

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
BEFORE PRESIDENT JOSEPH L. FIORDALISO

I/M/O THE APPLICATION OF PSEG)
NUCLEAR, LLC FOR THE ZERO EMISSION)
CERTIFICATE PROGRAM – SALEM UNIT 1)
)
I/M/O THE APPLICATION OF PSEG)
NUCLEAR, LLC FOR THE ZERO EMISSION)
CERTIFICATE PROGRAM – SALEM UNIT 2)
)
I/M/O THE APPLICATION OF PSEG)
NUCLEAR, LLC FOR THE ZERO EMISSION)
CERTIFICATE PROGRAM – HOPE CREEK)
UNIT)

BPU DOCKET NOS. ER20080557,
ER20080558 & ER20080559

REPLY BRIEF OF THE NEW JERSEY
DIVISION OF RATE COUNSEL

STEFANIE A. BRAND, ESQ.
DIRECTOR, DIVISION OF RATE COUNSEL

DIVISION OF RATE COUNSEL
140 East Front Street, 4th Floor
P. O. Box 003
Trenton, New Jersey 08625
Phone: 609-984-1460
Email: njratepayer@rpa.state.nj.us

Prepared by:

Stefanie A. Brand, Esq.
Brian O. Lipman, Esq.
T. David Wand, Esq.
Sarah H. Steindel, Esq.
Bethany Rocque-Romaine, Esq.

PUBLIC VERSION

TABLE OF CONTENTS

I. INTRODUCTION.....1

II. ARGUMENT3

 A. The Evidence in the Record Demonstrates That the Applicants Do Not Meet the Financial Criteria for an Award of ZECs.....3

 i. Understatement of Revenues.....5

 ii. Overstatement of Costs.....6

 iii. Reasonableness of ZEC Charge10

 B. PSEG’s Use of the Eastern Interconnection to Calculate the Social Cost of Carbon Value of Avoided Emissions Improperly Inflates the Value of the Applicant’s Nuclear Plants 11

 C. Applicants’ Argument regarding Operational Risk and Reliability is a Red Herring.....14

III. CONCLUSION16

I. INTRODUCTION

In this proceeding, the Applicants PSEG Nuclear LLC (“PSEG”) and Exelon Generation Company LLC (“Exelon”) need to prove not only the need for a subsidy under the eligibility requirements of the ZEC Act, N.J.S.A. 48:3-87.5; they must also prove the level of subsidy required. In this second round of eligibility review, the Act requires the Board to “ensure that the ZEC program remains affordable to New Jersey retail distribution customers,” and allows the Board to not only deny a ZEC, but lower the ZEC rate as needed to achieve both the environmental objectives of the Act and the affordability of rates to New Jersey customers. N.J.S.A. 48: 3-87.5(j)(3)(a). The Applicants’ initial briefs fall short with respect to both these requirements. When the Board takes a close look at the evidence in this matter, it is clear that PSEG overstates its projected costs, including the costs of operational and market risks, and understates its projected earnings. PSEG continues to rely on phantom costs that either do not exist or are not paid out as part of its operating expenses. Likewise, PSEG understates its revenues, understating both its energy and capacity revenues, while overstating the risk to earning capacity revenues due to the Minimum Offer Price Rule (“MOPR”). As explained below, those capacity revenues will likely be higher than asserted by PSEG and are only threatened by MOPR through the Applicants’ own actions here.

The record also does not demonstrate that continued ZEC subsidies at the full amount requested by the Applicants are affordable to New Jersey retail distribution customers. Rate Counsel identified significant increases faced by electric ratepayers in the last year, while these same ratepayers continue to deal with the economic impact of the COVID pandemic. Simply, ratepayers should not be asked to pay an already profitable enterprise an additional \$300 million a year. While the Applicants have once again threatened to shut the plants down if they do not receive the full \$10 megawatt-hour (“MWh”) subsidy, the record is clear that there are

safeguards in place at PJM and FERC to ensure that New Jersey's reliability is not captive to threats from private for-profit entities seeking higher earnings . Analogies to Texas and concerns about "keeping the lights on" are simply misplaced. New Jersey via its participation in regional markets and grids has already taken steps to assure sufficient capacity and our continued reliability and is not reliant on a vote of the PSEG Board of Directors. Perhaps for this reason, the eligibility criteria established by the Legislature in the ZEC Act focuses on financial and environmental factors, rather than reliability. See N.J.S.A. 48:3-87.5(e). Moreover, while the Applicants have said they will accept the full subsidy for now, they have not committed to keeping the plants open even if the full subsidy is granted. Thus, to satisfy its obligation to the citizens of this State, the Board must carefully review the record and analyze competing evidence rather than accept the representations of the Applicants to determine whether ZECs should be awarded and, if so, how much.

The ZEC is supposed to represent the "emissions avoidance benefits" gained by continued operation of these plants. However, PSEG's calculations of emissions avoidance benefits are excessive and do not justify its request for full value ZECs. Rather than look at emissions avoidance benefits in New Jersey, PSEG looks at the emissions avoided in the Eastern Interconnection, which includes the Eastern half of the United States and parts of Canada. To justify this position, PSEG conflates two different issues in the ZEC statute: (1) the location of generation units and (2) their impact on New Jersey's air quality. The Legislature was concerned with air quality in New Jersey, but recognized that generation units outside of New Jersey could impact our air quality. Thus, units can be located in or outside of the State, but the value of avoided emissions should be based upon their impact on air quality in the State. PSEG inappropriately attempts to look at air quality throughout the Eastern Interconnection,

recognizing that doing so will increase the apparent benefits their plants provide. Notwithstanding, the statute requires that the ZEC subsidy be significantly less than the social cost of carbon attributable to the avoided emissions. See N.J.S.A. 48:3-87.3(b)(8). Using a proper calculation for the emissions avoidance benefits, the award of a full \$10/MWh ZEC is unjustified. To the extent any subsidy is granted, it should be no higher than the social cost of carbon as properly calculated by Rate Counsel witness Maximilian Chang at [BEGIN PSEG CONFIDENTIAL] [REDACTED] [END PSEG CONFIDENTIAL].

Accordingly, PSEG has failed to meet its burden of proof and the Board should not grant the applicants a second ZEC subsidy. For all the reasons set forth in Rate Counsel's initial brief and below, the record supports denial of the Applicants' application for a ZEC subsidy of \$10/MWh. Alternatively, to the extent the Board believes a ZEC subsidy is warranted, it should not be at \$10/MWh, but rather at the properly calculated social cost of carbon.

II. ARGUMENT

A. The Evidence in the Record Demonstrates That the Applicants Do Not Meet the Financial Criteria for an Award of ZECs.

In the proceedings held before the Board to date, both Rate Counsel and the Board's own consultant, Levitan, have presented evidence that raises substantial questions as to the reliability and accuracy of the financial projection submitted by the Applicants to justify their request for ZECs. Rate Counsel's initial brief explained in detail why a careful examination of the Applicants' financial projections should lead the Board to conclude that the Applicants do not need a subsidy, or at least that they do not need the statutory maximum ZEC award of \$10/MWh.

PSEG's initial brief, which is joined in by Exelon, urges the Board to reject Rate Counsel's and Levitan's evidence on all of these issues, and adopt the Applicants' financial

projections as filed. With respect to revenues, PSEG insists that the Board must accept PSEG's projections and reject the evidence that those projections are understated. *PSEG Initial Brief*, p. 13, 23-24. With respect to costs, PSEG takes the even more extreme position that the ZEC Act mandates the Board's acceptance of cost projections that include speculative and one-sided estimates of risk, "cash flow" recovery of capital costs, spent fuel disposal fees that are not actually being incurred, and service company and overhead costs that have not been shown to be avoidable. *PSEG Initial Brief*, p. 13, 18, 20, 24-25, 26. These arguments should be rejected.

At the outset, it is important to place these proceedings in the proper historical context. This is not the first time that the Board has been tasked with reviewing the financial prospects of the Salem I, Salem II and Hope Creek nuclear units. As detailed in both Rate Counsel's and NJLEUC's initial briefs, the Board's 1999 Order on PSE&G's rate unbundling, stranded costs and restructuring filings under EDECA, the Board committed PSE&G's ratepayers to the payment of \$2.9 billion in irrevocable stranded cost payments over fifteen years based in large part on PSEG's valuation of the three nuclear units. *Rate Counsel Initial Brief*, p. 5; *NJLEUC Initial Brief*, p. 9, 24-25. PSEG's valuation, however, proved to be "substantially off the mark," and ratepayers were compelled to pay substantial subsidies to an unregulated entity that needed none. *NJLEUC Initial Brief*, p. 25. This history alone is ample reason for the Board to take a skeptical view of PSEG's financial projections in this proceeding.

Moreover, in the current proceeding, PSEG itself has acknowledged that it does not need the full subsidy that would be indicated by its financial projections. In fact, PSEG's initial brief confirms that it is "willing to accept the \$10/MWh ZEC" despite its assertion that the needed subsidy is "significantly in excess" of that amount. *PSEG Initial Brief*, p. 2, 8-9. Financial projections, which the Applicants acknowledge do not accurately depict the level of subsidy that

is needed, are a fragile basis upon which to base a determination that will commit ratepayers to paying over \$800 million in subsidies over a three-year period. Clearly, these projections should not be taken at face value. They should be carefully examined to determine whether PSEG and Exelon have met their burden of “demonstrate[ing] to the satisfaction of the [B]oard” that they meet the financial criteria for an award of ZECs. N.J.S.A. 48:3-87.5(e)(3). Based on the record, they do not.

i. **Understatement of Revenues**

As noted in Rate Counsel’s initial brief, most of PSEG’s projected revenues from the units come from sales into the PJM energy and capacity markets. *Rate Counsel Initial Brief*, p. 8-10. With regard to energy revenues, Rate Counsel has recommended that the Board rely on an average of historic energy prices, rather than allowing the Applicants to “cherry pick” the low energy prices that prevailed on May 29, 2020. *Rate Counsel Initial Brief*, p. 33. In its initial brief, PSEG argues that “[b]ecause forward energy prices constantly fluctuate, PSEG believes that a reasonable point in time to measure those prices for the purpose of this case is the date of PSEG’s application.” *PSEG Initial Brief*, p. 6. This argument makes no sense. Fluctuating energy prices are a reason to use an average, and not rely on prices at a single point in time.

With regard to capacity revenues PSEG argues that the Board should reject the projected prices for capacity recommended by Rate Counsel and the PJM Independent Market Monitor (“IMM”), and instead use PSEG’s projected prices which incorporate “known changes in the marketplace” that PSEG asserts result in lower prices. *PSEG Initial Brief*, p. 15-16, 23. What PSEG fails to acknowledge is that this position is contrary to the position that the Applicants took in the Board’s Resource Adequacy proceeding under Docket No. EO20030203. In that proceeding, PSEG and Exelon argued that, if the nuclear units do not clear the PJM capacity

auction due to the Minimum Offer Price Rule, this could cost ratepayers \$207 million annually in additional capacity support payments starting in 2025, based on an assumed capacity price of \$166 per megawatt-day, which PSEG stated was its projected clearing prices for the 2021/2022 Base Residual Auction. *Rate Counsel Initial Brief*, p. 36-37; *RC-4*, Response to ZEC2-Chang-XQ-0001.¹ As Rate Counsel witness Mr. Chang observed, it appears that PSEG wishes to understate capacity prices in this proceeding, while overstating them in the Resource Adequacy proceeding. *RC-4*, Response to ZEC2-Chang-XQ-0001. Rate Counsel's recommendation is that the Board choose the BGS proxy price, which represents a middle ground between the high and low prices presented by PSEG. *Id.* Contrary to PSEG's arguments, there is nothing unreasonable about this recommendation.

It is also notable that PSEG's initial brief neglects to even mention two revenue sources left out of the Applicants' financial projections. As Rate Counsel witness Andrea Crane noted, the Applicants' financial projections included neither tax benefits, nor hedging revenues. *Rate Counsel Initial Brief*, p. 38-40. These omissions are further reason to conclude that, PSEG has understated projected revenues in this proceeding, as it did in the restructuring proceeding under EDECA.

ii. **Overstatement of Costs**

With regard to costs, PSEG relies heavily on the Board's Order in the first ZEC proceeding, which was recently affirmed by the New Jersey Superior Court, Appellate Division. 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, Dkt. No A-3939-18, slip op.

¹ The estimate can be found in the June 24, 2020 Joint Reply Comments of PSEG and Exelon Generation Company LLC at Page 11, Table 1, available at: <https://www.nj.gov/bpu/pdf/ofrp/Supplemental%20Comments/Public%20Service%20Electric%20and%20Gas%20Company-Exelon%20Generation%20%5B6-24-2020%5D.pdf>

(N.J. App. Div. Mar. 19, 2021) (“ZEC I App. Div. Decision”). PSEG has cited the Appellate Division decision as establishing that the ZEC Act required the Board to accept PSEG’s claimed costs of risks, spent fuel disposal costs, overhead costs, and “cash basis” capital expenditures. *PSEG Initial Brief*, p. 13, 18, 20, 24-25, 26. The Board should not rely on the Appellate Division’s affirmance of the first ZEC Order as a basis for declining to consider the substantial evidence in the record that the Applicants’ costs are overstated. Rate Counsel continues to maintain that the Board should have analyzed the competing evidence in the record on the quantification of risks and other asserted costs, rather than simply adopting the Applicants’ quantifications. Rate Counsel has filed notice that it intends to petition the New Jersey Supreme Court for certification to review the Appellate Division’s decision, and believes there are substantial grounds for reversal, including the Appellate Division’s failure to consider the Board’s lack of analysis of the competing evidence on costs. See Attachment A. The Board should not rely on the Appellate Division’s decision as a reason to disregard its obligation to weigh all of the evidence on the Applicants’ claimed costs. St. Vincent’s Hospital v. Finley, 154 N.J. Super. 24, 31 (App. Div. 1977)(stating that an administrative agency decision must state how it weighed the proofs before the it and its findings). See *Rate Counsel Initial Brief*, p. 51.

It is also important that, in this second ZEC proceeding, the Board must follow an explicit statutory mandate to “ensure that the ZEC program remains affordable” to the States’ electric ratepayers by determining what level of subsidy is needed to avoid a shut-down of the nuclear units. N.J.S.A. 48:3-87.5(j)(3)(a). This is a clear direction to the Board to quantify both revenues and costs. Adopting the Applicants’ cost as filed, with no examination of the substantial factual issues that were raised in the evidence before the Board, is inconsistent with the Board’s obligation to quantify the subsidy that is actually needed.

Although Rate Counsel will not provide a point-by-point response to all of PSEG’s other arguments regarding costs, since most arguments were fully addressed in Rate Counsel’s initial brief, there are a few statements that warrant a reply. First, with regard to the Applicants’ claimed “costs of risk,” PSEG continues to argue that the Board should consider what PSEG deems to be a “significant” risk that the units will not clear the PJM capacity auction for one or more years, *PSEG Initial Brief*, p. 8. PSEG completely ignores the fact that the MOPR applies only to generating units that receive state subsidies, and, accordingly, the MOPR will not apply to the nuclear units unless they receive ZECs. *RC-3*, p. 23. In addition, PSEG has conceded that its nuclear plants are expected to clear at least the upcoming the Base Residual Auction even if the MOPR is applied, and PJM is currently undertaking a stakeholder process to reform the MOPR to accommodate state preferred resources. *RC-3*, p. 24-25; *T17:LI-13*. See also “PJM Announces New Series of Capacity Market Workshops” (Jan. 29, 2021).² These factors certainly lower the capacity market risk faced by these plants.

More fundamentally, PSEG continues to criticize Rate Counsel (and the IMM) for arguing that the Board should consider “upside” as well as “downside” risks, and even suggests that “the concept of an ‘upside risk’ is nonsensical.” *PSEG Initial Brief*, p. 30. PSEG also characterizes Rate Counsel’s position as arguing that PSEG “should be oblivious of risks” and that it “should be willing to operate indefinitely without any expectation of a reasonable return.” *Id.* Contrary to PSEG’s arguments, it is the Applicants, not Rate Counsel, who have asserted a nonsensical position. Rate Counsel does not assert that risks should be ignored, only that the Board should consider the reality that companies consider potential profits when they consider

² The Announcement is available at: <https://insidelines.pjm.com/pjm-announces-new-series-of-capacity-market-workshops/>. The scope of the workshops is summarized in PJM’s presentation for the February 12, 2021 workshop, available at: <https://www.pjm.com/-/media/committees-groups/committees/mic/2021/20210212-workshop-1/20210212-capacity-markets-workshop-session-1-presentation.ashx>.

whether to undertake risks. As Ms. Crane has explained, unregulated entities such as PSEG and Exelon have the opportunity to retain earnings when profits are high, and should have no expectation that they will be guaranteed any particular rate of return. *RC-2, Responses to ZEC2-Crane-XQ-0006*. When PSEG says that the Board should disregard “upside” risks, what it actually means is that it wants captive ratepayers to guarantee against negative outcomes, with no right to share in the excess profits if costs are lower than expected, or revenues are higher.

Rate Counsel acknowledges that the ZEC Act provides for ZEC subsidies to be reduced if a selected nuclear unit receives payment from other sources for its “fuel diversity, resilience, air quality, or other environmental attributes” N.J.S.A. 48:3-87.5(i)(3). While this provision may be a constraint on the units’ ability to retain excess profits, it is important to note that this provision is limited. If costs decrease, or if revenues increase due to general market conditions, there is no reduction to the ZEC subsidy. Further, in some instances, valuation of payments received for environmental and other attributes may be challenging. For instance if a carbon tax is implemented, or if PJM implements market changes designed to provide compensation for the attributes of nuclear plants, there may be no offset if there is no direct or indirect payment to PSEG, or the Board would have to estimate the value of such changes to the nuclear units. This would be no easy task, given the complexity of the factors that affect the PJM energy and capacity markets. In sum, N.J.S.A. 48:3-87.5(i)(3) provides only limited protection against the payment of unnecessary subsidies. The Applicants could retain, in large part, their ability to retain high profits when market conditions are favorable.

For these reasons, in addition to those detailed in Rate Counsel’s initial brief, PSEG – not Rate Counsel – has taken an unreasonable position regarding the costs of risk. Consideration of

“upside” risks is both logical and appropriate for unregulated entities such as the Applicants, and their failure to take this into account has inflated their estimate of the cost of these risks.

iii. **Reasonableness of ZEC Charge**

Rate Counsel’s Initial Brief discussed in detail the Board’s obligation to assure that any award of ZECs is consistent with the Board’s fundamental obligation to assure that utility rates are just and reasonable. *Rate Counsel Initial Brief*, p. 18-19. Rate Counsel respectfully submits that the one-sided allocation of risks in the Applications is neither just nor reasonable. This is especially true under the current economic conditions that have resulted from the COVID-19 pandemic. As Ms. Crane noted the pandemic has destroyed many small businesses, has caused job losses for many New Jersey ratepayers, and has had medical and emotional impact on others. *RC-1*, p. 8. The Board has an obligation to consider whether it is just and reasonable to increase New Jerseys’ already high electric rates under these conditions.

In this regard, the Board should not rely on the Appellate Division’s recent decision as a basis for disregarding its duty to assure that rates are just and reasonable. The Appellate Division decision included a ruling that the Board’s N.J.S.A. 48:2-21(b), which obligates the BPU to ensure that any rates it approves are “just and reasonable,” applies only in the context of “rate hearings involving public utilities either initiated on the Board’s own motion or by complaint.” ZEC I App. Div. Decision at 45. Rate Counsel’s Petition for certification to the New Jersey Supreme Court will challenge this ruling, which would effectively overrule the New Jersey Supreme Court’s decision in In re Proposed Increase in Industrial Sand Rates, 66 N.J. 12 (1974). Further, any validity this ruling may have had in the first ZEC qualification period does not exist in the second qualification period. As noted, the ZEC Act explicitly directs the Board to consider the “affordability” of the ZEC charge for ratepayers during the second and

subsequent ZEC qualification periods. N.J.S.A. 48:3-87.5(j)(3)(a). This is an explicit recognition of the Board's obligation to consider the justness and reasonableness of any ZEC charge to be implemented in these proceedings.

B. PSEG's Use of the Eastern Interconnection to Calculate the Social Cost of Carbon Value of Avoided Emissions Improperly Inflates the Value of the Applicant's Nuclear Plants

When the Legislature enacted the ZEC Act, it explained that, "the zero emission certificate program set forth in this act is structured such that its costs are guaranteed to be significantly less than the social cost of carbon emissions avoided by the continued operation of selected nuclear power plants, ensuring that the program does not place an undue financial burden on retail distribution customers." N.J.S.A. 48:3-87.3(b)(8) (emphasis supplied). For this reason, the social cost of carbon value of avoided carbon emissions is the upper limit to any ZEC rate. PSEG clearly recognizes this fact, and has attempted to inflate the social cost of carbon value of avoided carbon emissions in order to justify an excessive ZEC subsidy as being less than the social cost of carbon. PSEG's calculations are incorrect, and its criticisms of Mr. Chang miss the mark.

PSEG explains its criticism of Mr. Chang in its initial brief, by asserting that "Mr. Chang invites the Board to redesign the ZEC award amount to align with his flawed understanding of greenhouse gases as an "in-state only pollutant." *PSEG Initial Brief*, p. 10, n. 26. PSEG justifies its statement by asserting that "the ZEC Act is concerned with carbon emissions resulting from nuclear retirements regardless of whether that increase occurs in NJ or another PJM state." *Id.* This is a twisted interpretation of the statute. Indeed, a reading of the statute cited in support of this statement by PSEG demonstrates that it is wrong.

PSEG argues that N.J.S.A. 48:3-87.5(e)(2) provides, “to qualify for ZECs a plant show [sic] that it makes a ‘significant and material contribution to the air quality **in the State** by minimizing emissions that result from electricity consumed in New Jersey” Id. (emphasis in bold added). The problem with PSEG’s argument is its confusion between where generation is located and the air quality issue with which the Legislature was concerned. The Legislature was clearly concerned about the air quality in New Jersey. The Legislature, however, recognized that generation both inside and outside the state can impact air quality in the state. It is for this reason that the Legislature looked at generation outside the state. N.J.S.A. 48:3-87.3(a)(1) (“expanding zero-emission electricity generation within and outside the State”); N.J.S.A. 48:3-87.3(a)(8)(looking at nuclear power plants inside and outside the state); N.J.S.A. 48:3-87.3a(12) (state must invest in generation inside and outside the state that does not produce greenhouse gases).

The Legislature, ultimately, however, was concerned with air quality in New Jersey. N.J.S.A. 48:3-87.3(a)(6)(current renewable energy standards have served to “reduce air pollution in New Jersey”); N.J.S.A. 48:3-87.3(a)(9)(Legislature concerned that retirement of nuclear plants will increase “air emissions within New Jersey”); N.J.S.A. 48:3-87.3a(10)(“Poor air quality has a disproportionate impact on the most vulnerable citizens of New Jersey”); N.J.S.A. 48:3-87.3(a)(11)(New Jersey is particularly vulnerable to climate change); N.J.S.A. 48:3-87.3(b)(2) (expressing concern over New Jersey’s federal and State air quality standards and emissions level requirements). Indeed, PSEG concedes as much in its brief: “carbon emissions will cause climate change affecting New Jersey regardless of where they occur.” *PSEG Initial Brief*, p. 10, n. 26. (emphasis added). The appropriate calculation of the “emissions avoidance benefits” that the ZECs purport to represent should therefore look to the emissions avoided in New Jersey.

Mr. Chang used an appropriate calculation for the social cost of carbon value of the avoided emissions. First, he utilized the incremental in-state carbon emissions taken from the full retirement and the Hope Creek retirement scenarios from the PA consulting report for the three-year modeling period starting on June 1, 2022 through May 31, 2025. *Application Response [Unit] ZECJ-ENV-0001*. For the social cost of carbon, Mr. Chang used a cost of \$46.60 per short ton in 2020 dollars, which is a conversion of the 2016 U.S. Interagency Working Group on the Social Cost of Carbon of \$42/metric ton in 2007 dollars as referenced in the ZEC Act.

PSEG's calculations of emissions avoidance benefits, on the other hand, included the emissions avoided in the Eastern Interconnection, which includes the entire eastern two-thirds of the continental United States.³ *Application Response [Unit]ZECJ-ENV-0001*, PA Consulting Report, p. 9 (Sept. 2020). This has the effect of significantly inflating the emissions avoidance benefits claimed by these plants. PSEG's attempts to discredit Mr. Chang's calculations by asserting that he inappropriately relied upon in-state values for carbon emissions should therefore be rejected. Mr. Chang's in-state value for avoided carbon emissions is precisely what the Legislature sought. The Legislature understood that in order to protect the air quality for the citizens of New Jersey, it needed to ensure that the power those citizens consumed would be generated by clean resources, regardless of where those resources are located. The key is not where the resources are located, but rather whether their emissions impact air quality for the citizens of New Jersey. For this reason, Mr. Chang was correct in looking at avoided emissions

³ The Eastern Interconnection reaches from Central Canada Eastward to the Atlantic coast (excluding Québec), South to Florida and West to the foot of the Rockies (excluding most of Texas). <https://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/recovery-act-0>

in New Jersey. PSEG's expansive review is an inappropriate attempt to increase the value of avoided air emissions and thus increase the value of its ZECs.

PSEG has not met its burden to receive a ZEC subsidy. If the Board nonetheless decides to allow a ZEC payment, it should not be the full \$10/MWh rate. PSEG does not need it and New Jersey's retail electric retail customers cannot afford it. The ZEC subsidy should be no higher than the social cost of carbon value of avoided emissions calculated by Mr. Chang, [BEGIN PSEG CONFIDENTIAL] [REDACTED] [END PSEG CONFIDENTIAL]. Levitan's Preliminary Report calculated an even lower subsidy. That lower amount would also be appropriate.

C. Applicants' Argument regarding Operational Risk and Reliability is a Red Herring.

In its initial brief, PSEG maintains that the ZEC subsidy is necessary to ensure that the three nuclear units remain open and that the closure of these units will impact reliability of electric service in New Jersey. The Applicants attempt to package this self-created reliability issue as an additional "operational risk" that justifies its 10% cost adder, which it then uses to buttress its claim of financial hardship. However, this argument is a red herring designed to focus the Board's attention away from PSEG's inability to provide sufficient economic justification for a \$10/MWh ZEC subsidy.

The ZEC statute award criteria include factors such as the plant's projected costs and revenues, its contribution to air quality in the state, and the status of its license from the Nuclear Regulatory Commission. It does not enumerate the plant's contribution to the reliability of electricity in the state as a criterion. Frankly this is because New Jersey's system does not rely on the benevolence or cooperation of any single unregulated generator for the reliability of our electric system. New Jersey, as a member of PJM, relies on regional markets and grids to ensure

reliability and capacity and not on any single generating entity to keep the lights on. The Board's decision on whether to award ZECs should be based on the statutory eligibility criteria and not on any manufactured fears regarding whether PSEG's Board of Directors will decide to pull the plug.

As noted in Dr. Bowring's cross-examination, PJM has a process to determine the impact of a plant retiring that includes reliability analyses.⁴ Dr. Bowring noted that PJM routinely reviews retiring resource requests.⁵ Rarely do specific retirements result in an issue regarding reliability. Mr. Parker from Levitan Associates also noted under cross-examination that PJM is responsible for maintaining reliability.⁶

Comparing the possible retirement of PSEG's nuclear plants to the February 2021 winter storm that triggered the catastrophic electric system failure in Texas is unfounded. *PSEG Initial Brief*, p. 26, citing an exchange between Mr. Cregg and Commissioner Holden at the Evidentiary Hearing, (T35:L13-21). The Texas incident was not, as the Applicants classify it, due to unanticipated operational and market conditions. *Id.* Rather, it was a frightful example of a lack of planning and regulatory oversight. Texas experienced a similar event in February 2011, but apparently failed to implement necessary improvements. See Clifford Krauss, Manny Fernandez, Ivan Penn and Rick Rojas, [How Texas' Drive for Energy Independence Set It Up for Disaster](#), N.Y. Times (Feb. 21, 2021). As a stand-alone grid, it had little recourse when it ran into trouble again in 2021. PJM, on the other hand, has consistently reviewed its operational needs and implemented changes as necessary when potential problems have become known.

For example, after the Polar Vortex of 2014, PJM implemented Capacity Performance rules to create a mechanism to encourage resources to make the necessary upgrades including but

⁴ Bowring, page 80, lines 11-20

⁵ Bowring, page 82, lines 9-17

⁶ Parker page 214:line 23- page 215, line 6

not limited to plant equipment, weatherization measures, fuel procurement arrangements, and fuel supply infrastructure.⁷ These mechanisms are structured with incentives to deliver and penalties for failure to deliver. PJM implemented the Capacity Performance mechanism through a series of Capacity Performance Transition Auctions for the 2017/2018 and 2018/2019 delivery years. The auction for the 2020/2021 BRA was the first auction where 100 percent of resources were under Capacity Performance rules. While outages may continue to occur, PJM has clearly demonstrated that severe weather events are not unforeseen and has established a procedure to prevent and mitigate catastrophic system failures such as what occurred in Texas. As a member of this integrated grid, New Jersey benefits from this level of planning and its reliability is not subject to financial decisions made by a single generator. Thus, any effort to argue that ZECs must be awarded to avoid “rolling the dice” on reliability is misinformed.

III. CONCLUSION

For the reasons set forth above, the Board should decline to award ZECs in this case. The Applicants have failed to show that there is a need for ZECs. Rather, the information provided in the record shows that the Applicants are underestimating their expected revenues and overstating their costs. Therefore the record supports not awarding ZECs at all. If the Board rejects these facts and awards ZECs despite the ample evidence to the contrary, the Board should limit the ZEC award to the social cost of carbon of avoided emissions consistent with the statute.

⁷ PJM, Strengthening Reliability: An Analysis of Capacity Performance (June 20, 2018) (Available at <https://www.pjm.com/-/media/library/reports-notice/capacity-performance/20180620-capacity-performance-analysis.ashx>).

