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January 19, 2021

Re: I/M/O The Application of PSEG Nuclear, LLC for the Zero Emission Certificate

Program – Salem 1

Docket No. ER20080557

Dear Interested Parties:

On May 23, 2018, New Jersey Governor Phil Murphy signed into law (the "ZEC Act") a program directing the New Jersey Board of Public Utilities ("BPU") to consider the issuance of zero emission certificates ("ZECs"). These ZECs represent the fuel diversity, air quality, and other environmental attributes associated with the generation of one megawatt-hour ("MWh") of electricity from an eligible nuclear generating unit. Applicants to the ZEC program are required to submit financial and operating information to the Board for nuclear generating units seeking to be certified as eligible to receive payment for the ZECs these units generate.

On August 12, 2020, the Board issued the ZEC application format for the second eligibility period of June 2022-May 2025 and established a procedural schedule (the "ZEC Order"). PSEG Nuclear LLC ("PSEG") and Exelon Generation, LLC ("Exelon"), as the owners and/or operators of the State's nuclear power plants, submitted applications on October 1, 2020. The Board intends to make its decision on or before April 30, 2021.

Levitan & Associates, Inc. ("LAI") assisted the Board Staff ("Staff") in the preparation of three preliminary reports on nuclear plant eligibility for the second eligibility period. This report presents our Salem 1 evaluation for the second eligibility period. LAI has prepared additional preliminary eligibility reports for the Hope Creek and Salem 2 nuclear power plants.

Completeness Review

LAI and Staff reviewed the Salem 1 application submitted both by PSEG, the operator of the three plants, and Exelon, the co-owner of Salem 1. Based on our review and PSEG's responses to discovery requests, we found the Salem 1 application to be complete as required by the ZEC Order.

Eligibility Evaluation

The ZEC Act specifies five criteria for a nuclear plant to be eligible for ZECs.

- 1. LAI confirmed Salem 1 is licensed to operate through 2030.
- 2. LAI confirmed Salem 1's retirement will result in increased emissions of power plant pollutants in New Jersey and surrounding states, which would contribute to a deterioration in the State's air quality. According to PSEG's application, Salem 1's retirement would increase CO₂ emissions in New Jersey over the second ZEC eligibility period by 4.5% or 3.1 million tons, along with increases in other power plant emissions. The retirement of Salem 1 will require more in-State natural gas generation that will lower fuel diversity in New Jersey.
- 3. In its application, PSEG asserted that Salem 1 will not fully cover its costs and risks, as defined in the ZEC Act, for the second eligibility period. Our findings regarding PSEG's projection of Salem 1 revenues are as follows.
 - PSEG's projection of energy generation and revenues were reasonable as of the May 29, 2020 date of the forward energy prices PSEG utilized. Since then, however, forward energy prices have increased and are 4.5% higher as of December 31, 2020. We found that PSEG's adjustment from zonal forward prices to the Artificial Island nodal bus prices was reasonable, based on our review of historical data.
 - PSEG's projection of capacity prices and revenues were low compared to the recent historical clearing prices set for the PSEG zone. Utilizing the average capacity price for the last three Base Residual Auctions ("BRAs"), consistent with the Board's Offshore Wind Solicitation #2 Guidance Document, would increase projected Salem 1's capacity revenues. PSEG assumed a capacity quantity consistent with previous years.

We found PSEG's projection of Salem 1's labor and materials, outside services, and corporate support services and allocated overhead that are expensed, and non-fuel capital expenditures that are capitalized, were generally consistent with historical reported costs after accounting for refueling outage years.

There are other costs defined by the ZEC Act that are not actually incurred as out-of-pocket costs, including spent nuclear fuel disposal costs and the costs of operational risks and market risks. We question how these costs "would be avoided by ceasing operations" as defined in the ZEC Act. None can be compared to historical values because they are not reported in the parent company's financial statements.

- PSEG's spent nuclear fuel disposal costs are neither incurred nor accrued for future disbursement. The U.S. DOE had been collecting a fee to cover its spent fuel costs but stopped collecting that fee in 2014 and has not announced plans for future collections. Historical PSEG financial data for Salem 1 have not reported these costs since 2014.
- The costs of operational and market risks are common and useful planning parameters but are not true out-of-pocket costs that have been or would be incurred by PSEG. We view operational and market risks as prudent downside contingencies that PSEG utilizes in its generation planning and asset management efforts.

Taken individually, none of these revenue or cost adjustments results in a profitable outcome, i.e., revenues exceeding costs, for Salem 1. The combined impact of all these adjustments results in a material financial improvement but does not make Salem 1 profitable.

- 4. PSEG has provided annual certifications that Salem 1 does not receive other subsidies. LAI anticipates that this criterion will be satisfied by PSEG during the second eligibility period.
- 5. The Salem 1 application was accompanied by a \$250,000 fee as set by the Board.

Sincerely,

Aida Camacho-Welch Secretary of the Board

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