



January 17, 2020

Via Electronic Submittal: solar.transitions@bpu.nj.gov

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 Clinton Avenue, 9th Floor
Trenton, New Jersey 086258-0350

Re: Stakeholder Input on Data Standards

Dear Ms. Camacho-Welch:

BPU Staff has requested stakeholder input regarding data standards for retail electric sales, line losses and monthly solar generation used to calculate when the 5.1% milestone will be achieved. NJR Clean Energy Ventures (NJRCEV) recommends the following on the data standards:

- We agree with Staff on utilizing the PJM Generation Attribute System as the source for data on retail load served. The PJM data is comprehensive and timely and is used by Staff as part of the Renewable Portfolio Standard compliance process.
- We agree that 5% line losses are a reasonable estimate to apply to the PJM load data. The 5% transmission and distribution line loss calculation is confirmed by reports we have seen from the US Energy Information Agency.
- We recommend utilizing 1,200 kWh/kW as the standard for estimating annual solar production, which has been used historically by the NJCEP in managing the state's solar program, including for the 2020 energy year. The annual output standard is used to estimate monthly historical SREC generation, and therefore there would be estimation errors regardless of whether the PJM annual estimate (1169 kWh/kw) or historical standard were used. As Staff indicates, the historical standard would result in closing the market in March rather than May (using PJM). Closing the market as soon as possible is essential, as the current installed solar capacity (3,166MW) is capable of generating about 3.8 million SREC's per year, in excess of 5.1% based on Staff's most recent estimate of 71 million in retail electric sales.

In the absence of real time data on SREC Generation and Retail Sales, measurement of the 5.1% is a best estimate. Once the market is closed, actual SREC supply and demand will depend on variables including the final capacity installed in the closed market, retail sales trends, and weather. Given the sensitivity of market balance to even slight changes in these variables it will essential for the BPU to play an active role in ensuring long term market balance in order to affect an orderly transition, ensure prior investments retain value, and support long term solar growth that is an essential component of the Governor's policy.

Given the imminent closure of the legacy market, we agree with Staff's urgency to seek Board approval on these data standards before the end of this month, to be followed by timely reporting on progress towards the goal.

Respectfully,

DocuSigned by:

D017221A586A43F...

Larry Barth

Director, New Jersey Resources

CC: Mark Valori, Vice President, NJR Clean Energy Ventures
Chris Savastano, Managing Director – Development, NJR Clean Energy Ventures
Robert Pohlman, Chief of Staff, New Jersey Resources



Kyle Wallace

Manager, Public Policy

Email: kyle.wallace@vivintsolar.com

Attn: Aida Camacho-Welch, Board Secretary
New Jersey Board of Public Utilities
PO Box 350, Trenton, NJ 08625

Vivint Solar's Comments on Calculating the 5.1% Milestone

1. The estimate of solar electricity output in kilowatt-hours from one kilowatt of installed solar capacity, representative of the fleet of the New Jersey solar installations

We are supportive of using the data from PJM showing 1,169 of production per 1 kilowatt of direct current capacity as opposed to an estimate from PVWatts. When actual production data is available, it should be used in lieu of an estimate and will better reflect reality. Should newer production figures from PJM become available before the 5.1% milestone is deemed to have been met, that new value should be used.

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

It is reasonable to use 5% for line losses based on New Jersey specific information provided by EIA. The estimated loss percentage in 2018, the last year with data from EIA, was 4.9%.¹ The most recent 5-year average for New Jersey is also 4.9% (2014-2018), which is lower than the previous 5-year period which had an average of 5.5% (2009-2013). Given that the line loss percentage fluctuates slightly year by year and we don't have data for 2019 from EIA yet, 5% is a good estimate. The use of a 5% line loss percentage is also the estimate EIA has for the nation as a whole.²

Sincerely,

A handwritten signature in black ink that reads "Kyle Wallace". The signature is written in a cursive, flowing style.

Kyle Wallace

Manager, Public Policy

kyle.wallace@vivintsolar.com

¹ Calculated from the [New Jersey State Electricity Profile](#), data released on December 31, 2019, from the link to "Full data tables 1-15." Information was from the Table 10 tab and calculated as explained in the FAQ link in footnote 1.

² <https://www.eia.gov/tools/faqs/faq.php?id=105&t=3>



January 17, 2019

Via Electronic Mail

Hon. Aida Camacho-Welch
Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
PO Box 350
Trenton, New Jersey 08625-0350

Re: Staff Seeking Stakeholder Input on Calculating the Solar 5.1% Milestone

Dear Secretary Camacho-Welch:

Constellation NewEnergy, Inc. (“Constellation”) submits these comments in response to the New Jersey Board of Public Utilities (“BPU” or the “Board”) Notice issued on January 9, 2020 in the above-referenced proceeding (the “January 7 Notice”).

In the January 7 Notice, the Board requested that stakeholders provide comments on two questions related to the 5.1% Calculation Rule, N.J.A.C. 14:8-2.4(b)(6). Constellation’s comments on those two questions are set forth below:

- (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 installation.

With respect to the capacity factor of New Jersey solar, Constellation suggests the Board use the more accurate number based on actual past solar performance in the state of 1,169 kWh/kW (DC), rather than the 1,200 kWh/kW (DC) capacity factor that the Board has historically used. The more accurate capacity factor will better reflect the solar installations in the state for purposes of calculating when the 5.1% Milestone has been attained, consistent with the purpose of the 5.1% Calculation Rule and the underlying statute.

- (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.

Constellation agrees the 5% adjustment currently used by the Board to reflect retail sales is a reasonable one. However, we also note that for purposes of RPS compliance for BGS supply, we currently understand that suppliers are contractually required to comply at the wholesale level, without reducing for line losses (see attached BGS FAQ). Including the 5% adjustment to all load including BGS supply may result in a deficiency of renewable

supply for purposes of meeting RPS requirements. Therefore, only total load served by Third Party Suppliers should be reduced for line losses.

Constellation appreciates the Board requesting stakeholders input on these issues. Should you have any questions about the foregoing, please do not hesitate to contact me at jesse.rodriguez@exeloncorp.com or (610) 765-6610.

Sincerely,

/s/

Jesse A. Rodriguez
Director, Energy Policy Analysis

Attachment

2019 BGS Auctions Frequently Asked Questions January 30, 2019

FAQ-144. Do the transmission rates announced in the January 22 webcast assume that ConEd Wheel, Linden VFT, and Hudson Transmission Partners (“HTP”) have been approved? Will the EDCs then withhold the portion of the announced transmission rate that reflects these reallocations?

The payments made by PSE&G to BGS Suppliers will reflect these cost reallocations from ConEd Wheel, Linden VFT, and Hudson Transmission Partners (“HTP”) only when a Final FERC Order as defined in the Supplier Master Agreement (“SMA”) is entered in these matters or when PSE&G otherwise receives authorization from the New Jersey Board of Public Utilities (“Board”) to pay BGS Suppliers.

The transmission rate announced for PSE&G on January 22, 2019 does include the cost reallocations from ConEd Wheel, Linden VFT, and HTP. The transmission rate announced for PSE&G corresponds to the rate that BGS Suppliers are currently seeing on their PJM statements and is the basis for the rates paid by BGS customers. The portion of this announced transmission rate that corresponds to the cost reallocations from ConEd Wheel, Linden VFT, and HTP will be withheld from BGS Suppliers. The amounts are collected from BGS customers and held by PSE&G for the benefit of BGS Suppliers.

For the other EDCs, these cost reallocations do not affect the announced transmission rate and only affect the Transmission Enhancement Charges (“TECs”). The portion of TECs corresponding to the cost reallocations for ConEd Wheel, Linden VFT, and HTP are collected from BGS customers but are withheld from BGS Suppliers. BGS Suppliers will be paid when a Final FERC Order as defined in the SMA is entered in these matters or when the Board otherwise authorizes these EDCs to pay BGS Suppliers.

Supplier Master Agreement

FAQ-145. As a follow-up to FAQ-144, are amounts withheld only from current BGS contracts or from future BGS contracts as well? What is the estimated timeframe for when the EDCs will be authorized to pay BGS Suppliers for these costs?

Such amounts are withheld from all BGS contracts. There is no estimated timeframe available for when the EDCs will be authorized to pay BGS Suppliers for these costs.

Supplier Master Agreement

FAQ-146. FAQ-26 states that the EDCs apply the RPS percentages specified by the BPU to energy supplied by the supplier (and not to sales at the retail meter) and hence apply the RPS percentages to energy including losses. The Board Order from December 18, 2018 as revised on December 28, 2018 states that the RPS percentages should be applied to “non-exempt retail electricity sales”. Does this mean that the volumes that the EDCs will use to calculate each BGS Supplier’s RPS obligations will change going forward?

As you state, FAQ-26 explains the EDCs’ practice of applying the requisite RPS percentages to the BGS Suppliers’ energy obligations (at PJM) so that the EDCs apply the RPS percentages to energy including losses. Such volumes are termed “Retail Sales” in the RPS Compliance Reports posted on the Office of Clean Energy website (<http://www.njcleanenergy.com/renewable-energy/program-updates/rps->

[compliance-reports](#)). The EDCs do not expect this practice to change. Please note that FAQ-26 has been slightly revised.

General

FAQ-147. Will the Historical Transmission Payment Rates data file be updated?

As stated in the data file, the data is provided in response to bidder questions seeking the reimbursement rate for transmission under the BGS Supplier Master Agreement over a three-year historical period. The data is provided on an extraordinary basis and the data is not intended to become part of the BGS Data Room or to be updated in the future.

Data

FAQ-148. Are there estimates of the current and past aggregate amounts of transmission charges that are held by the EDCs for the benefit of BGS Suppliers but not paid?

Such data is not available at this time. Historical data providing an effective transmission payment per month for a three-year historical period has been made available on the ['transmission doc'](#) page of the 'auction' tab of the BGS Auction website.

Data

Matthew M. Weissman
Managing Counsel - State Regulatory

Law Department
PSEG Services Corporation
80 Park Plaza – T5G, Newark, New Jersey 07102-4194
tel: 973.430.7052 fax: 973.430.5983
email: matthew.weissman@pseg.com



VIA ELECTRONIC DELIVERY (solar.transitions@bpu.nj.gov)

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
ATTN: RGGI Leakage
44 S. Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, NJ 08625-0350

**Re: IN THE MATTER OF THE CLOSURE OF THE SREC REGISTRATION
PROGRAM PURSUANT TO P.L. 2018, C.17**

Dear Ms. Camacho-Welch:

Public Service Enterprise Group, Inc. (“PSEG” or the “Company”) appreciates the opportunity to provide comments on the above-referenced matter. PSEG supports the Board’s efforts to seek input and to adopt rules that are transparent and consistent with established statutes, regulations, policies and practices regarding the closure of the “legacy” SREC program. The Company has been an active participant throughout the stakeholder process and hopes the Board finds these comments useful in establishing the regulations regarding the closure of the legacy SREC program.

As an overarching principle, the Board should determine achievement of the 5.1% milestone consistent with established approaches, data sources, and methods that are currently employed to manage compliance with New Jersey’s Renewable Portfolio Standard (“RPS”). The comments provided below are consistent with this principle.

In its “Staff Notice Seeking Stakeholder Input on Calculating the Solar 5.1% Milestone” dated January 9, 2020 (“Notice”), Board staff requests 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; and
- 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.

Regarding the first item concerning solar electricity output, N.J.A.C. 14:8-2.4 sets forth criteria and requirements for electricity “to be eligible to form the basis for an SREC usable for compliance” with the state’s Renewable Portfolio Standard (“RPS”). Accordingly, the Board has unambiguously and conclusively established through regulation that SRECs are the sole instrument used to measure solar electricity output in New Jersey. For more than a decade, the state has relied upon SRECs generated in the PJM Generator Attribute Tracking System (“PJM GATS”) to measure and verify the amount of electricity produced by solar. Every month, SRECs are “minted” in PJM GATS based upon the actual output of solar electric facilities in New Jersey. Each year, the Office of Clean Energy (“OCE”) measures compliance

with the RPS using SRECs minted and retired in PJM GATS. The Board's 5.1% milestone determination should rely upon and remain consistent with this established method for measuring solar production in New Jersey.

In its Notice, however, Staff proposes an alternative calculation to estimate solar electricity output. Staff proposes to utilize solar capacity data reported by the OCE and an estimated "solar productivity number." PSEG believes that this proposed method will overestimate solar generation in New Jersey and recommends that Staff utilize more accurate and up-to-date information that is consistent with how applicable statute, regulation, and practice currently measure solar electricity output in New Jersey.

Historically, monthly OCE solar installation reports have not been a reliable source of installed solar capacity and while this reporting has improved, there remain inconsistencies between the OCE reports and the capacity registered in PJM GATS. Critically, the estimated "solar productivity number[s]" proposed by Staff overstate actual solar production in New Jersey. In its Notice, Staff acknowledges that the previously assumed 1,200 MWh/MW solar productivity number overestimates actual generation, for a variety of reasons. Likewise, the proposed five-year average solar productivity number of 1,169 MWh/MW overstates actual, current solar productivity and should not be relied upon when determining the 5.1% milestone.

The analysis conducted by PJM to arrive at the five-year average 1,169 MWh/MW and referenced by Staff ("New Jersey Solar Performance Analysis" dated February 1, 2019) examined solar generation in New Jersey from Energy Year 2014 through Energy Year 2018. This analysis reveals a downward trend in solar productivity from 2016 to 2018. In addition to the fluctuations in solar irradiance mentioned in PJM's analysis, this is due in part to degradation of solar system performance over time. Given the declining trend, the proposed calculated five-year average does not reflect the current, actual productivity of solar installations in New Jersey. Moreover, the analysis does not assess, nor acknowledge, that this trend has persisted, and appears to have accelerated, through 2019. Given the declining trend of observed SREC production in PJM GATS, and that the proposed 1,169 MWh/MW five-year average solar productivity number ignores production from June 1, 2018 through the present, using this number would overstate current, actual solar electricity production in New Jersey.

Most importantly, the five-year average 1,169 MWh/MW solar productivity estimate assessed by PJM overstates average production due to sampling bias. PJM's report acknowledges that: "As a point of reference, for EY2018, 2,079.4 MWs of solar capacity was included in the solar performance calculation for that energy year, representing 86% of all NJ solar capacity registered in GATS." The report further states that "large systems (over 1 MW) produced better than smaller systems, averaging 1,237 MWhs/MW over the five-year period" and finds that systems under 1 MW averaged only 1,115-1,136 MWh/MW. As of November 30, 2019, small-scale systems under 1 MW in capacity represented 41% of installed solar capacity in New Jersey. As discussed above, PJM's report identifies these systems under 1 MW as having below average productivity. As these systems do not typically report production automatically to PJM, it is likely that they compromise most if not all of the 14% of solar capacity excluded from PJM's analysis. Thus, the average 1,169 MWh/MW solar productivity estimate underrepresents those smaller systems that produce in the 1,115-1,136 MWh/MW range, and due to this sampling bias, is not representative of the true weighted average productivity of all solar systems in New Jersey.

Relying upon the estimates proposed by Staff will result in an overstatement of actual solar generation in New Jersey. As the Board already relies upon a source of publicly available data in PJM GATS' monthly SREC generation data to measure solar output for RPS compliance, it should remain consistent with current practice and utilize this source of data for measuring solar output in New Jersey. Therefore, in lieu of inaccurate estimates, the Board should base the 5.1% milestone determination on the actual monthly solar production that is publicly reported by PJM GATS.

At a minimum, the Board should apply weighted average production factors to correct the sampling bias in its current assumption. Further, it should base this analysis on the most recent actual production data available, so that it represents actual production (reflective of actual solar irradiance and degradation phenomena) over the actual rolling 12 month period being analyzed, and not utilize an out-of-date five-year average that fails to acknowledge the recent and persistent declines in observed solar productivity, and is otherwise biased toward New Jersey's largest and most productive installations.

With regard to retail electric sales, in the Board Order issued on November 13, 2019, in I/M/O the Provision of Basic Generating Service for the Period Beginning June 1, 2020 (Docket No. ER19040428), the Board recognized a disparity between how RPS obligations are determined for BGS suppliers and Third Party Suppliers ("TPS"), noting that "BGS and TPS suppliers operate under different requirements." Specifically, the Board accepted that the term "Retail Sales" for BGS suppliers is based upon "PJM Settlement Data at the wholesale meter"; conversely, "Retail Sales" for TPS is based upon customers' "consumption at the retail meter." Also, the Board expressly noted that "the NJ Division of Clean Energy has accepted [this] difference in [RPS] Compliance Reports."

Accordingly, the Board should determine kWh Retail Sales in a manner that is consistent with this defined approach, using retail sales volumes for TPS and wholesale sales volumes for BGS Suppliers.

Nevertheless, in its Notice, Staff does not acknowledge its currently accepted practice for determining retail sales upon which RPS obligations are established for BGS suppliers and TPS. Instead, the Notice references an unidentified and non-public data source that "GATS makes available to state RPS administrators." Further ignoring the current practice without explanation, the Notice asserts that "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."

PSEG is unfamiliar with Staff's reference to "unadjusted load served by New Jersey TPS/BGS providers" as a term used in PJM GATS. Further, PJM GATS contains several data points that reflects BGS and TPS load, which may include some, all, or no losses in its value. Depending on the specific source, it may be inappropriate to adjust this number by 5%, or any value, to determine retail load. PSEG requests that Board staff provide specific details on exactly which data source(s) from PJM-GATS it intends to use, in order that its proposal may be properly evaluated.

At the very least, Board staff should ensure that the 5.1% milestone is measured in a manner that is consistent with how it measures compliance with the annual SREC obligation of BGS suppliers and TPS load serving entities. In this instance, it is clear that the BGS supplier obligation is measured at the wholesale load level, while the TPS obligation is measured at the retail load level. Those two results should be added together to obtain the aggregate statewide value for purposes of calculating progress against the 5.1% milestone. If necessary, Board staff should work with PJM and New Jersey electric distribution companies to ensure that the data sources and methods it uses to establish these monthly "Retail Sales" are consistent with how these values are determined for annual RPS compliance.

PSEG appreciates the opportunity to submit comments in this matter.

Respectfully submitted,



Matthew M. Weissman



State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL
P.O. BOX 003
TRENTON, NEW JERSEY 08625

PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

STEFANIE A. BRAND
Director

January 17, 2020

By Hand Delivery and Electronic Mail

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

**Re: Comments of the New Jersey Division of Rate Counsel on the Staff
Request for Comment on Calculation of the
Clean Energy Act 5.1% Milestone**

Dear Secretary Camacho-Welch:

Please accept for filing the enclosed original and ten (10) copies of comments being submitted on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel") in connection with the above-referenced matter. Copies of Rate Counsel's comments are being provided to all parties on the service list by electronic mail and hard copies will be provided upon request to our office.

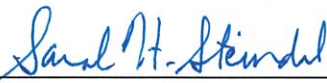
We are enclosing one additional copy of the comments. **Please stamp and date the extra copy as "filed" and return to our courier.**

Honorable Aida Camacho-Welch, Secretary
January 17, 2020

Thank you for our consideration and attention to this matter.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

By: 
Sarah H. Steindel, Esq.
Assistant Deputy Rate Counsel

Enclosure

cc: solar.transitions@bpu.nj.gov
Paul E. Flanagan, BPU
Sara Bluhm, BPU
Kelly Mooij, BPU
Sherri Jones, BPU
Scott Hunter, BPU
Abe Silverman, BPU
Rachel Boylan, BPU
Pamela Owen, DAG, ASC

STATE OF NEW JERSEY
BEFORE THE BOARD OF PUBLIC UTILITIES

In re: Staff Notice Seeking Stakeholder Input)
on Calculating the Solar 5.1% Milestone)
)

COMMENTS OF THE
NEW JERSEY DIVISION OF RATE COUNSEL
ON THE STAFF REQUEST FOR COMMENT ON CALCULATION OF THE CLEAN
ENERGY ACT 5.1% MILESTONE

January 17, 2020

1. Introduction

The Division of Rate Counsel (“Rate Counsel”) thanks the Board of Public Utilities (“Board” or “BPU”) for the opportunity to provide comments on Staff’s notice seeking stakeholder input on calculating the solar 5.1 percent milestone. The Clean Energy Act of 2018 (P.L.2018, c.17) (“CEA”), directs the Board to close the Solar Renewable Energy Credits (“SREC”) Registration Program (“SRP”) to new applicants once solar generation reaches 5.1 percent of total retail sales, and no later than June 1, 2021. On August 7, 2019 the Board approved a rule proposal addressing the methodology for determining the percentage of solar generation sold (“5.1% Calculation Rule”) and this rule was approved for publication in the New Jersey Register on January 8, 2020.

The 5.1% Calculation Rule requires that the Board produce an estimate of the solar electricity generation that can be expected from one MWdc of solar capacity representative of the fleet of New Jersey solar installations. It also requires that an estimate of retail electricity sold in the last 12 months be calculated from data supplied by PJM-EIS GATS for load served adjusted for distribution line losses. Both the estimated generation and distribution line loss adjustment should be based on stakeholder input. Thus, Staff issued a request for comment on both of these estimates on January 9, 2020.

Item 1: Estimate of solar electricity output in kilowatt-hours on installed capacity, representative of the fleet of New Jersey solar installations.

In New Jersey, the protocol for estimating annual productivity of solar installations has been to use an estimated 1,200 kilowatt-hours (“kWh”) per kilowatt (dc) installed. According to Staff, 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, actual solar electric generation from New Jersey

installations tends to be less than this 1,200 kWh protocol. In fact, PJM-EIS estimates that over the Energy Year (“EY”) 2014 through EY18 timeframe, generation was closer to 1,169 kWh per kW. If the Board uses the 1,200 kWh protocol, the 5.1% threshold could likely be reached in March 2020. However, if the Board uses the actual observed 1,169 kWh measurement, the 5.1% threshold will be reached in April or May 2020.

Rate Counsel recommends that the Board use the EY2014 through EY2018 average of 1,169 kWh given that it is based on actual observed data.

Item 2: Calculation of distribution line losses, which is used to adjust wholesale purchases (as reflected in the data supplied by PJM-GATS) to the amount of load served at retail.

Staff relies on PJM-GATS for reports of electricity load served by Third Party Suppliers and Basic Generation Service Providers (“TPS/BGS”) in order to estimate jurisdictional load by the RPS obligated entities. The PJM-GATS data do not reflect line losses, so Staff has historically adjusted load data by an average of 5 percent to reflect retail sales for use in annual RPS compliance processes. Staff is requesting feedback on the appropriate line loss estimate, whether it be the 5 percent average that has been used, or another alternative calculation.

Rate Counsel does not see any reason to alter the current five percent average methodology, given that no any evidence or support presented for an alternative calculation.