STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE APPLICATION OF PSEG NUCLEAR LLC FOR THE ZERO EMISSION CERTIFICATE PROGRAM – HOPE CREEK

IN THE MATTER OF THE APPLICATION OF PSEG NUCLEAR LLC AND EXELON GENERATION COMPANY, LLC FOR THE ZERO EMISSION CERTIFICATE PROGRAM – SALEM UNIT 1

IN THE MATTER OF THE APPLICATION OF PSEG NUCLEAR LLC AND EXELON GENERATION COMPANY, LLC FOR THE ZERO EMISSION CERTIFICATE PROGRAM – SALEM UNIT 2

BPU Docket Nos. ER20080559, ER20080557 and ER20080558

REPLY BRIEF OF PSEG NUCLEAR, LLC

April 9, 2021

In the Matter of the Application of PSEG Nuclear LLC for the Zero Emission Certificate Program – Hope Creek, Salem Unit 1, Salem Unit 2
BPU Docket Nos. ER20080559, ER20080557 and ER20080558

PRELIMINARY STATEMENT

The task of the New Jersey Board of Public Utilities ("Board" or the "BPU") in this case is to apply the statute – N.J.S.A. 48:3-87.3 et seq. (the "ZEC Act" or the "Act") – and to make findings based on the record evidence and the criteria set forth in the statute. Based on the language and policies of the Act and the record evidence, the Board should grant the request of PSEG Nuclear LLC ("PSEG" or the "Company"), and extend the existing ZEC charge for the New Jersey nuclear plants Salem 1, Salem 2, and Hope Creek.

Many of the arguments advanced by the opposing parties just rehash disagreements with the ZEC Act itself. These include, for example, Rate Counsel's argument that the structure of the ZEC—which is based on the generator's costs and risks—is insufficiently protective of customers because generators are not required to share any "upside" if prices rise significantly; Rate Counsel's and NJLEUC's argument that the ZEC statute is inconsistent with EDECA and that the Board should engage in its own free-wheeling assessment of justness and reasonableness while considering events that occurred, and that were decisively resolved, two decades ago; and the IMM's argument that the Board should apply his construct of "net avoidable costs," which exclude the risks and fully allocated overhead costs expressly included by the statute.

Arguments like these were made to the Legislature itself before the statute's enactment. They were made to the Board during the ZEC 1 proceeding. They were made to the Appellate Division on appeal from the ZEC 1 order. Each time, these arguments have been rejected. They are made here, once again, and should be rejected for the same reasons they have been rejected many times before. The Legislature chose a different policy than the one preferred by these parties,

grounded in preserving the Salem and Hope Creek plants because of the environmental and economic benefits they provide to New Jersey. The Board's task is to implement the Legislature's policy and the statute it passed—not to undermine or alter it, as the opposing parties appear to prefer.

Focusing on the task before the Board as directed by the statute, the record evidence shows that each of the three plants satisfies the financial criteria and establishes a need significantly in excess of $10/MWh. PSEG has submitted this evidence under sworn affidavit and testimony. Yet the opposing parties tell the Board that it should disbelieve PSEG and "roll the dice". At bottom, Rate Counsel, the IMM, and the other opposing parties argue that if *they* were running PSEG's business, *they* would be willing to take on all the risks associated with running a nuclear plant, without any expectation of profit in an average year—and therefore PSEG must be bluffing.

But they are not the ones running PSEG's business, and they have no obligations to PSEG's shareholders. Indeed, Rate Counsel and the IMM have no experience running a nuclear generation business at all. PSEG's Board of Directors, which has this responsibility, *has* weighed the risks and opportunities as it understands and views them, and has supplied a resolution memorializing its decision.

Even with a $10/MWh ZEC, the revenue generated is not enough to cover the risks inherent in the plants' operation. But PSEG is willing to operate these plants at the $10/MWh level because it is hopeful that there soon will be a long-term solution that fully values the plants' environmental and fuel diversity contributions and negates the need for the Board to review ZEC applications essentially every other year. PSEG would of course prefer continuing operations, since these plants are also very important to the State of New Jersey, and together with the Legislature and the Board, PSEG is committed to the State's customers. The continued operation of these plants will

significantly reduce carbon emissions and increase the resilience of the State's energy system, and will do so at a cost per MWh that is vastly more cost-effective to electric customers than wind or solar. Keeping these plants in operation in fact will keep electricity costs to customers lower than they otherwise would be by hundreds of millions of dollars over the three-year ZEC period, by avoiding the higher marginal cost units owned by fossil generators such as the members of P3.

All of that said, PSEG is a business, and it is obligated to act in its shareholders' interests. Keeping the plants open for $10/MWh, which is the maximum that current law allows, is justifiable as a bridge to a longer-term solution for these plants that will place them on a firmer financial footing for the duration of their licenses. But anything less—which necessarily would be accompanied by a finding that the plants do not need even $10/MWh, when in reality they need significantly more—cannot be justified, and PSEG will take steps to close the plants if that is the Board's conclusion.

ARGUMENT

I. The Board Must Implement The Policy And Apply The Language Of The ZEC Act—Not Undermine Or Alter That Policy And Language.

Many of the arguments advanced by the opposing parties are in substance recycled disagreements with the statute itself and the policy that the Legislature chose to adopt. While Rate Counsel and others are entitled to continue to register dissatisfaction with the 2018 enactment and the terms of the ZEC Act, those protests have no relevance to the task at hand. The Board is required to execute the law as it is written, not as one or more of the opposing parties wishes it had been written.

A. The ZEC Act Is Clear That The Board May Reduce The ZEC Charge Only Where The Reduced Charge Is Sufficient To Prevent Retirement.

In its recent decision affirming the Board's ZEC 1 Order, the Appellate Division expressed the purpose of the ZEC Act in clear terms:

> The purpose of the ZEC Act is to subsidize nuclear power plants at risk of closure, helping them to remain operational despite competition from other carbon-emitting power sources, in the interest of New Jersey's clean energy goals.[1]

Emphasizing the centrality of the state's clean energy goals to the legislative purpose, the statute further provides that where a plant meets the eligibility criteria, the ZEC charge can only be reduced in very limited circumstances, that is, where "the board determines that a reduced charge will nonetheless be sufficient to achieve the State's air quality and other environmental objectives by preventing the retirement of the nuclear power plants" that meet the eligibility criteria of the statute. N.J.S.A. 48:3-87.5(j)(3)(a).

Completely ignoring the language, structure, and environmental and grid resiliency policies at the heart of the ZEC Act,[2] Rate Counsel and NJLEUC propose an alternative basis on which the ZEC payment may be reduced, asserting that "[t]he Board is obligated to review the application *and to ensure the ZEC rate is just and reasonable.*"[3] As it has in the past, Rate Counsel asserts that this obligation flows from N.J.S.A. 48:2-21(b), which requires that the Board "[f]ix just and reasonable" rates to be imposed "by any public utility" under certain specified circumstances.[4] NJLEUC similarly relies on facially inapplicable case law to support its claim

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[1] *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., at 4 (N.J. App. Div. Mar. 19, 2021) ("ZEC1 Affirmance").

[2] *See* N.J.S.A. 48:3-87.3.

[3] Initial Brief of the New Jersey Division of Rate Counsel ("RC Br.") submitted in this proceeding on March 26, 2021, at 50 (emphasis added). *See also id.* at 51 (asserting that the Board has a "statutory obligation" to ensure that any amount awarded is just and reasonable").

[4] RC Br. at 18.

that in this case the Board is required to "harmonize" the clear terms of the ZEC Act with the "just and reasonable" standard set forth in a wholly unrelated statute.[5]

The Appellate Division soundly rejected these exact same assertions – *seven days before* Rate Counsel and NLEUC filed their briefs in this case. As Rate Counsel acknowledges in its brief, completely contradicting the same assertions it puts forth to the Board, the court on March 19, 2021 "held that the Board *was not required* to harmonize the ZEC Act with the Board's obligation under N.J.S.A. 48:2-21(b) to assure that utility rates are just and reasonable."[6] Similarly, Rate Counsel acknowledges, the court found it was clear from the plain language of N.J.S.A. 48:2-21(b) that that statute "applies to rate hearings involving public utilities either initiated on the Board's own motion or by complaint" and not to this case, which concerns applications submitted by three non-utility entities pursuant to a separate statute, N.J.S.A. 48:3-87.3 et seq. (the ZEC Act).[7] The Appellate Division's discussion makes very clear that Rate Counsel's positions are meritless, yet nevertheless Rate Counsel and NJLEUC still pursue them in this case, and apparently will continue to do so.[8] As the court explained:

> The matter before the Board was not a rate hearing pursuant to N.J.S.A. 48:2-21(b). But rather, it was implementation of the ZEC program under the ZEC Act, which was enacted decades after N.J.S.A. 48:2-21(b), and eligibility determinations on the three ZEC applications made by unregulated nuclear power plants. Although N.J.S.A. 48:2-21(b) and N.J.S.A. 48:3-87.5(j) are both included in Title 48, they do not reference each other and were not designed to serve a common purpose. …

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[5] Post-Hearing Brief of the New Jersey Large Energy Users Coalition ("NJLEUC Br.") submitted in this proceeding on March 26, 2021, at 34-35 (citing cases addressing public utility rates under N.J.S.A. 48:2-21).

[6] RC Br. at 14 (emphasis added) (citing ZEC1 Affirmance at 41). See also *In the Matter of New Jersey Bell Tel. Co.*, 291 N.J. Super. 77 (1996) (rejecting Rate Counsel's argument to impose on the BPU a requirement to ensure that telephone rates under an alternative form of regulation, established under a separate statutory scheme, are "just and reasonable" where the Legislature did not require it).

[7] RC Br. at 15 (citing ZEC1 Affirmance at 45).

[8] On this date, PSEG learned that Rate Counsel has filed a notice with the Supreme Court of New Jersey that it will seek to appeal the Appellate Division's ZEC 1 Affirmance.

> Therefore, it is unnecessary to interpret these two provisions in pari materia with each other.[9]

Despite the plain language of the Act and the overwhelming record evidence supporting extension of the ZEC program at the existing rate, the opposing parties have chosen simply to continue challenging the language and structure of the ZEC Act itself. For example, after asserting the (obviously incorrect) strawman that Title 48 imposes a "just and reasonable" standard on the ZEC charge determination, Rate Counsel argues that the statutory construct under the ZEC Act, where customers will have "no right to share in profits and no guarantee that the plants will continue to operate. . . . is neither just nor reasonable."[10] But the Legislature has already established a detailed structure for the ZEC program, including robust customer protections.[11] The fact that there is no "sharing of the upside" in the event that future market prices are higher than anticipated, and that the plants are excused from continued operation without penalty in certain enumerated circumstances, may not be to the Rate Counsel's, the IMM's, or NJLEUC's liking, but these were plainly determinations the Legislature was entitled to make to achieve its stated goal of maintaining the clean power produced by qualified nuclear units.

B. Rate Counsel's Argument That The ZEC Value Should Be Capped At Around $5/MWh Based On The Value Of In-State Carbon Emissions Avoided Violates The Clear Statutory Language.

Rate Counsel's argument that the ZEC charge should be capped at $5.12/MWh, purportedly based on the value of avoided in-state carbon emissions, is entirely misplaced, nonsensical, and contrary to the plain language of the ZEC Act.

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[9] ZEC 1 Affirmance at 46.

[10] RC Br. at 3.

[11] The ZEC Act requires a retiring plant to return payments, N.J.S.A. 48:3-87.5(k)(2); it prevents double payments, N.J.S.A. 48:3-87.5(i)(3); and unlike the New York and Illinois programs that preceded it, where plants deemed eligible receive payment for 10-12 years regardless of changing circumstances, the ZEC Act requires recertification every three years, N.J.S.A. 48:3-87.5(h).

First, the ZEC Act nowhere indicates that the amount of the ZEC charge should be capped at the value of avoided emissions, let alone the value of avoided in-state emissions. As the Board is well aware, a reduction of the ZEC charge below $10/MWh plainly requires a determination that "a reduced charge will nonetheless be sufficient to achieve the State's air quality and other environmental objectives *by preventing the retirement of the nuclear power plants that meet the eligibility criteria*."[12] Furthermore, Rate Counsel's reliance on the legislative findings in N.J.S.A. 48:3-87.3(b)(8) is misplaced. In fact, that legislative finding makes clear that the Legislature has *already determined* that the "[ZEC program's] costs"— with a $10/MWh ZEC—"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."[13] Clearly, the Legislature was not asking the Board to revisit the cost of emissions analysis through this finding, but rather was indicating that the program was already structured to provide value to New Jersey customers.

Second, Chang's analysis is based on the mistaken notion that the New Jersey Legislature cared only about the resulting increase in carbon emissions from replacement generation in New Jersey. As a result, his calculation incorporates less than 30% of the emissions avoided as a result of continuing to operate the plants. That approach is contrary to both common sense and the plain language of the ZEC Act, in which the Legislature recognized that it was a "moral imperative" to invest in infrastructure that reduced greenhouse gases *inside and outside* the state in order to prevent the irreversible impacts of global climate change.[14] As the Legislature recognized and as

[12] N.J.S.A. 48:3-87.5(j)(3) (emphasis added).

[13] N.J.S.A. 48:3-87.3(b)(8) (emphasis added).

[14] N.J.S.A. 48:3-87.3 (a)(12).

Mr. Chang acknowledges,[15] carbon is a global pollutant. Increased carbon emissions resulting from the retirement of the nuclear plants adversely affects New Jersey just as much if that increase occurs in Pennsylvania or Ohio as if it occurs in New Jersey. And that is why, contrary to Chang's premise, the Legislature was concerned about carbon emissions both inside and outside the State resulting from New Jersey's electric usage.

And, as also acknowledged by Chang and demonstrated through PA Consulting's analysis, carbon emissions would rise both in New Jersey and in other PJM states if the Hope Creek and Salem plants were to cease operations. This is confirmed by Toby Hanna's analysis, which demonstrated that the cost of avoided emissions, when appropriately accounting for increased emissions both inside and outside of New Jersey as intended by the ZEC Act, comes to approximately $18/MWh,[16] even assuming that there are no benefits that result from the ZEC payment beyond carbon reduction.

C. Past Regulatory Action, Including The Electric Industry Restructuring Under EDECA, Is Irrelevant To The Board's Implementation Of The ZEC Act.

Rate Counsel and others argue repeatedly that the Board must consider past regulatory action in which the BPU ordered the recovery of the "stranded costs" incurred by the plants' former owner – Public Service Electric and Gas Company ("PSE&G") – at the time of the 1999 industry restructuring. Again oblivious to the serious environmental purpose of the ZEC Act, Rate Counsel focuses on the "hundreds of millions of dollars in stranded costs [already paid] for these units," which payments were completed, as Rate Counsel acknowledges, many years ago.[17]

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[15] TR at 144, l.25 – 145, l.5. References to the evidentiary hearing transcript are to the revised transcript PSEG received on March 26, 2020.

[16] Public Comments of ERM filed in this proceeding on February 5, 2021, at 3.

[17] In its Brief (at 7), Rate Counsel cites PSEG's parent company's Form 10K filed in *February 2016* and acknowledges that these stranded cost payments ended in 2016.

Rate Counsel made the exact same arguments before the Appellate Division in the ZEC 1 case, and they were soundly rejected. In its recitation of the parties' positions, the court made abundantly clear that it had reviewed and understood Rate Counsel's position:

> In further support of its objection to the ZEC program, Rate Counsel discussed the 1999 enactment of the Electric Discount and Energy Competition Act (EDECA), N.J.S.A. 48:3-49 to -98, which mandated the restructuring of the electric and natural gas industry in order to lower prices through competition. Overall, Rate Counsel contended that the historical impact of the EDECA and the restructuring process on ratepayers should be considered by the Board in connection with the ZEC applications.[18]

While in possession of this clear, and accurate, understanding of Rate Counsel's position, the Appellate Division chose not to address that particular argument through the remainder of the decision – *not one mention* – until the following, indirect reference in the very last sentence of the opinion: "The [appealing] parties' remaining arguments are without sufficient merit to warrant discussion in a written opinion. R. 2:11-3(e)(1)(E)."[19]

That was for good reason. As the Supreme Court of New Jersey recently noted, "a Legislature enacts laws to meet current needs,"[20] and the ZEC Act is plainly aligned with New Jersey's energy and environmental policies.[21] Past, completed regulatory proceedings are irrelevant to the Board's obligations under the ZEC Act, which mandates a forward-looking evaluation, requiring the BPU to evaluate if "the nuclear power plant will cease operations within three years unless the nuclear power plant experiences a material financial change."[22]

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[18] ZEC 1 Affirmance at 22.

[19] ZEC 1 Affirmance at 47.

[20] *See New Jersey Republican State Committee v. Murphy*, 243 N.J. 574, 600 (2020).

[21] In addition to the ZEC Act, these policies have been articulated in, among other places, the state's Energy Master Plan, at 17, 98 ("existing nuclear generation and other 'clean firm' technologies are valuable in the context of a 100% carbon-neutral grid in 2050", and noting that retention of existing nuclear capacity, among other things, "can allow New Jersey to preserve reliability and meet clean energy goals").

[22] N.J.S.A. 48:3-87.5(e)(3). Note also that in the ZEC 1 appeal NJLEUC raised the same due process argument it asserts here (NJLEUC Br. at 40), and the appellate court clearly rejected it as "without sufficient merit to warrant

D. PSEG Has Demonstrated Financial Need Under The Plain Language of the Act, While The Rate Counsel's And IMM's Positions On Financial Need Have Been Rejected By The New Jersey Appellate Division.

PSEG has already addressed the majority of the arguments made by the opposing parties concerning the plants' financial need, and will not belabor those points here.[23] The Appellate Division has clearly rejected those arguments as well. After quoting the ZEC Act's financial eligibility criterion set forth in N.J.S.A. 48:3-87.5(e)(3), the Appellate Division decisively rejected Rate Counsel's and the IMM's cramped reading of the statute, which would exclude the cost of risk as well certain other categories of cost that the statute directs the Board to include in the analysis:

> The plain language of the subsection makes clear that the Legislature intended for the Board to consider the applicants' "costs and risks" when determining eligibility. Had the Legislature intended for the Board to exclude the applicants' operational and market risks when analyzing financial eligibility under subsection (e)(3) and to instead assess only whether the applicants were "projected to not fully cover [their] costs," it would not have included the words "and risks" after "costs." In our view, to adopt Rate Counsel's position . . . would render the Legislature's use of the words "and risks" in subsection (e)(3) meaningless, contrary to established principles of statutory construction.[24]

With regard to additional cost elements challenged by the opposing parties at the Appellate Division and again in this ZEC 2 proceeding, the court similarly affirmed the Board's financial

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discussion in a written opinion." ZEC 1 Affirmance at 47. The Appellate Division was surely correct. Applying the clear terms of the ZEC Act, the Board properly determined that NJLEUC was not "essential." NJLEUC's curious claim that that statutory term is "unknown in administrative law" is akin to asserting that no agency implementation of a new statute can ever be granted deference. That is clearly wrong, since deference to an agency decision "is particularly appropriate when . . . the agency must construe and implement a new statute." *In re Adoption of N.J.A.C. 7:26E-1.13*, 377 N.J. Super. 78, at 98 (2005). As in the ZEC 1 case, NJLEUC was granted leave to participate in the ZEC 2 proceeding, and had ample notice of the proceeding and an opportunity to comment. That is all that due process requires. *See In re Pub. Serv. Elec. & Gas Co.'s Rate Unbundling, Stranded Costs and Restructuring Filings*, 330 N.J. Super. 65, at 105 (2000).

[23] *See* Initial Post-Hearing Brief of PSEG Nuclear, LLC ("PSEG Br.") submitted in this proceeding on March 26, 2021, at 5-9, 17-20, 26-31 (regarding the inclusion and calculation of risk); 20-22 (inclusion of spent fuel costs); 24-25 (inclusion of overhead costs); 24-26 (inclusion of capital expenditures).

[24] ZEC 1 Affirmance at 35.

needs analysis, holding that "[c]onsistent with the ZEC Act's plain language, the Board properly considered the applicants' operational and market risks, spent fuel costs, support services costs, fully allocated overhead costs, and capital expenditures included in their certified cost projections as part of its financial eligibility determination."[25] Regarding capital expenditures in particular, the court noted, and subsequently rejected, Rate Counsel's challenge to the cash flow approach utilized by PSEG Nuclear.[26]

Also with respect to financial need, Rate Counsel asserts that the applicants "have generally ignored tax benefits in their financial analyses." Rate Counsel notes that the reduction in the federal income tax rate at the beginning of 2018 has created "excess deferred income tax" that the state's regulated utilities are currently returning to customers. Rate Counsel has also vaguely referred to "other tax benefits associated with the nuclear units," asserting that "tax losses incurred by the LLCs can be used to offset taxable income earned by affiliated companies."[27]

Both of these arguments are inconsistent with the ZEC Act and are completely out of place in this proceeding. Under the Act, financial need has been established by demonstrating that the units' forecasted revenues are not sufficient to cover their costs and operational and market risks. Historic results and income taxes are not considered in either estimating the revenues or costs. Since the excess deferred taxes were generated in 2017, this is a historical tax matter that should not be considered in the financial analysis. Moreover, Rate Counsel's reliance on the treatment of regulated utilities, rather than on the language and purpose of the ZEC Act, is not appropriate. In a regulated setting, the excess deferred taxes are refunded to customers because rates were based on the higher 35% tax rate; in that context, the excess deferred tax balance represents taxes that

[25] ZEC 1 Affirmance at 38.

[26] ZEC1 Affirmance at 21, 38.

[27] RC Br. at 38-40.

were collected from customers and are no longer required to be paid to the Government, so they must be returned to customers. The applicants, of course, are not regulated utilities, and unlike regulated entities, they bore the burden of the prior higher tax rate; "return" of those excess taxes to customers would make no sense. Similarly, Rate Counsel's "consolidated tax" theory is inconsistent with the terms of the ZEC Act. Assertions regarding consolidated taxes are typically made during a utility rate case, where Rate Counsel seeks a reduction in the utility's tax obligations due to tax losses generated by an unregulated business. Again, this theory is wholly out-of-place in this proceeding under the ZEC Act.

Finally, with regard to financial need, P3 argues that because Energy Harbor has decided to keep two of plants in operation for now without a subsidy, and because Talen Energy managed to cut costs at one of its plants, that Salem and Hope Creek must be "profitable and capable of being a going concern without the extra payment from consumers."[28] There is no evidence in the record concerning the finances of nuclear plants in Ohio or Pennsylvania. The only record evidence concerns Salem and Hope Creek, and the hard numbers belie P3's speculation. P3 further speculates that the plants could be sold to a new operator "willing to assume ownership … without the need for a subsidy."[29] Again, there is no record support for this assertion. To the contrary, the record shows that of the 22 merchant nuclear plants in the Midwest and Northeast other than Hope Creek and Salem, seven have either retired since 2018 or are scheduled to retire; and another four (in Illinois and New York) would have retired without ZECs. A fifth in Connecticut remained open under a different form of state support.[30] PSEG is aware of only one sale of a merchant

[28] Post-Hearing Brief on Behalf of PJM Power Providers Group ("P3 Br.") submitted in this proceeding on March 26, 2021, at 22.

[29] *Id.* at 21.

[30] Comments of the Northbridge Group ("NB Comments") submitted in this proceeding on February 12, 2021, at 3.

nuclear facility to a new operator during the last decade, which was a New York unit receiving ZECs. In evaluating P3's speculative assertion that these plants will not retire without a subsidy, the Board should keep foremost in mind that P3's members—competitors in the PJM market—are made better off if these nuclear plants *do* retire.

II. PSEG's Statements Regarding Its Intention To Retire Salem And Hope Creek Are Relevant To The Board's Determination Under The ZEC Act.

Certain opposing parties question whether PSEG's presentations regarding its intention to retire the units in the absence of a material financial change should even be taken into account by the Board. These arguments seem intended to place PSEG (and the Board) in a negative light just for adhering to the requirements of the ZEC law and the statutory process for determining ZEC eligibility. In particular, the IMM asserts that the statute "requires no consideration of the Applicants' stated intent to shut down the Units if the applications are denied,"[31] and that "[r]eliance on Applicants' subjective statements of intent to shut down the plants are speculative."[32] Similarly, according to Rate Counsel "there is no way for the Board to verify the Applicants' actual 'bottom line'" for determining the level of ZEC payments needed by PSEG to keep the units operating.[33] And Rate Counsel further states that "the Board should 'take the threat out of the equation'" in determining whether to award ZECs.[34]

These statements mischaracterize the requirements of the ZEC Act, as well as PSEG's submittals. First, the IMM, Rate Counsel, and P3 baselessly accuse PSEG of attempting to coerce the Board into awarding ZECs by stating its intention to retire the plants in the absence of a material financial change. The ZEC Act *requires* PSEG to provide this precise certification and if it did

[31] Brief of Monitoring Analytics, LLC ("IMM Br.") submitted in this proceeding on March 26, 2021, at 2.

[32] *Id.* at 10.

[33] RC Br. at 21.

[34] *Id.*

not, PSEG's application would be deemed to be incomplete and could not even be considered.[35] Similarly, attempting to disparage PSEG's decision as being merely "subjective" provides no value to the analysis. As owner and operator, PSEG naturally has the sole authority to determine whether to retire the plants. Obviously, the decision to retire belongs to the company and it will use its own business judgement in making this determination. The record shows that PSEG has exercised its business judgment in a reasonable manner.

Second, there is nothing "speculative" or unclear as to the "bottom line" concerning PSEG's communications regarding its intentions if the ZECs are not awarded. PSEG not only provided the required certifications from an officer of the company regarding its intentions[36] -- thus meeting the letter of the application instruction requirements -- but even supplied a resolution of PSEG's Board of Directors that memorializes its determination that the plans will be retired in the absence of a material financial change.[37] PSEG's SEC disclosures indicate that it will cease operations of the plants if the amount of the ZEC charge differs from that of the current period.[38] Further, PSEG's CEO and Chairman has publicly stated that the units will need to be retired if the full $10/MWh payment is not awarded.[39] PSEG has made its intentions clear -- as required by the ZEC Act -- and the voluminous record provides the justification for that decision.

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[35] *See* N.J.S.A. 48:3-87.5(a) ("An application submitted to the board [for ZECs] shall also include a certification that the nuclear power plant will cease operations within three years unless the nuclear power plant experiences a material financial change . . . .").

[36] *See* SII-SSA-0001.

[37] *Id.* Attachment B (confidential).

[38] *See* PSEG Response to PJM-PSEG-DC-0032.

[39] On an investor teleconference on February 26, 2021, Ralph Izzo, Chairman, President and Chief Executive Officer of PSEG stated that "the nuclear plants need more than $10" and "[i]n the absence of an extension of the current ZEC, we would not continue to operate the plants." Recognizing that $10/MWh is the maximum permissible payment under the ZEC Act, Mr. Izzo also stated at the February 26, 2021 investor teleconference, "the only reason why we would accept $10 now is because that's all the state can do." As Mr. Izzo explained further, even the continuation of the current ZEC level "does not preclude the need for additional work after that and, at the risk of stating the obvious, if you don't get the 10, then what confidence can you possibly have that the longer term solution can be can be realized,

Another unfounded claim -- made by NJLEUC -- is that PSEG is seeking a "rubber stamp" approving the financial requirements for the award of ZECs.[40] This claim is offensive to all of the parties to this proceeding, and is perhaps most offensive to the Board. PSEG's applications are supported by a voluminous record, and the Board has directed significant time and resources towards probing PSEG's submittals, including hiring an independent consultant, and holding public and evidentiary hearings to help create a very comprehensive record. PSEG has supplied the Board with the necessary information to review the applications, and the Board is working diligently to comply with its statutory obligations.

III. The Opposing Parties' Criticisms Of PSEG's Capacity And Energy Price Projections, Risk Evaluation (Including The Cost Of Risk), And Incorporation Of Hedging Benefits Are Incorrect.

To the extent the opposing parties have actually addressed the requirements of the ZEC Act and PSEG's showings thereunder, their criticisms of PSEG's methods and calculations are flawed, for the reasons set forth below.

A. None of The Criticisms of PSEG's Capacity Price Projections Are Valid.

Rate Counsel, Levitan, the IMM, and P3 contend that PSEG's capacity price projections are too low.[41] However, no party other than PSEG has conducted an analysis to provide a capacity price forecast accounting for market design changes and updated capacity auction parameters. Rather, their central claim is that the projected capacity prices should be simply averages of historical capacity prices instead of projections.[42] Rate Counsel also claims that the Board should

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and that's why we would shut the units" if the current ZEC charge is not extended. Transcript of Investor Teleconference, February 26, 2021.

[40] NJLEUC Br. at 8.

[41] *See* RC Br. at 3, 36-38; IMM Br. at 5; P3 Br. at 6, 13-14; Levitan Report (Hope Creek) at 13-14; Levitan Report (Salem 1 and 2) at 12-13.

[42] *Id.*

apply capacity price assumptions used in connection with BGS and Offshore Wind proceedings[43] and that PSEG inconsistently used higher capacity price projections for an analysis of MOPR "double payments" in comments to the Board.[44] These criticisms are untenable.

It is undisputed there are *known* changes in the capacity market design and auction parameters whose application will unambiguously tend to result in lower prices than those in the past.[45] Specifically, the reference unit value used for determining the height of the demand curve will be lower, the demand curve will be shifted 1% to the left, and a greater amount of imports into EMAAC from less expensive zones will be allowed.[46] Although there is no disagreement from Mr. Chang, Mr. Parker or Dr. Bowring regarding the fact of these changes, Rate Counsel, Levitan and the IMM choose to ignore their impact.[47] Further, if this were not enough, a recent FERC decision that will lower capacity market bid caps is expected to drive down capacity prices in the future beginning no later than the capacity auction for the 2023/2024 delivery year.[48] The IMM has estimated a downward impact in capacity prices associated with this change of more than 13%.[49]

Similarly flawed is Rate Counsel's claim that the Board should use the capacity forecasts developed in the BGS proceedings and recent Offshore Wind solicitation. First, these forecasts are also simple historical averages and thus do not take account of the known market design and

[43] *See* RC Br. at 3, 37-38.

[44] *Id.* at 3, 36.

[45] See TR at 143, l.17 – 144, l.7 (cross-examination of Rate Counsel witness Chang); TR190, l.10 – 192, l.16 (cross-examination of Levitan witness Parker).

[46] PSEG Br. at 14-15.

[47] In fact, Levitan witness Parker explicitly acknowledged that, all other things being equal, the lower Net CONE value and 1% shift in the demand curve would lower clearing prices. See id. at 15.

[48] *Id.*

[49] *Id.*

auction parameter changes.[50] Moreover, the context in which these forecasts are being used is quite different than the case now before the Board. In fact, the forecasts for BGS and the most recent Offshore Wind solicitation will *not* be used for the purpose of attributing revenues; rather they are true-up benchmarks only. If actual capacity clearing prices are less than the benchmark prices, the affected company gets a separate payment to make up the difference.[51] The accuracy of the capacity forecast values is much less important in this circumstance.[52] And, finally, Rate Counsel ignores that, in the first Offshore Wind solicitation in which Levitan made capacity projections based on market fundamentals, **[BEGIN CONFIDENTIAL]** [redacted] **[END CONFIDENTIAL]**[53] and further ignores that, in the BGS proceeding, Rate Counsel argued for proxy capacity values 10% lower than the values approved by the Board.[54]

[50] See RC Br. at 36 (BGS capacity values were "based on the results of the last three BRA auctions"); Offshore Wind Solicitation #2 Guidance Document ("OREC Guidance Document") at 17, n.35 ("Board Staff will base capacity proxy prices on the average of the previous three Base Residual Auction ('BRA') resource clearing prices of relevance in New Jersey"). Note that Levitan referenced the OREC Guidance Document in its Preliminary Reports at 2, n.4 and 15, n.34 and in its Response to ZEC2-LEV-XQ-0001; it can be found in its entirety at http://njoffshorewind.com/solicitation-documents/Final-Solicitation-Guidance-Document-with-attachments.pdf.

[51] See PSEG Br. at 16 (discussing the "all-in" OREC price construct); *In The Matter Of The Provision Of Basic Generation Service (BGS) For The Period Beginning June 1, 2020,* Decision And Order, BPU Dkt. No. ER19040428, at 18 *(*N.J.B.P.U. Nov. 13, 2019*) (*"BGS Order"*)*(Board order accepting EDC proposal "that in the 2022/2023 Delivery Year BGS-RSCP suppliers would be paid the difference between the value of the actual capacity price charged by PJM, and the Capacity Proxy Price set by the EDCs").

[52] Levitan also asserts that the Board should use the same capacity values "consistently" in all proceedings referencing the Offshore Wind solicitation as supplying an appropriate benchmark. See Rate Counsel Br. at 37 (citing LAI Response to ZEC2-LEV-XQ-0001). But there is not even any assurance of "consistency" among participants in that proceeding regarding the proxy capacity values they will use. In fact, the Offshore Wind solicitation guidelines allow applicants to submit capacity values for Board review that are different than the *pro forma* proxy values by also providing an explanation supporting the alternate approach. See OREC Guidance document at 17.

[53] See PSEG Br. at 16.

[54] BGS Order at 20 ("Rate Counsel . . . has concerns that the Capacity Proxy Price may be set higher than the actual capacity price for the 2022-2023 Delivery Year and recommended lowering the factor for developing the Capacity Proxy Price from 0.9 to 0.8.").

Rate Counsel also claims that PSEG inconsistently used historical capacity price projections in its comments regarding resource adequacy alternatives.[55] There is no inconsistency. First, it would have been inappropriate for PSEG to use its proprietary capacity price forecast in a publicly filed document available to its competitors. Second, Rate Counsel fails to acknowledge that the historical price projections were used for the purpose of showing the potential "double payment" impacts on New Jersey of the MOPR. As such, the historically-based projection was a proxy value depicting a reference price for a situation in which the nuclear units and other clean energy unit were prevented from clearing due to the MOPR's impact. Obviously, if the New Jersey nuclear units were prevented from clearing in the capacity auction – effectively removing more than 3,000 MW of capacity from the EMACC region – prices would be higher than if the NJ nuclear units cleared in EMAAC as assumed in PSEG's price forecast here. In fact, the Brattle Report indicates that there would be a "notable increase in capacity prices" associated with the retirement of the New Jersey nuclear plants.[56]

B. Criticisms Of PSEG's Energy Price Projections Similarly Fail.

Pointing to forward energy price data from May 2020 submitted with PSEG's initial application, Rate Counsel erroneously accuses PSEG of seeking to "cherry-pick instances of low energy prices" and "ignor[ing] upward changes."[57] But there has been no effort to "cherry-pick" by PSEG. The Company initially submitted its application with forward energy price data from May 2020 and then, in response to Staff-PS-0009 and Staff-PS-0011, updated the forward energy

[55] See RC Br. at 3, 36.

[56] See link in Public Comments of Dean Murphy, February 1, 2021 "Salem and Hope Creek Nuclear Power Plants' Contribution to the New Jersey and Local Economies, /The Brattle Group, December 2020, at 6. (https://brattlefiles.blob.core.windows.net/files/20628_salem_and_hope_creek_nuclear_power_plants_contribution_to_the_new_jersey_and_local_economies.pdf).

[57] RC Br. at 33.

price data to reflect prices as of September 30, 2020, around the time when it filed its application—the same date Levitan used in its analysis.[58] To be sure, prices have continued to fluctuate up and down since then. They rose over the fourth quarter 2020, and have since fallen back below the September 30, 2020 level.[59] As PSEG has stated previously, the Board should base its decision on the evidence in the record, which includes the initial application utilizing the May 29, 2020 forward prices as well as the updated revenue values utilizing the September 30, 2020 prices.[60]

C. Rate Counsel Fails to Support Its Claim That The MOPR Poses "Minimal" Risk That the New Jersey Nuclear Might Fail to Clear in Capacity Auctions For The 2023/2024 and 2024/2025 Delivery Years.

Rate Counsel claims that the MOPR creates "minimal" risk that the New Jersey nuclear units will fail to clear for the 2023/2024 and 2024/2025 delivery years.[61] On this basis, Rate Counsel further asserts that market risks associated with capacity sales are overstated. But Rate Counsel's reasoning is flawed.

Rate Counsel argues that because MOPR floor prices for the May 2021 auction do not appear likely to prevent the NJ nuclear units from clearing for delivery year 2022/2023, it follows that the units should also be expected to clear for the 2023/2024 and 2024/2025 delivery years.[62] According to Rate Counsel, because PSEG has projected stable capacity prices for the three-year eligibility period, it should be assumed that the MOPR floor prices for the nuclear plants will also remain stable.[63] This is not correct.

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[58] *See* PSEG Br. at 6 nn.12, 13.

[59] See, e.g., PSEG Response to BPU-Cross-0005.

[60] See PSEG Response to BPU-Cross-0005, and PSEG Br. in this proceeding, at note 12.

[61] RC Br. at 25-27.

[62] *See id.*

[63] *Id.*

The main determinants driving capacity market prices are the projected supply curve, the administrative demand curve, and the auction parameters such as import capability and the load forecast.[64] PSEG does assume that these factors will be relatively stable for the three year ZEC period in making its projections of capacity market price outcomes. But the main factor that will affect PSEG's likelihood of clearing the auction is the MOPR price floors over this period which, for nuclear plants, are very sensitive to changes in energy prices. Thus, a decrease in energy prices could cause the MOPR floor to increase, forcing PSEG to bid higher in the capacity auction and reducing its likelihood of clearing.[65] Accordingly, since there is a potential for changes in energy price projections, the Board should reject Rate Counsel's glib assumption that MOPR floor prices will remain stable throughout the eligibility period.

D. PSEG's Estimates for the Costs of Risks are Reasonable

PSEG's estimates for the costs of risks are reasonable and well-supported in the record.[66] For market risk, PSEG's estimates calculate potential market price impacts using the same risk tolerance benchmark that it uses for other risk assessments.[67] For operational risks, PSEG uses the same risk factor that is used by the PJM tariff as an uncertainty factor for determining the costs of operations[68] – a value that is actually conservative based on the operational experience of

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[64] PSEG Br. at 14-15.

[65] PSEG expects that for its share of capacity in the plants, the floor prices plants will be based on the default value for the "gross Avoidable Cost Rate" ("ACR") specified in the PJM tariff minus a projected "Energy & Ancillary Service" offset value based mainly on projected future market revenues. See PJM Tariff, Attachment DD, section 5.14(h-1)(2)(B)(i). MOPR floors for nuclear units are very sensitive to fluctuations in the projected energy price. A $1.00/MWh change in projected energy market revenues for a nuclear unit operating at a 90% production factor would be equivalent to a capacity market price change of about $21.60/MW-day, i.e., (($1.00MWh times 8760 hours times 0.9) divided by 365 equals $21.60/MW-day). Accordingly, for example, a $3.00/MWh decrease in projected energy prices would increase the MOPR floor by $64.80/MW-day, (i.e., 3 times $21.60/MW-day) which could have material impacts.

[66] See PSEG Br. at 26-31.

[67] PSEG Br. at 29.

[68] *Id.* at 27.

nuclear plants.[69] Claims made by Rate Counsel, the IMM or members of P3 that some other company might be willing to accept a higher level of risks, or zero or negative expected returns, and still operate the plants are immaterial. PSEG has the sole responsibility and authority for making this decision. While the Board certainly must independently determine whether PSEG's financial determinations are justified and reasonable, the Board should not second-guess those determinations if they are justified and reasonable just because some other company might assess risks differently.

E. Contrary to Rate Counsel's Claims, the Impact of Hedging Is Included in PSEG's Financial Analysis.

Rate Counsel's unsupported statement in its initial brief that PSEG "has implicitly included the cost of hedging activities in its market risk models" is simply wrong. To the contrary, PSEG's hedging activities have the effect of *reducing*, not *increasing*, the cost of market risk. As stated in PSEG's explanation of market risks: "PSEG's risk model includes the price exposure experienced by PSEG Power for the period of time prior to [an] anticipated hedge, but reflects the risk mitigation of the hedge from that point onward through delivery." PSEG's hedging program reduces the cost of market risks and therefore reduces costs for the purposes of the ZEC applications. If the hedging impact on market risk was not included, the cost of market risks would be approximately $5/MWh higher than what was submitted in the application.[70]

Rate Counsel claims that "the Company . . . excluded hedging revenues" in the financial evaluation of the nuclear plants.[71] As PSEG has explained, **[Begin Confidential]** [redacted]

[69] *Id.*

[70] See PSEG response to FIN-18 and BPU-Cross-0083-CONFIDENTIAL.

[71] RC Br. at 38.

[redacted][72] [**End Confidential**] For this reason, it would not be appropriate to ascribe revenues to the nuclear plants from particular hedging contracts.[73] Rate Counsel's further claim that an investor presentation shows that PSEG "hedges energy prices for its nuclear units" is not relevant.[74] PSEG's investor presentations are consistent with PSEG's explanation in ZEC application question ZECJ-FIN-18, and simply show that by the commencement of a given delivery year, PSEG typically has a sufficient quantity of PJM Western Hub hedges to cover about 100%, 66%, and 33% of the expected nuclear output for the next three delivery years respectively.[75] Accordingly, there is nothing in the investor presentation that is at odds with PSEG's other showings or statements.

IV. Rate Counsel Ignores the Substantial Reliability Benefits Attributable To Preservation of the New Jersey Nuclear Plants.

Rate Counsel spends a considerable part of its brief arguing that the reliability of the electric system should not even be considered by the Board in reviewing the ZEC applications.[76] Further, Rate Counsel's brief espouses a narrow definition of reliability that ignores the resiliency of the electric system to remain in operation during times of stress. In fact, Rate Counsel goes so far as to criticize comments made by President Fiordaliso at the evidentiary hearing that the Board needs to be concerned about whether when "I throw the switch on, I have lights, or when I turn

[72] See SII-ZECJ-FIN-0012, 10-Year Historical Revenue; SII-ZECJ-FIN-0018, Hedging Percentages, n.1.

[73] As indicated in its response to question FIN-18, PSEG has only a limited amount of hedges for the ZEC 2 period, which stretches between 20 and 56 months from the time of the application.

[74] RC Br. at 38.

[75] *See generally* SII-ZECJ-FIN-0018 at 14 (explaining timing of Western Hub hedging activities).

[76] See RC Br. at 10-11, 41-44.

the heat up, I have heat, or I have air conditioning, or whatever . . .," by characterizing his concerns as a "red herring."[77] But Rate Counsel's positions are plainly untenable.

The ZEC Act clearly reflects the concern of "hav[ing] . . . lights, . . . heat, or air conditioning" supplied to New Jersey residents in a reliable manner. In particular, the ZEC Act is concerned with electric system resiliency during times of system stress. The Legislature expressly found that the retirement of nuclear plants supporting New Jersey "will render the electric generation and delivery systems less resilient and more vulnerable to the impacts of extreme winter weather events, natural gas pipeline accidents, and other factors affecting the deliverability of natural gas to electric power generating stations in and around the State."[78] Nor is this concern just theoretical. As noted by PA Consulting in its comments to the Board:

> [T]he 2014 Polar Vortex event and the 2018 Bombogenesis event remind us that natural gas supply for power generation is vulnerable to competition from higher priority heating demand. And while coal-fired generators typically have on-site fuel storage capability, even these generators are sometimes vulnerable to frozen coal piles and flooded transportation infrastructure. During the Polar Vortex, over 20% of PJM's generating capacity was out of service during the most critical period in January and over 80% of that unavailable capacity was gas- or coal-fired. In comparison, nuclear outages accounted for only 3% of the unavailable capacity.[79]

There can be no doubt that the preservation of the Salem and Hope Creek plants will make a meaningful contribution towards "hav[ing] lights" when "I throw the switch on" and that the ZEC Act intended for the Board to take this factor into account.

Further, Rate Counsel is mistaken about the role that "Reliability Must Run" ("RMR") arrangements would play in maintaining reliability. Rate Counsel claims that PJM will "determine whether continued operation of that plant is needed for reliability purposes" and that "PJM will

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[77] *Id.* at 42.

[78] N.J.S.A. 48:3-87.3(b)(3).

[79] Comments Of Ron Norman, Senior Partner, Energy & Utilities Practice, PA Consulting Group, BPU Dkt. Nos. ER20080557, ER20080558, and ER20080559, at 2. (February 12, 2021).

require [a] plant [needed for reliability] to continue operation and will compensate its operator under a 'Reliability Must Run' contract."[80] But, in fact, the "reliability purposes" that would be within the scope of PJM's reliability review for analyzing the retirement of the Salem and Hope Creek plants would not include the aspect of reliability that the Legislature was particularly concerned about –fuel diversity and resiliency.[81] Further, contrary to the claim in Rate Counsel's brief, PJM lacks the power to "require" a unit to continue operating even if a reliability need is identified.[82] All PJM can do is offer an RMR arrangement and hope that the generator takes it.[83]

CONCLUSION

For the reasons discussed herein and in PSEG's initial brief, the applications for the Hope Creek and Salem Plants should be granted. PSEG provided an extensive set of application materials, and has been transparent and responsive to the questions posed by the Board and other parties throughout this robust proceeding, which included extensive discovery, written cross-

[80] RC Br. at 43 (emphasis added).

[81] The reliability analysis conducted by PJM following notification of a generation retirement is limited to a review of the adequacy of the transmission system to determine whether the load can still be served under test conditions without transmission violations. No consideration is given to the generation resource technologies serving load in a particular area. See generally, PJM website, "Explaining Power Plant Retirements in PJM," ("PJM uses a standard set of criteria to identify potential transmission system problems due to a specific generator retiring. To keep the grid reliable, PJM orders transmission upgrades or additions to be built by Transmission Owners, to accommodate generating plant retirements.")(https://learn.pjm.com/three-priorities/planning-for-the-future/explaining-power-plant-retirements.aspx).

[82] FERC expressly rejected PJM's attempt to assert this power. See *PJM Interconnection, L.L.C.*, 110 FERC ¶ 61,053, P 137 (2005) ("[W]e are rejecting the specific language [in the proposed RMR provision] that provides that PJM can 'require' generators to continue to operate for an indeterminate period, because PJM has not adequately shown that it has the authority to require generators to operate beyond a reasonable notice period.") (footnote omitted).

[83] An RMR arrangement with the nuclear plants would not necessarily be an attractive option financially even it were used. The PJM tariff allows a unit seeking to retire that agrees to continue operating under an RMR arrangement to file for a full cost-of-service rate from FERC. See PJM Tariff, Part V, Section 119, "Cost of Service Recovery Rate". For example, PSEG operated five generators under RMRs that paid the units based on their cost-of-service over a several years' long period while transmission upgrades were being made. See *PSEG Energy Res. & Trade, et al*., 113 FERC ¶ 61,213 (2005) (FERC approving "Offer of Settlement" for "Cost of Service Recovery Rates" for five New Jersey generators) Further, most of the RMR payments and transmission upgrade costs associated with the RMRs were assigned to New Jersey customers which would also would be expected here.

examination and oral cross-examination during an evidentiary hearing. PSEG submits that these three generating stations fully satisfy the eligibility criteria to be awarded ZECs and that they are entitled to the full amount of $10/MWh during this ZEC eligibility period. PSEG respectfully asks that the Board extend the current ZEC charge of $10/MWh for the second eligibility period for the Hope Creek and Salem Plants.

Respectfully Submitted,

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