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BEFORE THE NEW JERSEY BOARD OF PUBLIC UTILITIES

In the Matter of the Application for PSEG)	BPU Docket Nos. EO20080557,
Nuclear LLC and Exelon Generation)	EO20080558, and EO20080559
Company, LLC for the Zero Emission)	
Certificate–Salem Unit 1, Salem Unit 2, and)	
Hope Creek Unit)	
)	

Pursuant to the Order issued in this proceeding effective September 10, 2020, Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM Interconnection, L.L.C. (“PJM”) (“Market Monitor”), submits this post hearing reply brief.

This case concerns applications filed by PSEG (“PSEG”) and (“Exelon”) (collectively, “Applicants”) for nuclear units at the Salem 1 and Salem 2 and Hope Creek power stations (“Units”) to receive Zero Emissions Credits (“ZECs”) under the ZECs Statute (or “Act”).¹ In order for the applications to be granted, Applicants must demonstrate that they meet the criteria set forth in the Act. The most significant of these criteria, and the only one addressed by the Market Monitor on brief, is the financial criterion, which refers to the Act’s requirement that an Applicant must:

... demonstrate to the satisfaction of the board ... that the nuclear power plant’s fuel diversity, air quality, and other environmental attributes are at risk of loss because the nuclear power plant is projected to not fully cover its costs and risks, or alternatively is projected to not cover its costs including its risk-adjusted cost of

¹ “ZECs Statute” or “Act” means the statute creating Zero Emissions Credits (ZECs), P.L. 2018, c. 16, N.J.S.A. 48:3-87.3 et seq. PSEG owns 57 percent and Exelon owns 43 percent of each of Salem 1 and Salem 2; PSEG owns 100 percent of Hope Creek.

capital, and that the nuclear power plant will cease operations within three years unless the nuclear power plant experiences a material financial change ...²

Applicants fail to demonstrate that any of the Units meet the financial criterion. The analyses offered by applicants concerning the financial criterion overstate costs, understate revenues and overstate risks. The Market Monitor provided a report and analysis correctly and reasonably stating costs, revenues and risks with reference to the standard provided in the ZEC Statute, which concluded that no subsidy is required and that the Applicants have not demonstrated that the Units will close absent a material financial change.³

Applicants' arguments attempting to refute the Market Monitor's analysis are unconvincing. Applicants do not demonstrate understanding of the financial criterion and do not support any need for a subsidy under the financial criterion. The record does not support a finding that the financial criterion has been met. The applications should be denied.

I. ARGUMENT

Applicants state (at 5) that "each plant projects revenues to be significantly less than its projected costs and risks, resulting in a revenue shortfall, which creates a financial need under the ZEC Act." Applicants misstate the facts about the Units. Hope Creek 1 unit and Salem 2 unit are projected to more than cover their avoidable costs over the next three years. The Salem 1 unit is expected to face a de minimis shortfall over the next three years. The de minimis shortfall projected for Salem 1 does not justify a subsidy because it does not meet the material financial change part of the financial criterion. In addition, the overpayment of ZECs subsidy revenues for 2019/2020 more than covers the de minimis shortfall for Salem 1.

² N.J.S.A. 48:3-87-87.5(e)(3).

³ See IMM-1.

Applicants also misstate the standard in the ZECs Statute. The standard requires more than showing a shortfall. Applicants have not demonstrated that any Unit “will cease operations within three years unless the nuclear power plant experiences a material financial change.”⁴ Despite assertions by Witness Cregg,⁵ the evidence means that a rational market participant would not shut down the Units in the absence of a ZECs subsidy, because the Units are more than covering their going forward costs. Applicants do not properly state the financial criterion and do not show that any of the units meet it.

A. Applicants Understate Capacity Market Revenue

Applicants argue (at 22) against the Market Monitor’s application of the three year historical average of EMAAC Base Residual Auction (BRA) prices” in its analysis of capacity market revenues. Applicants object (*id.*) that “known changes to the marketplace will likely result in lower prices.” There is no basis for the assertion that any changes to market design will reduce prices below the three year historical average.

B. Applicants Overstate Costs.

Applicants object (at 24–25) to the removal of allocated overhead costs from the EUCG data, arguing that “these are real costs, and are part of the ‘fully allocated overhead costs’ that the ZEC Act directs the Board to consider.” Applicants argue that the ZECs Statute would not have required the applicants to provide information on overhead costs to the Board. The Market Monitor included some overhead costs in its analysis. The Market Monitor’s position is that the Board should consider all overhead costs and reject the additional specific, identified overhead costs because they are not relevant to or part of the going forward costs of the Units. The Applicants do not assert that the Units would retire if

⁴ N.J.S.A. 48:3–87–87.5(e)(3).

⁵ Tr. at 40:22–41:7.

they do not contribute to general corporate overheads. The Applicants' assertion is therefore not supported.

Applicants object to the Market Monitor's use of EUCG data (at 25), that such data does not include spent fuel storage costs, the cost of capital, depreciation, or the cost of risks. The Applicants' analysis also does not include the cost of capital or depreciation. EUCG is an industry organization which has been collecting and, through NEI, publishing information about nuclear plant costs since 1986 with the goal to optimize costs and reliability performance of participating plants.⁶ NEI has been basing its assertions about the costs of energy from nuclear plants on exactly the same EUCG data used by the Market Monitor. The Market Monitor separately calculates the cost of risk in its report.

Applicants argue (at 20–22) that spent fuel costs should be considered. Applicants specifically argue (at 20), “as the quantity of waste grows so will the ultimate cost of disposing of it safely.” The potential future costs associated with waste generated at the units is speculative. The spent fuel charge has been zero since 2015. Applicants have provided no evidence that they will bear these costs during the period of the requested subsidy or that they will ever bear these costs. As a result, Applicants have not supported their argument. When the units retire, the current industry practice is to sell the retired units to a third party who manages all aspects of decommissioning including spent fuel issues and receives decommissioning revenues to cover costs.

C. Applicants Misstate Risk.

Applicants incorrectly assert that the Market Monitor's analysis excludes operational risks, market risks, and other non-realized costs. The Market Monitor Report addresses risk in detail (at 22–24) and concludes “the mean value of expected costs could reasonably be expected to decrease, based on PSEG's actual experience during the first year of the first

⁶ IMM-1 at 26.

eligibility period.” It is Applicants who omit discussion of risk under a reasonable and relevant definition of risk. The proposed adder to costs is not a risk adder. PSEG misstates the definition of risk as a single arbitrary point rather than a distribution of possible outcomes. PSEG requests that customers guarantee that PSEG will be held harmless from a specific level of cost increases regardless of whether the specific cost increases occur and regardless of the probability of the specific cost increases actually occurring. Applicants’ purported discussion of risk does not address matters relevant to a rational and competitive decision on whether to shut a unit down, as the ZECs Statute requires.

D. Applicants Misstate Revenue Related Risk.

The market risk adder proposed by the Applicants is not a cost. The market risk adder is a request to require customers to pay an additional subsidy to cover the 5 percent possibility that revenues will be significantly lower than PSEG’s estimates while not providing customers any benefit if revenues are higher.

In fact, the mean value of expected revenues could reasonably be expected to increase, based on the fact that demand continues to recover from the pandemic related levels of 2020 and based on the forthcoming changes to PJM’s energy market. As a result, the Market Monitor conservatively evaluates the cost of risk for revenues as zero.

The Market Monitor’s revenue calculations are based on observed and publicly available forward prices. The Market Monitor also points out, in reference to Applicants’ assertions that revenues are low and could be lower, that there are known market design changes that are likely to increase energy market prices in significant ways. Applicants discount the impact (at 24) of market design changes likely to increase energy revenues, including market rule changes regarding reserve pricing and fast start pricing. Applicants assert that “it is reasonable to assume they would be reflected in forward prices” used in modeling energy revenues. Applicants provide no basis or evidence to support the assertion. It is not reasonable to simply assume that energy market traders have already incorporated the impacts of fast start pricing and reserve pricing changes (ORDC) in

forward energy market prices. Traders generally respond to current market information. The implementation of fast start pricing has been approved by FERC but will not be implemented until PJM provides satisfactory answers to FERC's questions. The timing is uncertain. The implementation of the ORDC is scheduled for June 1, 2022. It is reasonable that energy market traders have not yet incorporated the price effect in forward prices. The price effect will be incorporated when traders see evidence about the actual impacts.

Applicants claim hedging is only possible "at the forward market price level, not at the higher level at which the IMM says the forward market should be." The Market Monitor agrees that hedging by selling forward will be at the forward market price level, which is reasonably expected to increase. Applicants sell forward on a rolling basis which will incorporate future changes to forward energy market prices. If the Applicants believed themselves to be fully hedged at defined forward prices, they would not assert the need to be paid for energy market risk.

E. Applicants' Cost Adder is Arbitrary.

Applicants' attempt (at 27) to defend the use of an arbitrary risk adder to costs. Applicants do not make and do not support the assertion that Applicants' offers from the nuclear plants in the PJM energy and capacity markets include risk adders. Applicants do not provide any evidence or support for the assertion that an arbitrary adder is in any way related to risks faced by the plants.

Applicants argue (at 28) that the Market Monitors' use of "the history of operating costs since 2010" defines operational costs based on "merely a theoretical possibility." Reliance on data derived from actual operational history is the opposite of merely theoretical. Such data is the best available empirical data for defining operation risks.

Despite Applicants' assertion that they have faced unexpected costs, Applicants did not assert that any such costs were not covered from market revenues.

F. Applicants Misstate Market Risks

While Applicants appear to recognize the analysis of risk involves the analysis of the full distribution of possible outcomes, Applicants wish to limit consideration to only negative outcomes and assert that this based on the plain meaning of risk. It is not. The Market Monitor's analysis includes a complete analysis of risk and determines that the appropriate value of risk is negative. Rather than directly addressing the expected distribution of market outcomes, Applicants assert a naïve and incorrect definition of risk under which customers would be required to guarantee Applicants positive outcomes regardless of actual market results.

Applicants' Units are not regulated utilities.⁷ The Units operate in markets where there are no guaranteed rates of return and no limits on returns. Regulated rates are not the correct benchmark. The ZECs Statute does not reregulate the Units under cost of service and does not otherwise provide guaranteed returns. The ZECs Statute provides subsidies only as needed to offset proven market exit signals. No such signals have been proven.

Applicants' discussion of risk reveals its incorrect view of how the ZECs Statute operates. The ZECs Statute authorizes an extreme remedy, only for a demonstrated need for "material financial change" in order to prevent the retirement of the Units. Otherwise, the ZECs Statute leaves the markets intact. It is essential the ZECs Statute be applied correctly, in accordance with its standards and purpose. No subsidies are justified if the need has not been objectively demonstrated under the financial criterion. The record demonstrates no need. The applications should be rejected.

⁷ See Tr. at 90:4-23.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to its argument on reply brief as it implements the ZECs Statute.

Respectfully submitted,



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Dated: April 9, 2021

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
This 9th day of April, 2021.



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