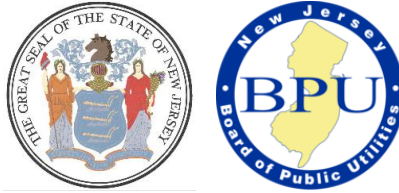


State of New Jersey  
Governor Philip D. Murphy  
Lt. Governor Tahesha L. Way

Board of Public Utilities



[www.nj.gov/bpu/](http://www.nj.gov/bpu/)



Christine Guhl-Sadovy  
President

Dr. Zenon Christodoulou  
Marian Abdou  
Michael Bange  
Commissioners

## NOTICE

### IN THE MATTER OF PROSPECTIVE NUCLEAR ENERGY GENERATION IN NEW JERSEY

#### REQUEST FOR INFORMATION

[Docket No. Q025040202](#)

Staff of the New Jersey Board of Public Utilities ("NJBPU" or "Board") hereby invites all interested parties and members of the public to provide written responses to this Request for Information ("RFI") regarding prospective new nuclear electricity generation in New Jersey.

#### **BACKGROUND AND PROCEDURAL HISTORY**

In 2007, New Jersey enacted the Global Warming Response Act ("GWRA"), P.L. 2007, c. 112 (C.26:2C-37 et seq.), mandating an 80% reduction in greenhouse gas emissions from 2006 levels by 2050. The New Jersey Department of Environmental Protection's 2020 GWRA 80x50 Report outlined pathways to achieve this target, emphasizing significant emissions reductions across all sectors.

Building upon these goals, Governor Murphy issued Executive Order No. 274 in November 2021, establishing an interim target to reduce emissions to 50% below 2006 levels by 2030. Subsequently, in February 2023, Executive Order No. 315 accelerated the State's clean energy goal to achieve 100% clean electricity by January 1, 2035. Meeting these clean energy goals remains imperative for the State.

New Jersey and the larger PJM Interconnection L.L.C. region face increases in electricity demand as a result of load growth from AI data centers, new manufacturing facilities, and transportation electrification. According to the PJM 2025 Long-Term Load Forecast, electricity demand within the region is expected to significantly increase, with a projected growth of nearly 40% in the next 14 years. Additionally, in March of 2025, the BPU and Governor's Office presented modeling completed in support of the 2024 Energy Master Plan ("EMP")<sup>1</sup> which indicated a growing need for up to 10 gigawatts of clean firm capacity to maintain system reliability post-2035.

To ensure resource adequacy<sup>2</sup> can be met in the region without unreasonable impacts on ratepayers, new sources of electricity generation must come online to grow the supply of resources into the electricity grid. The EMP modeling identifies nuclear technologies, including advanced nuclear technologies, as

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<sup>1</sup> In the Matter of the 2024 New Jersey Energy Master Plan, Docket No. Q024020126, Public Stakeholder Meeting and Request for Comment (March 13, 2025), [3.13.25 2024 EMP Draft Public Notice - FINAL Revised-.pdf](#)

<sup>2</sup> "Resource Adequacy" is the process of ensuring that there is a sufficient supply of electricity generating capacity, in the right areas of the electric grid, to reliably meet customer's need for electricity, plus an adequate buffer or "reserve margin," to accommodate periods of high demand or stress on the electric grid, or allow the grid to continue functioning even when isolated generation or transmission resources fail. New Jersey relies on the centralized, regional capacity market, run by PJM Interconnection L.L.C., to meet our resource adequacy needs and ensure a reliable grid.

potential opportunities of key importance to meet the growing need for new sources of generation. As such, NJBPU is initiating this RFI to explore the role of and opportunity to develop new nuclear energy resources to meet the State's resource adequacy, clean energy, and reliability objectives.

Nuclear power is the use of sustained nuclear fission to generate heat and electricity.<sup>3</sup> For over 50 years New Jersey has harnessed this energy source to produce reliable, emission-free electricity, and create thousands of jobs.

New Jersey has three active thermal nuclear power reactors, Salem 1 and 2 and Hope Creek. The three reactors generate 40% of the state's electricity and 85% of its emission-free generation. These power units, like most of the United States' nuclear fleet, are known as third generation (GEN III) nuclear reactors.

Technological and safety innovations have created the potential for new nuclear technologies to be developed with improved performance and safety features. New nuclear development may involve Gen III+ Light Water Reactors (LWRs)<sup>4</sup> and advanced reactors<sup>5</sup>, which include non-LWR reactor designs and small modular reactors (SMR) that may or may not have an LWR design.

## **RFI QUESTIONS**

Respondents are encouraged to answer any of the following questions they consider relevant to the best of their ability. Respondents are not required to answer all questions for their submission to be considered. Answers are understood to be preliminary and non-binding. Respondents may expand beyond the scope of these questions and/or structure responses as necessary to increase clarity and efficiency. Additional information deemed relevant may also be submitted.

When providing information, please clearly specify the type, size, and technology of the nuclear facility your responses are based on, as estimates and considerations can vary significantly across different nuclear facility configurations (e.g., large-scale conventional reactors, small modular reactors, microreactors, etc.).

### **A. Role of Nuclear in New Jersey's Electricity Production**

1. How important is new nuclear electricity production in meeting the State's resource adequacy requirements?
2. How important is new nuclear electric generating capacity in meeting the goals of the "Global Warming Response Act," P.L. 2007, c. 112 (C.26:2C-37 et seq.), including the goal to reduce greenhouse gas emissions by 2050?
3. How might nuclear complement other traditional and clean energy resources in New Jersey's energy portfolio?

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<sup>3</sup> For more information on nuclear power see: <https://www.energy.gov/topics/nuclear-energy>

<sup>4</sup> For more information on types of LWRs see: <https://www.energy.gov/ne/articles/nuclear-101-how-does-nuclear-reactor-work>

<sup>5</sup> For more information on advanced nuclear reactors see: <https://www.energy.gov/ne/enhanced-safety-advanced-reactors> and <https://www.gen-4.org/generation-iv-criteria-and-technologies>

4. How can nuclear electricity production, from new or existing power resources, address the needs of large loads such as AI data centers, and how can ratepayers be protected from the impacts of using existing energy resources to power AI data centers?

## **B. Nuclear Facility Types and Siting**

1. What roles should various scales of nuclear power play in New Jersey?
  - a. Large-scale nuclear facilities (>300 megawatts)
  - b. Small modular reactors (51-300 megawatts)
  - c. Microreactors (1-50 megawatts)
2. What roles should various technologies play in the development of new nuclear facilities in New Jersey, such as advanced fuel types, reactor designs, materials, and ancillary technologies?
3. What considerations should be evaluated regarding fission-based versus fusion-based reactors in New Jersey?
4. How could thermal energy from such facilities be beneficially used?
5. If your community could potentially host new nuclear facilities, is there information important for the State to consider when evaluating development feasibility and suitability?
6. What areas, regions, categories of sites, or specific sites in New Jersey might be suitable (or unsuitable) for siting new large-scale nuclear facilities?
7. What areas, regions, categories of sites, or specific sites in New Jersey might be suitable (or unsuitable) for siting new small-scale or microreactor nuclear facilities?
8. How might these new nuclear projects affect local ecosystems, and what measures may be needed to mitigate any potential adverse environmental effects? Do these effects differ based on the type of nuclear technology deployed?

## **C. Nuclear Safety and Nuclear Waste**

1. Any new proposed nuclear facility must comply with applicable regulations designed to increase safety, conform to standards established by the Nuclear Regulatory Commission, and effectively remove any dangers from waste material related to the disposal of radioactive waste material produced or generated by any new nuclear facility. What environmental impacts and benefits should be considered as the State contemplates the development of new nuclear electric generating capacity in New Jersey?

## **D. Role of State Government**

1. What are the barriers to entry for new nuclear generation that are within the State's jurisdiction to redress?
2. Are new rules and legislation needed to spur the development of new nuclear power in the state?
3. What actions, if any, should the State take to facilitate the development of new nuclear electric generating capacity in New Jersey?
4. Should the State of New Jersey provide financial assistance or incentives for the creation of new nuclear electric generating capacity? If so, through what mechanisms?
5. How can or should such incentives/incentive programs be designed to support the New Jersey economy while protecting New Jersey ratepayers?
6. What measures should the State take to develop a workforce to support nuclear development in New Jersey?

7. How would workforce development initiatives support underserved and underrepresented communities?

#### **E. Public Participation and Stakeholder Engagement**

1. What stakeholder processes are needed to support the responsible development of nuclear electric generating capacity in New Jersey?
2. Should New Jersey establish a "Blue Ribbon Panel" to evaluate nuclear opportunities? If so, what types of entities should be represented and what specific topics should be explored?
3. How should State agencies, experts, utilities/generating companies, community organizations, environmental organizations, large energy users, and the general public be involved in the process of developing new nuclear capacity in the state?

#### **F. Economic Factors and Financing**

1. What capital expenditure and operating expenses would be required to build different types of nuclear facilities in New Jersey?
2. What financing options are available to pay these capital costs, including private investment, federal programs, and potential State mechanisms?
3. What are the benefits, including job creation, for the state and local communities associated with new nuclear development?
4. What is the estimated number of jobs that would be created during the construction phase? What types of trades and skills would be required?
5. What is the estimated number of permanent jobs once a facility is operational? What occupations and special skills or training would be required?
6. What are the key supply chain needs for manufacturing and construction of the proposed nuclear technology that can be sourced within the state currently or could reasonably be developed to be sourced within the pre-development timeline?
7. What known challenges exist, within the state or globally, in the supply chain for reactor components, specialized materials, or skilled labor?
8. What additional or ancillary economic development opportunities in the state might arise from new nuclear facilities?
9. What would be the expected cost of power – in (\$/MWh) and other metrics – for proposed new nuclear development?
10. How should costs and benefits be distributed among developers, investors, and other private and public parties? How should local communities benefit from, or be incentivized to participate in, the industry?

#### **G. Other Considerations**

Please provide any additional comments or information you believe would be helpful to the Board in considering the role of nuclear generation in New Jersey's clean energy future. Responses to this section should be limited to no more than 10 pages.

## **COMMENTS**

All public comments should be filed under Docket No. QO25040202.

**The deadline for comments on this matter is 5 p.m. on June 23, 2025.**

Comments may be submitted directly to the specific docket listed above using the "Post Comments" button on the Board's Public Document Search. Comments are considered public documents for purposes of the State's Open Public Records Act. Only public documents should be submitted using the "Post Comments" button on the Board's Public Document Search tool. Any confidential information should be submitted in accordance with the procedures set forth in N.J.A.C. 14:1-12.3. In addition to hard copy submissions, confidential information may also be filed electronically via the Board's e-filing system or by email to the Secretary of the Board. Please include "Confidential Information" in the subject line of any email. Instructions for confidential e-filing are found on the Board's webpage <https://www.nj.gov/bpu/agenda/efiling/>.

E-mailed and/or written comments may also be submitted to:

**Sherri L. Lewis**

Secretary of the Board  
44 South Clinton Ave., 1<sup>st</sup> Floor  
PO Box 350  
Trenton, NJ 08625-0350  
Phone: 609-292-1599  
Email: [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov)

Board Staff looks forward to receiving and reviewing your responses.

*Sherri L. Lewis*

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Sherri L. Lewis  
Secretary of the Board

Dated: May 5, 2025