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Commissioner

## **REQUEST FOR WRITTEN COMMENTS**

### **Applications for Zero Emission Certificate Program** **Docket No. EO18080899**

By Order dated May 20, 2020, the Board directed Board Staff ("Staff") to solicit public comments on a revised application for the Zero Emission Certificate ("ZEC") program prior to its finalization. Attached is a draft of the revised application that the Board will use as part of the process to determine which, if any, nuclear power plants will be eligible to receive ZECs during the next three-year eligibility period. Staff has revised this application following the initial ZEC eligibility period and now seeks public comments on it.

On May 23, 2018, Governor Phil Murphy signed into law L. 2018, c. 16 (C.48:3-87.3 to - 87.7) ("Act"). The Act requires the New Jersey Board of Public Utilities ("NJBP" or "Board") to create a program and mechanism for the issuance of ZECs, each of which is intended to represent the fuel diversity, air quality, and other environmental attributes of one megawatt-hour of electricity generated by an eligible nuclear power plant selected by the Board to participate in the program. Under the program, the Board may determine the need to issue ZECs to certain eligible nuclear energy generators for the state of New Jersey's energy supply, which in turn will be purchased by the state's electric distribution companies ("EDCs"). The Act identifies the steps required to establish this program, including program logistics, funding, costs, application, eligibility requirements, selection process, and the timelines associated with each aspect of the legislation.

On April 18, 2019, the Board designated three nuclear power plants as eligible to receive ZECs for an initial eligibility period from April 18, 2019 until May 31, 2022.

Pursuant to N.J.S.A. 48:3-87.5(h)(2), no later than thirteen months prior to the conclusion of the initial eligibility period and no later than thirteen months prior to the conclusion of each three energy-year eligibility period thereafter, a nuclear power plant may demonstrate its eligibility to the Board, and the Board may certify the nuclear power plant's eligibility to receive ZECs for additional eligibility periods of three energy years, consistent with the provisions of the Act. The initial eligibility period began on June 1, 2019 and concludes at the end of Energy Year 2022 on May 31, 2022. Therefore, the Board may certify units' eligibility by April 30, 2021 for the next three-year eligibility period, which begins on June 1, 2022 and concludes on May 31, 2025.

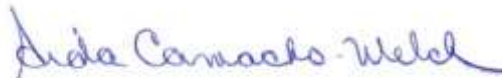
**Stakeholders may submit written comments through July 20, 2020 at 5:00 p.m. EDT.** Written comments may be submitted electronically to [zec.comments@bpu.nj.gov](mailto:zec.comments@bpu.nj.gov) in PDF or Word format with the subject "ZEC Application, Docket No. EO18080899."

Commenters may additionally file comments electronically through the Board's External Access Portal upon obtaining a MyNewJersey Portal ID. Once you establish a MyNewJersey account, you'll need an authorization code, which you can request by emailing NJBPU's IT Helpdesk at [ITHELPDESK@bpu.nj.gov](mailto:ITHELPDESK@bpu.nj.gov).

Comments may also be submitted by mail to:

Aida Camacho-Welch  
Secretary of the Board  
New Jersey Board of Public Utilities  
44 South Clinton Avenue, Post Office Box 350  
Trenton, New Jersey 08625-0350

Please note that these comments may be considered "public documents" for purposes of the State's Open Public Records Act. Stakeholders may identify information that they wish to keep confidential by submitting them in accordance with the confidentiality procedures set forth at N.J.A.C. 14:1-12.3.



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Aida Camacho-Welch  
Board Secretary

Dated: July 1, 2020

This CONFIDENTIAL application is for the Zero Emission Certificate (“ZEC”) program. It is intended to allow any eligible nuclear power plant to apply for credits that will be issued in the State of New Jersey.

Draft Issued By:  
New Jersey Board of Public Utilities  
July 1, 2020

**NOTE: See the posted Q&As developed during the initial eligibility period regarding the application requirements. Any Q&As for the current application will be posted on the Board’s ZEC webpage.**

# Zero Emission Certificate Application<sup>1</sup>

## I. Generation Applicant Information

Unit identification (name and/or designation): \_\_\_\_\_

Unit location: \_\_\_\_\_

Organization that owns the nuclear power plant: \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Federal Nuclear Generator I.D. Number and License Number: \_\_\_\_\_

Federal Tax I.D. Number \_\_\_\_\_

New Jersey Tax Identification Number \_\_\_\_\_

*\* If the nuclear power plant is owned by multiple organizations, make note in this section and provide all relevant information on a supplemental page.*

### Primary Contact for Application

Name \_\_\_\_\_

Title \_\_\_\_\_

Company Name \_\_\_\_\_

Daytime Phone Number \_\_\_\_\_ Email \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

### Authorized Applicant Representative (with ability to enter into agreements)

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

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<sup>1</sup> The application must include an index of each item or document, with a brief description thereof, including the date.

*Notes:*

- *Calculate all requests for information past or future from the date of application.*
- *Represent all costs in nominal dollars.*
- *Provide copies of all workbooks, with all formulae intact, that are used to generate the attachments provided in applications.*
- *Energy year refers to the New Jersey Energy Year, which starts every June and extends for twelve months.*

## **II. Generation Asset Information and Operation**

1. Unit vintage and year applicant Unit was commissioned.
2. Total number of reactor units housed at this Unit.
3. Total Unit capacity/total Unit size per PJM rules (MW).
4. Description of the ownership of the Unit and/or statutory authority of the applicant.
5. Annual average energy produced by the Unit over each of the past five (5) energy years and projected annual generation for the next five (5) energy years (MWh).
6. Annual average capacity and generation provided by the Unit into the energy and capacity markets over the past five (5) energy years and projected annual capacity and generation for the next five (5) energy years (MW & MWh).
7. Total annual Unit run-time over the past five (5) years (hours). Please provide full-year hours online and explain any significant deviation from the five-year average of hours online.
  - a. Identify refueling outages on an energy year basis over the past five (5) years (\$).
8. Plant personnel count for application year and five (5) years previous (annual).

### **III. Zero Emission Credit Justification - Financial**

#### GENERAL

1. Provide current net book value of the Unit at the time of application. Explain how the initial book value was determined and provide annual year-end gross and net book values through 2019.
2. Provide current and historical financial statements conducted by the Unit's owner/operator for each Unit for the past five (5) years and the next five (5) years, including supporting workbooks and input assumptions. Include line items for:
  - a. Energy revenues
  - b. Capacity revenues
  - c. Variable operation & maintenance expenses
  - d. Fixed operation & maintenance expenses
  - e. Overhead and other non-operating expenses
  - f. Capital expenditures
  - g. Cost of capital
  - h. Cost of operational and market risks

#### COSTS

3. Provide certified costs over the past five (5) energy years, including, but not limited to: operation and maintenance expenses; fuel expenses; spent fuel expenditures; non-fuel capital expenditures; long-term fuel storage costs; and other capital costs, including uranium fuel pricing for the Unit; fully allocated overhead costs.
4. Provide certified cost projections over the next five (5) energy years, including, but not limited to: operation and maintenance expenses; fuel expenses; spent fuel expenditures; non-fuel capital expenditures; long-term fuel storage costs; and other capital costs, including uranium fuel pricing for the Unit; fully allocated overhead costs.
5. Provide current cost of capital, as well as required cost of capital for each of the next five (5) years plus a detailed accounting of how the cost of capital was determined.

#### REVENUES/INCOME

6. Identify and describe any obligations/commitments under which the Unit has operated in the past five (5) years and/or currently operates regarding the current New Jersey Basic Generation Service and any PJM markets, including any Reliability Must Run contracts, the duration of such obligations and/or commitments, and supporting documentation and calculations.
7. Provide a list of all active and anticipated contracts for capacity and/or energy supply by the Unit outside of the BGS and PJM markets. Include capacity and/or energy contracted, type of market, length of obligation, and customer. Be prepared to provide documentation upon request.

## DRAFT FOR PUBLIC COMMENT

8. Provide the annual average Unit bid price in the annual Base Residual Auction (“BRA”) over the past five (5) years (\$/MW).
9. Provide a list of capacity and energy payments received from PJM for the Unit over the past five (5) years.
10. Provide all revenue projections over the next five (5) years related to:
  - a. unit-specific hedges to mitigate market exposure of the Unit,
  - b. capacity market revenues at the locational clearing price for the Unit in the Base Residual Auction regardless of whether the Unit cleared in the PJM capacity market auction
  - c. energy market revenues, including relevant underlying fuel price forecasts and relevant PJM forward power market curves, and
  - d. contracts outside the PJM markets.

Please state all of the assumptions used in the revenue projections. In forecasting power prices, please show the underlying load forecasts, and forecasts of the entry and exit of resources in the PJM market. Account for and explain changed capacity revenue expected to result from the December 2019 FERC capacity market decision. Include all citations and worksheets used for the calculations in Excel form. Be prepared to provide documentation upon request.

11. Provide a certification that the nuclear power Unit does not receive any direct or indirect payment or credit under a law, rule, regulation, order, tariff, or other action of this State or any other state, or a federal law, rule, regulation, order, tariff, or other action, or a regional compact, despite its reasonable best efforts to obtain any such payment or credit, for its fuel diversity, resilience, air quality, or other environmental attributes that will eliminate the need for the nuclear power plant to retire.
12. Provide a detailed list and description of any subsidies or grants **received** for the Unit from federal sources, state sources, PJM, or other governmental agency for the applicant Unit in the past five (5) years. Include the monetary amount received, exemptions for capacity bidding, and/or tax incentives. Be prepared to provide documentation upon request.
13. Provide a list and description of any subsidies or grants **anticipated** for the Unit from federal sources, state sources, PJM, or any other governmental agency for the applicant Unit. Include the monetary amount received, exemptions for capacity bidding, and/or tax incentives. Be prepared to provide documentation upon request.

## RISKS

14. Provide estimated cost of operational risks and market risks:
  - a. Provide a detailed explanation, including supporting workbooks, of how the costs of operational risk and market risk were calculated for energy years 2022–2024; and
  - b. Explain how the cost of operational risks and market risks would be avoided by ceasing operations.
  - c. Previous ZEC recipients should provide an update of the costs of operational and market risks.

15. Provide estimated risk-adjusted cost of capital:
  - a. Provide a detailed explanation, including supporting workbooks, of how the risk-adjusted cost of capital was calculated for energy years 2022 – 2024; and
  - b. Provide the methodology used to determine the risk-adjusted cost of capital, along with supporting documentation and industry benchmarks it deems appropriate, and juxtapose this against the original cost of capital.

## CASH FLOW ANALYSIS

16. For Units that participated in the initial eligibility period, provide a comparison analysis of projected cash flows at the time of the last application vs. the actual cash flows for the time the Unit received ZECs.
17. Demonstrate that the Unit is financially unviable, i.e., if the Unit's revenue and funding will be outweighed by the avoided costs of the Unit, for each year through 2030. Provide all backup documentation.
18. Provide all presentations, transcripts, and similar information made by the applicant to investors, equity analysts, and rating agencies for the past five (5) years regarding the Unit.
19. Provide a projection of subsidy requirements (\$/year) by Unit and MWh produced, in each of the next five (5) years, to maintain minimum revenue requirements required to fully cover all costs, including risk-adjusted cost of capital.
20. Provide any analyses that estimate the total net benefit (after costs) of entering into unit specific hedges for each year from 2017–2021.

#### **IV. Zero Emission Credit Justification - Environmental**

1. Provide an explanation, including any studies and relevant data, for how the Unit makes a significant and material contribution to air quality in New Jersey by minimizing harmful emissions that (a) result from electricity consumed in New Jersey or (b) adversely affect the citizens of New Jersey, and an explanation as to how a retirement would significantly and negatively impact New Jersey's ability to comply with State air emissions reduction requirements. Include air dispersion modeling results and supporting files.
2. Provide a detailed description, including any studies and relevant data, of the avoided greenhouse gas ("GHG") emissions avoided by this Unit's operation five (5) years prior to and projected five (5) years beyond the application date. Identify the emission sources that will be displaced by this Unit.
3. Provide a list of all environmental permits for the Unit. Indicate whether there were any environmental permit violations, enforcement actions, outstanding environmental compliance requirements, or remedial actions planned, ongoing, and completed for the Unit (including the Unit's surrounding property) from 2018 to the present. Be prepared to provide documentation upon request.
4. Project what generation assets would fulfill the State of New Jersey's capacity and energy requirements if the Unit were to shut down. Include assumptions, supporting data, and source information for this analysis.
5. If applicable, discuss how applicant Unit's production of electricity generation will support the BPU's Renewable Portfolio Standards ("RPS") requirements and cost effective transition to a zero carbon supply.

## **V. Impact of the Unit's Deactivation**

1. Indicate the remaining useful life of the generating Unit.
2. Estimate the costs that would be incurred by the applicant to shut down the Unit. What costs would be funded by the Unit's decommissioning funds, and what costs would be funded by the applicant?
3. Demonstrate the impact on ownership and applicant's earnings during each of the next five (5) years, assuming that the Unit shuts down. Include any financial impact(s) to the parent organization.
4. Explain the avoided costs to the applicant if the Unit is deactivated. Please include the costs associated with fuel, salary, O&M, capital improvement projects, permitting, and the costs of all other relevant factors involved. Provide backup documentation.
5. Provide results from internal or commissioned dispatch modeling of the impact of the Unit's retirement scenarios.
  - Include all assessments of avoided emissions, based on differential (with and without each Unit claimed for ZECs) scenario modeling
  - Include all work papers and modeling inputs and outputs
  - If no such modeling has been conducted, include an explanation and computation of avoided emissions from retention of the Unit.
6. Describe the status of decommissioning funds for the Unit as of the date of the application, include decommissioning status reports filed with the Nuclear Regulatory Commission ("NRC"), and identify any shortfall of decommissioning funds resulting from early retirement of the Unit.
7. Provide a list of all data provided by the applicant and related to the Unit to the U.S. Environmental Protection Agency ("EPA") over the past five (5) years. Be prepared to provide documentation upon request.
8. Provide a list of submissions of documentation (permits, enforcement actions, etc.) by the owner/operator regarding the Unit to the New Jersey Department of Environmental Protection ("NJDEP") over the past five (5) years to demonstrate that all standards and requirements are being met. Be prepared to provide documentation upon request.

## **VI. Miscellaneous**

1. Explain how the Unit makes a significant and material contribution to the diversity and resiliency of the energy resource mix for electricity delivered in New Jersey.
2. Explain whether receipt of the ZECs will have any impact on the Unit's participation in the wholesale markets. If so, how? (Response must be both quantitative and qualitative and include discussion of anticipated impact on the BGS auction and a comparison of costs and benefits.) For Units currently receiving ZECs, explain and show how receipt has impacted the Unit's participation in wholesale markets.
3. Explain how receipt of the ZECs will not lead to New Jersey ratepayers "double paying" for capacity, i.e., 1) paying ZEC-eligible Units for the environmental attributes while 2) not retaining the benefit of their capacity requirement, and therefore paying other units to fulfill New Jersey's PJM capacity commitment.

## **VII. Supplemental Submissions with the Application**

Please provide the following:

1. A certification that the nuclear power generation Unit will cease operations within three (3) years unless the nuclear power plant experiences a material financial change. This certification must specify the necessary steps required to cease the nuclear power plant's operations. Also:
  - a. Identify and describe all of the applicant's commitments and obligations to the NRC that would be required in advance of a unit shutdown.
  - b. Indicate the earliest date that the applicant could access decommissioning trust funds for the Unit.
  - c. Indicate the earliest date that the applicant could realistically shut down the Unit per NRC, PJM, or other commitments and obligations.
2. A certified copy of the Unit's federal operating license demonstrating that the Unit is licensed to operate through 2030 or later.
3. A spreadsheet showing the estimated average rate impacts of the applicant Unit receiving ZECs to New Jersey customers across all rate classes.
4. Federal forms SEC 10-K, 10-Q, and other documents provided to the Securities and Exchange Commission ("SEC") for the past five (5) years; list and highlight references to the applicant Unit.
5. A list of all data provided by the Applicant and related to the Unit to the Federal Energy Regulatory Commission ("FERC") over the past five (5) years. Be prepared to provide documentation upon request.
6. An updated version of the data specific to the Unit provided to the Nuclear Energy Institute ("NEI") and the Electric Utility Cost Group ("EUCG") when responding to their latest survey.
7. A list of all filings by the applicant relating to the Unit with the NRC over the past five (5) years. Be prepared to provide documentation upon request.
8. A list of any NRC enforcement or legal actions taken or filed against the Unit from ten (10) years prior to the application to present. Be prepared to provide documentation upon request.
9. A list of all audits performed by internal employees, commissioned, or performed by any governmental agency on the Unit over the past five (5) years. Be prepared to provide documents upon request.
10. A list of the incidents, by hours, over the past five (5) years when an energy bid from the Unit was not accepted into PJM Markets. Be prepared to provide documentation upon request.
11. Planned refueling outages for the Unit over the next three (3) years.
12. Shareholder payout over the past five (5) years attributed to the Unit and operator.

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13. Certification that all equipment located at or servicing the nuclear power Unit are as stringent as the standards and emission limits in N.J.A.C. 7:27 et seq.
14. Certification of accuracy of application by applicant Company Officer.

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