



Agenda Date: 4/17/24  
Agenda Item: 8E

**STATE OF NEW JERSEY**  
**Board of Public Utilities**  
44 South Clinton Avenue, 1<sup>st</sup> Floor  
Post Office Box 350  
Trenton, New Jersey 08625-0350  
[www.nj.gov/bpu/](http://www.nj.gov/bpu/)

CLEAN ENERGY

IN THE MATTER OF A MEMORANDUM OF )  
AGREEMENT BETWEEN THE NEW JERSEY BOARD )  
OF PUBLIC UTILITIES AND THE NATIONAL )  
OFFSHORE WIND RESEARCH AND DEVELOPMENT )  
CONSORTIUM (NOWRDC) FOR AN OFFSHORE WIND )  
BLACK-START FEASIBILITY FRAMEWORK FOR )  
SYSTEM RESTORATION PLANNING )  
ORDER  
DOCKET NO. QO24030166

**Party of Record:**

**Brian O. Lipman, Esq., Director**, New Jersey Division of Rate Counsel

BY THE BOARD:

**BACKGROUND/PROCEDURAL HISTORY**

On January 31, 2018, Governor Murphy issued Executive Order No. 8 (“EO8”), requiring New Jersey State agencies with responsibilities arising under the Offshore Wind Economic Development Act (“OWEDA”), N.J.S.A. 48:3-87.1, including the New Jersey Board of Public Utilities (“Board” or “BPU”), to take the steps necessary to implement OWEDA and promote the development of offshore wind generation in the State. EO8 further required the President of the BPU to develop an Offshore Wind Strategic Plan (“OWSP”) focusing on “critical components of offshore wind development, including achieving scale to reduce costs, job growth, supply-chain businesses, workforce development, data collection, and appropriate siting of facilities” and to “ensure that natural resources are protected throughout the development and operational stages of offshore wind energy production.”

By Order dated September 9, 2020 the Board released the OWSP whereby the Board recommended, among other things, that New Jersey “[j]oin other states to coordinate regional monitoring and research” to “[s]upport scientific and technical research at state and regional levels to address issues related to offshore wind energy project planning, siting, construction, operation, and monitoring.”<sup>1</sup>

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<sup>1</sup> In re the Development of an Offshore Wind Strategic Plan in Furtherance of the Implementation of Executive Order Number 8 and Executive Order Number 92, BPU Docket No. QO20080560, Order dated September 9, 2020.

Pursuant to the OWSP, on July 6, 2021, the BPU submitted a letter of intent to the National Offshore Wind Research and Development Consortium (“NOWRDC”) to join NOWRDC as a Public Sponsor Member (“Member”) in accordance with Section 1.2(c) of NOWRDC’s Bylaws, subject to formal approval by NOWRDC’s Board.<sup>2</sup> On July 14, 2021, through an affirmative vote of a majority of NOWRDC’s Board of Directors and in accordance with Section 1.1 of NOWRDC’s Bylaws, NOWRDC approved the BPU’s Public Sponsor Membership.

Public Sponsor Membership in NOWRDC requires each Member to commit to contribute a total of \$1,000,000 to NOWRDC over four (4) years to support research initiatives in offshore wind, as well as to provide \$25,000 per year in annual membership dues to support NOWRDC operations and administration.

By Memorandum of Agreement dated December 20, 2021 (“MOA”), the BPU and NOWRDC agreed that New Jersey’s \$1,000,000 commitment to NOWRDC (“Funds”) would be provided over the period from January 1, 2022 through December 31, 2025 in such amounts and at such times as the Board and NOWRDC may agree. Pursuant to the MOA, the Funds will be used for successful proposals responding to NOWRDC’s competitive research solicitations that, as determined by the Board: 1) include research activities undertaken in New Jersey by New Jersey-based institutions as part of NOWRDC-funded projects; or 2) that benefit New Jersey. In addition, a portion of the Funds may be offset through in-kind services provided by the BPU or other New Jersey government entities for planning and managing activities related to offshore wind, as agreed to by the BPU and NOWRDC’s Board.

NOWRDC’s 2023 Solicitation 3.0 (“Solicitation”), which was issued October 16, 2023, was a joint solicitation with Innovate UK, the United Kingdom’s national innovation agency which supports business-led innovation. Projects submitted in response to this solicitation were required to contain both a US-led scope and a UK-led scope, funded by NOWRDC and Innovate UK, respectively. The goal of the parallel solicitations was to have applicant research teams in the UK and US partner to jointly address technology challenges in the offshore wind industry. NOWRDC and Innovate UK had previously collaborated on a joint solicitation as a part of NOWRDC’s Solicitation 1.0.

In an August 2, 2023 letter to NOWRDC’s Executive Director, the New Jersey NOWRDC Team (“Team”), comprised of staff from the BPU, New Jersey Department of Environmental Protection, and New Jersey Economic Development Authority, stated that it had allocated up to \$400,000 of New Jersey’s \$1,000,000 cost-share funds to support the Solicitation. That letter explained that New Jersey would provide its cost-share funds to support a project that has been deemed worthy of funding by the NOWRDC Scoring Committee (“Scoring Committee”) and also deemed a benefit to New Jersey ratepayers by the New Jersey NOWRDC Team. The letter went on to explain that these funds are to be provided once the contract with the awardee has been executed. The Team agreed to allow 15% of these funds to be used by NOWRDC to cover indirect costs including

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<sup>2</sup> NOWRDC was established in 2018 as a not-for-profit corporation to facilitate and enhance development and implementation of offshore wind power technology through scientific research for the public purpose of increasing the performance and capability of the electric power supply and delivery system. Initial funding for NOWRDC came from the U.S. Department of Energy and the New York State Energy Research and Development Authority, with additional, later, funding from the Commonwealths of Virginia and Massachusetts and the States of Maryland and Maine. NOWRDC is dedicated to managing industry-focused research and development of offshore wind to maximize economic benefits for the United States and reduce the levelized cost of energy of offshore wind.

program manager and general staff time to administer the Solicitation, legal consultation during the project award contracting phase as well as insurance, software, and other overhead costs.

Proposals for the Solicitation were due on January 10, 2024. The proposals were scored by peer reviewers from the NOWRDC Scoring Committee between February 12, 2024 and February 16, 2024. Innovate UK conducted a review of the UK scope proposals. Of the proposal submissions, eight (8) received a score sufficient to receive a funding-recommendation from both NOWRDC and Innovate UK.

The NOWRDC Leadership Team, made up of staff representatives of the Solicitation state funders (the Board, Maryland Energy Administration, and Massachusetts Clean Energy Center), convened on February 22, 2024 and March 6, 2024 to discuss the results of the Scoring Committee review and potential awards. During its review of the Solicitation proposals and scoring, the New Jersey NOWRDC Team determined the proposal entitled “Offshore Wind Black-Start Feasibility Framework for System Restoration Planning” project (“Project”) submitted by Electric Power Research Institute Inc. (“EPRI”) would offer benefits to New Jersey ratepayers and represented a valuable use of funds.<sup>3</sup>

### Black-Start Feasibility Study

Per a NOWRDC Leadership Team coordination meeting on March 6, 2024, New Jersey will contribute a total of \$265,350 to the Project, covering one-third of NOWRDC’s anticipated costs to fund the Project (\$230,739) and an additional 15% (\$34,611) for NOWRDC’s indirect administrative expenses necessary to facilitate the Project. Contributions covering the remaining two-thirds of the anticipated project costs (\$461,478) will be provided by the other two (2) members of the NOWRDC Leadership Team, namely, the Maryland Energy Administration and Massachusetts Clean Energy Center. The proposal for the Project provided a Statement of Work (“SOW”) detailing the work to be performed by the Project. The Project seeks to develop a generalized framework which can be used on a system-wide basis to identify the black-start capabilities of offshore wind under a range of different operational and contingency scenarios and develop easy-to-use metrics for system operators to use in system restoration with offshore wind resources. At the completion of the proposed research, the Project will provide the framework needed to understand how to integrate offshore wind into system restoration strategies, including the limitations, challenges, and potential solutions. The Project is expected to last two (2) years.

The primary benefit to the State of New Jersey from the Project would be the general reduction of uncertainty in offshore wind as a black-start resource, informing New Jersey’s system resilience with increased penetration of offshore wind generation.

NOWRDC requested that the Board authorize distribution of funding to allow the Project to be awarded on April 17, 2024.

### **DISCUSSION AND FINDINGS**

Black-start services are essential to operating a safe, reliable, and resilient power grid. Offshore wind can potentially play a significant role in future restoration strategies as its large capacity can be used to implement a fast and environmentally-friendly restoration procedure. To date, however, relatively little technical research has been devoted to assessing the feasibility of

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<sup>3</sup> Black-start is the procedure of restarting the electric grid from a total or partial shutdown.

offshore wind in black-start restoration planning. As a result, grid operators have limited tools at their disposal to ascertain how offshore wind can serve as a black-start resource. As offshore wind becomes a larger component of New Jersey's electric grid, it is critical these resources contribute to system restoration processes.

The purpose of the Project is to assess offshore wind black-start feasibility in restoration planning. For the proposed project, EPRI will work to investigate and develop methodologies for integrating offshore wind in the existing restoration strategies. The proposed objectives for the offshore wind black-start feasibility framework for system restoration planning includes development of the feasibility framework for system planners to integrate offshore wind into their black-start analysis, development of detailed generic models for offshore wind inverter-based resources to demonstrate to the industry the needed functionality to support black-start, and to identify the key system metrics and performance indicators needed during real-time system restoration processes. Grid operators, regulators, and developers are expected to utilize the end products to integrate offshore wind into the grid restoration planning.

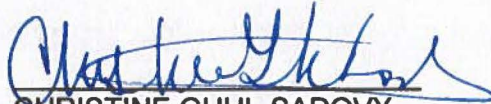
After review of the record in this proceeding, including the MOA, the results of the NOWRDC Scoring Committee review for the Project and the SOW, the Board **HEREBY FINDS** that the Project is consistent with the goals of increasing the performance and capability of the electric power supply and delivery system for New Jersey ratepayers and is consistent with the goals of OWEDA. The Board **FURTHER FINDS** that, because the report anticipated at the close of the Project will provide insights into offshore wind's black-start capabilities enabling the Board and the State to make better-informed policy decisions regarding grid reliability, the Project serves a direct benefit to the State of New Jersey. As such, the Board **HEREBY APPROVES**, pursuant to the MOA, distribution of \$265,350 in funds to support the Project, to be provided once the contract between NOWRDC and EPRI has been executed.

The Board **HEREBY ORDERS** Staff to take steps necessary to distribute \$265,350 in funds to NOWRDC for use in the Project.

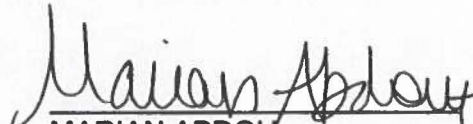
This Order shall be effective on April 17, 2024.

DATED: April 17, 2024

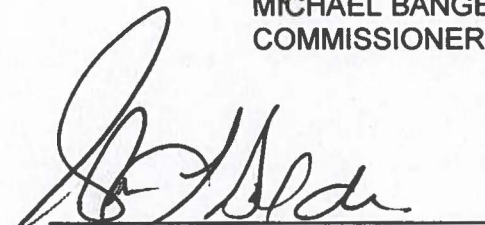
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ATTEST:   
SHERRI L. GOLDEN  
SECRETARY

I HEREBY CERTIFY that the within  
document is a true copy of the original  
in the files of the Board of Public Utilities.

IN THE MATTER OF A MEMORANDUM OF AGREEMENT BETWEEN THE NEW JERSEY BOARD OF PUBLIC UTILITIES AND THE NATIONAL OFFSHORE WIND RESEARCH AND DEVELOPMENT CONSORTIUM (NOWRDC) FOR AN OFFSHORE WIND BLACK-START FEASIBILITY FRAMEWORK FOR SYSTEM RESTORATION PLANNING

Docket No. QO24030166

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