



STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

CLEAN ENERGY

IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND SOLICITATION FOR 1,100 MW – EVALUATION OF THE OFFSHORE WIND APPLICATIONS)
ORDER AUTHORIZING OCEAN WIND'S TURBINE REPLACEMENT OR UPDATE)
DOCKET NO. QO18121289)

Parties of Record:

Ira G. Megdal, Esq., Cozen O'Connor, on behalf of Ocean Wind, LLC
Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel

BY THE BOARD:

By this Order, the New Jersey Board of Public Utilities ("Board" or "BPU") considers a petition submitted by Ocean Wind, LLC ("Ocean Wind") for authorization to upgrade its turbine selection for its 1,100 MW offshore wind ("OSW") project.

I. BACKGROUND AND PROCEDURAL HISTORY

Governor Murphy signed Executive Order No. 8 ("EO8") on January 21, 2018, establishing at that time the nation's most aggressive offshore wind ("OSW") goal of 3,500 MW of OSW capacity by 2030. EO8 also directed the Board to issue an initial 1,100 MW solicitation for OSW projects in federal waters off the outer continental shelf of New Jersey consistent with the Offshore Wind Economic Development Act ("OWEDA").¹ In response, on September 17, 2018, the Board opened an application window, inviting all interested parties to submit applications to develop up to 1,100 MW of OSW capacity.²

The Board received three competitive applications on December 28, 2018, and, after thorough review, approved Ocean Wind's 1,100 MW project as a Qualified OSW Facility by Board Order

¹ N.J.S.A. 48:3-87(d)(4) to -87.2.

² In the Matter of the Opening of Offshore Wind Renewable Energy Certificate (OREC) Application Window for 1,100 Megawatts of Offshore Wind Capacity in Furtherance of Executive Order No. 8, Docket No. QO18080851, Order dated September 17, 2018.

dated June 21, 2019 ("June 21 Order").³ Among other things, OWEDA requires that the OSW application include a comprehensive description of the project, including turbine details such as the type, size, and proposed number of turbines and foundations.⁴ The application must also include a "detailed implementation plan that highlights key milestone activities during the permitting, financing, design, equipment solicitation, manufacturing, shipping, assembly, in-field installation, testing, equipment commissioning and service start-up" of the application's proposed turbines.⁵

The Board's regulations further mandate that the OSW application provide certain details on the manufacturer, model, and specifications of the proposed turbines.⁶ Additionally, an estimate of the amount of energy to be generated and a project revenue plan that details the anticipated revenues and costs over the expected life of the turbines is required.⁷

Due to the largescale nature of OSW development, it can take years of planning for a project to begin construction. To ensure that the most advantageous technology is utilized, the Board's regulations permit an applicant to "replace or update equipment identified in the proposal with more technologically advanced equipment that is equal to or better than the equipment identified in the proposal, subject to Board approval."⁸

In its original application to the Board, Ocean Wind provided the necessary information on its turbine selection for its proposed design basis; however, Ocean Wind also stated that "...Ocean Wind has not made a final WTG selection, and other suppliers are under consideration." Ocean Wind further indicated that one of the other suppliers under consideration was the GE Haliade-12 MW Wind Turbine Generator ("GE Haliade 12 MW WTG"). Throughout the evaluation process, Ocean Wind maintained that it wished to reserve the right to select a different WTG than the one used for the design basis, based on the results of ongoing due diligence and technical feasibility studies.

II. OCEAN WIND'S PETITION

On October 2, 2019, Ocean Wind submitted a petition to the Board seeking authorization to replace the WTG used as the design basis in its application with the GE Haliade 12 MW WTG. According to the petition, after comprehensive technical due diligence, Ocean Wind found that the GE Haliade 12 MW WTG:

- Is well suited to the conditions of the project site;
- Will not have any material effect on the project's permitting process and schedule; in fact, it could be beneficial because of:
 - Increased spacing between the turbines;

³ In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW – Evaluation of the Offshore Wind Applications, Docket No. QO18121289, Order dated June 21, 2019.

⁴ N.J.S.A. 48:3-87.1(a)(1).

⁵ Ibid.

⁶ N.J.A.C. 14:8-6.5(a)(2)(v).

⁷ N.J.A.C. 14:8-6.5(a)(2)(vi) and N.J.A.C. 14:8-6.5(a)(6)(ii).

⁸ N.J.A.C. 14:8-6.5(a)(2)(ii).

- Reduced length of the installation period;
 - Reduced total affected footprint on the seabed;
 - An improved viewshed based on fewer structures; and
 - Reduced construction and maintenance vessel traffic.
- Will produce a higher level of annual energy output than the design basis turbine;
 - Will not have any material adverse effect on the levelized net OREC or annual costs to ratepayers;
 - Will not have any material adverse effect on the project's economic development benefits; and
 - Will not delay the proposed Commercial Operations Date ("COD").

Staff reviewed the petition and issued two rounds of clarifying questions to Ocean Wind. In response to Staff's clarifying questions, Ocean Wind provided the following supplemental information:

- The change to the GE Haliade 12 MW WTG showed an increase in capital expenditures (CAPEX) and a decrease in operating expenditures (OPEX) and decommissioning cost estimates compared to the estimates submitted by Ocean Wind in their December 2018 application.
- As a result of the larger WTG and the higher capacity factor of the GE Haliade 12 MW WTG, project revenues are expected to increase.
- The number of turbines will be significantly reduced.
- An analysis of job-year creation shows an increase in job-years as a result of the turbine change.
- A viewshed analysis conducted by a consultant to Ocean Wind shows that the increased turbine size will have no material effect on the viewshed.
- There will be no negative impact on project financing, port needs, or interconnection requirements.

III. DISCUSSION AND FINDINGS

Under N.J.A.C.14:8-6.5(a)(2)(ii), Ocean Wind may replace or update equipment identified in the proposal with more technologically advanced equipment, provided that it is equal to or better than the equipment identified in their application. The Guidelines for Application Submission for Proposed Offshore Wind Facilities requires that, in addition to the requirements of N.J.A.C.14:8-6.5(a)(2)(ii), the replacement or update result in no increase in OREC Price and no reduction in local content.

Having thoroughly reviewed the turbine update petition and the supporting documents, and having analyzed the anticipated impacts, the Board **HEREBY FINDS** that Ocean Wind's use of the GE Haliade 12 MW WTG will be better than or equal to the previously-proposed turbine used in Ocean Wind's original design basis.

The Board further **HEREBY FINDS** that Ocean Wind's use of the GE Haliade 12 MW WTG will not have any material adverse effect on the project's permitting process and schedule.

The June 21 Order approving Ocean Wind's project states that "all revenues generated by the Ocean Wind 1,100 MW project, including but not limited to the Market Revenues estimated in the application shall be...returned to ratepayers." Board Rules further state that "All revenues generated by an OSW project shall be returned to ratepayers." N.J.A.C. 14:8-6.6(a)(6). The Board **HEREBY FINDS** that Ocean Wind's use of the GE Haliade 12 MW WTG will not have any adverse effect on the levelized net cost of OREC or annual costs to New Jersey ratepayers, and that ratepayers will benefit from increased revenues that will be returned to ratepayers.

The Board **HEREBY FINDS** that the reduced number of turbines will likely result in equivalent, reduced, or a negligible change in environmental impacts, especially during construction, since fewer foundations would require fewer physical disturbances to the ocean floor and fewer array cables to bury in the ocean floor. In addition, fewer turbines allow more flexibility to increase turbine spacing and orientation, which should result in fewer navigation risks to fishermen and other vessels.

The Board **HEREBY FINDS** that Ocean Wind is still bound by the OREC Pricing Schedule set forth in the June 21 Order approving the Ocean Wind 1,100 MW Project (Attachment A) and all Additional Terms and Conditions listed in Attachment B, including, but not limited to, the total Annual OREC Allowance of 4,851,489 MWhs per year.⁹ The Board further **HEREBY FINDS** that Ocean Wind is also subject to N.J.A.C. 14:8-6.6(a)(6), according to which "[a]ll revenues generated by an OSW project shall be returned to ratepayers," all other guarantees and representations in its original application, all supplemental material submitted to the Board in response to this solicitation, and the June 21 Order.

IV. **CONCLUSION**

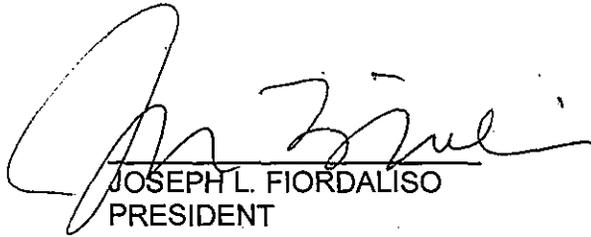
The Board, having carefully reviewed the record in this proceeding, **HEREBY APPROVES** Ocean Wind's use of the GE Haliade 12 MW WTG for its 1,100 MW project.

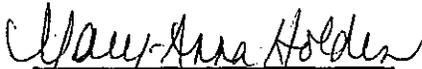
⁹ In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW – Evaluation of the Offshore Wind Applications. Docket No. QO18121289, Order dated June 21, 2019.

The effective date of this Order is November 23, 2019.

DATED: 11/13/19

BOARD OF PUBLIC UTILITIES
BY:

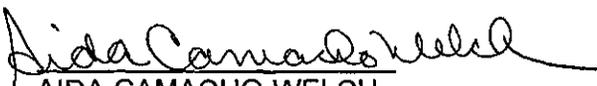

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AIDA CAMACHO-WELCH
SECRETARY

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

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FOR 1,100 MW – EVALUATION OF THE OFFSHORE WIND APPLICATIONS
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