

BEFORE THE STATE OF NEW JERSEY

BOARD OF PUBLIC UTILITIES

I/M/O THE IMPLEMENTATION OF	]	
THE APPLICATION OF PSEG NUCLEAR, LLC	]	BPU Docket Nos. ER20080557,
AND EXELON GENERATION COMPANY, LLC	]	ER20080558 & ER20080559
FOR THE ZERO EMISSION CERTIFICATE	]	
PROGRAM – SALEM 1, SALEM 2, AND	]	
HOPE CREEK	]	

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TESTIMONY OF ANDREA C. CRANE  
ON BEHALF OF THE  
NEW JERSEY DIVISION OF RATE COUNSEL

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1   **1.    Introduction**

2   **Q.    Please state your name and business address.**

3   **A.    My name is Andrea C. Crane and my business address is 2805 East Oakland Park**  
4        Boulevard, #401, Fort Lauderdale, Florida 33306.

5

6   **Q.    By whom are you employed and in what capacity?**

7   **A.    I am President of The Columbia Group, Inc., a financial consulting firm that specializes**  
8        in utility regulation. In this capacity, I analyze rate filings, prepare expert testimony, and  
9        undertake various studies relating to utility rates and regulatory policy. I have held  
10       several positions of increasing responsibility since I joined The Columbia Group, Inc. in  
11       January 1989. I have been President of the firm since 2008.

12

13 **Q.    Please summarize your professional experience in the utility industry.**

14 **A.    Prior to my association with The Columbia Group, Inc., I held the position of Economic**  
15        Policy and Analysis Staff Manager for GTE Service Corporation, from December 1987  
16        to January 1989. From June 1982 to September 1987, I was employed by various Bell  
17        Atlantic (now Verizon) subsidiaries. While at Bell Atlantic, I held assignments in the  
18        Product Management, Treasury, and Regulatory Departments.

19

20 **Q.    Have you previously testified in regulatory proceedings?**

21 **A.    Yes, since joining The Columbia Group, Inc., I have testified in over 400 regulatory**  
22        proceedings in the states of Arizona, Arkansas, Connecticut, Delaware, Florida, Hawaii,

1 Kansas, Kentucky, Maryland, New Jersey, New Mexico, New York, Oklahoma,  
2 Pennsylvania, Rhode Island, South Carolina, Vermont, Washington, West Virginia and  
3 the District of Columbia. These proceedings involved electric, gas, water, wastewater,  
4 telephone, solid waste, cable television, and navigation utilities. A list of dockets in  
5 which I have filed testimony over the past five years is included in Appendix A.

6  
7 **Q. What is your educational background?**

8 A. I received a Master of Business Administration degree, with a concentration in Finance,  
9 from Temple University in Philadelphia, Pennsylvania. My undergraduate degree is a  
10 B.A. in Chemistry from Temple University.

11  
12 **2. Purpose of Testimony**

13 **Q. What is the purpose of your testimony?**

14 A. On October 1, 2020, PSEG Nuclear LLC (“PSEG”) and Exelon Generating Company,  
15 LLC (“Exelon”, collectively “Companies”) filed applications with the New Jersey Board  
16 of Public Utilities (“BPU” or “Board”) requesting that the BPU authorize the  
17 disbursement of subsidies pursuant to the Zero Emission Certificate (“ZEC”) Program.  
18 The Companies are seeking subsidies during the second eligibility period of June 1, 2022  
19 through May 31, 2025. The BPU previously approved the payment of subsidies for the  
20 first eligibility period of April 18, 2019 through May 31, 2022 in BPU Docket No.  
21 EO18080899.

22 The ZEC Program was authorized pursuant to legislation (“ZEC Act”) that was  
23 signed into law on May 23, 2018. That legislation allows for New Jersey ratepayers to

1 subsidize non-regulated nuclear operating units that are shown to have a beneficial  
2 impact on air quality in the state. P.L. 2018, c.16, N.J.S.A. 48:3-87.3 et seq. In order to  
3 receive a subsidy, the nuclear operator not only must demonstrate that a unit has a  
4 beneficial impact on air quality, but must also demonstrate and certify that the unit will  
5 be shut down for economic reasons within the next three years in the absence of a  
6 financial subsidy.

7 Subsidies from New Jersey ratepayers are capped at 0.4 cents per kilowatt-hour  
8 (“kWh”), according to N.J.S.A. 48:3-87.5 (j). In addition, the total nuclear generation  
9 eligible for the subsidy is capped at 40% of the state’s retail electric sales for the energy  
10 year preceding the enactment of the statute, that is, Energy Year 2017. N.J.S.A. 48:3-  
11 87.5(g). Therefore, the subsidy payments to the Companies are capped at \$10 per  
12 megawatt-hour (“MWh”).<sup>1</sup>

13 PSEG and Exelon are owners of the Salem 1 and Salem 2 nuclear generation  
14 units, which are located in Lower Alloways Creek Township, New Jersey. PSEG owns  
15 57.41% of each unit and is the operator of the units. Exelon owns the remaining 42.59%  
16 of Salem 1 and Salem 2. In addition, PSEG is the sole owner and operator of the Hope  
17 Creek nuclear generation unit, which is located at the same site. In their filings, PSEG  
18 and Exelon are requesting subsidies in order to continue to operate Salem 1 and Salem 2  
19 for the next three years. In addition, PSEG is requesting a subsidy in order to continue  
20 operation of the Hope Creek nuclear generating facility.

---

<sup>1</sup> The ratepayer subsidy of .4 cents per kWh, or \$4.00 per MWh, is charged on all retail electric sales. Assuming the subsidies are paid to generation facilities representing 40 percent of retail sales, the per MWh subsidy would be \$4.00 divided by .4, or \$10 per MWh.

1           The Columbia Group was engaged by the New Jersey Division of Rate Counsel  
2           (“Rate Counsel”) to review the Companies’ filings and to provide recommendations  
3           regarding various financial aspects of those filings. Specifically, I address whether the  
4           Companies have demonstrated that nuclear operations at each applicable unit will end  
5           within the next three years in the absence of a subsidy. I also address the amount of the  
6           subsidies being requested in this case and opine on the methodologies used by the  
7           Companies to support the requested subsidy. Finally, I will also comment on certain  
8           aspects of the Reports prepared by Levitan & Associates, Inc. (“Levitan Reports”) for the  
9           New Jersey Board of Public Utilities, which were issued on January 19, 2021. In  
10          addition to my testimony, Rate Counsel is also filing testimony by Maximilian Chang,  
11          who addresses pro forma revenue forecasts and the environmental impacts of a possible  
12          shut-down.

13  
14   **3. Summary of Conclusions**

15   **Q. Please summarize your conclusions and recommendations.**

16   A. Based on the Companies’ filings, on the responses to discovery requests, and on other  
17   documentation in this case, my conclusions and recommendations are as follows:

- 18   ➤ The Companies have not demonstrated that Salem 1, Salem 2, or Hope Creek will  
19   be shut down over the next three years if subsidies are not awarded by the BPU.
- 20   ➤ The financial analyses provided by the Companies include significant costs  
21   associated with operational and market risks that are speculative and inappropriate  
22   to charge to regulated ratepayers in New Jersey. In addition, the methodologies  
23   proposed by the Companies would allow PSEG and Exelon to recover the full

1 cost of capital expenditures within one year, in violation of sound accounting  
2 practices.

3 ➤ The Companies' analyses also contain cost estimates that are overstated and also  
4 ignore certain financial benefits associated with the nuclear units. In summary,  
5 the financial analyses do not support the claim that subsidies are required in order  
6 to keep the nuclear units operating over the next three years.

7 ➤ In this case, the Board has the option to authorize ZEC subsidies that are less than  
8 the \$10 per MWh authorized for the first eligibility period.

9 ➤ In evaluating the Companies' filings, the Board should consider the fact that New  
10 Jersey energy prices are high relative to other states, and that the State's  
11 ratepayers are currently suffering economic hardships as a result of the Covid-19  
12 pandemic.

13 ➤ I recommend that no subsidies be awarded for the second eligibility period.  
14 However, if the Board finds that some subsidy is required, the Board should  
15 award a reduced subsidy, which should be no higher than the social cost of carbon  
16 discussed by Rate Counsel witness Max Chang.

17

18 **4. Basis of Review**

19 **Q. Please describe the Companies' filings in this case.**

20 **A.** As noted in its transmittal letters in this case, "...PSEG has been vested with the sole and  
21 exclusive authority to make retirement decisions for the plants, covering Exelon  
22 Generation's 42.59% minority ownership share as well as PSEG's 57.41% majority  
23 ownership share. The Salem plant submittals address all elements of the application for

1           100% of the ownership interest and are submitted on behalf of both owners. When  
2           possible, PSEG has provided financial data for 100% of the plant. However, in some  
3           cases, confidential financial data from Exelon Generation, that could not be shared with  
4           PSEG, was needed. With respect to such confidential information, Exelon Generation  
5           has made separate submittals as additional supporting materials to the Salem 1 [and  
6           Salem 2] application.”<sup>2</sup>

7                         Since PSEG is the operator of Salem 1 and Salem 2, and has “sole and exclusive  
8           authority” to make retirement decisions, our review focused primarily on an analysis of  
9           the financial data by PSEG for each nuclear unit. However, we also reviewed the  
10          applications submitted by Exelon.

11  
12         **Q.    Are there aspects of this proceeding that differ from the Board’s review for the first**  
13         **eligibility period?**

14         A.    Yes, there are several important differences between the Board’s review of the  
15         applications for ZEC subsidies submitted for the first eligibility period and the current  
16         filings. For the first eligibility period, the Board held that it was required to either  
17         authorize a \$10 per MWh ZEC subsidy or to decline to authorize ZEC subsidies  
18         altogether.<sup>3</sup> The Board ruled that the ZEC Act did not provide the Board with the  
19         flexibility to authorize some level of subsidy that was less than the full \$10 per MWh  
20         during the first eligibility period. In this case, the parties do not dispute that the statute  
21         allows the Board the flexibility to find that some lower subsidy amount is adequate to

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<sup>2</sup> PSEG Transmittal Letters, Salem 1 and Salem 2, footnote 3.

<sup>3</sup> While the Board found that it was required to either authorize a \$10 per MWh ZEC subsidy or to decline to authorize any ZEC subsidy in the proceeding for the first eligibility period, this finding is currently under appeal by Rate Counsel.



1 ensure continued operation of the generating units. Therefore, the Board has significantly  
2 more latitude in this proceeding that it did during its prior review.

3  
4 **Q. What are the implications of this flexibility for the Board's review?**

5 A. Given that the Board may undisputedly authorize a subsidy level that is less than \$10 per  
6 MWh, the Board has a particular responsibility in this case to critically review each cost  
7 component included in the Companies' requests, and determine if each individual cost  
8 component is appropriate to include in its subsidy analysis. In addition, the Board should  
9 also consider broader issues, such as whether the Companies have sufficiently  
10 demonstrated that the requested subsidies are absolutely necessary to maintain operation  
11 of the plants. As will be discussed later in this testimony, there is a fairly wide gap  
12 between the shortfalls that are claimed by the Companies and the amount of the subsidies  
13 being requested. This obviously means that the Companies do not require that all of their  
14 alleged shortfalls be met in order to keep the plants open. The Board's task is to  
15 determine the minimum subsidy, if any, required by the Companies. This is by necessity  
16 a somewhat subjective analysis.

17 In addition, the Board should also consider the fact that even if it grants the full  
18 subsidies being requested, the Companies could still terminate operation of the facilities.  
19 In its 10-Q for the period ending September 30, 2020, PSEG stated that even if the Board  
20 approves its request for ZEC payments of \$10 per MWh, it would still cease operations of  
21 the plants if "the financial condition of the plants is materially adversely impacted by  
22 changes in commodity prices, FERC's changes to the capacity market construct..., or, in  
23 the case of the Salem nuclear plants, decisions by the EPA and state environmental

1 regulators regarding the implementation of Section 316(b) of the Clean Water Act and  
2 related stated regulations, or other factors.”<sup>4</sup>

3  
4 **Q. Are there also external factors that the Board should consider?**

5 A. Yes, there are at least two important external factors that the Board should consider when  
6 determining whether or not to authorize ZEC subsidies. First, the State of New Jersey,  
7 like the rest of the United States and in fact the entire world, is in the middle of an  
8 historic Covid-19 pandemic. This pandemic has destroyed thousands of small  
9 businesses, has resulted in job losses for many New Jersey residents, and has resulted in  
10 serious medical issues for many New Jersey ratepayers. It will likely take years for many  
11 ratepayers to recover from the medical, financial, and emotional impacts of the Covid-19  
12 pandemic. In fact, many people will never recover.

13 Second, the State of New Jersey has relatively high electric rates. According to  
14 the U.S. Energy Information Administration, New Jersey’s average retail electric rate is  
15 13.42 cents per kWh, 27% above the national average.<sup>5</sup> At the same time, New Jersey  
16 had the highest seasonally adjusted unemployment rate of all 50 states and the District of  
17 Columbia, at 10.2%.<sup>6</sup> This suggests that ratepayers in New Jersey are hurting, and are  
18 worse off than their counterparts in many other states. The Board should ask itself if now  
19 is the appropriate time to continue to collect ZEC subsidies from New Jersey ratepayers  
20 in order to provide incentives to unregulated nuclear operators whose parent companies  
21 are providing millions of dollars of dividends annually to their stockholders.

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<sup>4</sup> Public Service Enterprise Group, Inc. 10-Q for the quarter ending September 30, 2020, page 79.

<sup>5</sup> U.S. Energy Information Administration, State Electricity Profiles, November 2, 2020.

<sup>6</sup> U.S. Bureau of Labor Statistics, Unemployment Rates for States, issued December 18, 2020.

1           Given the fact that the Board has the option of reducing the subsidies awarded for  
2           the first eligibility period, given New Jersey's high electric rates, given the State's high  
3           unemployment, and given the other obstacles posed by the Covid-19 pandemic, the Board  
4           should find that the ZEC subsidies should be eliminated, or at the very least they should  
5           be significantly reduced.

6  
7   **5. Methodology**

8   **Q.   What methodology has traditionally been utilized by the Board in evaluating the**  
9   **financial condition of New Jersey utilities?**

10 **A.**   The Board has traditionally utilized a rate base / rate of return methodology for  
11       evaluating the financial condition of regulated utilities. Under that methodology, the  
12       BPU sets utility rates that are designed to provide the regulated utility with a reasonable  
13       opportunity to recover its costs, including its cost of capital. Utility rates are designed to  
14       recover operating and maintenance costs, depreciation and amortization, and taxes. In  
15       addition, utility rates include a return on the investment that is used in the provision of  
16       utility service. That return includes two components – a return on debt, which reflects  
17       the utility's interest expense, and a return on equity, which reflects the profits to  
18       shareholders. While determining the return on debt is largely objective and non-  
19       controversial, determining an appropriate return on equity is more subjective and is  
20       usually one of the most contentious issues in any base rate case proceeding.

21  
22 **Q.   Did the Companies utilize a rate base / rate of return methodology in this filing?**

1 A. No, PSEG and Exelon did not utilize a traditional rate base / rate of return analysis in  
2 developing their requested subsidies. While the Companies did estimate the required cost  
3 of capital for the units under a rate base / rate of return methodology, they supported their  
4 proposed subsidies based on a cash-flow analysis. Essentially, the Companies compared  
5 their projected revenues from nuclear operations (including energy revenues, capacity  
6 revenues, and other ancillary revenues) with their projected costs – including both capital  
7 and operating costs. The Companies’ costs include not only operating and maintenance  
8 costs, but also fuel and non-fuel capital expenditures on a “cash flow” basis, and so-  
9 called “cost of risks.” The costs of risks included by PSEG and Exelon include two  
10 components – operating risk and market risk. As we will demonstrate below, the  
11 Companies’ analyses provide a skewed picture of the Companies’ projected financial  
12 condition and is not appropriate for purposes of authorizing a subsidy in this case.

13

14 **Q. Are you recommending that the Board utilize the traditional rate base / rate of**  
15 **return methodology in this case?**

16 A. No, I am not. Although the Board should make various adjustments to the Companies’  
17 analyses when evaluating whether a subsidy is required, the Board should not attempt to  
18 utilize a traditional rate base / rate of return approach for the Companies. Salem 1, Salem  
19 2, and Hope Creek are deregulated assets. These generating facilities were deregulated in  
20 New Jersey pursuant to the Electric Discount and Energy Competition Act (“EDECA”)  
21 and the owners of these nuclear facilities were compensated for stranded costs at that  
22 time. It would therefore be inappropriate for the Board to apply a regulated ratemaking  
23 methodology to determine if further financial subsidies are needed to maintain nuclear

1 operations during the next three years. Nevertheless, as discussed below, the cash flow  
2 methodology utilized by the Companies is seriously flawed and should be modified by  
3 the Board.

4

5 **6. Requested Subsidy**

6 **Q. What is the level of cash flow deficiency being projected by the Companies in this**  
7 **case during the second eligibility period?**

8 A. As shown in the response to [Unit]-ZECJ-FIN-0002<sup>7</sup>, and as further clarified by the  
9 response to Staff-PS-10, the Company provided its claimed projected cash flow shortfalls  
10 for the next three energy years. PSEG is projecting shortfalls for Salem 1, Salem 2, and  
11 Hope Creek that amount to [BEGIN PSEG CONFIDENTIAL] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

15

16 [END PSEG CONFIDENTIAL]

17 These amounts are based on 100% of the financial results for Salem 1 and Salem

18 2. The operating and maintenance costs reflected in PSEG’s analysis includes labor,

<sup>7</sup> PSEG provided similar information in all three of its applications for the three nuclear units at issue here. Salem 1 data was designated as “S1”, Salem 2 data was designated at “S2”, and Hope Creek data was designated as “HC”. In referring to data requests relating to the three units, I have used the designation “Unit” to indicate that there are three similar responses that apply for the three nuclear units.

1 material, outside services, real estate taxes, support services and fully allocated  
 2 overheads, spent fuel costs, cost of working capital, and other operating and maintenance  
 3 costs. In addition, PSEG’s analysis includes capital expenditures, including both fuel and  
 4 non-fuel capital costs on a “cash flow” basis. Fuel-related capital expenditures are the  
 5 capital expenditures associated with refueling outages, while non-fuel capital  
 6 expenditures represent “spending on long-lived plant equipment required to maintain safe  
 7 and reliable operations.” Finally, the Company has also included the “cost of operational  
 8 risk” and the “cost of market risk” as two components of its subsidy request.

9  
 10 **Q. How much in ratepayer subsidies are the Companies requesting?**

11 A. Based on projected generation from the three nuclear units, the requested subsidies would  
 12 cost ratepayers \$809.5 million over the next three energy years, as shown in the response  
 13 to [Unit]-SSA-0002:

14  
 15 Projected ZEC Payments (\$ Millions)

Unit	June 2022 - May 2023	June 2023 – May 2024	June 2024 – May 2025	Three Year Total
Salem 1	\$93.4	\$89.1	\$102.0	\$284.5
Salem 2	\$91.2	\$86.1	\$87.2	\$264.5
Hope Creek	\$77.9	\$97.5	\$85.1	\$260.5
Total	\$262.5	\$272.7	\$274.3	\$809.5

16  
 17 In addition, ZEC payments to the three nuclear units could be even higher if  
 18 actual nuclear generation is higher than projected. As discussed below, PSEG has  
 19 included inappropriate costs in its subsidy claim, has overstated certain costs, and has  
 20 ignored important financial benefits associated with the units. Accordingly, the

1 Companies' have not demonstrated that the nuclear units will shut down over the next  
2 three years if ZEC payments are not authorized by the BPU.

3  
4 **A. Inclusion of Operational and Market Risks**

5 **Q. Please describe the operational and market risks that have been included in the**  
6 **Companies' projections.**

7 **A.** The Statute that authorized the ZEC Program required applicants to provide costs,  
8 including "the cost of operational risks and market risks that would be avoided by ceasing  
9 operations...." N.J.S.A. 48:3-87.5(a). Operational risks included "the risk that operating  
10 costs will be higher than anticipated because of new regulatory mandates or equipment  
11 failures and the risk that per megawatt-hour costs will be higher than anticipated because  
12 of lower than expected capacity factors..." Id. As stated in the Statute, market risks  
13 included "the risk of a forced outage and the associated costs arising from contractual  
14 obligations, and the risk that output from the nuclear power plant may not be able to be  
15 sold at projected levels." Id.

16 The Companies have included significant costs relating to Operational Risk and  
17 Market Risk in their claims for subsidies. PSEG states in its response to [Unit]-ZECJ-  
18 FIN-22 that Market Risk is the risk associated with [BEGIN PSEG CONFIDENTIAL]  
19 [REDACTED] [END PSEG CONFIDENTIAL] while Operational Risk is  
20 the risk associated with the [BEGIN PSEG CONFIDENTIAL] [REDACTED]

21 [REDACTED]

22 [REDACTED]

1 [REDACTED]

2 [REDACTED].

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED] [REDACTED]. [END PSEG

9 CONFIDENTIAL]

10

11 **Q. How much has the Company included in its claims relating to Operational and**  
12 **Market risks?**

13 **A. PSEG has proposed to include the following costs relating to Operating Risk and Market**  
14 **Risk in its three-year subsidy claim: [BEGIN PSEG CONFIDENTIAL]**

15

16 [REDACTED]

17

18	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
19	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
20	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

21



1

2

[REDACTED]

3

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

6

█

[REDACTED]

█

█

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

11

12

13

█

[REDACTED]

█

[REDACTED]

█

[REDACTED]

█

[REDACTED]

█

[REDACTED]

█

[REDACTED]

█

[REDACTED]

21

[REDACTED]

█

[REDACTED]

█

[REDACTED]

24

[REDACTED]. [END PSEG

1           **CONFIDENTIAL]** Thus, a significant portion of the Company’s overall claim for  
2           subsidies relates not to objective and verifiable cost estimates, but to speculative risks.  
3           While the Legislature provided that these risks should be considered when evaluating  
4           whether or not a subsidy was required, they did not ensure recovery of these speculative  
5           costs from ratepayers.

6  
7           **Q.    How do the operational and market risks included in the Companies’ filing compare**  
8           **with the operational and market risks included during the first eligibility period?**

9           A.    The Operational Risks are slightly higher than those included in the first eligibility  
10           period. In addition, the Market Risk for Hope Creek is slightly higher than the Market  
11           Risk included in the first eligibility period. However, the Market Risks for Salem 1 and  
12           Salem 2 are approximately **[BEGIN PSEG CONFIDENTIAL]** [REDACTED]

13           [REDACTED]  
14           [REDACTED]  
15           [REDACTED]

16           [REDACTED] **[END PSEG CONFIDENTIAL]**<sup>8</sup>

17  
18           **Q.    Do operational and market risks represent real costs to the Companies?**

19           A.    No, the Operational and Market Risks included in the Companies’ analysis do not reflect  
20           an actual cost to the nuclear operators. Instead, these components are cost “cushions”  
21           designed to protect nuclear operators from potential additional costs or lower revenues if  
22           the Companies’ forecasts turn out to be incorrect. Ratepayers should be not be put in the

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<sup>8</sup> Response to Staff-PS-4.

1 position of having to guarantee owners of these deregulated facilities against either  
2 market uncertainty or operational risks, especially when the nuclear operators themselves  
3 control much of the risk relating to operations.

4 With regard to Operational Risks, [BEGIN PSEG CONFIDENTIAL] [REDACTED]  
5 [REDACTED] [END PSEG CONFIDENTIAL] to evaluate Operational  
6 Risk. It is significant that PSEG only assumes that this Operational Risk will add costs to  
7 its nuclear operations. But it is just as likely that the Company's cost estimates will be  
8 understated rather than overstated. Presumably, its cost estimates provide the best  
9 indicator of expected future costs for nuclear operations, and many of these costs are  
10 directly under the Company's control. Therefore, while it is possible that costs could be  
11 higher than forecast, it is also possible that costs could be lower than forecast. PSEG did  
12 not provide any recognition in its applications that costs could actually be less than  
13 forecast, i.e., it made no adjustment for the possibility that its forecasts may be  
14 overstated. Accordingly, the Operational Risk adjustment is one-sided and places an  
15 unreasonable burden on New Jersey ratepayers. The purpose of providing cost estimates  
16 is so the BPU can make its decision regarding subsidies based on the most realistic  
17 available data with regard to future operational factors and costs. The subsidies provided  
18 for in the ZEC Legislation were not intended to be a guarantee for the owners of these  
19 unregulated merchant plants that their costs would be reimbursed by ratepayers in all  
20 cases. Therefore, the BPU should not inflate any subsidy requirements in order to ensure  
21 guaranteed recovery for these unregulated facilities.

22 Similarly, with regard to Market Risks, ratepayers should not be the guarantors of  
23 last resort for all possible contingent risks related to operating revenues. The fact is that

1 the nuclear units at issue have been deregulated for approximately 20 years. At the time  
2 of deregulation, ratepayers paid hundreds of millions of dollars in stranded costs to the  
3 owners of the nuclear facilities, based on perceived risks and expectations that market  
4 prices would not be high enough to allow owners to recover all of their investment.  
5 However, for much of the time since deregulation, the nuclear operators have generally  
6 done very well, with actual costs falling far below market prices, resulting in significant  
7 profits from these nuclear units. There was no return of stranded costs payments to  
8 ratepayers when market prices were above the cost to operate the nuclear units.

9 In addition, similar to its treatment of operational risk, PSEG only assumed that  
10 Market Risk would increase its costs. There is no recognition that conditions in the  
11 energy market during the second eligibility period may actually result in higher than  
12 anticipated revenues for the generating units.

13  
14 **Q. Did the Companies make strategic decisions to extend the operating licenses for all  
15 three units prior to enactment of the ZEC Act?**

16 A. Yes, they did. The original operating licenses for the three units at issue were all due to  
17 expire after 40 years of operation. Under the original operating licenses, Salem 1 would  
18 have been shut down by now, and Salem 2 and Hope Creek would be retired in 2021 and  
19 2026 respectively. In 2009, PSEG requested authorization to extend the operating  
20 licenses of these units. Although the units were originally regulated, by the time that  
21 PSEG requested an extension of their operating licenses the units were deregulated and  
22 presumably PSEG made a calculated business decision to request an extension of the  
23 operating licenses. At that time, the Companies presumably were more than satisfied

1 with the level of earnings being generated by these nuclear units. Now that market  
2 conditions have changed and energy revenues have declined, it is unreasonable to require  
3 ratepayers to provide millions of dollars of subsidies without consideration of the  
4 substantial benefits that the nuclear operators have enjoyed in the past.

5  
6 **Q. What do you recommend with regard to market and operational risks?**

7 A. I recommend that if the BPU permits the nuclear operators to charge ratepayers for  
8 subsidies that include Operational and Market Risks, then it should also reduce those  
9 subsidies to take into account prior benefits enjoyed by shareholders. This includes not  
10 only the higher profits enjoyed in prior years, but also other financial benefits, such as the  
11 retention of excess deferred income taxes and other tax benefits, as addressed later in my  
12 comments.

13  
14 **B. Inclusion of Capital Expenditures on a Cash Flow Basis**

15 **Q. How are capital expenditures reflected in the Companies' filings?**

16 A. Under a traditional ratemaking mechanism, investment is recovered over the useful life of  
17 the underlying assets. Prior to full recovery, investors have the opportunity to earn a  
18 return on that investment, based on the embedded cost of long-term debt and on the  
19 return on equity authorized by the Board. This equity return is intended to compensate  
20 equity investors, based on comparable returns available to other investments of  
21 comparable risk.

22 The cash-flow approach presented by PSEG and Exelon in this case provides for  
23 immediate recovery of all capital investment – and the proposed capital costs are

1 significant. What this means is that each year, PSEG and Exelon would be relieved from  
 2 risk associated with incremental plant investment. This treatment is contrary to both  
 3 common practice and basic accounting principles. In a deregulated environment,  
 4 businesses are not assured of capital recovery within one year. In fact, just the opposite is  
 5 true. It is usual and customary for deregulated businesses to make investments with the  
 6 expectations that such investment will be recovered over a multi-year period – if at all.

7

8 **Q. Please quantify the capital expenditures included in the Companies' subsidy claims.**

■ **A. [BEGIN PSEG CONFIDENTIAL]** [REDACTED]  
 ■ [REDACTED]  
 ■ [REDACTED]  
 12 [REDACTED]

13

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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[REDACTED]

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[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED] **[END PSEG CONFIDENTIAL]**

- Q. What concerns do you have about reflecting total annual capital expenditures in each year’s expected costs?**
- A.** There are several concerns about including 100% of each year’s capital expenditures in the subsidies to be provided by ratepayers. First, permitting the Companies to recover 100% of these costs in the year incurred violates a basic accounting principle that costs that provide a benefit over multiple years should be recovered over a multi-year period. Allowing for immediate recovery is contrary to this principle. Deregulated businesses do not have the expectation of immediate recovery of capital investment. This is especially true in the case of major investment that is designed to provide service for many years. The accounting community recognizes this fact and has developed accounting rules that are intended to provide investors with a realistic view of the financial impact of such

1 investment over a long period of time.

2 Second, allowing for immediate recovery eliminates much of the Companies' risk  
3 that capital costs associated with these units will not be recovered. If the Legislature's  
4 intent was to eliminate all risk for nuclear operators, then it should require reregulation of  
5 those nuclear units that it determines must continue to run to serve the public interest.  
6 Under the Companies' proposal, however, ratepayers get the worst of both worlds,  
7 reimbursing supposedly unregulated entities for 100% of capital expenditures while not  
8 enjoying surpluses that may result should costs be lower, or revenues higher, than  
9 anticipated.

10 Third, recovering these costs over one year through subsidies paid by regulated  
11 ratepayers results in intergenerational inequity, in that it requires current ratepayers to  
12 pay for costs that are expected to provide benefits for many years into the future. In fact,  
13 under the Companies' proposal, ratepayers could finance all capital expenditures over the  
14 next three years and the Companies could later sell these nuclear units earning significant  
15 profits that would be then be retained by shareholders.

16 In addition, while the limited time that the parties have had to review the  
17 Applications does not permit Rate Counsel to undertake a detailed review of all capital  
18 projects for which costs were included in the subsidy calculation, it should be noted that  
19 many of the capital projects are ill-defined and may not be needed at all. A review of the  
20 capital budgets provided in the responses to RCR-PS-[Unit]-A0006 indicates that many  
21 of the costs included by the Company are identified as [BEGIN PSEG

22 [CONFIDENTIAL] [REDACTED]  
23 [REDACTED]



1 [REDACTED]  
2 [REDACTED] [END PSEG  
3 CONFIDENTIAL]

4 The Company's capital budgets included in the subsidy requests also call into  
5 question the time frame over which an analysis of capital projects should be undertaken.  
6 The three-year review period specified by the Legislation for determining whether a  
7 subsidy is required is inconsistent with capital budgets that are designed to ensure  
8 continued operation over the remaining life of the operating permit for each nuclear  
9 facility. Even if the BPU decided to award ZECs to the Companies in this case, it is  
10 unlikely that ZECs would continue to subsidize these nuclear units over the next 15-20  
11 years. Therefore, one should ask if it is reasonable for the BPU to consider in the subsidy  
12 calculation capital projects included in the nuclear operator's "business as usual" capital  
13 budgets, or whether the BPU should consider only those capital expenditures required to  
14 keep a unit operating for the next three years. Given the fact that these capital projects  
15 have not been shown to be necessary if one assumes that the plants will shut down at the  
16 end of the three-year ZEC cycle, and given the large amount of unallocated project funds  
17 included in the capital expenditure claims, the BPU should reject the Companies' request  
18 to recover these costs in subsidies from regulated ratepayers.

19

20 **C. Inclusion of Spent Fuel Costs**

21 **Q. Did the Companies' include spent fuel costs in its estimated costs for the second**  
22 **eligibility period?**

23 **A.** Yes, in its cost estimates, PSEG included claims relating to Spent Fuel costs. As

1 discussed in the response to [Unit]-ZECJ-FIN-0025, PSEG included millions of dollars  
2 for Spent Fuel costs that are not actually being incurred by the nuclear operators. The  
3 Department of Energy (“DOE”) had previously collected a charge from nuclear operators  
4 for disposal of nuclear fuel. The most recent charge was \$0.955 per Mwh. However, the  
5 nuclear operators filed suit claiming that this charge should be terminated since DOE had  
6 not yet developed a plan to address the disposal of spent fuel. Accordingly, this Spent  
7 Fuel charge was suspended by Court Order in May 2014. Since that time, nuclear  
8 operators have not paid the Spent Fuel charge and nuclear operators are not accruing  
9 Spent Fuel costs on its books and records of account. Nevertheless, the Companies  
10 included Spent Fuel charges in the operating costs calculated for each nuclear unit. The  
11 Spent Fuel charges included in PSEG’s cost projections range from **[BEGIN PSEG**  
12 **CONFIDENTIAL]** [REDACTED] **[END PSEG CONFIDENTIAL]** over the three  
13 energy years that are the subject of the ZEC applications. Since PSEG is not liable for  
14 these costs and these costs are not being accrued by the nuclear operators, any allowance  
15 given to PSEG or Exelon related to Spent Fuel will simply accrue to the benefit of  
16 shareholders. Therefore, the BPU should reject the Companies’ claims to consider Spent  
17 Fuel costs in its subsidy review.

18  
19 **D. Inclusion of Support Services and Overhead Costs**

20 **Q. Did the Companies include support services and overhead costs in its claims?**

21 A. Yes, PSEG has included significant claims for support services and overhead costs in its  
22 requests for subsidies. Support services and overheads account for approximately  
23 **[BEGIN PSEG CONFIDENTIAL]** [REDACTED]

1 [REDACTED]

2 [REDACTED]

3

4 [REDACTED]

5

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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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11 [REDACTED]

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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

14 [REDACTED] [END PSEG  
15 CONFIDENTIAL]

16

17 **Q. Have the Companies demonstrated that the service company and overhead**  
18 **allocation costs included in the subsidy claim are reasonable?**

19 A. No, they have not. Given the nature of the service company and the overhead allocation  
20 process used by PSEG, I believe that PSEG’s estimate of the variable portion of support  
21 service and overhead costs is inflated. By its nature, most of the costs incurred by the  
22 service company are fixed. In fact, the very nature of the service company is that it  
23 provides common support services to multiple corporate entities that can take advantage

1 of economies of scale and share costs. It is unlikely that the majority of these costs will  
2 go away if the nuclear units are shut down. As stated in the response to [Unit]-ZECJ-  
3 FIN-0007, Support Services and Fully Allocated Overhead costs include “administrative  
4 and general expenses, costs associated with insurance, costs incurred outside of the site  
5 that directly support site activities, and corporate overhead costs.” Many of these costs  
6 would be incurred even if the nuclear units shut down. While there may be some savings,  
7 it is unlikely that the majority of the costs would be avoided. Since many of these costs  
8 would not be avoided if the nuclear units were to shut down, PSEG has overstated the  
9 operating and maintenance costs associated with these three nuclear facilities in its  
10 analysis. In determining the need for any subsidy, the Board should consider only those  
11 costs that are incurred as a result of the operation of the three nuclear generating  
12 facilities. Attributing significant common costs incurred by the service company, as well  
13 as significant corporate overhead costs, to the nuclear units overstates the impact of  
14 continued operation of the units on the overall consolidated financial results of its  
15 owners.

16  
17 **E. Exclusion of Hedging Revenues**

18 **Q. Have the Companies also potentially understated the revenues associated with the**  
19 **nuclear units?**

20 **A.** Yes, in addition to overstating the costs associated with nuclear units and including costs  
21 that are unreasonable to charge to New Jersey ratepayers through subsidy payments,  
22 PSEG also understated the revenues associated with nuclear operations. In his testimony,  
23 Mr. Chang discusses the Companies’ projections of energy and capacity revenues and

1 recommends adjustments to the forecasts. In addition to understating energy and  
2 capacity revenues from the units, the Companies also excluded hedging revenues in the  
3 analyses. In its response to [Unit]-ZECJ-FIN-0012, PSEG stated that it [BEGIN PSEG

4 [CONFIDENTIAL] [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]

8 [REDACTED] [END PSEG CONFIDENTIAL] Both PSEG and Exelon participate  
9 in these types of hedging programs but neither PSEG nor Exelon included any revenues  
10 from hedging activities in the revenue forecasts.

11  
12 **Q. Does the Companies' treatment of hedging revenues overstate the need for**  
13 **subsidies?**

14 **A.** Yes, it does. The Companies' failure to include revenues from hedging activities  
15 overstates the subsidies required, for two reasons. First, by not including hedging  
16 revenues, the Companies' revenue projections from nuclear operations are understated.  
17 Even if hedge contracts are not tied to specific generating units, the operation of the  
18 nuclear units provides an energy source that is integral to the hedging positions taken by  
19 the two Companies. Second, although revenues from hedging activities are not included  
20 in the calculated subsidy, the associated costs of the hedging activities were implicitly  
21 included through the variables used in the Market Risk models. As noted in the response  
22 to [Unit]-ZECJ-FIN-0018, [BEGIN PSEG CONFIDENTIAL] [REDACTED]  
23 [REDACTED]

1           **[END PSEG CONFIDENTIAL]** The Companies’ failure to consider hedging  
2 revenues in their analyses is another reason to reject the subsidies being requested by  
3 PSEG, since the analyses ignore hedging revenues while charging ratepayers for Market  
4 Risk that can be mitigated through the use of hedging mechanisms.

5  
6           **F.     Additional Tax Benefits**

7           **Q.     Are there certain tax benefits that have been excluded from the Companies**  
8           **analysis?**

9           A.     Yes, the Companies have generally ignored tax benefits in the analysis. For example, the  
10 Tax Cut and Jobs Act of 2017 (“TCJA”), which became effective January 1, 2018, had a  
11 major impact on the costs of corporations, both regulated and non-regulated. The most  
12 significant feature of the TCJA was the reduction in the corporate federal income tax rate  
13 from 35% to 21%. This reduction not only reduced the Companies’ corporate income tax  
14 expense prospectively, but also resulted in millions of dollars of excess deferred income  
15 taxes relating to the nuclear units that are at issue in this case.

16                     In some cases, the tax treatment given to certain costs involving the nuclear units  
17 differs from the treatment pursuant to Generally Accepted Accounting Principles  
18 (“GAAP”). The difference between the taxes recorded pursuant to GAAP and the IRS tax  
19 treatment is booked by companies as accumulated deferred income taxes. In most cases,  
20 these differences relate to timing differences between tax and book treatment, and  
21 therefore the accumulated deferred income tax balances reverse over time. Accumulated  
22 deferred income taxes are calculated based on the current income tax rates. When the  
23 federal corporate income tax rate was lowered, the Companies found themselves with

1 millions of dollars of accumulated deferred income taxes that will never “reverse” due to  
2 the fact that these taxes were initially recorded at a 35% tax rate tax but future taxes will  
3 be paid based on the lower 21% rate.

4 Excess deferred income taxes are the difference between the accumulated  
5 deferred income tax liability booked at the prior federal income tax rate of 35% and the  
6 accumulated deferred income tax liability at the new federal income tax rate of 21%. In  
7 the case of regulated entities, any excess deferred income tax asset is returned to  
8 regulated ratepayers. However, in the case of unregulated entities, the impact resulting  
9 from any change in the tax rates is immediately reflected in the income statement.  
10 Therefore, in 2017, after the TCJA was enacted, both PSEG and Exelon recorded credits  
11 to net income, essentially providing shareholders with the benefits of the excess deferred  
12 income taxes that would have been refunded to ratepayers in a regulated environment.

13 Moreover, in addition to the benefits retained by the Companies associated with  
14 excess deferred income taxes, there are also other tax benefits associated with the nuclear  
15 units. The units at issue in this proceeding are held by limited liability companies  
16 (“LLCs”), and profits and losses are passed through to the LLC member. Since PSEG  
17 and Exelon both file consolidated federal income tax returns, tax losses incurred by the  
18 LLC and passed through to the member can be used to offset income earned by other  
19 entities in the consolidated income tax group. This arrangement can be especially  
20 beneficial if other members of the consolidated income tax group, such as regulated  
21 utilities, have significant taxable income. No consideration of these tax benefits was  
22 provided in the subsidy analyses provided by the Companies.

23



1           Finally, there are additional investment tax credits and other tax benefits that have  
2           been excluded from the Companies' Applications. As discussed in the response to Staff-  
3           PS-0014, there are certain tax benefits associated with prior tax filings that have not been  
4           considered in the development of the Companies' requests for subsidies. In addition, as  
5           stated in the responses to RCR-PS-[UNIT]-E-0002, there are also certain investment tax  
6           credits that have not been reflected in the financial information provided by PSEG. The  
7           Companies failure to adequately consider various tax benefits associated with the nuclear  
8           generating units is another reason why the analyses are flawed and should be rejected by  
9           the Board.

10  
11 **Q. Based on your analysis, are you recommending that the Board authorize ZEC**  
12 **subsidies for the Companies during the second eligibility period?**

13 A. No, I am not. As demonstrated above, the Companies have overstated their projected  
14 shortfalls by including speculative Operational and Market risks in their analyses. In  
15 addition, the Companies have included significant costs for Support Services and  
16 Overheads, many of which would not be eliminated if the generating units were to be  
17 shut-down. The Companies have also based their claims on the premise that all capital  
18 expenditures would need to be recovered in the year incurred. Moreover, the Companies  
19 have included Spent Fuel costs, which are not currently being incurred, and have ignored  
20 various tax benefits from which the Companies are benefitting. The Companies have also  
21 understated future revenues, as discussed by Mr. Chang. In addition to flaws in the  
22 calculation of the Companies' cash flows, the Companies have acknowledged that the  
23 generating units have potential strategic value that is being considered by the owners.



1 the Board rejects some of the adjustments that I recommended above, the Board's own  
2 consultant has demonstrated that the \$10 per MWh ZEC subsidies requested by the  
3 Companies are excessive and should be rejected.

4  
5 **8. Conclusions and Recommendations**

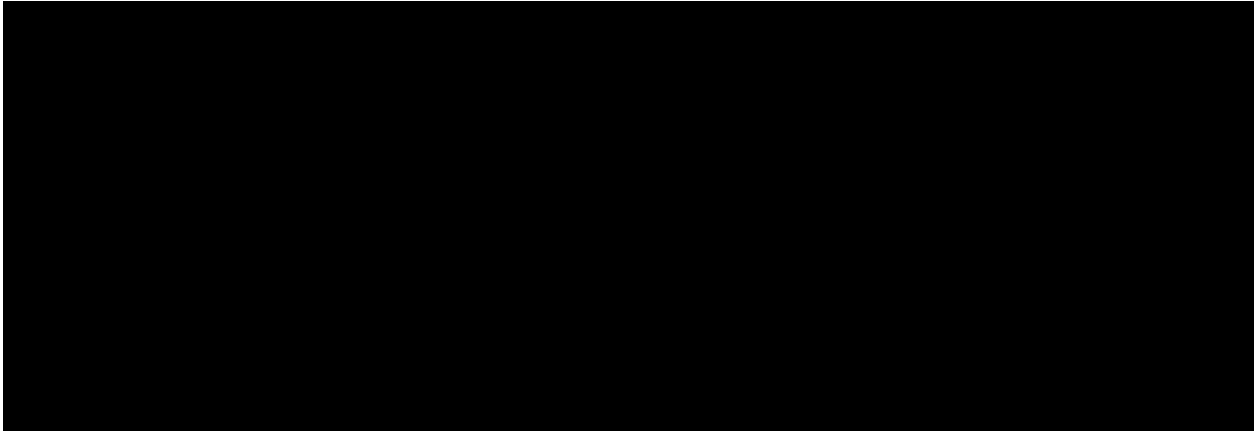
6 **Q. Have the Companies' demonstrated that ZEC subsidies of \$10 per MWh are**  
7 **necessary in order to maintain operation of the nuclear units?**

8 A. No, they have not. The financial projections submitted by the Companies do not  
9 demonstrate that Salem 1, Salem 2, or Hope Creek require subsidies pursuant to the ZEC  
10 Program in order to remain in operation for the next three years. The shortfalls projected  
11 by the Companies are based on speculative Operational and Market Risks. In addition,  
12 these shortfalls include unrealistic assumptions about the recovery of capital  
13 expenditures, include inflated costs for Spent Fuel and Support Services and Overheads,  
14 and exclude other sources of revenue such as hedging revenues. The Companies'  
15 analyses also ignore other important benefits provided by nuclear operations, such as tax  
16 benefits that flow to the consolidated income tax group.

17 When one eliminates from the Companies' projections a) the speculative  
18 Operational and Market Risks, b) the capital expenditures that the Companies are seeking  
19 to recover over one year, c) the phantom Spent Fuel costs that are not actually being  
20 incurred, and d) the largely fixed service company and overhead costs, the shortfalls  
21 projected by the Companies are more than eliminated, as shown below:

22

1 **[BEGIN PSEG CONFIDENTIAL]**



2

3



4

4 **[END PSEG CONFIDENTIAL]** that are speculative

5

or otherwise unreasonable to collect from New Jersey ratepayers. In addition, there are

6

excess deferred tax benefits, other tax benefits, and hedging revenues that have not been

7

considered in the Companies' analyses and which are not included in the Total

8

Adjustments shown above. While the BPU may want to give consideration to some

9

allowance for capital costs and support services in evaluating the financial impacts of the

10

three nuclear units at issue in this case, it is clear that the shortfalls projected by the

11

Companies are overstated. Moreover, as discussed in Mr. Chang's testimony and in the

12

Levitan Report, the energy and capacity revenues included in the Companies' financial

13

projections are likely understated. In fact, it is likely that the revenues from Salem 1,

14

Salem 2, and Hope Creek will be sufficient to sustain nuclear operations over the next

15

three years. Accordingly, the BPU should reject the requests made by PSEG and Exelon

16

for ratepayer subsidies through the ZEC Program.

17

1 **Q. Are there other reasons to reject the Companies' request for subsidies at this time?**

2 A. Yes, there are. If one accepts the Companies' cost projections, including those  
3 speculative costs such as Operational and Market risks, then the ZEC subsidies of \$809.5  
4 million are clearly not sufficient to cover the entire shortfall of **[BEGIN PSEG**  
5 **CONFIDENTIAL]** [REDACTED]. **[END PSEG CONFIDENTIAL]** While PSEG  
6 maintains that it will shut down the nuclear units if the requested subsidies are not  
7 approved, the Board has no way of knowing exactly how much, if any, subsidy is  
8 required in order to ensure continued operation of the units. Clearly, the Company does  
9 not need to cover its entire projected shortfall for the units to remain viable. While the  
10 Companies state that the entire \$10 per MWh subsidy is required in order to keep the  
11 units operating, the Board has no way to independently verify if that is the case. In fact,  
12 the Companies themselves may not know exactly how much of a subsidy, if any, is  
13 required in order to keep the units operating.

14 Moreover, with the recent change of administration, there may be new policies  
15 and federal programs that would assist the Companies to continue operation of the units.  
16 Mr. Izzo, Chairman, President and CEO, indicated on a September 30, 2020 investors'  
17 call that "...we do think that the direction of Public Policy, both in New Jersey and in the  
18 nation is the increased recognition of the importance of carbon-free energy to mitigate  
19 climate change, and that value will eventually be more fully recognized."

20 Based on the data provided in this proceeding, Rate Counsel recommends that the  
21 Board reject the Companies' request for ZEC subsidies of \$10 per MWh, and instead  
22 finds that the Companies have not demonstrated a need for any subsidies at this time.

23

1 **Q. If the Board determines that some level of ZEC subsidy is appropriate, how should**  
2 **it determine the level of subsidy to award?**

3 A. If the Board elects to award ZECs to the Companies, the ZEC subsidies should be  
4 reduced to reflect elimination of non-incurred costs and to reflect reasonable revenue  
5 estimates. In addition, as discussed in the testimony of Mr. Chang, any subsidy awarded  
6 by the Board should be no higher than the social cost of carbon, which Mr. Chang  
7 quantifies as [BEGIN PSEG CONFIDENTIAL] [REDACTED] [END PSEG  
8 CONFIDENTIAL]

9 **Q. Does this complete your testimony?**

10 A. Yes, it does.

# APPENDIX A

<u>Company</u>	<u>Utility</u>	<u>State</u>	<u>Docket</u>	<u>Date</u>	<u>Topic</u>	<u>On Behalf Of</u>
PSEG Nuclear and Exelon Generation Company	E	New Jersey	ER20080557-559	1/21	Nuclear Subsidies	Division of Rate Counsel
Utilities, Inc. of Florida	W/WW	Florida	20200139-WS	11/20	Revenue Requirements	Office of Public Counsel
El Paso Electric Company	E	New Mexico	20-00104-UT	10/20	Revenue Requirements	Office of Attorney General
Public Service Company of New Mexico	E	New Mexico	20-00121-UT	9/20	Regulatory Disincentive Mechanism	Office of Attorney General
Peoples Gas System	G	Florida	20200051-GU	9/20	Revenue Requirements	Office of Public Counsel
New Mexico Gas Company	G	New Mexico	19-00317-UT	7/20	Revenue Requirements	Office of Attorney General
El Paso Electric Company	E	New Mexico	19-00317-UT	4/20	CCN For Newman Unit 6	Office of Attorney General
Public Service Company of New Mexico	E	New Mexico	19-00195-UT	12/19	Replacement Resources for SJGS Units 1 and 4	Office of Attorney General
Southwestern Public Service Company	E	New Mexico	19-00170-UT	11/19	Revenue Requirements	Office of Attorney General
Atmos Energy Company	G	Kansas	19-ATMG-525-RTS	10/19	Revenue Requirements	Citizens' Utility Ratepayer Board
Public Service Company of New Mexico	E	New Mexico	19-00018-UT	10/19	Abandonment of SJGS and Stranded Cost Recovery	Office of Attorney General
Rockland Electric Company	E	New Jersey	ER19050552	10/19	Revenue Requirements	Division of Rate Counsel
Avista Corporation	E/G	Washington	UE-190334/UG-190335	10/19	Revenue Requirements	Public Counsel Unit
Westar Energy, Inc.	E	Kansas	19-WSEE-355-TAR	6/19	JEC Capacity Purchase	Citizens' Utility Ratepayer Board
Empire District Electric Company	E	Kansas	19-EPDE-223-RTS	5/19	Revenue Requirements	Citizens' Utility Ratepayer Board
Public Service Electric and Gas Co.	E/G	New Jersey	EO18060629/ GO18060630	3/19	Energy Strong II Program	Division of Rate Counsel
Southwestern Public Service Company	E	New Mexico	18-00308-UT	2/19	Voluntary Renewable Energy Program	Office of Attorney General
Zero Emission Certificate Program (Various Applicants)	E	New Jersey	EO18080899	1/19	Zero Emission Certificates Subsidy	Division of Rate Counsel
Public Service Company of New Mexico	E	New Mexico	18-00043-UT	12/18	Removal of Energy Efficiency Disincentives	Office of Attorney General
Kansas Gas Service	G	Kansas	18-KGSG-560-RTS	10/18	Revenue Requirements	Citizens' Utility Ratepayer Board
New Mexico Gas Company	G	New Mexico	18-00038-UT	9/18	Testimony in Support of Stipulation	Office of Attorney General
Kansas City Power and Light Company	E	Kansas	18-KCPE-480-RTS	9/18	Revenue Requirements	Citizens' Utility Ratepayer Board
Public Service Electric and Gas Co.	E/G	New Jersey	ER18010029/ GR18010030	8/18	Revenue Requirements	Division of Rate Counsel
Westar Energy, Inc.	E	Kansas	18-WSEE-328-RTS	6/18	Revenue Requirements	Citizens' Utility Ratepayer Board
Southwestern Public Service Company	E	New Mexico	17-00255-UT	4/18	Revenue Requirements	Office of Attorney General
Empire District Electric Company	E	Kansas	18-EPDE-184-PRE	3/18	Approval of Wind	Citizens' Utility



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					Generation Facilities	Ratepayer Board
GPE/ Kansas City Power & Light Co., Westar Energy, Inc.	E	Kansas	18-KCPE-095-MER	1/18	Proposed Merger	Citizens' Utility Ratepayer Board
Public Service Electric and Gas Co.	E	New Jersey	GR17070776	1/18	Gas System Modernization Program	Division of Rate Counsel
Southwestern Public Service Company	E	New Mexico	17-00044-UT	10/17	Approval of Wind Generation Facilities	Office of Attorney General
Kansas Gas Service	G	Kansas	17-KGSG-455-ACT	9/17	MGP Remediation Costs	Citizens' Utility Ratepayer Board
Atlantic City Electric Company	E	New Jersey	ER17030308	8/17	Base Rate Case	Division of Rate Counsel
Public Service Company of New Mexico	E	New Mexico	16-00276-UT	6/17	Testimony in Support of Stipulation	Office of Attorney General
Westar Energy, Inc.	E	Kansas	17-WSEE-147-RTS	5/17	Abbreviated Rate Case	Citizens' Utility Ratepayer Board
Kansas City Power and Light Company	E	Kansas	17-KCPE-201-RTS	4/17	Abbreviated Rate Case	Citizens' Utility Ratepayer Board
GPE/ Kansas City Power & Light Co., Westar Energy, Inc.	E	Kansas	16-KCPE-593-ACQ	12/16	Proposed Merger	Citizens' Utility Ratepayer Board
Kansas Gas Service	G	Kansas	16-KGSG-491-RTS	9/16	Revenue Requirements	Citizens' Utility Ratepayer Board
Public Service Company of New Mexico	E	New Mexico	15-00312-UT	7/16	Automated Metering Infrastructure	Office of Attorney General
Kansas City Power and Light Company	E	Kansas	16-KCPE-160-MIS	6/16	Clean Charge Network	Citizens' Utility Ratepayer Board
Kentucky American Water Company	W	Kentucky	2016-00418	5/16	Revenue Requirements	Attorney General/LFUCG
Black Hills/Kansas Gas Utility Company	G	Kansas	16-BHCG-171-TAR	3/16	Long-Term Hedge Contract	Citizens' Utility Ratepayer Board
General Investigation Regarding Accelerated Pipeline Replacement	G	Kansas	15-GIMG-343-GIG	1/16	Cost Recovery Issues	Citizens' Utility Ratepayer Board
Public Service Company of New Mexico	E	New Mexico	15-00261-UT	1/16	Revenue Requirements	Office of Attorney General