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**State of New Jersey**  
BOARD OF PUBLIC UTILITIES  
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President

Mary-Anna Holden  
Commissioner

Dianne Solomon  
Commissioner

Upendra Chivukula  
Commissioner

Bob Gordon  
Commissioner

January 7, 2021

To the Service List:

Re: IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND EXECUTIVE ORDER NO. 92.  
DOCKET NO. QO20080555

IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND SOLICITATION 2 FOR 1,200 TO 2,400 MW – OCEAN WIND II, LLC.  
DOCKET NO. QO21050825

**Agenda Date: June 30, 2021 – Agenda Item: 8A-2**

Please be advised that the Board of Public Utilities is redistributing the issued Order for the above-referenced agenda item that was approved by the Board of Public Utilities ("Board") at the June 30, 2021 Board agenda meeting to correct a typographical error.

On page sixteen, Footnote 45 incorrectly stated the federal Investment Tax Credit as 18%, when in fact, the federal Investment Tax Credit for the project is 30%.

Consequently, the redistributed Order now correctly states for Footnote 45:

These OREC values include the 30% federal Investment Tax Credit

This is the only change to the issued Order, which will be redistributed to the parties of record and the attached service list. The correct value of 30% was used during the analysis cited by the Order.

Sincerely,

A handwritten signature in blue ink that reads "Aida Camacho-Welch".

Aida Camacho-Welch  
Secretary of the Board

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**IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY  
CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF  
IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY  
CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF  
OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND  
EXECUTIVE ORDER NO. 92; and**

**IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND  
SOLICITATION 2 FOR 1,200 TO 2,400 MW – OCEAN WIND 2, LLC**

**BPU DOCKET NOS. QO20080555 and QO21050825**

**SERVICE LIST**

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Agenda Date: 6/30/21  
Agenda Item: 8A - 2

**STATE OF NEW JERSEY**  
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CLEAN ENERGY

IN THE MATTER OF THE OPENING OF )	ORDER
OFFSHORE WIND RENEWABLE ENERGY )	
CERTIFICATE (OREC) APPLICATION WINDOW )	DOCKET NO. QO20080555
FOR 1,200 TO 2,400 MEGAWATTS OF )	
OFFSHORE WIND CAPACITY IN )	
FURTHERANCE OF EXECUTIVE ORDER NO. 8 )	
AND EXECUTIVE ORDER NO. 92 )	
)	
IN THE MATTER OF THE BOARD OF PUBLIC )	
UTILITIES OFFSHORE WIND SOLICITATION 2 )	
FOR 1,200 TO 2,400 MW – OCEAN WIND II, LLC )	DOCKET NO. QO21050825

**Parties of Record:**

**Stefanie A. Brand, Esq.**, Director, New Jersey Division of Rate Counsel  
**Christian Bjøl**, Ocean Wind II, LLC

**BY THE BOARD:**

The New Jersey Board of Public Utilities ("Board" or "BPU") considers the responses to its second offshore wind ("OSW") solicitation ("Second Solicitation") for a target of 1,200-2,400 megawatts ("MW") of OSW capacity in furtherance of Governor Phil Murphy's 2018 Executive Order No. 8 ("EO 8") and expanded in 2019 by Executive Order No. 92 ("EO 92"). EO 92 requires the Board to fully implement the Offshore Wind Economic Development Act of 2010 ("OWEDA") so New Jersey may achieve 7,500 MW of OSW by 2035.

To that end, by this Order, the Board herein approves the 1,148 MW Project B proposed by Ocean Wind II, LLC ("Ocean Wind 2" or "OW2") as a Qualified Offshore Wind Project to receive OSW Renewable Energy Certificates ("ORECs") as defined in OWEDA ("Ocean Wind 2 Project" or "OW2 Project"). Although not addressed herein, today the Board also separately approves another project submitted in response to the Second Solicitation in Docket Numbers QO20080555 and QO21050824 ("Docket No. QO21050824").

Today's action reinforces New Jersey's leadership in the fight against the impacts of climate change. Climate change is an imminent threat to New Jersey's economy, and the health, safety, and welfare of New Jersey's residents.<sup>1</sup> The effects of climate change are felt throughout New Jersey via the threat of flooding, the number and severity of storms, and the environmental effects from the increase in average-yearly temperatures. Simultaneously, fossil-fuel emissions impact New Jersey's air quality, threatening residents' respiratory health and quality of life.

Governor Murphy set forth an ambitious goal of reaching 100 percent clean energy by 2050. Energy systems and climate change are inextricably linked. Within his first few weeks in office, on January 31, 2018, Governor Murphy signed EO 8 making New Jersey's leadership in OSW a centerpiece of the Governor's environmental and energy agenda. EO 8 reinvigorates the implementation of OWEDA, sets a bold vision for a clean-energy economy, and supports a large-scale wind market and in-state supply chain that utilizes a trained New Jersey workforce for construction, installation, interconnection, and operations and maintenance.<sup>2</sup> On November 19, 2019, Governor Murphy signed EO 92, which increased the State's OSW energy goal from 3,500 MW by 2030 to 7,500 MW by 2035.<sup>3</sup> Governor Murphy found that expanding the offshore wind goal will ensure that New Jersey can "meet the State's goals of 50 percent renewable energy by 2030 and 100 percent clean energy by 2050, in addition to creating a significant number of good-paying jobs."<sup>4</sup> Additionally, the 2019 Energy Master Plan ("2019 EMP") stressed the critical need for action to address the grave threat of climate change, providing a roadmap to achieve 100 percent clean energy by 2050, and an 80 percent reduction of greenhouse gas emissions from 2006 levels, as provided in the Global Warming Response Act (P.L. 2007, c.112, N.J.S.A. 26:2C-37 to 44).<sup>5</sup>

The Board's decisions, both in the first solicitation for OSW ("2018/2019 Solicitation") and in this Second Solicitation, yield enormous economic and environmental benefits for New Jersey. Nevertheless, the Board remains cognizant of the potential impacts on New Jersey ratepayers, and therefore explicitly weighed such ratepayer impacts in gauging the value of the benefits attributable to OSW in this Second Solicitation and in the Board's decision today. The Board's approval of the Ocean Wind 2 Project is fully responsive to economic concerns because it combines a highly competitive pricing structure with substantial economic development guarantees, including the commitment to bring additional manufacturing jobs to New Jersey as part of Ocean Wind 2's partnership with General Electric to bring nacelle assembly and manufacturing jobs to the State. It simultaneously acknowledges that today's critical step in combating climate change is being taken in partnership with workers and businesses across New Jersey, and it works to ensure just and reasonable rates. The Board's approval of the Ocean Wind 2 Project brings an estimated 2,327 direct and 15,159 total (direct, indirect, and induced) job-years (in Full-Time Equivalent years<sup>6</sup> or "FTE-years") to New Jersey from the date of the award through the 20-year OREC term, according to OW2.<sup>7</sup> By the Board's decision today, New

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<sup>1</sup> See generally, New Jersey Department of Environmental Protection, 2020 New Jersey Scientific Report on Climate Change (June 30, 2020), available at <https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf>

<sup>2</sup> Exec. Order N. 8 at ¶¶ 1-2 (2018).

<sup>3</sup> Exec. Order N. 92 at ¶¶ 1 (2019).

<sup>4</sup> Id. at 3.

<sup>5</sup> New Jersey Board of Public Utilities, 2019 Energy Master Plan: Pathway to 2050 at 11 ("2019 EMP"), available at [https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf)

<sup>6</sup> N.J.A.C. 14:8-6.5(a)(11)(xiii) defines an FTE-year as 1,820 work hours.

<sup>7</sup> OSW2 Application at Table 8.1

Jersey makes a strong case that key parts of the OSW supply chain should be located here, for both current and future projects inside and outside the State. These community and employment benefits will accrue across the State and help offset the ratepayer impacts.

The Board also remains cognizant of its charge to protect New Jersey's natural resources and significant cultural and tourism economies. New Jersey enjoys a geographical location and ocean wind profile well-suited to the development of a robust OSW program. The work of harnessing the ocean wind must be done through responsibly developed and sited wind farms. The Board remains committed to ensuring that natural resources, including fish, marine mammals, birds, and other wildlife, are protected throughout the development and operation of current and future wind projects. Through this Second Solicitation award, we will have the resources to collect and share valuable data to inform future development, and to protect the natural resources that make up a critical part of New Jersey's rich tapestry of biological diversity.

Through initiatives such as the Ocean Wind 2 Project, New Jersey can advance visionary policy and innovative programs while continuing to improve the quality of energy service and mitigate costs. We must do this while ensuring that energy is affordable and accessible for all residents of the State. Stepping boldly into a new industry, New Jersey, once again, leads the way in protecting the environment while growing the economy. Today's action is another step on the path in New Jersey's leadership in the fight against climate change for the benefit of current and future residents.

## **I. BACKGROUND AND PROCEDURAL HISTORY**

In response to OWEDA, EO 8, and EO 92, the Board issued two solicitations for qualified OSW projects. By way of reference, "Applicant" refers to the proposing entity; "Application" refers to the documents submitted by an Applicant; "Project" refers to a distinct project size and associated infrastructure combination; and "Bid" refers to the project-specific price.

On September 18, 2018, the Board began the 2018/2019 Solicitation by opening an application window and inviting all interested parties to submit OSW Applications by December 28, 2018.<sup>8</sup> The Board found that the proposed OREC Funding Mechanism Rules provided the necessary regulatory framework to enable developers to seek project financing, which lowered the financial risk to the developers, and thus, enabled a lower price for ratepayers.<sup>9</sup>

At the close of the Application window on December 28, 2018, the Board received Applications from three OSW developers: Ocean Wind, LLC; Atlantic Shores Offshore Wind Project 1, LLC; and Equinor Wind US, LLC. The Board noted that the "Applications reflected a highly competitive response regarding OREC prices, local content economic benefits, environmental benefits, ratepayer impacts and other factors."<sup>10</sup>

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<sup>8</sup> In the Matter of the Opening of OREC Application Window for 1,100 Megawatts of Offshore Wind Capacity in Furtherance of Executive Order No. 8, BPU Docket No. QO18080851 (Sept. 18, 2018).

<sup>9</sup> In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW—Evaluation of the Offshore Wind Applications, BPU Docket No. QO 18121289 (June 21, 2019) ("2019 Board Order").

<sup>10</sup> Id.

After thorough review, on June 21, 2019, the Board found that the Ocean Wind 1,100 MW project was the most beneficial to New Jersey and was therefore selected to receive ORECs.<sup>11</sup>

## **II. SECOND SOLICITATION REQUIREMENTS AND GOALS**

On September 9, 2020, the Board opened the Second Solicitation window seeking to secure ORECs targeting 1,200 MW to 2,400 MW of OSW capacity.<sup>12</sup> Interested OSW developers were encouraged to submit an Application to the Board to build an OSW facility in areas leased from the Federal Bureau of Ocean Energy Management (“BOEM”) in federal waters off the coast of New Jersey. The Board also released the Second Solicitation Guidance Document (“Solicitation Guidelines”) providing a consolidated place for all Application requirements, guidance on the preparation of the Application, standards and assumptions to be used in preparing an Application, schedule, and key dates.<sup>13</sup>

The Board’s action in the Second Solicitation process was to consider whether to award State incentives to proposed OSW projects. Other federal and State authorities, including BOEM and the New Jersey Department of Environmental Protection (“NJDEP” or “DEP”), among others, must separately provide relevant permits and authorization to proceed. An OREC award by the Board is contingent upon the developer obtaining all required local, State, and/or federal permits and/or approvals. The Board’s action here is one crucial step in facilitating the development of additional OSW off the coast of New Jersey.

Board Staff diligently obtained input from DEP, the New Jersey Division of Rate Counsel (“Rate Counsel”) and the Board’s independent evaluator Levitan & Associates (“Levitan” or “LAI”) to make a recommendation that is in the best interest of the State of New Jersey.

The requirements and goals that guided the Board in this Second Solicitation are as follows:

### **OWEDA**

On August 19, 2010, OWEDA was signed into law, amending and supplementing the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49, et. seq. OWEDA established, among other things, OSW as a Class I Resource under the Renewable Energy Portfolio Standards (“RPS”), and directed the Board to establish an OREC program requiring a percentage of the State’s electric load to be supplied by OSW from qualified OSW projects. A qualified OSW project is defined as “...a wind turbine electric generation facility in the Atlantic Ocean and connected to the electric transmission system in this State, and includes the associated transmission-related interconnection facilities and equipment, and approved by the Board pursuant to [N.J.S.A. 48:3-87.1].”<sup>14</sup>

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<sup>11</sup> Id.

<sup>12</sup> In the matter of the Opening of the Offshore Wind Renewable Energy Certificate (OREC) Application Window for 1,200 to 2,400 Megawatts of Offshore Wind Capacity in Furtherance of Executive Order No. 8 and Executive Order No. 92, BPU Docket No. QO20080555 (Sept. 9, 2020) (“September 2020 Order”).

<sup>13</sup> New Jersey Board of Public Utilities, New Jersey Offshore Wind Solicitation #2 – Solicitation Guidance Document (Sept. 10, 2020), available at <https://njoffshorewind.com/solicitation-documents/Final-Solicitation-Guidance-Document-with-attachments.pdf>

<sup>14</sup> N.J.S.A. 48:3-51.



OWEDA defines an OREC as representing the environmental attributes of one megawatt-hour (“MWh”) of electric generation from an OSW project.<sup>15</sup> For each MWh delivered to the transmission grid, an OSW project will be credited with one OREC.

OWEDA also established the Application requirements for OSW projects to be considered eligible to receive ORECs. These requirements are referenced in the Board-approved Solicitation Guidelines, that provide guidance regarding the format, calculations, and assumptions to be used in preparing an Application.<sup>16</sup> OWEDA provides key factors the Board should consider in addition to the OREC Price, including the economic impacts of projects, environmental benefits including greenhouse gas reductions and mitigation of environmental impacts, ratepayer impacts, economic guarantees, and factors contributing to the likelihood of success of the project.<sup>17</sup> These factors were distilled into six evaluation criteria, which reflect the goals of OWEDA and New Jersey’s OSW policy, and are specified in the Solicitation Guidelines.

Ultimately, OWEDA mandates that all qualified OSW projects deliver a net economic and environmental benefit to the State of New Jersey. A cost-benefit analysis of the proposed project must demonstrate that this threshold is met based upon both economic and environmental benefits.<sup>18</sup>

OWEDA also makes clear that no OREC shall be paid until electricity is produced by the project, and when such payment is made, it shall be based on the actual electric output of the project that is delivered into the State’s transmission system.<sup>19</sup> The OSW project must absorb any risk as ratepayers and the State shall be held harmless for any delays or cost overruns associated with a project.

Following the passage of OWEDA, the Board adopted rules that provide an Application process and evaluation framework for OSW facilities.<sup>20</sup> The rules include: 1) establishing OSW as a Class I resource under the renewable portfolio standards; 2) Application requirements; 3) the ability for the Board to designate the Application windows; and 4) the ability for the Board to impose appropriate conditions upon any OREC grant; and 5) ratepayer protections. The rules also detail how the Board will review any Application and ultimately approve, conditionally approve, or deny an Application.

### **Executive Orders No. 8 and 92**

On January 21, 2018, Governor Phil Murphy signed EO 8, which set a goal of 3,500 MW of OSW capacity by 2030, and directed the Board, and other implementing State Agencies, to “take all necessary action” to fully implement OWEDA.<sup>21</sup> EO 8 set an aggressive OSW energy production goal recognizing that “portions of the OSW supply chain being located in New Jersey, including manufacturing, assembly and construction of the component parts of the OSW turbines, will contribute to a stronger New Jersey economy.”<sup>22</sup>

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<sup>15</sup> N.J.S.A. 48:3-51; N.J.A.C. 14:8-6.1.

<sup>16</sup> *Supra* n. 12.

<sup>17</sup> N.J.S.A. 48:3-87.1(b).

<sup>18</sup> N.J.S.A. 48:3-87.1(b)(1)(b).

<sup>19</sup> N.J.S.A. 48:3-87.1(c)(1).

<sup>20</sup> N.J.A.C. 14:8-6.1 *et seq.*

<sup>21</sup> Exec. Order N. 8 at ¶ 1 (2018).

<sup>22</sup> *Id.* at ¶ 9.

EO 8 specifically directed the Board to begin the rulemaking process to establish the OREC Funding Mechanism to provide the necessary regulations to determine how suppliers will meet their RPS obligations, and how OSW developers will receive payments for ORECs.<sup>23</sup> EO 8 directed the Board to proceed with a solicitation of 1,100 MW of OSW capacity as a first step in meeting the 3,500 MW goal, and further called upon the Board to implement OWEDA's OREC program.

In response, on February 28, 2018, the Board issued an Order directing Board Staff to take specific actions to implement EO 8, including preparing an initial 1,100 MW solicitation of OSW, and initiating a rule making proceeding for the OREC Funding Mechanism Rules.<sup>24</sup>

On November 19, 2019, Governor Murphy signed EO 92 which directed the Board, DEP, and other state agencies to “promote and realize the development of wind energy off the coast of New Jersey to meet a goal of 7,500 megawatts of offshore wind energy generation by the year 2035.”<sup>25</sup>

### **Clean Energy Act**

On May 23, 2018, Governor Murphy signed the Clean Energy Act (“CEA”) into law (P.L. 2018 c. 17). Among other things, the CEA amended N.J.S.A. 48:3-87 to increase OWEDA's initial 1,100 MW requirement to “at least” 3,500 MW of generation from OSW projects.<sup>26</sup>

### **OREC Funding Mechanism**

After a notice and comment period, the Board adopted new rules and amendments to N.J.A.C. 14:8-6.6 regarding the OREC funding mechanism (“OREC Funding Mechanism Rules”). The OREC Funding Mechanism Rules set forth the method and process by which ratepayers will fund an OSW project in accordance with all applicable laws, rules, Executive Orders, and Board Orders, and provided the method by which the revenue earned from an OSW project will be refunded and delivered to ratepayers. Each Basic Generation Service Supplier (“BGS”) and Third Party Supplier (“TPS”) that sells electricity to retail customers in New Jersey must ensure that the electricity includes, at least, the minimum percentage of OSW energy required for that energy year, as set by the Board, following the approval of a qualified OSW project.<sup>27</sup> The OREC Funding Mechanism Rules describe the method by which suppliers will meet this obligation, and how funds from the sale of ORECs will flow to the qualified OSW projects.

The OREC Funding Mechanism Rules also mandate that the OREC price reflects the total capital and operating costs for an OSW project, offset by any State or Federal tax or production credits, and any other or grants, as approved by the Board.<sup>28</sup> The OREC Funding Mechanism Rules further provide that once the Board approved a qualified OSW project it shall be funded through an OREC as set forth in the OREC Funding Mechanism Rules, and in accordance with the following principles:<sup>29</sup>

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<sup>23</sup> Id. at ¶ 6.

<sup>24</sup> In the Matter of the Implementation of Executive Order No.8 on Offshore Wind and the Initiation of a Rulemaking Proceeding on ORECs, BPU Docket No. QO18020151 (Feb. 28, 2018).

<sup>25</sup> Exec. Order No. 92 at ¶ 2 (2019).

<sup>26</sup> N.J.S.A. 48:3-87(d)(4).

<sup>27</sup> N.J.A.C. 14:8-6.2.

<sup>28</sup> N.J.A.C. 14:8-6.5(a)(12)(vii)

<sup>29</sup> N.J.A.C. 14:8-6.6(a).

1. A Board Order that approves a qualified OSW project shall be binding and enforceable on all parties referenced therein;
2. The total annual OREC allowance for a qualified OSW project, once approved by the Board, shall not be subject to reduction or modification during the term of each OREC order unless otherwise agreed to by both parties;
3. A developer of a qualified OSW project shall be eligible to receive the project's approved OREC rates and payments for 20-years subject to the terms and conditions of the Board Order;
4. Qualified OSW projects shall only be entitled to OREC revenues for MWh actually generated over the 20-year term delineated in the Board Order, and shall have no recourse against the Board, the suppliers, the Electric Distribution Companies ("EDCs"), the OREC Administrator, or the ratepayers for any additional payments;
5. ORECs from a qualified OSW project shall have a qualification life of three years, including the year it was generated and the following two years, thus, allowing ORECs to be banked for future use; and
6. All revenues generated by an OSW project shall be returned to ratepayers.

### **2019 Energy Master Plan**

Governor Murphy released the 2019 EMP, which prioritized the development of OSW and estimated that OSW will supply 23% of the State's clean energy by 2050. The 2019 EMP touts that the State's OSW industry is "expected to produce roughly 25,000 full-time equivalent jobs through 2035 to build and operate the infrastructure."<sup>30</sup>

The 2019 EMP sets forth several key goals and directives related to OSW development:

1. Develop OSW generation. The 2019 EMP calls upon the Board to develop a consistent and transparent solicitation schedule through 2035 that supports a steady, long term project pipeline. The Board is also tasked with coordinating with PJM and determining how much of New Jersey's energy demand should be met with OSW through 2050;
2. Develop the OSW supply chain. New Jersey is in a prime position to capture supply chain jobs because of its location and current labor market profiles. Specifically, given New Jersey's geography and coastline, the 2019 EMP notes that the State is well-positioned to develop OSW jobs for a supply chain that could service the Mid-Atlantic OSW industry;
3. Develop job training programs to support the OSW industry and supply chain development; and
4. Develop port infrastructure and participate in inter-regional collaboration to support the OSW industry. There are three types of port facilities necessary for the OSW industry: manufacturing, staging and marshalling, and operations and maintenance. The 2019 EMP notes that, while all three types are important, special attention should be given early on to manufacturing to ensure New Jersey becomes an anchor of the supply chain.

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<sup>30</sup> 2019 EMP at 100.

### **Offshore Wind Strategic Plan**

Governor Murphy's EO 8 called upon the Board, with assistance from the DEP and input from key stakeholders, to develop an OSW Strategic Plan ("Strategic Plan"). Released in July 2020 for public comment, and approved by the Board in September 2020, the Strategic Plan provides a blueprint for the State to achieve Governor Murphy's 7,500 MW of OSW by 2035.<sup>31</sup> A key focus of the Strategic Plan is the development of OSW in a cost-effective manner, while developing the necessary infrastructure in a way that protects New Jersey's natural resources.

### **Wind Innovation and New Development Institute**

Charged with developing and implementing a plan to create a regional hub for the State's burgeoning OSW industry, the New Jersey's Wind Innovation and New Development Institute ("WIND Institute") aims to create a centralized place for education, research, innovation, and workforce training, while ensuring coordination across the pertinent state agencies.

### **III. EVALUATION OF APPLICATIONS**

On March 27, 2020, a contract between the Board and LAI was approved for OSW consulting services to assist Board Staff in the evaluation of Second Solicitation Applications.<sup>32</sup>

#### **Eligibility for Award**

To be eligible to win an award for the sale of ORECs, an Applicant must:<sup>33</sup>

- Submit an Application found to be administratively complete;
- Submit an OREC Purchase Price offer that meets all requirements of OWEDA and N.J.A.C. 14:8-et seq.;
- Have a reasonable ratepayer impact;
- Demonstrate that the Project is viable and is likely to begin commercial operation as proposed;
- Submit an Application that is consistent with the New Jersey Energy Master Plan, adopted pursuant to section 12 of P.L.1977, c.146 (C.52:27F-14), in effect at the time the Board is considering the Application;
- Demonstrate positive economic and environmental net benefits to the State through a benefit-cost analysis;

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<sup>31</sup> New Jersey Board of Public Utilities, New Jersey Offshore Wind Strategic Plan (Sept. 2020), available at [https://www.nj.gov/bpu/pdf/Draft\\_NJ\\_OWSP\\_7-13-20\\_highres.pdf](https://www.nj.gov/bpu/pdf/Draft_NJ_OWSP_7-13-20_highres.pdf)

<sup>32</sup> In the Matter of Clean Energy Request for Qualifications for Offshore Wind Consulting Services, BPU Docket No. QO19101327.

<sup>33</sup> Solicitation Guidelines at 30.

- Demonstrate that the financing mechanism is based upon the actual electrical output of the project, fairly balances the risks and rewards of the project between ratepayers and shareholders, and ensures that any costs of non-performance, in either the construction or operational phase of the project, shall be borne by shareholders of the Applicant; and
- Demonstrate financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the project.

### **Evaluation Criteria**

The Board must evaluate Applications against multiple factors set forth in OWEDA and the rules at N.J.A.C 14:8-6 et seq. These factors were distilled into six evaluation criteria defined in the Solicitation Guidelines.

The overarching goals of New Jersey's OSW policy are:<sup>34</sup>

- Contributing to a stronger New Jersey economy by anchoring an offshore wind supply chain in the State;
- Combating global climate change to protect New Jersey and also to protect New Jersey's natural resources;
- Providing added reliability for the transmission network and transmission rate relief for ratepayers; and
- Achieving all of this at the lowest reasonable cost and risk to New Jersey ratepayers.

The six evaluation criteria are:<sup>35</sup>

- OREC Purchase Price – This includes meeting the requirement for a fixed pay-for-performance price, as well as plans for maximizing revenue from the sales of energy, capacity, and ancillary services, which are credited back to ratepayers.
- Economic impact – This includes, among other metrics, the number of jobs created, increase in wages, taxes, receipts, in-state expenditures, and state gross product for each MW of capacity constructed, including development of the New Jersey offshore wind supply chain and utilization of port and existing supply chain facilities.
- Ratepayer impact – This includes the average increase in residential and industrial customer bills, including consideration of the timing of any rate impacts.
- Environmental and fisheries impact – This includes the net reductions of pollutants for each MWh generated, and the feasibility and strength of the Applicant's plan to avoid, minimize, or mitigate onshore and offshore impacts created by construction and operation. This evaluation criterion also includes consideration of project design elements that will facilitate future expansion of OSW delivery capability and avoid, minimize, or mitigate future incremental environmental and fisheries impacts.

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<sup>34</sup> Id. at 31.

<sup>35</sup> Id. at 30.

- The strength of guarantees for economic impact – This includes all measures proposed to assure that claimed in-state expenditures and jobs commitments will materialize, as well as the consequences for shortfalls.
- Likelihood of successful commercial operation – This includes developer and key employee experience, feasibility of Project timelines, permitting plans, equipment and labor supply plans, feasibility of port facilities and marshalling plans, and the current progress displayed in achieving these plans.

Ranking and weighing of the above criteria reflected the overarching goals of New Jersey's OSW policy. To that end, the following weighting was applied in the evaluation:<sup>36</sup>

<b>Criterion</b>	<b>Weight</b>
OREC Purchase Price and Ratepayer Impacts	50%
Economic Impacts and Strength of Guarantees for Economic Impacts	20%
Environmental and Fisheries Impacts	20%
Likelihood of Successful Commercial Operation	10%

Under N.J.S.A. 48:3-87.1(b)(2)(b), the Board must also consider any other elements it deems appropriate in conjunction with the Application. Board Staff finds the following additional elements appropriate for consideration, consolidated in the Discussion Section of this Order within the six evaluation criteria defined above:

- Diversification of the risk of successful project completion;
- Providing economic benefits to more communities around different ports and manufacturing facilities, thereby strengthening New Jersey's likelihood of success as a regional manufacturing center supporting the nascent offshore wind industry along the Atlantic seaboard, including:
  - A mix of local industries, technologies, and labor force categories;
  - A mix of ports infrastructure development and uses; and
  - Multiple locations of port, manufacturing, and operational activities;
- Diversification in all tiers of the supply chain, including diversification in the type and location of material and equipment suppliers, and support services;
- Incorporation of alternative construction methods and/or technology selection, including
  - Foundation type;
  - Wind Turbine Generator ("WTG") model performance; and
  - Spatially distinct BOEM lease areas and different points of interconnection ("POIs"); and

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<sup>36</sup> The OREC Purchase Price and Ratepayer Impacts criteria, and the Economic Impacts and Strength of Guarantees for Economic Impacts criteria were combined for the purpose of the ranking and weighting of the six criteria.

- Heightening the prospect of more robust competition in subsequent procurement rounds through diversity in selected Applicants

### **Portfolio Analysis**

In addition to the evaluation of individual Projects, Board Staff and LAI conducted a portfolio analysis to test the potential price, and economic benefits and costs, attributable to the selection of a Project from each Applicant. A portfolio solution with two awardees has the potential to position New Jersey favorably to achieve greater manufacturing capability to support both New Jersey's and neighboring states' offshore wind procurement goals, while conferring valuable employment and economic benefits. By the Board's action today in this Docket and in Docket No. QO21050824, the Board determines that a portfolio solution that includes a Project from each Applicant furthers New Jersey's OSW goals and is in the best interest of the state and its residents.

### **Administrative Completeness Review**

After examining the above criteria and eligibility requirements, the Board may approve, conditionally approve, or deny an Application within 180 days from the receipt of an administratively complete Application.<sup>37</sup>

In accordance with N.J.A.C. 14:8-6.4, an administrative completeness review of each Application was conducted. Deficiencies were found in both Applications, and the Applicants were notified of the deficiencies on January 8, 2021. Both Applicants cured the deficiencies on January 15, 2021, and both Applications were deemed to be administratively complete on that date.

After the determination of administrative completeness, a detailed evaluation of each Application began.

### **Coordination with Other State Agencies**

Board Staff and LAI worked closely throughout the evaluation process with other New Jersey State agencies, as described below:

- *New Jersey Department of Environmental Protection*

Board Staff engaged with DEP throughout the Solicitation window. Applicants were directed to meet with DEP for a pre-permit meeting prior to submitting their Applications; the DEP Office of Permit Coordination participated in the Bidders Technical Conference; and DEP contact information and permitting guidance documents were included on the Solicitation Website at NJOffshorewind.com to facilitate coordination with DEP. DEP further assisted in the evaluation of each Applicant's permitting plan, environmental protection plan, fisheries protection plan, and interconnection plan in order to ensure consistency with the Solicitation requirements and relevant environmental regulations. DEP provided its findings in a memo to Board Staff dated May 7, 2021, which was reviewed and considered by Board Staff. In general DEP found that OW2 made a good effort in characterizing the existing environment, permit planning, communicating with stakeholders, and collaborating with local and regional experts. There were some concerns about

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<sup>37</sup> N.J.S.A. 48:3-87.1(d).

how environmental and fisheries impacts will be assessed, but that is an active area of research, and not the sole responsibility of OW2, who demonstrated a commitment to advancing this research.

- *New Jersey Division of the Rate Counsel*

Board Staff engaged the New Jersey Division of the Rate Counsel to solicit feedback on the potential ratepayer impacts associated with an OREC award(s) consistent with OWEDA and the governing rules at N.J.A.C 14:8-6. Rate Counsel provided its feedback on May 19, 2021, which was reviewed and considered by Board Staff. Rate Counsel noted that the Projects produced a positive cost-benefit analysis. Rate Counsel expressed concern that if an award was made to the incumbent OSW developer, it would result in market concentration in the New Jersey OSW market that could have potentially negative impacts on future OSW solicitations. Rate Counsel also expressed the concern that concentration of awards with one developer could have negative longer-run supply chain and economic development ramifications for New Jersey.

### **Information Relied Upon in Evaluating the Applications**<sup>38</sup>

Board Staff relied upon the following information to inform its own opinions and recommendations to the Board regarding this matter:<sup>39</sup>

- The Application submitted at the close of the solicitation window on December 10, 2020;
- Answers to clarifying questions (“CQs”) posed by LAI on January 19, 2021. Responses were received on February 1, 2021 as requested. The Applicant was notified that its responses would become part of the record and that the Board would rely on them in its further review of the Application;
- Answers to a second round of CQs posed by LAI on February 19, 2021. Responses were received on March 3, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Answers to a third round of CQs posed by LAI on March 5, 2021. Responses were received on March 9, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Answers to a fourth round of CQs posed by LAI on May 11, 2021. Responses were received on May 14, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;

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<sup>38</sup> Publicly available versions of the Application, CQ Responses, interview transcript, BAFO, and LAI Report will be available through the Public Document Search Tool located at <https://publicaccess.bpu.state.nj.us/> on or after July 7, 2021.

<sup>39</sup> This Order, the Application, all CQ responses, the interview, the supplemental information and the BAFO submitted by OW2 form the obligations and duties between the Board and OW2 for the OW2 Project. OW2 is bound by all statements and representations made in their submittals, whether or not specifically discussed in this Order.



- Answers to a fifth round of CQs posed by LAI on June 16, 2021. Responses were received on June 21, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Answers to a sixth round of CQs posed by LAI on June 22, 2021. Responses were received on June 24, 2021, as requested. The Applicant was notified that its responses would become part of the record, and that the Board would rely on them in its further review of the Application;
- Statements made on the record by the Applicant at an interview held on March 10, 2021. The Applicant was interviewed by Board Staff, LAI, and representatives of DEP to review its Application and ask questions prepared by LAI in consultation with Board Staff and DEP. The interview was documented by a court reporter, and the Applicant was notified that its responses would become part of the record, and the Board would rely on them in its further review of the Application;
- Information that the Applicant considered supplemental to its responses during the interview, which was requested at the interview. Supplemental information was submitted on March 12, 2021 as requested. The Applicant was notified that its supplemental information would become part of the record, and the Board would rely on it in its further review of the Application;
- A Best and Final Offer (“BAFO”) was requested at the interview. The BAFO was received on April 2, 2021. The Applicant was notified that its BAFO would become part of the record, and the Board would rely on it in its further review of the Application;
- The DEP memorandum to Board Staff, *NJDEP Review of 2021 OREC Applications*, dated May 7, 2021. In addition to attending the interviews, DEP reviewed the portions of each Application (including relevant appendices), CQ responses, information provided to supplement interview responses, and BAFO that provided information on the environmental and fisheries impacts, and permitting plans and status of proposed projects;
- The memorandum from Rate Counsel submitted to Board Staff on May 19, 2021, on ratepayer impacts. Rate Counsel reviewed portions of each Application (including relevant appendices), CQ responses, and BAFO that provided information on the ratepayer impacts of proposed projects; and
- The report prepared by LAI and submitted to Board Staff entitled, *Evaluation Report New Jersey Offshore Wind Solicitation #2*, dated May 25, 2021 (“LAI Report”). The LAI Report contained LAI’s independent quantitative and qualitative analyses of all of the information listed above.

#### IV. **DISCUSSION**

In response to the Second Solicitation, the Board received Applications from two developers for a total of six bids at the close of the Application window on December 10, 2020. The two Applicants are:

1. **Atlantic Shores Offshore Wind Project 1, LLC.**, a joint venture between EDF-RE Offshore Development, LLC and Shell New Energies US LLC with proposed Projects located within BOEM lease OCS-A 0499 off the coast of Atlantic City, NJ.
2. **Ocean Wind II, LLC.**, a direct 100% subsidiary of Ørsted Offshore North America, Inc. and an indirect 100% subsidiary of Ørsted A/S (Ørsted), with proposed Projects located within BOEM lease OCS-A 0498 off the coast of Atlantic City, NJ.

Projects, and/or combinations of Projects, that generally met the 1,200 - 2,400 MW solicitation target were reviewed pursuant to the six evaluation criteria and the additional elements allowed under N.J.S.A. 48:3-87.1(b)(2)(b). While the price and ratepayer impacts of each bid were heavily considered in accordance with the weighting criteria, the other statute-mandated criteria were considered as well. Therefore, after ensuring a bid met the minimum-eligibility requirements, the Board's evaluation balanced the criteria as a whole; it did not solely focus on price.

By this decision and Order, the Board will address only the Application submitted by Ocean Wind II, LLC ("Ocean Wind 2 Application" or "OW2 Application"). The second Application regarding Atlantic Shores Offshore Wind Project 1, LLC., and its Board decision pertaining thereto, is discussed in detail in Docket Number QO21050824.

### **Summary of the Ocean Wind 2 Application.**

The Ocean Wind 2 Application was submitted by Ocean Wind II, LLC, a direct 100% subsidiary of Ørsted Offshore North America, Inc. and an indirect 100% subsidiary of Ørsted A/S ("Ørsted"), the ultimate parent. Ørsted was created when DONG Energy divested its oil and gas assets in 2017 to focus on renewable energy. Ørsted continues to be a global developer of OSW projects. Ørsted is 50.1% owned by the Government of Denmark and 5% owned by SEAS-NVE (Denmark's second-largest cooperatively-owned energy company). According to the Ocean Wind 2 Application, Ørsted has successfully financed and has equity interests in 24 OSW partnerships around the world. One of them is the Block Island Wind Farm, the first commercial OSW in the United States, which was financed and developed by Deepwater Wind and later acquired by Ørsted.

### **Evaluation of the Ocean Wind 2 1,148 MW Project ("Ocean Wind 2 Project" or "OW2 Project")**

The Solicitation Guidelines require consideration of the following six evaluation criteria: 1) OREC purchase price; 2) Economic impacts; 3) Ratepayer impacts; 4) Environmental impacts; 5) Strength of guarantees for economic impacts; and 6) Likelihood of successful commercial operation. The Board has considered the OW2 Application and the entirety of the OW2 record developed during the evaluation process, with respect to these criteria.

- **OREC Purchase Price, Ratepayer Impacts and Cost-Benefit Analysis**

The OW2 Project was one of two Projects submitted by OW2. LAI conducted price analyses to inform the Board about how the OW2 Project compared to the other Project option submitted by OW2 as well as those of OW2's competitor. LAI also determined the incremental, net, and total costs borne by New Jersey ratepayers for the Projects proposed by Applicants. Cost and price analysis were conducted using the following values:

1. *First Year OREC Price*: The All-In OREC Purchase Price in nominal \$/OREC<sup>40</sup> that will be applicable during the First Energy Year of the 20-year OREC term. An Energy Year is the 12-month period from June 1 through May 31 and is to be numbered according to the calendar year in which it ends.
2. *Levelized OREC Purchase Price (“LOPP”)*:<sup>41</sup> The present value of OREC Purchase Price payments over the 20-year OREC term divided by the present value of the quantity of ORECs purchased over the 20-year OREC term.
3. *Levelized Net OREC Cost (“LNOC”)*: The unitized (dollars per MWh) net OREC cost is the OREC Purchase Price minus the revenue credits for energy and capacity and the avoided cost of Tier 1 Renewable Energy Certificates (“RECs”), levelized in nominal dollars over the 20-year OREC term.
4. *Present Value of Net OREC Cost (“PVNOC”)*: The total net OREC cost over the 20-year OREC term is the OREC Purchase Price multiplied by the quantity of ORECs minus the total energy and capacity revenue credits and avoid cost of Tier 1 RECs, on a present value basis.

The Ocean Wind 2 Project offers a first year OREC price of \$84.03/MWh<sup>42</sup> and LOPP of \$98.49/MWh.<sup>43</sup> Ocean Wind 2 included a 2.0 percent annual escalator in its OREC Purchase Price schedule. The LNOC is \$42.30/MWh.<sup>44</sup> The LNOC adjusts the LOPP by including estimates for the revenue credits to be returned to ratepayers. The LNOC also includes an estimate of the ratepayer share of the PJM transmission system upgrade costs, discussed at the end of this section.<sup>45</sup>

Ratepayer impacts account for revenue generated by the Project and returned to ratepayers. Ratepayer bill impacts are based on the PVNOC divided by the present value of the MWh load that would absorb those costs. LAI utilized Energy Information Administration (“EIA”) data covering the 2019 calendar year to estimate monthly usages.<sup>46</sup> The OW2 Project revenue plan identifies a strategy for producing all revenues over the 20-year OREC term, and OW2 is required to make a good faith effort to maximize all Project revenues.<sup>47</sup> Revenues include but are not

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<sup>40</sup> Nominal dollars are unadjusted for inflation. They represent the actual or predicted amount for a transaction in a particular year, whereas “real” or “constant” dollars represent the amount adjusted for actual or predicted inflation to a reference year.

<sup>41</sup> Levelized values represent a string of values as a single value, which if it occurred in each period of a specific term would be financially equivalent on a present value basis to the original string.

<sup>42</sup> OREC Pricing Schedule submitted with OW2’s BAFO.

<sup>43</sup> LAI Report at Table 6.

<sup>44</sup> *Id.*

<sup>45</sup> These OREC values include the 30% federal Investment Tax Credit

<sup>46</sup> LAI Report at Section 2.3. From a ratepayer perspective, a smaller project will result in lower total costs and hence a smaller rate impact. However, a larger project that benefits from economies of scale will generally have a lower LNOC, that is, a larger project will generally have a lower cost per MWh produced. OW2 submitted two Projects with identical installed generation capability. Hence, the difference in price is explained by the inclusion of incremental costs associated with construction and operation of the GE nacelle assembly plant in the OW2 Project.

<sup>47</sup> OW2 Application at Section 7.

limited to revenue from the sale of energy, capacity, RECs above annual allowance, ancillary services (“AS”), and any other product sales. Per OWEDA and N.J.A.C. 14:8-6 et seq., all revenue other than ORECs must be credited to New Jersey ratepayers. The Board acknowledges that OW2 may sell its products directly through the PJM wholesale energy, capacity, and ancillary markets as well as bilateral sales, either directly by OW2 or by its outsourcing to an unregulated marketing affiliate to effectuate bilateral sales.

Based upon the estimated LNOC, the average monthly bill ratepayer impacts for the OW2 Project as estimated by LAI are: \$1.28 for residential customers; \$11.73 for commercial customers; and \$99.91 for industrial customers (expressed in 2021 dollars).<sup>48</sup> These monthly bill impacts would not begin until the OSW facilities are operational, which is anticipated in 2028 and 2029.

Notably, the first year OREC and the levelized OREC price do not include the ratepayers’ share of transmission system upgrade costs. Transmission system upgrade costs are estimates until the upgrades are completed. Upon completion of the upgrades – when the actual upgrade costs are known – the OREC will be trued-up to reflect the actual upgrade costs in accord with the methodology described in Attachment B, using the four-tiered Transmission System Upgrade Cost (“TSUC”) Sharing Parameters (“Upgrade Cost Sharing Formula”) included in OW2’s Application and shown below:<sup>49</sup>

- Tier 1: Up to \$181M – 100% paid by OW2
- Tier 2: Between \$181M and \$217M – 50% paid by OW2, 50% recovered from ratepayers
- Tier 3: Between \$217 and \$250M – 25% paid by OW2, 75% recovered from ratepayers
- Tier 4: Above \$250M – 100% recovered from ratepayers

The cost-benefit analysis (“CBA”) represents a consolidation of the quantitative economic components of the evaluation, including OREC Purchase Price, ratepayer impact offsets (i.e., revenue returned to ratepayers), in-State economic development effects, and environmental impacts. OW2 submitted a CBA as part of its Application as required by N.J.A.C. 14:8-6.5(a)(11). LAI conducted an independent CBA to ensure that all Projects were compared on a consistent basis. Content provided by the Applicants helped inform LAI’s independent CBA. LAI’s CBA resulted in a value of 1.363, which meets the eligibility requirements of positive economic and environmental net benefits to the State.<sup>50</sup>

- Environmental Impacts

All the proposed Projects will help New Jersey reduce Greenhouse Gas (“GHG”) emissions and other pollutants from the electric sector by displacing fossil fuel-fired generation. Avoided emissions for all Projects, on a per MWh basis, are very similar.<sup>51</sup> The OW2 Project will result in an average of 2.56 million short tons of avoided GHG emissions annually.<sup>52</sup> Direct emissions (carbon dioxide, sulfur dioxide, nitrogen oxides, and particulate emissions) resulting from development, construction, operation, and decommissioning activities associated with the OW2 Project are anticipated to be 375 thousand short tons annually, a small fraction of the total avoided

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<sup>48</sup> LAI Report at Table 23.

<sup>49</sup> OREC Pricing Schedule submitted with OW2’s BAFO and LAI Report at Table 7.

<sup>50</sup> LAI Report at Section 6.

<sup>51</sup> LAI Report at Table 52.

<sup>52</sup> Id.

emission.<sup>53</sup> Thus, the net emission benefits (approximately 2.19 million short tons of avoided emissions) from the OW2 Project are substantial. Based upon the most recent data available from the U.S. Energy Information Administration, these net annual avoided emissions represent approximately 12% of New Jersey's current GHG emissions from the electricity sector.<sup>54</sup>

Ocean Wind 2's environmental protection plan leverages the knowledge it gained in the earlier assessments of the lease area prior to and during the development of the OW1 project.<sup>55</sup> For example, OW2 indicates that environmental impact analyses have already been performed by BOEM for activities associated with the development of an offshore wind project in an area that includes the OW2 Lease Area. In February 2012, a Finding of No Significant Impact ("FONSI") was issued in response to an environmental assessment prepared by BOEM.<sup>56</sup> OW2 prepared a preliminary Environmental Impact Analysis for the project.<sup>57</sup> In addition OW2 states that: "Based on a preliminary review of environmental resources, it is anticipated that no resource will be significantly negatively impacted because of the methods of installation and operation, avoidance of sensitive receptors where possible, and the flexibility of the Project's disturbance area and timing with the anticipated Project footprint."<sup>58</sup>

The proposed turbine grid array for OW2 is an extension of the spacing (1 x 0.8nm) and pattern employed in OW1, which was based upon in-depth study of potential navigation impacts, and will help facilitate safe navigation and transit of the entire Ørsted lease area.<sup>59</sup> Additionally, OW2 indicated that it will conduct a Navigational Safety Risk Assessment as part of the development of the Construction and Operations Plan for this project,<sup>60</sup> which OW2 will submit in Q3 2022.<sup>61</sup> To mitigate acoustic impacts, OW2 will employ noise dampening technologies and is working to develop a low-noise alternative to pile driving for foundation installation.<sup>62</sup> The OW2 project is located 13.8 miles from shore at its closest point, and "is expected to have limited visibility from onshore viewpoints due to distance from shore, curvature of the earth, wave, height and atmospheric conditions."<sup>63</sup> Additionally, OW2 plans to implement an "ADLS (Aircraft Detection Lighting System) or a related means (e.g. dimming or shielding) to limit visual impact."<sup>64</sup> OW2 intends to employ a target burial depth of 1.5 to 2 meters, and plans to perform a cable burial risk assessment in Q2 2021. OW2 plans to employ horizontal directional drilling to avoid sensitive coastal habitats and wetlands, and pledges to restore or replace disturbed wetlands.<sup>65</sup> OW2 will target "areas of existing infrastructure or disturbed ground to identify potential landfall, onshore transmission and converter and substation locations to minimize environmental impacts."<sup>66</sup>

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<sup>53</sup> Id. at Table 51.

<sup>54</sup> U.S. Energy Information Administration: New Jersey Electricity Profile 2018 (last updated March 23, 2020)

<sup>55</sup> OW2 Application at 9-9.

<sup>56</sup> Id.

<sup>57</sup> Id. at 9-10.

<sup>58</sup> Id.

<sup>59</sup> OW2 Application at 2-23.

<sup>60</sup> OW2 Clarifying Questions 2, #17.

<sup>61</sup> OW2 Application at 11-2.

<sup>62</sup> Id. at 2-32.

<sup>63</sup> Id. at 9-26.

<sup>64</sup> Id.

<sup>65</sup> OW2 Application at 10-62, 9-16, Table 9.2.

<sup>66</sup> Id. at 9-10.

OW2 states its belief “that commercial and recreational fishing can co-exist with offshore wind” and that it is committed to maintaining “a strong working relationship with commercial and recreational fishing community through outreach as well as coordination with the Responsible Offshore Development Alliance.”<sup>67</sup> OW2’s fisheries protection plan leverages data collected and an outreach approach developed during OW1 project<sup>68</sup> and contains detailed information on New Jersey’s commercial and recreational fishing industry, including species-specific landings and fisheries revenue information.<sup>69</sup> Fishing density data for commercially important species indicate that fishing activity for these species, including the particularly economically important shellfish industry, has historically been less dense within in OW2’s lease area relative to the surrounding area.<sup>70</sup> OW2’s Application indicates that there is low fishing density within the lease area relative to the region overall.<sup>71</sup> OW2 provides that the location of the lease “is of lesser importance to finfish and shellfish and direct impacts are anticipated to be temporary and not significant in the context of the wider habitat available. In fact, for some species it is anticipated the Project may have a net-positive impact due to additional structure in the water column and seabed.”<sup>72</sup>

- Economic Impacts

The OW2 Project offers many economic benefits, including commitments to provide capital to further develop the foundation manufacturing facility at the Port of Paulsboro, and to use the facility for production of the project’s foundations. The OW2 Project also includes commitments to marshall the project at the New Jersey Wind Port (“NJWP”) and to establish a General Electric (“GE”) nacelle assembly facility at the NJWP. In addition, the OW2 Project includes commitments to expand an Operations and Maintenance (“O&M”) Facility in Atlantic City, New Jersey.

1. *EEW American Offshores Structures, Inc. (“EEW”) Facility at the Port of Paulsboro*

OW2 plans to use a use a new monopile fabrication facility to be developed by EEW as Phase 2 of its facility at the Port of Paulsboro. Phase 1 is a monopile finishing facility that is expected to be completed in time to not delay the proposed schedule for the Phase 2 facility, which will be a full monopile fabrication facility.

Ørsted has a Preliminary Development Agreement (“PDA”) with EEW effective January 26, 2021.<sup>73</sup> The PDA, among other things, documents the contribution from Ørsted to the financing and development of the Phase 2 monopile manufacturing facility. The PDA provides that a condition precedent to Ørsted’s financial support is an award by the Board in the Second Solicitation.<sup>74</sup> The PDA grants exclusivity to EEW for the supply of monopiles for the OW2 project.<sup>75</sup> Ørsted’s financial contribution to the EEW Phase 2 facility will be made in installments per a spend curve.<sup>76</sup> EEW expects that construction of the Phase 2 facility will generate 500 FTE-years of construction labor.<sup>77</sup> EEW estimates that 64 percent of the value of the Phase 2 capital

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<sup>67</sup> Id. at 10-1.

<sup>68</sup> Id. at 10-1, 10-29, 10-54, 10-55.

<sup>69</sup> OW2 Application at Figures 10.7 to 10.10, Tables 10.12 and 10.13.

<sup>70</sup> Id. at Figures 10.4 to 10.10.

<sup>71</sup> Id. at 9-9, Table 10.10.

<sup>72</sup> Id.

<sup>73</sup> OW2 Clarifying Questions 1, #9 Attachment: Preliminary Development Agreement.

<sup>74</sup> Id. at Section 1.1(b).

<sup>75</sup> Id. at Section 1.4.

<sup>76</sup> Id. at Section 2.11.

<sup>77</sup> Each FTE-year is one year of a full-time job. For example, 100 full-time construction jobs lasting 5 years would be counted as 500 FTE-years.

expenditure budget will be awarded to New Jersey-based companies and, consequently, the in-state spend for the construction of the Phase 2 facility is estimated between \$104 million and \$162 million. Economic benefits associated with the purchase of monopiles from the EEW facility are included in OW2's proposed economic benefits and represent the sum total of the investment and effort necessary to enable the Port of Paulsboro to fully fabricate monopiles and associated work.

## 2. *New Jersey Wind Port ("NJWP")*

The NJWP is a transformative, hub-style project that will offer marshalling and manufacturing locations that will serve OSW projects in New Jersey and up and down the United States east coast (East Coast<sup>78</sup>). The NJWP will be the first purpose-built wind port on the East Coast, with no vertical restrictions, and easy access to more than 50 percent of the available United States OSW lease areas. Construction is slated to begin in 2021 with a target completion of late 2023.

A defining feature of the OW2 Project proposal is to establish a GE nacelle assembly facility at the NJWP. The modules and sub-assemblies would be sourced from GE's global supply chain and transported to the NJWP where there would be a significant amount of industrial assembly and finishing, comparable to major nacelle manufacturing facilities internationally. The various parts will then be incorporated into the finished nacelle in the GE facility. Upon completion of the nacelle assembly, testing and commissioning will be performed on a dedicated test rig in accordance with GE's standard quality control procedures before being shipped to its final project destination. The facility will be constructed to support next-generation WTG technology. GE intends to explore the possibility of building a domestic supply chain to enable components or sub-assemblies to be sourced from local suppliers.<sup>78</sup> The cumulative direct statewide economic impact associated with this nacelle facility would be the creation of 146 direct and 371 total FTE-years, producing a \$20 million direct and \$44.8 million total impact on New Jersey's Gross Domestic Product ("GDP").<sup>79</sup> OW2 and GE intend that the nacelle assembly facility provide long-term jobs and other OSW supply chain economic benefits to New Jersey.

The Board notes that OW2's Application included a Project that included the nacelle assembly facility at the NJWP, and a Project that did not include the facility. In making this award, the Board is choosing this specific OW2 Project because it includes the nacelle facility, and the Board considers the nacelle facility an important aspect in the development of New Jersey's OSW industry and supply chain. In evaluating whether OW2 has met the requirements to receive the higher price associated with delivering the nacelle facility, the Board will look to see whether the nacelle facility meets the employment and economic development estimates provided in the OW2 Application as cited above, and that the scope of manufacturing activities associated with the nacelle facility are comparable to similar facilities worldwide to ensure that OW2 meets its commitments to deliver the nacelle facility in exchange for receiving the higher Project B price. The nacelle facility will bolster the State's economy, make future solicitations more cost-competitive, and strengthen New Jersey's prospects for success as a leader in the regional OSW industry. Without the inclusion of the economic benefits associated with the nacelle facility, the Board finds the OW2 Project significantly less compelling, and expects OW2 to do everything in its power to bring the nacelle facility to completion.

OW2 also plans to utilize the NJWP for marshalling of the OW2 Project. OW2 estimates that its

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<sup>78</sup> OW2 Application at 8.2.2.

<sup>79</sup> Id. at Section 8.3.5.

marshalling activities at the NJWP will result in 138 direct FTE-years. OW2 estimates that the direct, indirect, and induced GDP impacts amount to \$60.5 million.<sup>80</sup>

### 3. *O&M Facilities*

OW2 commits to expand its O&M base in Atlantic City, New Jersey that will be used for the Ocean Wind 1 Project into a multi-project facility for O&M. OW2 expects to spend \$48 million in-State, and create 208 FTE-years before and during the first three years of project operations. For operation years 4 through 30, OW2 expects to spend an additional \$370 million and create 1,232 FTE-years.<sup>81</sup>

In addition to economic development activities at the Port of Paulsboro, the NJWP, and Atlantic City, New Jersey, the OW2 Project includes initiatives listed separately below in #4 through #8.

### 4. *Electric Truck Program*

OW2 commits to support Zeem, a provider of e-mobility logistics solutions for small, medium, and large fleet operators across the U.S., to secure up to 50 Class 8 trucks, and develop an electric truck depot facility at the Port of Newark/Elizabeth, New Jersey.<sup>82</sup> OW2 provided a letter of intent (“LOI”) from Zeem and a report providing details of the project.<sup>83</sup> The total financial support for this initiative is capped at \$11 million. If the project cannot be realized or is ultimately deemed poor value to ratepayers, which is a decision to be made in consultation with Board Staff, OW2 commits to reallocate the unspent portion of the funds “to deliver immediate benefits to Environmental Justice communities.”<sup>84</sup> The Board is concerned that OW2 does not define “...immediate benefits to Environmental Justice communities,” and therefore, imposes a condition to define how these commitments are handled later in this Order.

### 5. *New Jersey WIND Institute*

OW2 commits to \$2 million in funding for the New Jersey WIND Institute to support the New Jersey WIND Institute’s programs in OSW workforce development, research, and innovation in OSW.<sup>85</sup>

### 6. *Regional Wildlife Monitoring Fund*

OW2 commits \$12 million to a Regional Wildlife Monitoring Fund that will support a robust research and monitoring program that, in tandem with data collected as part of surveys and studies needed to secure state and federal permits, will provide a comprehensive picture of the offshore, nearshore, and coastal environment in New Jersey.<sup>86</sup>

### 7. *Pro-NJ Grantor Trust 2*

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<sup>80</sup> *Id.* at Table 8.6.

<sup>81</sup> *Id.* at Section 8.4.1.

<sup>82</sup> OW2 Application at 8-21.

<sup>83</sup> *Id.* at Attachment 8.5.

<sup>84</sup> OW2 Application at 8.1.1

<sup>85</sup> *Id.* at Section 8.5.3.

<sup>86</sup> OW2 Application at Section 8.7.2.



OW2 commits \$8 million to fund the Pro-NJ Grantor Trust 2. Funding will be used to support education and training of the workforce, supporting environmental justice initiatives and empowering minority, women, and veteran-owned, and/or small business entry into the OSW industry.<sup>87</sup>

#### 8. *Other Initiatives*

- Partner with Rowan University to investigate options for the integration of energy storage technologies in conjunction with offshore wind power plants in the New Jersey electric grid.<sup>88</sup>
- Provide \$200,000 to bolster Ocean Wind 1's work with Ørsted Cares, a grant program in collaboration with New Jersey Shares) that is designed to assist electric and gas utility customers who are in an emergent situation or facing imminent service termination and need immediate utility bill payment assistance.<sup>89</sup>

- *Guarantees for Economic Impacts*

OW2 expects to directly spend \$1.375 billion in the development, construction, O&M, and decommissioning of the OW2 Project.<sup>90</sup> Combined with the indirect and induced economic benefits from the OW2 Project, the Project is expected to inject \$1.657 billion into the New Jersey economy, according to OW2.<sup>91</sup>

OW2 expects to create 2,327 FTE-years of direct jobs during the development and construction phases plus the first 3 years of operation after Commercial Operation Date ("COD").<sup>92</sup>

OW2 places conditional guarantees on its proposed use of the NJWP for marshalling activities and for the GE nacelle facility. OW2 provides that timely completion of the NJWP and obtaining a timely lease at the NJWP at "commercially reasonable terms" by OW2 for WTG marshalling is a necessary condition.<sup>93</sup> OW2 also provides that the GE nacelle facility is conditioned on a lease contract between GE and the NJWP pursuant to commercially reasonable terms, in OW2's sole discretion, and in a timely manner compatible with the Project's construction schedule.<sup>94</sup> In its responses to Clarifying Question Set 4, OW2 confirms that in the event that the contingencies related to the GE nacelle facility are not met, Ocean Wind 2 will deliver its 1,148 MW Project A ("Project A"), and all aspects of Project A, including OREC pricing, would apply to the Ocean Wind 2 Project. Project A is in all respects identical to the OW2 project awarded by this Order, except for the GE nacelle facility, the additional economic benefits ascribable to the nacelle facility, and the higher OREC price associated with the nacelle facility. The Board notes that it finds the nacelle facility a critical component in the development of the OSW supply chain in New Jersey. The Board expects that OW2 will do all that it can to make the nacelle facility happen.

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<sup>87</sup> Id. at Section 8.5.1.

<sup>88</sup> Id. at Section 8.7.3.

<sup>89</sup> Id. at Section 8.6.2.

<sup>90</sup> OW2 Application at Table 8-12 and 8-13.

<sup>91</sup> Id. at Attachment 16.3.

<sup>92</sup> Id. at Table 8-12 and 8-13.

<sup>93</sup> Id. at Section 8.9.2.8.

<sup>94</sup> Id. at Section 8.9.2.3.

OW2 commits to guaranteeing 90% of the expected direct in-State spend and proposes a single combined in-State direct spend and jobs guarantee. To consolidate into a single combined guarantee, OW2 proposes to monetize any guaranteed jobs exceedance at \$82/hour, based upon average compensation for five union trades in Salem County, New Jersey, where the NJWP will be located, and much of the New Jersey work will be performed.<sup>95</sup>

OW2's guarantee conditions are:

- If the in-State spend guarantee is met or exceeded, then no compensation is needed for any shortfall in guaranteed jobs.
- If the in-State spend guarantee is not met, then OW2's compensation need is reduced by the equivalent value of any exceedance in guaranteed jobs.
- If neither the in-State expenditure guarantee nor the in-State employment guarantee is met, then OW2's compensation needs are equal to 90% of the shortfall in "actual" in-State expenditure.

Thus, despite stating an employment guarantee, OW2 will not pay financial compensation for not meeting the guaranteed number of in-State FTE job-years. OW2 states that the focus of the mechanism is on in-State spend, which takes precedence over the jobs guarantee component of the combined guarantee.<sup>96</sup>

OW2 will select an independent expert to verify direct in-State spend and jobs within six months after final COD plus three years.<sup>97</sup>

Any expenditure guarantee shortfall compensation will be made as additional funding of an equal amount to the Pro-NJ Grantor Trust 2 for the purpose of supporting workforce development in disadvantaged communities in NJ, in addition to other foci of the Trust.<sup>98</sup>

- *Likelihood of Successful Commercial Operation*

Many factors influence the likelihood of an OSW project reaching successful commercial operation, including project design, materials and supplier agreements, transmission points of interconnection, permitting, ownership and financing, and experience. Several components of the project design are considered in determining the likelihood of commercial success, including the WTGs, foundations, cabling, and offshore substations.

The OW2 Project proposes to use the GE Haliade-X 14 MW turbine, supported by monopile foundations, without a transition piece, produced at the EEW facility at the Port of Paulsboro. The GE Haliade-X 12 MW turbine achieved final type certification in November 2020. OW2 indicated that the 14 MW turbine will be ready for installation in other OSW projects in 2025, substantially before OW2's installation schedule is expected to start. The Haliade-X WTG has not yet been deployed, but comparable equipment "is currently operating successfully off the coast of Rhode

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<sup>95</sup> OW2 Application at Section 8.9.4.

<sup>96</sup> Id. at Section 8.9.4.

<sup>97</sup> Id.

<sup>98</sup> Id.

Island in Ørsted's Block Island Wind Farm" and in the North Sea.<sup>99</sup> The Haliade-X is being designed to meet a certification standard that it can operate in an offshore marine environment and survive structural loads and hurricanes. OW2 entered into an agreement with GE that provides an option for the Haliade-X 14 MW, and OW2 provided a letter of support from GE to supply WTGs consistent with the project schedule.<sup>100</sup>

OW2 proposes to use monopile foundations, stating that OW2's parent, Ørsted, has been responsible for installing approximately 1,500 monopile foundations, and that the design ensures "suitability with the local marine and ocean environment."<sup>101</sup> OW2 also plans to use a relatively new technology, the transition piece-less monopile. OW2 identified two non-Ørsted projects in the Netherlands where a total of 120 foundations of this type were installed. Although OW2 plans to use a new technology with which it has limited experience, the Board does not see this as an impediment to successful commercial operation. OW2 provided a letter of support from EEW to provide the monopile foundations for the OW2 Project on a schedule that is consistent with the OW2 Project construction schedule.<sup>102</sup> The commitments included in the OW2 Project will enable the Port of Paulsboro to fully fabricate monopiles and associated work on-site.

The cabling proposed for the OW2 Project is standard for offshore wind farms, and has previously been used in locations substantially similar to the offshore waters of New Jersey. OW2 provided letters of support from several potential cable manufacturers, including Hellenic Cables, LS Cable and System, Nexans, Prysmian Group, and Siemens Energy, with LS Cable and System, Nexans, and Prysmian Group specifically referencing timely delivery to meet the schedule.<sup>103</sup> OW2 is planning to install an export cable system that will utilize High Voltage Direct Current ("HVDC") subsea cables to connect the OW2 Project to the onshore transmission grid. HVDC technology is being utilized due to the long cable route to the on-shore landing point, and this is a standard technology for this application.

OW2's offshore substation will utilize design and equipment that is being used successfully in the North Sea, and comparable equipment is being used at the Block Island Wind Farm.<sup>104</sup>

OW2 explained that Ørsted, has 25 years of global experience developing offshore wind, with 26 projects representing 6.8 GW installed, an additional 3.1 GW under construction, and 4.9 GW in development.<sup>105</sup> Additionally, OW2's key personnel and project team has "substantial experience in offshore wind project development, including origination, permitting, interconnection, engineering, financing, procurement, construction, and operations."<sup>106</sup>

- OSW Transmission

OW2 continues to develop its PJM interconnection queue position since its submission in late 2020.<sup>107</sup> The Project will utilize one PJM queue position which, as submitted to PJM, requested

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<sup>99</sup> OW2 Application at 2-20.

<sup>100</sup> Id. at Attachment 2.3.

<sup>101</sup> Id. at 2-20.

<sup>102</sup> Id. at Attachment 8.1.

<sup>103</sup> OW2 Application at Attachment 2.3.

<sup>104</sup> Id. at Section 2.2.1.3.1, 2.2.3.

<sup>105</sup> Id. at 1-11.

<sup>106</sup> Id. at 1-3.

<sup>107</sup> LAI Report at 51; PJM is a regional transmission organization that coordinates the movement of

the Deans 500 kV substation as the primary and Smithburg 500 kV as the secondary Point of Interconnection.<sup>108</sup> As part of its response to a CQ, OW2 noted its intent to change the OW2 Project's primary Point of Interconnection from Deans to Smithburg.<sup>109</sup> Because OW2's queue position remains in the Feasibility Study Phase, the project will change its Point of Interconnection before execution of the System Impact Study.<sup>110</sup> Because PJM has already studied the Smithburg 500 kV substation as the secondary Point of Interconnection in the Feasibility Study phase, no further delay in queue timelines is expected as a result of this change.<sup>111</sup> According to the Application, the Facility Study Agreement, and Interconnection Service Agreement, execution is expected in 2024.<sup>112</sup> Based upon the Application's expected timeline, interconnection facilities should be complete by third quarter of 2026, providing a nine-month buffer until the estimated COD.<sup>113</sup> Due to the early phase of the PJM queue process, Board Staff will need to continue to monitor OW2's progress through the PJM interconnection queue to ensure that all system upgrades reflected in the final Facilities Study Agreement can be completed by the COD.<sup>114</sup> The Board expects OW2 to exercise continued due diligence throughout the PJM interconnection process to support timely execution of the Facilities Study Agreement in accord with OW2's estimated COD.

In parallel with the ongoing Second Solicitation, the Board has been actively pursuing potential coordinated transmission solutions for OSW through PJM's State Agreement Approach ("SAA"). The SAA allows states, after setting out public policy requirements, to seek competitive efficient solutions through PJM's Regional Transmission Expansion Planning ("RTEP") process. On November 18, 2020, the Board officially requested that PJM include New Jersey's offshore wind goals into the RTEP to pursue potential integrated transmission solutions through the SAA.<sup>115</sup> As part of that Order, the Board explained that the SAA is not intended to impact the first OSW award, nor any guidance to bidders in the Board's Second Solicitation. However, the Board reiterated the requirement for applicants to address the future proofing requirements of the Second Solicitation.<sup>116</sup>

Consistent with the SAA Order and the Solicitation Guidelines, OW2 submitted an interconnection plan, described above, that is sufficiently robust and likely to reach commercial operation. However, depending on the outcome of the PJM State Agreement Approach ("SAA Process"), interconnection efficiencies for the OW2 Project may exist as a result of a selected SAA project, particularly in light of the shared proposed Smithburg Point of Interconnection, and the fact that the project has not yet executed a PJM System Impact Study. Despite the existing interconnection plan, the Board leaves open the potential for the Ocean Wind 2 Project to utilize newly developed SAA transmission capability. The Board encourages maximum utilization of shared offshore wind facilities, to the extent that the use of these facilities is in the best interest of New Jersey ratepayers, by delivering the OW2 Project in a lower-cost or lower-risk fashion. Because the specifics of the SAA remain in flux, the Board encourages continued discussion and negotiation between Board Staff and OW2 to determine if the use of SAA transmission capability,

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wholesale electricity in all or parts of 13 states and the District of Columbia

<sup>108</sup> Id.

<sup>109</sup> Id. at 52.

<sup>110</sup> Id. at n. 90.

<sup>111</sup> LAI Report at n. 90.

<sup>112</sup> Id. at 152.

<sup>113</sup> Id. at 152 (citing OW2 Application at 11-5).

<sup>114</sup> See Id. at Table 78, 152-153.

<sup>115</sup> In the Matter of Offshore Wind Transmission, BPU Docket No. QO20100630 (Nov. 18, 2020).

<sup>116</sup> Id. at 8.

in lieu of part or all of the OW2 Project's existing interconnection plan, is in the mutual interest of OW2 and New Jersey ratepayers. For any deviation from the interconnection plan approved in this Order, including for use of any SAA transmission capability, a mutually acceptable revision to this Order will be required. Prior to any determination by the Board that use of SAA transmission capability is in the best interests of New Jersey ratepayers, OW2 will need to pursue its PJM transmission interconnection plan, and will be required to recognize the reasonableness of including such out-of-pocket costs in any mutually acceptable revision to this Order.

## **V. DECISION AND FINDINGS**

The Board acknowledges that, by its award today consisting of two Projects, both here and in Docket No. QO21050824, the procurement target for this solicitation is exceeded by 258 MW. Careful consideration was given to the ratepayer impact resulting from two awards, and the Board's decision is guided by several factors in this regard. The Board chose projects that not only offer generation of clean energy to combat climate change, but also provide significant economic benefits in manufacturing and related supply chain areas, the use of New Jersey ports and infrastructure, and commitments to jobs and economic growth that will be enjoyed in New Jersey for decades to come.

In addition, the diversity in OSW developers realized by the two awards will create robust competition, which will drive down the cost of future solicitations. The diversity in economic benefits, including supply chain, port utilization, and support services, will provide benefits to a broader range of New Jersey residents than any single award, and the specific economic benefits associated with the awarded Projects will further position New Jersey as a supply chain hub for all projects along the East Coast. Cementing New Jersey as an OSW hub now will allow New Jersey to guard against supply chain elements being established in other states before New Jersey gains this foothold. Establishing a robust, diverse supply chain will result in significant benefit to New Jersey's economy, and will create a significant number of well paying, green economy jobs.

The Board is especially encouraged by OW2's commitment to turn the Port of Paulsboro into a fully-functional Phase II project, and to use the NJWP to host a state-of-the-art nacelle manufacturing facility. As discussed in more detail below, the OW2 Project is identical to OW2's Project A proposal, with the exception of the nacelle facility. Utilization of New Jersey's ports, and the economic benefits and jobs that will be realized through the establishment of the manufacturing facilities, are key factors in the Board's decisions today. However, the Board is concerned that OW2 and GE's commitment to move forward with the facility is conditioned upon the occurrence of several events, which are satisfactory to OW2 in its "sole discretion." To ensure that New Jersey consumers are protected, the Board will condition this award on Ørsted committing to deliver the nacelle facility, whether the conditions precedent are met or not. Otherwise, as reflected below, the Board directs that OW2 will receive the Project A price if the nacelle facility does not reach fruition. The Board emphasizes that its award to OW2 today is in large part conditioned on OW2's commitment to bring these supply chain-critical facilities to New Jersey, and the Board expects OW2 to do everything in its power to finalize Paulsboro and to deliver the GE nacelle facility.

The Board is also guided by the New Jersey Offshore Wind Strategic Plan, which presented models projecting the Levelized Cost of Energy ("LCOE") through all planned solicitations to meet the 7,500 MW goal. Modeling covered two scenarios: 1) a balanced scenario (balance between local economic benefits and LCOE); and 2) a low LCOE scenario (low LCOE is emphasized at the expense of local economic benefits). While the LCOE for the balanced scenario is higher for

the first two rounds, this approach results in lasting supply chain economic benefits as well as the lowest LCOE by the 3rd and 4th solicitations, and similar LCOE to the "low LCOE" scenario for the final two rounds."

After a careful and thorough review of the complete record in this matter, the Board **HEREBY FINDS** that the Ocean Wind 2 Project meets each of the following threshold conditions:

- The filing is consistent with the New Jersey Energy Master plan, adopted pursuant to section 12 of P.L.1977, c.146 (N.J.S.A. 52:27F-14), in effect as of the date of this Order;
- The cost-benefit analysis demonstrates positive economic and environmental net benefits to the State;
- The financing mechanism is based upon the actual electrical output of the Ocean Wind 2 Project, fairly balances the risks and rewards of the Ocean Wind 2 P between ratepayers and shareholders, and ensures that any costs of non-performance, in either the construction or operational phase of the Ocean Wind 2 Project, will be borne by shareholders of the applicant; and
- The Application for the Ocean Wind 2 Project demonstrates financial integrity and sufficient access to capital to allow for a reasonable expectation of completion of construction of the Ocean Wind 2 Project.

The Board **FURTHER FINDS** that the Ocean Wind 2 Project meets or exceeds all of the standards for a qualified OSW facility as set for in N.J.S.A. 48:3-87.1 et seq. and N.J.A.C 14:8-6.5 et seq.

As such, upon consideration of the evaluation criteria provided in the Solicitation Guidelines and discussed in detail herein, the Board **HEREBY CONCLUDES** that the Ocean Wind 2 Project is in the best interest of the State of New Jersey.

The Board **HEREBY FINDS** that the Ocean Wind 2 Project satisfies the overarching goals of New Jersey's OSW policy in that it 1) contributes to a stronger New Jersey economy by anchoring an OSW supply chain in New Jersey; 2) combats global climate change to protect New Jersey and its natural resources; 3) provides the most added reliability for the transmission network and transmission rate relief for ratepayers; and 4) achieves all of this at the lowest reasonable cost and risk to ratepayers.

The Board **FURTHER FINDS** that Ocean Wind 2's transmission system upgrade cost sharing proposal to be reasonable and therefore provides cost effective OREC prices to the State of New Jersey.

As such, the Board **HEREBY APPROVES** the Ocean Wind 2 Project as a qualified OSW facility, and **HEREBY APPROVES** the Ocean Wind 2 OREC Price Schedule shown in Attachment A, subject to the Terms and Conditions provided in Attachment B, and thus, **HEREBY ORDERS** that the Ocean Wind 2 Project be deemed eligible to receive ORECs subject to the following:

1. The Ocean Wind 2 Project Annual OREC Price Schedule, shown in Attachment A, and subject to the Terms and Conditions in Attachment B, provides the fixed OREC price per MWh that Ocean Wind 2 may receive for ORECs in compliance with the rules at N.J.A.C.14:8-6 et. seq. Ocean Wind 2's' annual OREC Allowance is 5,034,000 MWh

per year. The OREC price schedule is based upon a first year OREC Payment of \$84.03 per MWh (EY 2029), and a 2.0% Annual Rate of escalation which results in a fixed annual OREC price each year thereafter as shown in the Annual OREC Price Schedule Attachment A to this Order.

2. The OREC payment schedule shall begin on the COD of each phase in Energy Year 2029 as shown in the Annual OREC Price Schedule, and shall continue for each phase for a period of 20 years (240 months) ending no later than 2049, subject to all Terms & Conditions provided in Attachment B, and any and all regulatory requirements. The total Annual OREC Allowance for the Ocean Wind 2 Project shall not be subject to reduction or modification during the term of this OREC order unless otherwise agreed to by the Board and Ocean Wind 2.
3. The OREC Price as bid by Ocean Wind 2 reflects total project costs, including the interconnection costs and transmission system upgrade costs shared by Ocean Wind, in accordance with the requirements established under OWEDA and at N.J.A.C 14:8-6 et seq. However, pursuant to the Solicitation Guidelines, the OREC price may be true-up based upon the difference between the estimated and actual transmission system upgrade costs as represented by Ocean Wind 2 in its Application and supplemental information submissions.
4. Ocean Wind 2 must submit its true-up OREC price to the Board for review and approval upon receipt of the final cost of transmission system upgrades from PJM, including the PJM final cost study and Ocean Wind 2's full and complete calculation of the true-up OREC price. The true-up of the OREC price for final transmission system upgrade cost must be in accord with all Terms and Conditions provided in Attachment B.
5. As a Qualified OSW facility, Ocean Wind 2 shall only be entitled to OREC payments for MWh actually generated over the 20-year term from COD as delineated in this Board Order, and shall have no recourse against the Board, the suppliers, the EDCs, the OREC Administrator, or the ratepayers for any additional payments. Ocean Wind 2 may not exceed the Annual OREC Allowance of 5,034 gigawatt-hours ("GWh"). As detailed in N.J.A.C. 14:8-6.6, any unmet OREC allowances in a given year may be carried forward to the next year to provide a reasonable opportunity to meet Ocean Wind 2 Project's total production.
6. All revenues generated by the Ocean Wind 2 Project including, but not limited to, the Market Revenues estimated in the Application, shall be collected, managed, and returned to ratepayers in compliance with OWEDA and the rules at N.J.A.C.14:8-6.6. As required under these rules, Ocean Wind 2 shall take all reasonable efforts and due diligence to maximize revenues from the Ocean Wind 2 Project as required by N.J.A.C. 14:8-6.6(e). Ocean Wind 2 shall also be responsible for the collection and transfer of all Ocean Wind 2 Project revenues on behalf of ratepayers, and shall be bound by all additional requirements under N.J.A.C. 14:8-6.6(f).
7. Ocean Wind 2's market revenue settlement procedure must maximize ratepayer interests subject to the floor mechanism linked to PJM's Real Time Market, annual BRA governing capacity prices, any applicable ancillary revenues, as well as the sale of RECs to third parties enabled by Ocean Wind 2's generation output as set forth in Attachment B.

8. If the GE nacelle facility is not operational in time to produce nacelles for the OW2 Project, either because the conditions imposed by OW2 for realizing the GE nacelle facility are not met, or for any other reason even if the conditions imposed by OW2 are met, this Order shall require OW2 to deliver its Project A, which is identical in all respects to the OW2 Project, except that the economic benefits of the GE nacelle facility are not included. The Project A Annual OREC Price Schedule, shown in Attachment A-1, and subject to the Terms and Conditions in Attachment B, provides the fixed OREC price per MWh that Ocean Wind 2 may receive for ORECs in compliance with the rules at N.J.A.C.14:8-6 et. seq. Ocean Wind 2's' annual OREC Allowance is 5,034,000 MWh per year. The OREC price schedule for OW2 Project A is based upon a first year OREC Payment of \$82.71 per MWh (EY 2029), and a 2.0% Annual Rate of escalation which results in a fixed annual OREC price each year thereafter as shown in the Annual OREC Price Schedule Attachment A-1 to this Order.
9. If the project to secure up to 50 Class 8 trucks and develop an electric truck depot facility at the Port of Newark/Elizabeth, New Jersey cannot be realized, or is ultimately deemed, in consultation with Board Staff, a poor value to ratepayers, , OW2 shall submit to Board Staff a plan describing in detail how Ocean Wind 2 intends to reallocate the unspent portion of the funds "to deliver immediate benefits to Environmental Justice communities, what those benefits will be, and what communities will receive such benefits. If Board Staff does not approve Ocean Wind 2's plan, the unspent portion of the funds shall be used to reduce the OREC purchase price.

The Board **FURTHER ORDERS** that the Electric Distribution Companies ("EDCs") undergo the following actions pursuant to the terms of this Order:

1. Serve as payment agents, on behalf of all suppliers obligated under the Renewable Portfolio Standard rules, to facilitate the collection and transfer of monthly OREC payments from ratepayers to Ocean Wind 2 in compliance with the rules at N.J.A.C. 14:8-6.6(c);
2. Implement a monthly OSW surcharge on ratepayers as required by N.J.A.C. 14:8-6.6(c);
3. File a tariff with the Board, no later than 180 days prior to the first phase COD of the Ocean Wind 2 Project, to collect a non-bypassable OREC surcharge to be assessed as a distribution charge that will be sufficient to meet each supplier's OREC obligation. The EDCs shall implement the ratepayer surcharge based upon the Board-approved total Annual OREC allowance for the Ocean Wind 2 Project, multiplied by the OREC price, and expressed as a per kilowatt hour (kWh) charge to be collected from all ratepayers on behalf of the suppliers. The EDCs shall begin collecting the OREC surcharge four (4) months in advance of the first phase COD of the Ocean Wind 2 Project to ensure that adequate funds will be available to complete the initial OREC payment to Ocean Wind. The surcharge shall be implemented in compliance with N.J.A.C. 14:8-6.6(c);



4. Annually file, with the Board, for recoverable charges for the administrative fees incurred as payment agent and for the OREC Administrator fees;
5. Enter into a joint contract to retain an OREC Administrator to facilitate all transactions between ratepayers, suppliers, EDCs, and OSW developers, who will be responsible for tracking and verifying all payments and obligations as described under N.J.A.C. 14:8-6.6. The contract for the OREC Administrator shall be competitively bid by the EDCs to ensure the most efficient and cost competitive price for ratepayers. In furtherance of this directive, the EDCs shall draft and submit to the Board for approval a Request for Proposal to jointly solicit an OREC Administrator no later than 280 days from the effective date of this Order. The contract shall include the Ocean Wind 2 Project approved in this Order; the Project approved today in Docket No. QO21050824, and the project approved in the 2019 Board Order (the "Initial Contract").<sup>117</sup> The Initial Contract with the OREC Administrator shall be amended to include additional Projects approved by the Board in subsequent solicitations, or a new competitively bid contract with an OREC Administrator shall be used for projects approved by the Board in subsequent solicitations. The EDCs shall prepare an amendment to the Initial Contract, or a new Request for Proposals, and submit the document to the Board for approval. The OREC Administrator will establish a standard Participation Agreement for the EDCs and Ocean Wind 2 as a Qualified OSW Project. Based upon the participation of all parties, the OREC Administrator shall conduct a true-up twice per year to ensure compliance with the Renewable Portfolio Standards and as stipulated under N.J.A.C. 14:8-6.6. The OREC Administrator shall be retained under the Initial Contract no later than one year prior to the earliest COD of the Projects included in the Initial Contract; and
6. Enter into, and comply with, the Standard Participation Agreement with Ocean Wind 2 to be established by the OREC Administrator. The Standard Participation Agreement and any subsequent modifications shall be developed by the OREC Administrator and approved by the Board.

The Board **HEREBY DIRECTS** Board Staff to:

1. Establish an OSW carve-out to the Class I Renewable Portfolio Standards based on the approved Ocean Wind 2 Project annual OREC allowance of 5,034 GWh within eighteen months of the date of this Order; and
2. Monitor the results and progress of any SAA transmission solution(s) to determine if utilization of any SAA transmission solution(s) by the OW2 Project will increase the benefits to ratepayers and the residents of New Jersey, and will not negatively impact OW2. If Board Staff makes such a determination, Board Staff shall initiate discussions with Ocean Wind 2 regarding a potential change to the OW2 Project interconnection plan, such change being subject to modification of this Order agreed to by the Board and OW2.

The Board **FURTHER ACKNOWLEDGES** OW2's proposal for the distribution of guaranteed economic benefits shortfall. The Board is keenly aware of the impact to ratepayers regarding the cost associated with the benefits of OSW. As such, the Board **HEREBY ORDERS** that any

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<sup>117</sup> In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW – Evaluation of the Offshore Wind Applications, BPU Docket No. QO18121289 (Jun. 21, 2019).

shortfall in guaranteed economic benefits be distributed as follows: 10% of the shortfall shall be added to the Pro New Jersey Grantor Trust 2 as proposed by OW2; and 90% of the shortfall shall be returned to ratepayers as a dollar-for-dollar reduction in the OREC price. The methodology for adjusting the OREC price shall be mutually agreed upon between OW2 and the Board. Additionally, the Board **HEREBY DIRECTS** Board Staff to initiate discussions with OW2 regarding the methodology for adjusting the OREC price no later than 90 days from the date of this Order. The methodology shall result in OW2's guaranteed economic benefits shortfall being equal to the amount of OW2's guaranteed economic benefits shortfall under the proposed shortfall distribution.


As required by OWEDA and the Board's regulations, the Board **HEREBY ORDERS** that the specific terms and conditions of the award made herein be provided in Attachment B to this Order.

With the approval of the Ocean Wind 2 Project, and the Project provided in Docket No. QO21050824, the OSW capacity for the Second Solicitation is fulfilled, and thus, all other responses submitted under this Solicitation are **HEREBY DENIED**.

The effective date of this Order is June 30, 2021.

DATED: June 30, 2021

BOARD OF PUBLIC UTILITIES  
BY:




\_\_\_\_\_  
JOSEPH L. FIORDALISO  
PRESIDENT



\_\_\_\_\_  
MARY-ANNA HOLDEN  
COMMISSIONER




\_\_\_\_\_  
DIANNE SOLOMON  
COMMISSIONER



\_\_\_\_\_  
UPENDRA J. CHIVUKULA  
COMMISSIONER



\_\_\_\_\_  
ROBERT M. GORDON  
COMMISSIONER

ATTEST:   
\_\_\_\_\_  
AIDA CAMACHO-WELCH  
SECRETARY

IN THE MATTER OF THE OPENING OF OFFSHORE WIND RENEWABLE ENERGY  
CERTIFICATE (OREC) APPLICATION WINDOW FOR 1,200 TO 2,400 MEGAWATTS OF  
OFFSHORE WIND CAPACITY IN FURTHERANCE OF EXECUTIVE ORDER NO. 8 AND  
EXECUTIVE ORDER NO. 92; and

IN THE MATTER OF THE BOARD OF PUBLIC UTILITIES OFFSHORE WIND  
SOLICITATION 2 FOR 1,200 TO 2,400 MW – OCEAN WIND 2, LLC

BPU DOCKET NOS. QO20080555 and QO21050825

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**ATTACHMENT A – ANNUAL OREC PRICING SCHEDULES**

**Annual OREC Price Schedule and Planned Output Schedule  
 OW2 Project B**

Nameplate Capacity (MW)		Phase 1	Phase 2	Phase 3
		392.0	378.0	378.0
COD (month/year)		08/2028	10/2028	01/2029
Energy Year, Ending May 31 of	All-in OREC Price (\$/OREC) <sup>118</sup>	Output (months)	Output (months)	Output (months)
2029	\$84.03	9	7	4
2030	\$85.71	12	12	12
2031	\$87.42	12	12	12
2032	\$89.17	12	12	12
2033	\$90.95	12	12	12
2034	\$92.77	12	12	12
2035	\$94.63	12	12	12
2036	\$96.52	12	12	12
2037	\$98.45	12	12	12
2038	\$100.42	12	12	12
2039	\$102.43	12	12	12
2040	\$104.48	12	12	12
2041	\$106.57	12	12	12
2042	\$108.70	12	12	12
2043	\$110.87	12	12	12
2044	\$113.09	12	12	12
2045	\$115.35	12	12	12
2046	\$117.66	12	12	12
2047	\$120.01	12	12	12
2048	\$122.41	12	12	12
2049	\$124.86	3	5	8

<sup>118</sup> The "All-in" OREC Price is prior to the true-up for PJM transmission system upgrade costs

**ATTACHMENT A-1 – ANNUAL OREC PRICING SCHEDULES**

**Annual OREC Price Schedule and Planned Output Schedule  
 OW2 Project A**

Nameplate Capacity (MW)		Phase 1	Phase 2	Phase 3
		392.0	378.0	378.0
COD (month/year)		08/2028	10/2028	01/2029
Energy Year, Ending May 31 of	All-in OREC Price (\$/OREC) <sup>119</sup>	Output (months)	Output (months)	Output (months)
2029	\$82.71	9	7	4
2030	\$84.36	12	12	12
2031	\$86.05	12	12	12
2032	\$87.77	12	12	12
2033	\$89.52	12	12	12
2034	\$91.31	12	12	12
2035	\$93.41	12	12	12
2036	\$95.00	12	12	12
2037	\$96.90	12	12	12
2038	\$98.84	12	12	12
2039	\$100.82	12	12	12
2040	\$102.84	12	12	12
2041	\$104.89	12	12	12
2042	\$106.99	12	12	12
2043	\$109.13	12	12	12
2044	\$111.31	12	12	12
2045	\$113.54	12	12	12
2046	\$115.81	12	12	12
2047	\$118.13	12	12	12
2048	\$120.49	12	12	12
2049	\$122.90	3	5	8

<sup>119</sup> The "All-in" OREC Price is prior to the true-up for PJM transmission system upgrade costs

**ATTACHMENT B – ADDITIONAL TERMS AND CONDITIONS**

This Board Order approving the OW2 Project is subject to all applicable federal, state and local laws and regulations, including, but not limited to, OWEDA, Executive Order No. 8, Executive Order No. 92, the Board’s Guidelines for Application Submission for Proposed Offshore Wind Facilities, and the Board’s implementing regulations at N.J.A.C. 14:8-6 et seq.

This Board Order approving the OW2 Project is also subject to the following terms and conditions:

1. Ownership Considerations

- a. Ørsted Offshore North America, Inc. and Ørsted A/S shall also be subject to this Order and to these terms and conditions.
- b. In the event of any sale or other transfer to any other entity of a controlling interest in the Project or in the Project owners as described in the OW2 Application, such sale or transfer shall require prior Board approval, pursuant to N.J.A.C. 14:8-6.5(a)(1)(v) and N.J.A.C. 14:8-6.5(a)(4)(iv).

2. Annual OREC Allowance

- a. The total Annual OREC Allowance of 5,034 GWh per year, as approved by the Board, shall not be subject to reduction or modification during the term of this OREC Order unless otherwise agreed to by the Board and OW2 or its successor.
- b. OW2 may not exceed the annual OREC allowance of 5,034 GWh per year in any given year. Any unmet OREC allowances in a given year may be carried forward to the next year, as required by N.J.A.C. 14:8-6.6(b)4.

3. Project Schedule

- a. The OW2 Project shall have a Commercial Operations Date (“COD”) in 3 phases.
  - i. Phase 1: 392.0 MW by August 2028
  - ii. Phase 2: 378.0 MW by October 2028
  - iii. Phase 3: 378.0 by January 2029<sup>120</sup>
- b. Schedule Delays
  - i. The Board acknowledges the uncertainties associated with various aspects of the Project and the changing conditions in the marine environment. OW2 may reserve the right for the COD of any of the 3 Phases to be delayed for up to, but no longer than, 6 months from each respective COD without having to obtain Board approval. Such delay will not have any effect on the overall OREC period or the total financial compensation to be received by OW2 over the life of the OREC term, other than the fact that the applicable Phase(s) will commence and end on the delayed basis (the “Permissible Delay”). OW2 shall notify the Board as soon as it is aware that any Phase will be delayed for up to 6 months.

Because of the consecutive nature of the Phases, a delay to Phase 1 may result in a corresponding delay to Phase 2 and a corresponding delay to Phase 3, or a delay to Phase 2 may result in a corresponding delay to Phase 3. For example, an initial delay of 4 months to the Phase 1 COD may result in a 4-month delay to the Phase 2 COD, but it will only be considered a single 4-month delay and not an 8-month delay. In the event

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<sup>120</sup> OW2 Application Form-Ocean Wind 2 Bid B.



of any delay, the Board expects OW2 to make all reasonable efforts to limit any corresponding, subsequent delays. The permissible delay across the entirety of the 3 phases of the project can be no more than 6 months total

- ii. Any delay(s), for any reason, beyond the Permissible Delay from each respective COD, would qualify as a material change to the binding OREC Pricing Schedule listed in Attachment A, or Attachment A-1 as applicable, and therefore be subject to Board approval. The Board retains the right to deny requests for changes to the OREC Pricing Schedule beyond the Permissible Delay.
- iii. In the event of a delay beyond the Permissible Delay, OW2 shall request Board approval prior to any delay that it anticipates will exceed the Permissible Delay. In the request, OW2 shall include in sufficient detail an explanation for the delay, and OW2's actions to minimize the delay.

Any delay expected to be greater than six months shall first exhaust the Permissible Delay. As further explanation, the Permissible Delay is not intended to be used at the discretion of OW2 at any point in the Project schedule. The Permissible Delay shall only be used at the beginning of any total delay period.

- iv. If OW2 petitions the Board for a greater than six-month delay, OW2 may request that there be no change to the OREC Pricing Schedule, other than the fact that it will commence on a delayed basis commensurate with the actual delay and be extended for a comparable period.
- v. If the Board does not approve the request for a greater than six-month delay or grants the request with conditions, or if there is a delay as to which OW2 did not request approval from the Board, OW2 shall receive the payments dictated by the OREC Pricing Schedule starting on the actual COD of each Phase, and shall cease receiving payments six months beyond the end date of the OREC Pricing Schedule for each Phase (i.e., OW2 receives the benefits of the six-month delay, but not for any additional delays that are not approved by the Board).
- vi. If the project is delayed for any reason, the first year OREC price to be paid shall be the first year OREC price as bid. For example, the first year OREC price as bid is \$84.03/MWh for Energy Year 2029. If the project is delayed so that it commences in Energy Year 2030, the OREC paid in that first Energy Year shall be \$84.03/MWh, not the OREC price bid for Energy Year 2030.
- vii. If the COD is earlier than contemplated in this Order, there will be no change to the Pricing Schedule, other than the fact that it will commence and end on an earlier basis.

#### 4. Revenue Settlement Process

- a. The intent of the process described below is to ensure that ratepayers are not adversely affected by any hedging activities by the entity in charge of energy market sales (the "Energy Manager"), such as entering into bilateral contracts or other

commercial activities. If the Energy Manager engages in such activities, the process described below provides that the credits to ratepayers will not be reduced below what the Project would have earned by liquidating the project's generation in the spot market (the "Floor Price"). The process described below is not intended to prohibit prudent hedging activities of longer than a month, but is designed to make sure that voluntary commercial activities do not result in a reduction below the monthly Floor Price. OW2 shall propose a more specific methodology for calculating the Floor (should OW2 engage an Energy Manager for hedging) or other revenue plan for the Project no later than one year prior to the Phase 1 COD, taking account of the then most recent market rules and commercial practices. The methodology will be subject to review and acceptance by Board Staff.

- b. In addition to the requirements of N.J.A.C. 14:8-6.6(f), OW2 shall follow the Settlement Procedure detailed below to return project revenue to ratepayers. If OW2's revenue management program incorporates bilateral sales of energy, capacity, and/or ancillary services, a monthly revenue index calculation, performed by the OREC Administrator, shall be calculated to determine the Floor Price. The outcome of the Floor Price calculation will serve as a floor governing the crediting of market revenues to New Jersey ratepayers. In addition, project revenues from all other sources shall also be credited in the calculation of Net OREC cost.

- i. The Floor Price shall be calculated as energy revenues based on day-ahead energy prices at the injection node, plus BRA prices for the applicable zone, times the actual quantities of energy and capacity sold.

- c. After month twelve of the OREC term, the Floor Price for the preceding twelve months shall be compared with actual project revenues from these two sources. The greater of the actual and Floor Price for energy plus capacity sales shall be credited in the calculation of net OREC cost for the settlement month, in addition to project revenues from all other sources. This same settlement method shall be used for each of the remaining nineteen years of the OREC pricing schedule.

## 5. Changes to Key Personnel

- a. OW2 shall notify Board Staff of the departure of any key employee of the Project<sup>121</sup> within thirty (30) days of the departure. OW2 shall submit the expertise and qualifications for any new key employee, and shall submit any changes to the organizational structure of key employee positions to Board Staff within thirty (30) days of hiring a new key employee or of implementing changes to the organizational structure of key employees. Notification by email is sufficient, requesting confirmation that the notification has been received. Board Staff retains the right to respond with questions or clarifications should it need.
- b. Once satisfied that the Project's key employees and the organizational structure of key employee positions conform to the Board's rules, Board Staff will notify OW2.
- c. In providing notification, Board Staff does not intend to limit or become deeply involved in OW2' hiring or personnel decisions, but rather to confirm that the Project's key employees conform to the Board's rules at N.J.A.C.14:8-6.5 (a)(1)(i) and (ii).

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<sup>121</sup> OW2 Application at Section 1.4

6. Environmental and Fisheries Plan Updates

- a. OW2 shall maintain and update the OW2 Project Environmental Protection Plan and Fisheries Protection Plan at key project milestones, including commencement of construction, completion of construction, and every two years thereafter, through decommissioning, or at other times as requested by NJDEP.
- b. The OW2 Project Environmental Protection Plan and Fisheries Protection Plan shall be updated to ensure New Jersey's natural resources, including fin fish and shellfish, sea turtles, marine mammals, avian species, bats and benthic populations are protected throughout the life of the project from pre-construction through decommissioning and that any impacts are being actively monitored and mitigated as required by law. OW2 shall make periodic presentations on its Environmental Protection Plan and Fisheries Protection Plan updates to the Environmental Resources Offshore Wind Working Group as requested by NJDEP. Monitoring efforts should be designed to improve the understanding of impacts of offshore wind energy development and operations on the marine environment and wildlife and shall occur throughout the life of the project at a frequency in accordance with best practices for the relevant variable or species and at a spatial scale to reasonably capture the range of conditions within the project area. OW2 shall work with Board Staff and the NJDEP to identify and implement best practices for the avoidance, minimization and mitigation of adverse impacts on wildlife including but not limited to marine mammals, sea turtles, and avian and bat species, throughout the life of this project. OW2 shall meet with Board Staff and the NJDEP within 6 months of this Order to commence this process.

7. Research and Monitoring Fee

- a. As required in the Solicitation Guidelines, Ocean Wind 2 shall provide payment to the State of New Jersey for research initiatives and the regional monitoring of wildlife and fisheries related to the introduction of offshore wind projects in the amount of \$11,480,000 ("RMI Fee"). Payment shall be made on the following schedule: 50% of the RMI Fee within 90 days of the date of this Order, and the remainder paid in equal annual installments on the anniversary of the date of this Order over a 2-year period. The funding will be administered by the NJDEP and BPU, with stakeholder input to aid in the identification and prioritization of regional research and monitoring needs.

8. Reporting and Data Sharing Requirements

- a. OW2 shall report annually in writing to the Board and NJDEP beginning one year from the effective date of this Order on actions taken to ensure environmental protection, fisheries protection, mitigation of environmental and/or fishing impacts. This report shall specifically address how OW2 is enacting its plans for environmental and fisheries protection and mitigation of impacts as articulated in the Application.
- b. An appendix to the Report shall indicate the data collected in the reporting period, and shall include an accessibly-written, narrative description(s) of the dataset(s), the associated findings made based upon these data, and reference(s) to the data portal(s) where these data can be publicly accessed. This appendix shall be made public.
- c. OW2 shall report annually in writing to the Board and NJDEP beginning one year from the effective date of this Order on the policies and programs that may be adopted by

- the Board or NJDEP to help reduce future environmental or fisheries impacts or enhance the protection of natural resources. This report shall detail any proposed future mitigation or protection measures that could be adopted, providing a description, proposed timeline, and expected outcomes of the recommended action.
- d. OW2 shall report at least quarterly in writing to the Board beginning three months from the effective date of this Order, its progress in the development of the GE nacelle assembly facility at the New Jersey Wind Port and shall facilitate quarterly meetings between Board Staff, OW2 and GE to discuss achievement of the project, or as otherwise requested by Staff. The report and corresponding meeting shall include milestones achieved during the reporting period, milestones expected to be achieved during the next reporting period, any problems encountered and the resolution of those problems or OW2's plan for resolving those problems, any Project schedule impacts, and any other information that OW2 believes to be material to the development of the GE nacelle assembly facility at the New Jersey Wind Port.
  - e. OW2 shall report at least quarterly in writing to the Board beginning three months from the effective date of this Order, its progress in the development of the EEW Phase 2 foundation manufacturing facility at the Port of Paulsboro. The report shall include milestones achieved during the reporting period, milestones expected to be achieved during the next reporting period, any problems encountered and the resolution of those problems or OW2's plan for resolving those problems, any Project schedule impacts, and any other information that OW2 believes to be material to the completion of the EEW Phase 2 foundation manufacturing facility at the Port of Paulsboro.
  - f. OW2 shall make public through appropriate data portals, all data collected in the development of the OW2 Project from pre-construction activities through decommissioning activities. All collected information and scientific data not deemed confidential by statute or regulation shall be made publicly available. Specifically, data with particular emphasis on natural resources including, but not limited to, fin fish and shellfish, sea turtles, marine mammals, avian species, bat and benthic populations, as well as data regarding vessel strikes, avoidance, observations on habitat, and routine data collection on ocean conditions shall be shared in a manner that is in keeping with best practices for the reporting of these types of data. OW2 shall report annually to the Board and NJDEP beginning one year from the effective date of this Order, describing the type of data shared, and where the data is shared.
9. Sharing of Confidential Information by the NJBPU
- a. The Board shall, from time to time, provide information deemed by OW2 to be confidential to other New Jersey state agencies in order for those agencies to better understand the OW2 Project, to track the Project's development, and for any other reason deemed appropriate by Board. Board Staff will notify OW2 prior to providing such information for OW2's information only.
10. Economic Benefits
- a. OW2 shall retain an independent consultant subject to approval by Board Staff, who will evaluate the actual local content spend from the effective date of this Order through the final phase COD plus one year. OW2 and the selected consultant shall develop a calculation methodology subject to approval by Board Staff. OW2 shall submit a report of the consultant's evaluation within six months of the final phase COD plus one year.

- b. OW2 shall retain an independent consultant subject to approval by Board Staff, who will verify the direct jobs resulting from the Project every five years from the first phase COD through the end of the OREC period. OW2 and the selected consultant shall develop a calculation methodology subject to approval by Board Staff. OW2 shall submit a report of the consultant's evaluation within 6 months of the end of each evaluation period.
- c. Any grant program established under this award to provide bill payment assistance to electric and gas utility customers in need of immediate assistance must be competitively bid, unless the public interest mandates otherwise.
- d. Prior to the establishment of the Pro-NJ Grantor Trust 2 ("Trust 2"), OW2 shall submit to Board Staff a full description of the proposed structure of the Trust 2, the expected schedule for its formation, a full description of how the Trust 2 will be used to support workforce development in disadvantaged communities in New Jersey, a full description of the other foci of the Trust 2, and the expected schedule for issuing grants from the Trust 2. This submittal will be subject to review and approval by Board Staff.

11. Transmission

- a. Transmission System Upgrade Costs ("TSUC")
  - i. OW2 shall notify Board Staff within 10 days and in writing of any expected changes to OW2's P50 and P90 estimates of TSUC that vary more than plus or minus 10% from the estimates provided in OW2's Application. Such notice shall include the amount of the new P50 and/or P90 estimates, the reason(s) for the variation, and all measures being taken by OW2 to mitigate increases in the TSUC.
  - ii. OW2 shall notify the Board when all upgrades are completed and the final TSUC is known. With that notification, Board Staff will evaluate the amount of TSUC and determine the adder, if any, to allow appropriate recovery of TSUC. Staff may be guided by the methodology for cost-sharing of the final TSUC below:

Transmission System Upgrade Cost Share				
	Up to \$181M	\$181M-\$217M	\$217M-\$250M	Above \$250M
Ratepayers' share	0%	50%	75%	100%
OW2 share	100%	50%	25%	0%

The OW2 share of TSUC will be compared on a present value basis, using a discount rate of 7.0 percent, to the "Seller's Share" portion of the OREC as submitted by the Applicant as part of its BAFO. If the present value of the "Seller's Share" portion of the OREC as submitted is greater than the OW2 share of final TSUC based on actual interconnection costs, the "Seller's Share" portion of the starting OREC price will be adjusted

downward to match the present value of the OW2 share of final TSUC. No upward adjustments will be made. The ratepayers' share of the final TSUC is estimated as the ratepayers' share of the final TSUC multiplied by an annuity factor of 0.08117 and then divided by the average annual Expected Delivered Energy, as submitted in the OW2 application.

- iii. The Board is undertaking a process to determine if a coordinate solution for transmission of New Jersey's offshore wind goals would be in the best interest of the state and the ratepayers. This process is being conducted with PJM under the PJM State Agreement Approach ("SAA Process"). As specified in the Solicitation Guidelines, the OW2 Project is not subject to the results of the SAA Process. However, Board Staff has been instructed to determine if utilization of any SAA Process transmission solution(s) by the OW2 Project will increase the benefits to ratepayers and the residents of New Jersey, and will not negatively impact OW2. If Board Staff makes such a determination, Board Staff shall initiate discussions with OW2 regarding a potential change to the OW2 Project interconnection plan, including the return of any savings to ratepayers in the form of a reduced OREC. Such savings would materialize under the SAA Process from the avoided TSUC borne by the OW2 Project. All changes resulting from utilization of transmission projects identified through the SAA Process shall require a modification of this Order agreed to by the Board and OW2.
- b. OW2 will track monthly the incremental and cumulative portion of ORECs sold that applies to the Buyer's Share of the TSUC, and report these values to the OREC Administrator on a monthly basis. OW2 will inform the OREC Administrator and Board Staff in writing when the full amount of the Buyer's Share of the TSUC plus any allowed rate of return has been reached. At that time, the OREC purchase price will be adjusted appropriately for the removal of the TSUC price adder for the remainder of the 20-year OREC term.