

Joseph A. Shea, Jr.
Associate Counsel - Regulatory

Law Department
PSEG Services Corporation
80 Park Plaza – T5, Newark, New Jersey 07102-4194
tel : 973-430-7047 fax: 973-430-5983
email: joseph.sheair@pseg.com



May 27, 2021

VIA ELECTRONIC MAIL ONLY

Aida Camacho-Welch, Secretary
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

**Re: New Jersey 2019/2020 Solar Transition
Solar Successor Program: Staff Straw Proposal
Docket No. QO20020184**

Dear Secretary Camacho-Welch:

Attached, please find the comments of Public Service Enterprise Group Incorporated in the above referenced matter.

Please advise if you have any questions regarding the foregoing.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Joseph Shea", written in a cursive style.

Attachment

New Jersey 2019/2020 Solar Transition
Solar Successor Program: Staff Straw Proposal
Docket No. QO20020184

PSEG Comments on Board Staff's Straw Proposal

Public Service Enterprise Group, Inc. (“PSEG” or the “Company”), on behalf of affiliates Public Service Electric and Gas Company and PSEG Power LLC, appreciates the opportunity to provide input on Board Staff’s **New Jersey Solar Successor Program Straw Proposal** (“Straw Proposal”). The Straw Proposal details Staff’s preliminary recommendations for the Successor Solar Incentive Program, and includes program design and implementation, calculation of annual megawatt targets, and calculation of the statutory cost cap.

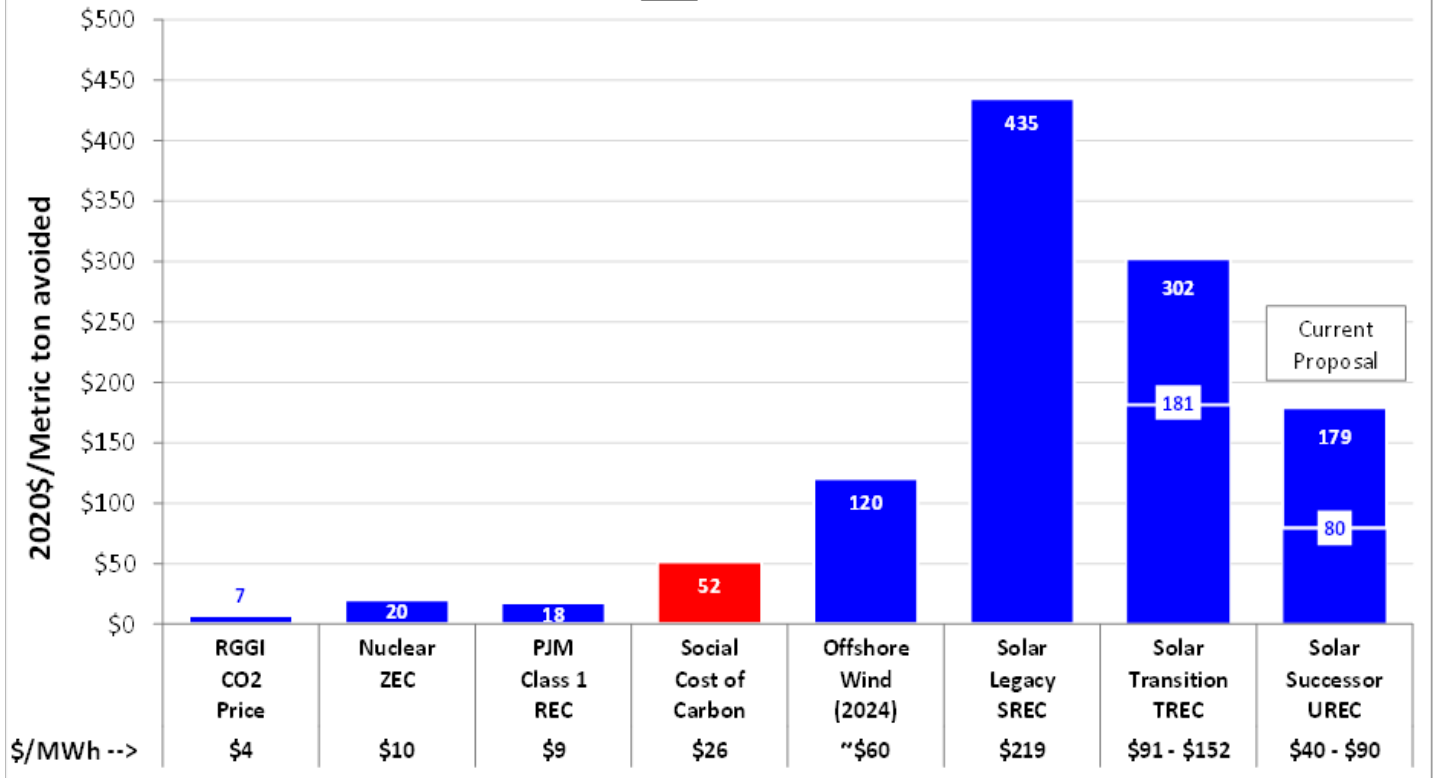
PSEG strongly supports the policy objectives of the State of New Jersey and Governor Murphy – to significantly reduce greenhouse gas emissions with the goal of 50% renewable energy by 2030 and 100% clean energy by 2050. These policy objectives are necessary to address climate change, perhaps the most significant long-term threat to the State of New Jersey. We commend the Board for soliciting stakeholder input and putting the solar market on a path to a Successor Program that cost effectively achieves the State’s clean energy goals.

PSEG believes the Straw Proposal contains many good elements, particularly the hiring of a third party to run the annual competitive solicitation, and the long-term nature (15 years) of the incentives, all which should help push down the overall costs of the Successor Program. As has been noted by Rate Counsel and other participants in the stakeholder process, no stone should be left unturned to identify cost savings to ensure that the Clean Energy Act’s cost caps are honored. While it is important that multiple sectors of the solar industry be supported in the Successor Program, the Board should focus its primary efforts on incentivizing those solar projects that are most cost-effective, i.e., larger scale, grid connected projects. As illustrated in the chart below, the cost of the recent SREC and TREC incentives and the planned UREC incentives are still significantly higher than a PJM Class 1 REC, the Nuclear ZEC, the social cost of carbon, and the offshore wind REC. Large, grid connected solar is the least costly method of achieving the solar goals of the Clean Energy Act and Energy Master Plan, and the Board would be wise to concentrate its available incentive dollars on this segment of the market.

[See chart and notes on following page]

New Jersey's Comparative CO2 Marginal Abatement Cost

(based on PJM's 2020 Marginal CO2 Emission Rate)



Methodology: The marginal carbon abatement cost = the \$/MWh divided by PJM's generation carbon intensity rate (0.5 metric tons/MWh in 2020). For example, the TREC program low end of \$91/MWh = \$181 \$/metric ton, and the high end of \$152/MWh = \$302 \$/metric ton.

Sources:

- **PJM carbon intensity:** PJM's 2020 marginal carbon intensity from PJM's "2016–2020 CO2, SO2 and NOX Emission Rates".
- **RGGI CO2 Price:** Weighted average of RGGI 2020 auction prices.
- **Class 1, SREC and non-compliance (ACP) costs:** NJ EY2020 RPS Compliance Report.
- **Social cost of carbon:** Interagency Working Group's 2020 carbon price using a 3% discount rate (\$42 in 2007\$) converted to 2020\$.
- **Offshore wind subsidy:** The difference between the OREC price for 2024 and the calculated value of PJM energy and capacity using updated BPU OSW reference prices. With the extension of the federal ITC, the overall OREC price may be reduced.
- **Solar Transition TREC:** BPU final TREC cost range, "TREC Project Types and Factors".
- **Solar Successor UREC:** BPU staff strawman proposal cost range (April 26, 2021).

With respect to the design of the State's Solar Successor program, the clean energy goals in the Energy Master Plan are significant and challenging. The participation of the New Jersey electric distribution companies is essential if the State is going to have a realistic opportunity to meet the goal of installing 5.2 GW of solar by 2025, 12.2 GW by 2030, and 17.2 GW by 2035. To achieve these objectives, the State would need to install approximately 950 MW/year, almost triple what the market has delivered annually over the past five years. Given the substantial increase in solar targets, it is critical that the Board develop a cost-effective approach to incent solar development, particularly given the high cost of solar and the solar cost caps in the Clean Energy Act.

The most realistic way for New Jersey to achieve its clean energy goals is to maximize all proven approaches to solar development, including bringing the State's electric distribution companies into the market to grow the grid connected solar sector. Currently, the Straw Proposal does not acknowledge that there is an opportunity for the EDCs to participate in the Successor Program. We believe that tapping into the EDCs' unique capabilities (experience, technical expertise, transparency) will significantly improve the probability of achieving the goals of the Clean Energy Act. Only about 20% of the State's solar capacity is grid connected, which is among the lowest percentage among the leading solar states in the country, where 50-80% of solar generating capacity is grid connected. The shift away from more economic, larger scale, grid connected solar has contributed to the higher overall cost of solar in NJ, which all customers are bearing. The State can easily increase its grid connected capacity by encouraging its electric utilities to develop, own and operate larger, grid connected solar facilities. PSE&G's existing and successful Solar 4 All® Program is precisely the model to support the State's ambitious solar energy goals. It bears repeating that the Solar 4 All ® Program also provides numerous good paying jobs that support a highly skilled, middle class workforce. This is critically important, as New Jersey has reported a dramatic loss in solar jobs over the past six (6) years. In 2015, New Jersey was ranked 5th in solar jobs nationally and has since fallen to 12th in the rankings in 2020. This decline in jobs has not been due solely to the Covid-19 pandemic. Rather, the decline has been steady -- since 2017, New Jersey has been losing solar jobs and the current employment level (5,384 jobs) is at the lowest level seen in the past decade.

PSE&G's Solar 4 All® Program targets landfill and brownfield sites for development, sites that are generally difficult to develop for the private market due to the complexity and challenges of meeting New Jersey Department of Environmental Protection requirements, local permitting and a long development cycle (approximately 2-3 years). Through the Solar 4 All® program, PSE&G has become a national leader in developing these difficult sites, with over 40% of all landfill/brownfield solar capacity in the State. This model can and should be expanded to allow utilities to build and own solar on additional unproductive landfill and brownfield properties, which would be an underserved market segment without PSE&G's involvement. As noted in its January 2021 Capstone Report, the Cadmus Group noted that utility-owned solar projects may provide a "valuable segment" in the Successor Program because such projects could be located near utility infrastructure and paired with storage.¹

Finally, utilities stand ready to implement programs that will benefit low and moderate income residents, particularly those residents disproportionately impacted by environmental justice concerns, by supporting expansion of solar and achievement of the State's ambitious clean energy goals. For these

¹ See Final Capstone Report at page 12.

reasons, the Board can and should establish a target for utility ownership and operation, which target would not impact the capacity available for the rest of the solar development community.

Beyond these direct roles for utilities in the solar market, PSE&G offers the following suggestions for the Straw Proposal:

- In light of their capital structure and long term planning capabilities, utilities are uniquely qualified to participate in the “solar plus energy storage” segment. The Board should allow New Jersey’s EDCs to participate in this segment to have any realistic opportunity to meet the Clean Energy Act’s energy storage goals of 600 megawatts by 2021 and 2,000 megawatts by 2030.
- The “solar plus energy storage” segment should have a minimum threshold battery requirement per MW-AC of installed solar capacity. The minimum battery storage capacity should be at least 25% of the solar generation capacity. For example: a 1 MW-AC solar facility should have, at a minimum, 250 kWh energy storage capacity. Without a threshold, bidders may seek to install very limited battery storage capacity in order to reduce project costs, a result at odds with the Clean Energy Act’s energy storage goals.

In addition, PSEG offers the following response to Question 13 in the Straw Proposal:

Question 13. In the interest of procuring the maximum amount of solar energy and the lowest possible price, Staff requests feedback on whether projects awarded within the competitive solicitation should be paid-as-bid or receive a single clearing price.

PSEG response: Projects awarded within the competitive solicitation should be “paid-as-bid.” This will provide lower program costs to be recovered from New Jersey customers.

Thank you again for this opportunity to provide comments on the Straw Proposal and the New Jersey solar market. We look forward to working with the Board, Rate Counsel and interested stakeholders to develop a Successor Solar Incentive Program that achieves the important goals set forth in the Clean Energy Act of 2018.

###