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November 12, 2024

**Via Electronic Mail**

Sherri L. Golden, Secretary  
Board of Public Utilities  
44 South Clinton Avenue, 1<sup>st</sup> Floor  
P.O. Box 350  
Trenton, NJ 08625-0350  
[board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov)

**Re: In the Matter of the Implementation of L. 2018, c.16 Regarding the  
Establishment of a Zero Emission Certificate Program for Eligible Nuclear  
Power Plants  
Docket No. EO18080899**

**In the Matter of the Application of PSEG Nuclear, LLC and Exelon  
Generation Company, LLC for the Zero Emission Certificate Program –  
Salem Unit 1  
Docket No. ER20080557**

**In the Matter of the Application of PSEG Nuclear, LLC and Exelon  
Generation Company, LLC for the Zero Emission Certificate Program –  
Salem Unit 2  
Docket No. ER20080558**

**In the Matter of the Application of PSEG Nuclear, LLC for the Zero  
Emission Certificate Program – Hope Creek  
Docket No. ER20080559**

Dear Secretary Golden:

Please accept for filing these comments being submitted on behalf of the New Jersey Division of Rate Counsel in response to Notice Requests for Comments issued by the Board of Public Utilities (“Board”) in this matter on September 9, 2024. In accordance with the Notice, these comments are being filed electronically at [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov).

**PUBLIC VERSION**

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**Please acknowledge receipt of these comments.**

## **INTRODUCTION**

In the above-referenced Notice, Board Staff sought comments regarding its revenue review of the nuclear power plants selected to receive Zero Emissions Certificates (“ZECs”) pursuant to L.2018, c.16, N.J.S.A. 48:3-87.3 to -87.7 (the “ZEC Law”) during Energy Year 2024 (“EY24”) of the second ZEC eligibility period (“ZEC 2 Period”), June 1, 2022 through May 31, 2025. The Notice states that, in compliance with N.J.S.A. 48:3-87.5(e)(4) and N.J.S.A. 48:3-87.5(i)(3), the Board is required to make an annual determination to assure that a selected nuclear plant does not receive double payment for its fuel diversity, resilience, air quality or other environmental attributes, and with the provisions in the Board’s May 20, 2020 Order in above referenced dockets (the “May 2020 Order”) that specified the procedure for conducting such reviews, which was to include the filing of financial data with the Board, the development by Staff of preliminary findings, and an opportunity for public comment on the preliminary findings prior to Staff presenting those findings to the Board.

The Notice stated that Staff had reviewed the data submitted by Public Service Enterprise Group Nuclear, LLC (“PSEG”) and Constellation Energy Generation, LLC (“Constellation Energy”) on behalf of their Units for EY24, May 31, 2023 to June 30, 2024. Staff noted that the data supplied by PSEG and Constellation Energy included, but was not limited to, the MWh quantity generated by the Selected Units, employment information, the amount of money held in the ZEC accounts, and information on the MWh of electricity distributed by the EDCs and Butler Electric Company’s (“Butler”) Price and Monthly Purchase Detail calculations along with

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personnel affidavits and certifications from PSEG Services Corporation, PSEG Nuclear, and Constellation Energy.

Staff stated it utilized the confidential materials to conduct the required Annual Revenue Review pursuant to the ZEC Act, specifically N.J.S.A. 48:3-87.5(e)(4) and N.J.S.A. 48:387.5(i)(3). Staff stated that confidential materials submitted included the Annual Revenue Review, Estimated Hedge Profit and Loss Proportion, PJM Power Hedges, MWh generation details, Selected Nuclear Plants Generation Losses, ZEC Price and Monthly Purchase Details, and employment information.

Staff's "preliminary findings" state that there was

no evidence of double-payment, direct or indirect payments, or credits related to the resilience, air quality, or other environmental attributes associated with electricity generated or sold by the Selected Units during EY24 of the Second Eligibility Period. Accordingly, Staff does not recommend any reduction to the payment obligation to the nuclear plant owners during EY24.

The Notice provided a ten-week period, or until November 12, 2024, for public comment on these preliminary findings.

Rate Counsel has reviewed the Notice and materials submitted by PSEG and Constellation Energy on behalf of their Units for EY24 which ended June 30, 2024 and offers the following comments for the Board's consideration.

### **RATE COUNSEL COMMENTS**

Under the ZEC Law, nuclear plants selected to receive ZECs are required to:

certify annually that the nuclear power plant does not receive any direct or indirect payment or credit under a law, rule, regulation, order, tariff, or other action of this State or any other state, or a

federal law, rule, regulation, order, tariff, or other action, or a regional compact, despite its reasonable best efforts to obtain any such payment or credit, for its fuel diversity, resilience, air quality or other environmental attributes that will eliminate the need for the nuclear power plant to retire, except for any payment or credit received under the provisions of this act;<sup>1</sup> ....

The Board is charged with conducting reviews on an annual basis, to assure that, if such payment or credits are received, ratepayers will receive the benefit:

To ensure that a selected nuclear power plant shall not receive double-payment for its fuel diversity, resilience, air quality, or other environmental attributes, the board shall annually determine the dollar amount received by the selected nuclear power plant in an energy year pursuant to a law, rule, regulation, order, tariff, or other action of this State or any other state, or a federal law, rule, regulation, order, tariff, or other action, or a regional compact referenced in paragraph (4) of subsection e. of this section.<sup>2</sup>

If the Board determines that a double payment has been received, it is directed to reduce the amount of ZECs required to be purchased from the selected nuclear plant by an amount equal in value to the dollar amount determined by the Board.<sup>3</sup> Further, if the Board determines that a selected nuclear plant is receiving revenues for fuel diversity, resilience, air quality, or other environmental attributes, it must “immediately reduce the number of ZECs on a prospective basis consistent with the level of such revenues.”<sup>4</sup>

This review covers the 12 months ending May 31, 2024, (EY24.). Rate Counsel’s comments are divided into three sections, direct payments, indirect payments, and full capacity certification. Rate Counsel’s comments are summarized below:

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<sup>1</sup> N.J.S.A. 48:3-87.5(i)(3).

<sup>2</sup> N.J.S.A. 48:3-87.5(i)(4).

<sup>3</sup> N.J.S.A. 48:3-87.5(i)(3).

<sup>4</sup> Ibid.

**Direct Payments or Credits:** PSEG Nuclear has provided a confidential summary of energy, capacity, and ancillary revenues that it received from PJM for EY24. PSEG Nuclear has also provided a statement that it has not received other market, or direct sales revenues not included in its disclosure for energy, capacity, and ancillary revenues for EY24. The information provided does not appear to indicate that PSEG Nuclear received any direct payment or credit for the nuclear units' fuel diversity, resilience, air quality or other environmental attributes.

**Indirect Payments or Credits:** PSEG Nuclear has provided a statement that it has not received any federal or state subsidies for EY24. PSEG Nuclear has also indicated that the only state or local tax incentives that it has received have been a New Jersey State Manufacturing Equipment Investment Tax Credit for manufacturing equipment purchases for EY24. The information provided does not appear to indicate that PSEG Nuclear received any indirect credit for the nuclear units' fuel diversity, resilience, air quality or other environmental attributes.

**Federal PTC:** The three nuclear units have received the IRS Section 45U nuclear production tax credit for the first six months of 2024. PSEG has not calculated the amount that it will receive since it is still seeking clarity from the IRS.<sup>5</sup> Rate Counsel believes that PSEG/Constellation should receive the full \$15/MWh amount which will be \$170.7 million for the three units and notes that PSEG stated that it will use the production tax credit to reduce payments under the ZEC program.<sup>6</sup>

**Certification of Full or Near Full Capacity:** PSEG Nuclear has not provided explicit certifications that it has operated each of the three units at full or near full capacity.

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<sup>5</sup> RCR-3

<sup>6</sup> RCR-4

More detailed comments are provided below.

### **Direct Payments**

For EY24, PSEG Nuclear provided the following statement regarding any non-PJM related revenues:

*PSEG Nuclear has not received any other market or direct sale revenues not included in item 2 above for Salem 1, Salem 2, and Hope Creek. (Note: This statement is for PSEG Nuclear's ownership share of the plants. Exelon will provide a separate answer for their ownership share of the Salem units.)*

Rate Counsel has produced a summary table of PJM energy, capacity, and ancillary revenues for all three units reported by PSEG Nuclear for the three energy years ending May 31, 2024.<sup>7</sup> The materials that Rate Counsel received did not include revenue information from Constellation, for the three energy years.

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<sup>7</sup> PSEG Nuclear notes that its summary tables only included its pro-rata share of revenues for Salem Unit 1 and Salem Unit 2.

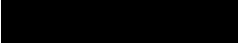
*Table 1 PSEG Nuclear Reported Energy, Capacity, and Ancillary Revenues for Energy Years 2021, 2022, 2023, and 2024*

**<Begin Confidential>**



**<End Confidential>**

The table shows that PSEG's total revenues for the three units have **<Begin Confidential>** 

 **<End Confidential>**

PSEG Nuclear provided summaries of PSEG Power's hedged positions for each of the three energy years, which includes nuclear and non-nuclear generation. The hedge positions do not distinguish between nuclear and non-nuclear generation. It also appears that the hedged energy revenues received by PSEG Nuclear are to be apportioned based on the generation capacity of the nuclear units. The hedged capacity revenues received by PSEG Nuclear appear to be apportioned based on the PJM unforced capacity value of the nuclear units.

Similar to previous filings, PSEG Nuclear provided attestations from officers from PSEG Power, the parent of PSEG Nuclear regarding the information provided to the Board. Rate Counsel has no reason to question the veracity of the information provided by PSEG Nuclear at this point. The information provided by PSEG Nuclear does not appear to indicate that the three nuclear units received any direct payment specifically attributable to fuel diversity, resilience, air quality or other environmental attributes.

### **Indirect Payments**

PSEG Nuclear provided the following statement regarding subsidies for energy year ending May 31, 2024:

*PSEG Nuclear has not received any subsidies from federal or state sources, or any other governmental agency in the 12 months ending on May 31, 2024 for the Salem 1, Salem 2, or Hope Creek Nuclear Units. The Units have not received state or local tax incentives with the exception of a NJ State Manufacturing Equipment Investment Tax Credit described below.*

As a result, PSEG Nuclear had no credits or subsidies to report with the exception of calculations supporting the NJ State Manufacturing Equipment Investment Tax Credit.

The materials that Rate Counsel received did not include subsidy information from Constellation for the three energy years.

### **Production Tax Credit**

Under the Inflation Reduction Act, all three nuclear units are eligible to receive the zero-emission power production tax credit starting on January 1, 2024 through December 31, 2032. Because all three units meet the provisions of prevailing wages, each unit is eligible for the full



production tax credit amount of \$15/MWh.<sup>8</sup> The amount of the production tax credit starts to phase out when energy prices are above \$25/MWh.<sup>9</sup> Based on PSEG's response to RCR-2, the average energy price for the first six months of 2024 is below \$25/MWh for each of the three units (\$24.70/MWh for Hope Creek and \$24.66/MWh for Salem 1 and 2).<sup>10</sup>

Without more detailed information regarding the IRS definition of total gross receipts, all three units should receive the full \$15/MWh production tax credit based on the prevailing wage requirements and energy prices for the first six months of 2024. Hope Creek should receive a tax credit of \$43.5 million, Salem 1 should receive \$64.3 million, and Salem 2 should receive \$62.9 million. The tax credits should offset the ZEC program by the same amount.<sup>11</sup> The Board and PSEG will need to create and agree on a mechanism to translate the tax credit to a rate reduction or refund for ratepayers.

### **Discussion of RGGI**

Each of PSEG's annual review filings cite a 2018 research paper from the Analysis Group. The quote is excerpted below.

*[S]ubstantial RGGI investment in energy efficiency lowers energy use, power prices, and consumer payments for electricity. These effects indirectly benefit all consumers through downward pressure on wholesale prices, even though they particularly benefit those consumers that actually take advantage of such programs.*

While it is true that there are energy and capacity price mitigation impacts with energy efficiency investments, RGGI compliance also has an impact on energy prices. PSEG Nuclear glosses over

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<sup>8</sup> RCR-5.

<sup>9</sup> The exact IRS language states "Gross Receipts" which would include capacity and ancillary revenue. PSEG notes that it is seeking guidance whether gross receipts would include hedging gains or losses (RCR-3).

<sup>10</sup> RCR-2.

<sup>11</sup> RCR-4.

that nuance that is captured in the full quote from the same Analysis Group paper. The full quote is presented below.

*While the additional costs of CO2 compliance provides upward pressure on marginal prices and decreases net revenues to power plant owners, substantial RGGI investment in energy efficiency lowers energy use, power prices, and consumer payments for electricity. These effects indirectly benefit all consumers through downward pressure on wholesale prices, even though they particularly benefit those consumers that actually take advantage of such programs.*

Each of PSEG Nuclear's annual review filings also contains the statement:

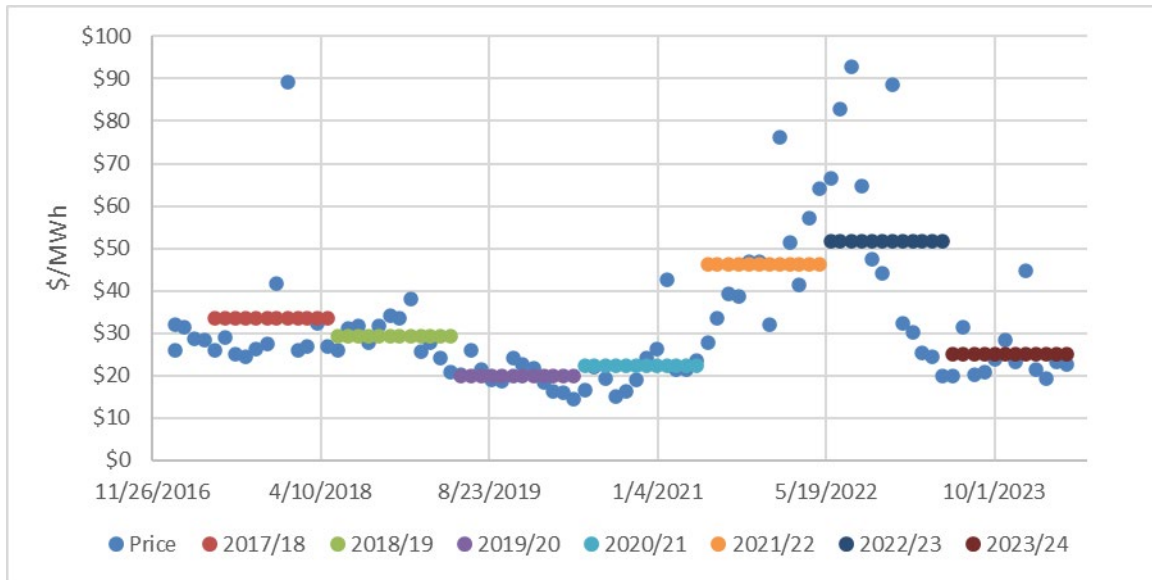
*In fact, wholesale energy prices in New Jersey and the energy revenues received by the Salem and Hope Creek nuclear plants have decreased quite significantly since the State announced it was joining RGGI in January 2018.*

New Jersey officially rejoined RGGI on January 1, 2020.<sup>12</sup> While RGGI impacts have an effect on PJM energy prices, Rate Counsel believes that natural gas prices due to macroeconomic and global news have a larger impact on the financial performance of the nuclear units than solely New Jersey's participation in RGGI. Monthly PSEG Zone day ahead energy prices (round-the-clock) from 2017 through 2023 are shown in the figure below.

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<sup>12</sup> <https://www.nj.gov/dep/aqes/rggi.html>

Figure 1 PSEG Zone Day Ahead Round-the-Clock Energy Prices: Monthly and Delivery Year Annual Average<sup>13</sup>



Data from PJM

It is true that for the average annual PSEG zonal energy prices for delivery year 2019/2020 (June 1, 2019 through May 31, 2020) and 2020/2021 (June 1, 2020 through May 31, 2021) are lower than the average annual energy price for 2018/19 delivery years. For the 2021/22 delivery year, the annual energy price for the PSEG zone is much higher than the average annual energy price for 2018/19 delivery year. Much has been said in other forums about the increase in natural gas prices resulting from the anticipation and actual invasion of Ukraine in February 2022. While outside the three annual review filings, Rate Counsel notes that the average annual energy price for 2022/23 delivery year remains higher than the 2018/19 delivery year. For the 2023/24 delivery, energy prices have decreased as natural gas prices have decreased during the year.

<sup>13</sup> For reference, Delivery Year 2017/2018 started on June 1, 2017 and ended on May 31, 2018.

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## Summary

Rate Counsel has reviewed the materials provided by PSEG Nuclear and not found an indication that PSEG Nuclear received any direct or indirect payments, other than ZECs, for the nuclear units' fuel diversity, resilience, air quality or other environmental attributes.

Respectfully submitted,

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c: Service List