREC compensation for different types of projects. The auction methodology described above should encourage least cost development and the market should decide which projects get built.

However, the Board should ensure that benefits of solar accrue to public entities and should set a carve-out of capacity for this segment, but not offer a differentiated SREC price.

How should the cost cap be measured? Should any "head space" under the cost cap in the first years be "banked"? Why or why not?

To ensure that the cost caps are not exceeded, and to enable the Board to establish a successor program that does not exceed statutory ratepayer cost caps, PSEG recommends that the Board establish a transparent mechanism to actively monitor costs under the RPS.

Specifically, we recommend that the Board transparently monitor and publicly report, on a monthly basis, how the costs of the applicable renewable energy requirement compare to the total amount paid for electricity by all customers in the State. The data for renewable energy costs should be sourced from reliable data sources such as pricing information provided by renewable energy credit transfers in PJM GATS, which should then be confirmed and validated by current market prices evidenced by public exchange monthly settlement prices, such as those published by the Intercontinental Exchange (ICE). To arrive at the total cost of the renewable energy requirements, these monthly settlement prices could then be multiplied by the applicable RPS percentage requirements and aggregated monthly kWh sales data provided by electric distribution companies (EDCs). EDC sales (inclusive of all distribution charges, other retail charges, and BGS supply charges) and an estimate of Third Party Supplier (TPS) retail sales[1] could then be used to calculate the total amount paid for electricity by all customers in the State, and compared to the renewable energy costs determined above, to arrive at the percentage that the applicable renewable energy costs are of total amount paid for electricity by all customers in the State. Using this approach, the Board would transparently monitor performance against the ratepayer cost caps and be prepared to take measures necessary to ensure that the cost caps are not exceeded.

The Clean Energy Act did not establish a ratepayer cost "budget" but rather established an annual cost cap. As written, the Act does not authorize the Board to bank or borrow against the annual cost cap:

> "the Board shall ensure that the cost to customers of the Class 1 renewable energy requirement [which includes solar] . . . shall not exceed nine percent of the total paid for electricity by all customers in the State for energy year 2019, energy year 2020, and energy year 2021, respectively, and shall not exceed seven percent of the total paid for electricity by all customers in the State in any energy year thereafter."

As such, the Clean Energy Act does not contemplate a multi-year ratepayer "budget" that would obligate ratepayers to pay the full cost of the capped amount each year. Rather, it establishes a certain cost that should not be exceeded in any one year.

Can and should the cost cap be determined based on net costs that include some type of valuation of associated benefits? If so, what should those qualitative and quantitative benefits be and how should they be assigned a value? If the Board can and should consider a net benefits test, should other cost impacts be included? Which ones? Why? If other cost impacts should not be included, why not?

No. The statute does not contemplate "net costs". The Clean Energy Act established an annual cost cap that shall not be exceeded:

> "the Board shall ensure that the cost to customers of the Class 1 renewable energy requirement [which includes solar] . . . shall not exceed nine percent of the total paid for electricity by all customers in the State for energy year 2019, energy year 2020, and energy year 2021, respectively, and shall not exceed seven percent of the total paid for electricity by all customers in the State in any energy year thereafter."

[1] As a proxy for TPS retail sales, the Board could use the sum of the BGS-RSCP retail supply price for each EDC territory, multiplied by the aggregate sales volume of all TPS's in each service territory

The statute does not provide for the consideration of, nor allow the Board to take into account, the value of any other associated net costs or benefits, such as benefits received from the Federal Investment Tax Credit or the State's net metering policy.

What steps should the Board take to implement the cost cap? In particular, please discuss the pros and cons of decreasing the Class I REC Renewable Portfolio Standards. Should any measures implemented differentiate among the different type of Class I renewable energy technologies? Should these measures differentiate among the different market sectors (e.g. utility-scale grid supply versus small residential systems)? Should these measures be technology neutral? Why or why not?

The Board should ensure that the costs of the Legacy SREC Program are minimized. See comments previously provided.

Decreasing the Class 1 REC requirement, as the Board has done with its recent Order applicable to BGS, will threaten and impair New Jersey's ability to meet the clean energy goals established in the Clean Energy Act.

There should not be differentiation of different technologies or market sectors.

Should the solar industry transition into a true, incentive-free market as the costs of solar begin to approach "grid parity" be a goal, or even a consideration, of the SREC Successor Program? If so, how can a SREC Successor Program assist that transition? Should a transition also encompass changes to the net metering program (cf. ongoing FERC/PJM review of DER aggregation)?

The Board should design the SREC Successor Program in a way that minimizes costs and transitions solar incentives to parity with other clean energy resources.

The costs of SRECs and other clean energy solutions should be considered relative to the current price of energy to transparently assess which solutions are the most cost-effective means to reduce emissions – including solar, wind, offshore wind, energy efficiency, nuclear and other means. The ultimate objective of the Clean Energy Act is a cleaner energy system, and each of these technologies (and price constructs for each) are means to that end and should be pursued in the most cost-effective manner to minimize the cost to customers.

Further, we support the BPU raising questions to start a dialogue on the future of net metering. Any SREC Successor Program should identify all solar subsidies and ensure their transparency.

Please provide comments on any significant issues not specifically addressed in the questions above, making specific reference to their applicability in the New Jersey context. Please do not reiterate previously made comments.

Regarding the calculations necessary to determine when the State has met the 5.1% solar threshold, the Board staff should develop as quickly as practical, while providing an opportunity for stakeholder input, the following methodology for its calculation:

On a monthly basis, staff should collect the following:

- SRECs – staff to obtain the number of SRECs generated for the prior 12 month period from PJM GATS
- Retail sales – staff to work with each EDC to obtain the retail sales data for the prior 12 month period. Each EDC should be required to provide the data on an established date each moth

The SREC value and retail sales value should represent the same prior 12 month period. Board staff should make this data available on or about the same time it releases its solar reports each month. Importantly, the Board should make this proposed method available as soon as possible, and allow appropriate opportunity for public review and comment on its proposal.

* * *

Once again, PSEG commends the Board for conducting this comprehensive stakeholder proceeding and appreciates the opportunity to submit comments in response to Straw Proposal. We look forward to continuing to work with the Board and all stakeholders on these important initiatives to cost-effectively achieve the Governor's and the Legislature's clean energy goals. We thank the Board for its consideration of our submission.

Respectfully submitted,

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