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Aida Camacho-Welch
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NOTICE¹

Staff Notice Seeking Stakeholder Input on Calculating the Solar 5.1% Milestone

The Staff of the New Jersey Board of Public Utilities (“Staff”) hereby gives stakeholders the opportunity to provide input on two items relevant to the calculation of when 5.1% of the kilowatt-hours sold in New Jersey are being supplied by qualified solar generation facilities (“5.1% Milestone”). The Board shall consider comments received on this topic in determining how to calculate the 5.1% Milestone.

Depending on the how the Board addresses the issues discussed in this Notice, the 5.1% Milestone could be attained in the April or May 2020 timeframe. However, the 5.1% Milestone could arrive sooner or later based upon the Board’s ultimate action.

BACKGROUND

The Clean Energy Act of 2018 (“CEA”) directed the Board to close the Solar Renewable Energy Certificate (“SREC”) Registration Program (“SRP”) to new applicants once the Board determines that the 5.1% Milestone has been achieved. On August 7, 2019, the Board approved a rule proposal addressing the methodology for determining the percentage of solar electric kilowatts sold, 51 N.J.R. 1457(a) (the “5.1% Calculation Rule”). On January 8, 2020, the Board approved the 5.1% Calculation Rule for publication in the New Jersey Register.

Among other things, the 5.1% Calculation Rule requires that the Board:

... produce, based on stakeholder input, an estimate of solar electricity in MWh expected energy output from one MWdc of installed solar capacity representative of the fleet of New Jersey solar installations. An estimate of retail electricity sold in the previous 12 months shall be calculated from data supplied by PJM-EIS GATS for load served adjusted for distribution line losses through a factor based on stakeholder input.

PJM Interconnection LLC, manager of the regional wholesale electricity market, provides load served data to its unregulated affiliate PJM-EIS, which manages the Generation Attributes Tracking System (“GATS”) used to track New Jersey’s Renewable Portfolio Standard (“RPS”).

¹Not a Paid Legal Advertisement

This public stakeholder notice is designed to solicit the required feedback.

BACKGROUND ON CALCULATION OF THE 5.1% MILESTONE

Pursuant to the 5.1% Calculation Rule, monthly estimates of the percentage of solar electricity within total retail kilowatt-hours sold are to be provided beginning six months prior to the estimated month of attainment of the 5.1% Milestone. Based upon the most current estimates, we are now within the six months of the 5.1% Milestone. However, this estimate is dependent on the decisions that the Board will make about the calculation of the two outstanding items on which we are requesting stakeholder input.

As reflected in the 5.1% Calculation Rule, the CEA requires the Board to compare solar electricity generation and retail electricity sold over the same time period. In other words, Staff's calculation assumes that the Board must compare the kilowatt-hours of solar electric generation during a given twelve-month period with the total kilowatt-hours sold at retail during the same twelve months.

Per the Board's current practices, Staff will estimate solar electric generation on the basis of installed solar capacity as that capacity is reported on a monthly basis from the SRP through New Jersey's Clean Energy Program ("NJCEP"). The amount of installed capacity and the amount of solar irradiance is different each month and each project's SREC eligibility begins upon a date determined by the local EDC's issuance of a Permission to Operate ("PTO"). Given these variables, a schedule of twelve months of solar output factors must be applied to the cumulative installed solar capacity in each month to accurately estimate the amount of electricity produced by the fleet of statewide installed solar.

REQUEST FOR COMMENT

As noted above, the 5.1% Calculation Rule, at N.J.A.C. 14:8-2.4(b)6, requires stakeholder input on two items:

- 1) The estimate of solar electricity output in kilowatt-hours from one kilowatt of installed solar capacity, representative of the fleet of New Jersey solar installations;
- 2) The calculation of distribution line losses, which is used to adjust wholesale purchases (as reflected in the data supplied by PJM-EIS GATS) to the amount of load served at retail.

With regard to Item #1, Staff has previously estimated monthly statewide solar electricity production based on the protocol for measuring solar generation used in the SRP.² The Board's protocol for measuring annual productivity of New Jersey solar installations has historically employed an estimated 1,200 kilowatt-hours per kilowatt (dc) installed. This estimate is derived from the National Renewable Energy Laboratory solar estimation tool "PVWatts Calculator," and is based upon typical meteorological data collected from Newark and Atlantic City weather stations.

However, Staff notes that actual solar electricity generation from the fleet of New Jersey solar installations tends to be slightly less than this estimation protocol. Several variables are at work. Actual weather conditions over the preceding twelve months inevitably differ from the

² I/M/O New Jersey's Clean Energy Program – Fiscal Year 2020 Protocols to Measure Resource Savings. Docket No. QO19040471. Pg. 191. July 10, 2019.

assumptions made by the model. In addition, the actual average fleet-wide solar installation parameters deviate from the solar installation parameters used in the PVWatts Calculator. During the period from Energy Year 14 through Energy Year 18, for example, PJM-EIS found that SREC creation averaged 1,169 kilowatt-hours per kilowatt (dc), rather than the 1,200 kilowatt-hours the Board historically used.³ Staff notes that using the 1,169 number results in reaching the 5.1% Milestone in the April or May timeframe. If the Board elects to use the 1,200 number, then the 5.1% Milestone could be reached as early as March. Appendix A includes a spreadsheet detailing this calculation. Staff now seeks comment on the appropriate solar productivity number.

With regard to Item #2, Staff notes that current monthly retail electricity sales data are not immediately available. GATS makes available to state RPS administrators, on a regular basis, load served data that can be easily differentiated to identify the entities obligated to comply with the RPS. Staff relies on these GATS reports of electricity load served by Third Party Suppliers and Basic Generation Service Providers (“TPS/BGS”) for Staff’s own estimate of Board-jurisdictional load by the RPS obligated entities. Since the GATS data do not reflect line losses, Staff has historically adjusted these data by an average of 5% to accurately reflect retail sales for use in the annual RPS compliance process.⁴

On December 6, 2019 GATS reported to Staff the unadjusted load served by New Jersey TPS/BGS providers as approximately 74.5 million MWh for the twelve months ending in November 30, 2019. As noted above, in Staff’s experience with these figures, the unadjusted load served must be reduced by a factor averaging 5% to account for line losses so that it accurately reflects retail sales. Staff anticipates that GATS will provide updated 2019 data before the end of January.

Staff requests feedback on whether it is appropriate to continue using the 5% line loss methodology in order to convert wholesale sales to retail usage. If not, Staff requests feedback on how line losses should be applied, keeping in mind the need for any alternative calculation methodology to be administratively feasible.

REQUEST FOR WRITTEN COMMENTS

Stakeholders can submit written comments as follows:

- **By mail**, to Aida Camacho-Welch, Secretary, New Jersey Board of Public Utilities, 44 South Clinton Avenue, 9th Floor, Trenton, New Jersey 08625.
- **Electronically**, by emailing solar.transitions@bpu.nj.gov in PDF or Microsoft Word format.

Comments are due by 5 p.m. on January 17, 2020.

³New Jersey Solar Performance Analysis. PJM-EIS. February 1, 2019. Attachment to the Transition Incentive Staff Straw Proposal. August 22, 2019. <https://www.njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-proceedings>. Accessed December 19, 2019.

⁴ Staff notes that some EDC tariffs include alternative measures of line losses, which were adopted for reasons outside of the RPS compliance program. However, Staff has historically rejected calls to use these data, since they would severely complicate the calculation of the 5.1% Milestone, instead favoring an average measure of line losses.

Please note that these comments may be considered “public documents” for purposes of the state’s Open Public Records Act. Stakeholders may identify information that they wish to keep confidential by submitting them in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.



Aida Camacho-Welch
Board Secretary

Dated: January 9, 2020