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November 14, 2022

PRELIMINARY PUBLIC COPY

New Jersey Board of Public Utilities
Secretary of the Board
44 South Clinton Ave., 1st Floor
PO Box 350
Trenton, NJ 08625-0350

via: publicaccess.bpu.state.nj.us

RE: New Jersey Board of Public Utilities Docket No. QO22080481, In The Matter Of The Opening Of New Jersey's Third Solicitation For Offshore Wind Renewable Energy Certificates, Request for Information

Dear New Jersey Board of Public Utilities Staff,

Attentive Energy LLC ("Attentive Energy") respectfully provides the following responses to the New Jersey Board of Public Utilities' ("the Board") Request for Information ("RFI") related to New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates ("NJ3 solicitation").[1]

Attentive Energy is the wholly owned subsidiary of TotalEnergies Renewables USA, LLC and part of TotalEnergies, a global multi-energy company that produces and markets energies – with a 11GW offshore wind development portfolio globally and major interest in expanding within the U.S. market. TotalEnergies has an ambition to install 100GW of global renewable power generation by 2030 and reach carbon neutrality in global business operations by 2050.

As of May 2022, Attentive Energy is the leaseholder of the 84,332-acre lease area OCS-A 0538 in the New York Bight, establishing its long-term presence in the region and commitment to deliver a community-first approach following years-long stakeholder engagement.

We applaud New Jersey's efforts to integrate the State's offshore wind ("OSW") transmission objectives with the regional grid's planning and development process, and we support the recent State Agreement Approach ("SAA") award to construct the onshore transmission facilities necessary to successfully deliver offshore wind to New Jersey customers. To support the State's goals to lower costs, reduce the chance of delays in OSW projects, and minimize community and environmental impacts, we offer for consideration the following responses to all subject areas included in the NJ3 solicitation RFI.

[1] Portions of this response contain confidential, proprietary, and/or commercially-sensitive information. Attentive Energy has submitted a Confidential Copy of this response that should be treated as a non-public record that is exempt from disclosure to the extent permitted under applicable laws and/or as expressly set forth in the RFI. Attentive Energy has also submitted a redacted version of this response that should only be released to the public to the extent permitted under applicable laws and/or as expressly set forth in the RFI. All notices or other communications regarding the confidential nature of this response should be directed to Attentive Energy's Senior Legal Counsel Murray Greene, murray.greene@totalenergies.com.

Design Considerations for the Prebuild Infrastructure

1. **Please identify any requirements that should be included in the SGD to support the design and timely construction of the Prebuild Infrastructure. Please provide any recommendations for specifications of these requirements.**

[redacted]

2. **Are there major challenges or significant limitations to installing up to four circuits for independent projects in a common ROW? If yes, please summarize the nature of these challenges / limitations.**

[redacted]

[redacted]

Cost Recovery Structure for Costs Associated with the Prebuild Infrastructure

3. **Board Staff expects to require applicants to submit separate an OREC schedule for their offshore wind project with and without Prebuild Infrastructure included. Over what period of years should the cost of the Prebuild Infrastructure be recovered?**

[redacted]

Construction and Operating Considerations for the Prebuild Infrastructure

4. **What terms and conditions for construction of the Prebuild Infrastructure between the Board and constructor should be specified in the SGD?**

We are continuing to assess the SAA award and evaluate the complexities associated with this question. The terms and conditions for construction of the Prebuild Infrastructure will be dependent on what the Board elects to require through the NJ3 solicitation following the feedback on the design of the Prebuild Infrastructure. We look forward to addressing this question during the Draft SGD comment period with thoughtful and educated feedback. We would like feedback on whether the Board intends to issue a draft Prebuild Infrastructure agreement and whether the Board will allow developers to comment on such draft agreement.

5. **What terms and conditions for operation of the Prebuild Infrastructure between the Board, constructor and future users should be specified in the SGD?**

We are continuing to assess the SAA award and evaluate the complexities associated with this question. The terms and conditions for operation of the Prebuild Infrastructure will be dependent on what the Board elects to require through the NJ3 solicitation following the feedback on the design and operation of the Prebuild Infrastructure. We look forward to addressing this question during the Draft SGD comment period with thoughtful and educated feedback. We would like feedback on

whether the Board intends to issue a draft Prebuild Infrastructure agreement and whether the Board will allow developers to comment on such draft agreement.

6. **Are there any potential challenges for cable installation in the Prebuild Infrastructure for future solicitation awardees? If yes, how might they be mitigated?**

Please refer to our response to question 2.

7. **Please identify any potential adverse cost or schedule implications ascribable to the Prebuild Infrastructure as it relates to awardees of future New Jersey offshore wind solicitations. How might these impacts be mitigated?**

The avoidance of cost overruns and schedule delays related to Prebuild Infrastructure is abundantly important to avoid adverse ratepayer impacts. For all OSW developers, other than the NJ3 solicitation awarded Prebuild Infrastructure constructor, Prebuild Infrastructure introduces project-on-project risks where any OSW developer intending or required to use Prebuild Infrastructure may be at risk of stranded offshore assets if the onshore Prebuild Infrastructure is not available at the required time. This and other project-on-project risks can be mitigated through contractual measures that can be set by the Board, and Attentive Energy looks forward to further evaluating and commenting on such measure once the final Prebuild Infrastructure requirements are issued. We request that the Board make such Prebuild Infrastructure draft requirements and contractual measures available for review and comment in the Draft SGD.

Enabling Potential Future Development of a Meshed Network

8. **Do you have any general recommendations regarding how preparation for a future mesh network can be implemented in the Third Solicitation?**

It is critical for the Board to define the commercial and operational characteristics of a future meshed network system before any OREC contractual measures for associated offshore wind farms are established. To ensure that all bids received in the NJ3 solicitation are based on level CapEx assumptions, we recommend that the Board provide prescriptive guidance on the exact meshed network design requirements to be included in NJ3 proposals. This allows for OSW developers to compete on a level playing field and address changes in scope at a later date as proposed by the Board. To be clear, if the details of the meshed network system are not comprehensively defined, then project developers will be at the risk of guessing in their EPC decisions, and PJM – which will retain control over the interconnection of the system with the transmission grid – may view the meshed-grid system as not demonstrating readiness, and therefore not entitled to timely interconnection.

9. **What additional equipment would need to be specified and installed at the time of project construction in order to enable future connectivity to a mesh network, as opposed to equipment that would not need to be installed until the mesh network is implemented?**

The US OSW market has learned that a meshed network has no single meaning. We understand the meshed network, as it relates to the SAA, as an OSW developer providing an HVAC offshore substation and then interconnecting to an HVDC solution that would transmit power to New Jersey. It is recommended that the Board prescriptively define what is meant by a future mesh network.

Once the future mesh network is clearly defined, we recommend the Board specify for all bidders the HVDC/HVAC equipment to be required, i.e., sizing of transformers, control system considerations, connecting cable specifications, and sizing of reactive compensation equipment based on longest possible cable distance between future interconnecting offshore wind farms.

Furthermore, it is important that the Board identify specific control, protection, and communication space allocations, as different interpretation of the specifications' redundancy requirements can result in larger or smaller control room footprints for the offshore substation ("OSS"), which will be a significant cost consideration functionalized to a successful project.

10. What physical requirements would enable the offshore substation to support the additional equipment, including additional platform space?

This question is difficult to answer without a clear definition of the meshed network envisioned by the Board, as previously mentioned. In general, the design and manufacturing of the OSS must account for the additional weight of the meshed network components and the additional space required for the operation and maintenance of these components. One solution available is a separate / standalone OSS platform dedicated to the meshed network components sited immediately adjacent to the traditional OSS platform. The other solution is to oversize the traditional OSS platform; however, we are unable to speak to the physical design requirements of an oversized solution without further details on the meshed network envisioned by the Board. Both scenarios introduce additional costs and permitting risk to the project.

11. How would your suggestions regarding what engineering, operational and/or regulatory information should be specified in the SGD to support a future mesh network differ if the mesh network includes (i) only New Jersey projects, (ii) New Jersey and other PJM states' projects, or (iii) New Jersey, other PJM states' and downstate New York projects?

Our suggestions regarding engineering, operational, and / or regulatory specifications to include in the SGD to support a future mesh network would not differ across any of the three scenarios presented. We urge that requirements across all three scenarios are consistent for the sake of planning, manufacturing, construction, and operations. We also ask the Board to recognize that FERC's regulation of the transmission system, and NERC reliability requirements, are national in scope and will not nimbly accommodate significant variations in operability, monitoring, or other regulated characteristics. Patchwork solutions across the region would limit the successful development and operation of a meshed network and hinder the intended goals of such a network.

12. What might be the advantages or disadvantages associated with the Board's adoption of the mesh network framework put forward by NYSERDA in ORECRFP22-1?

[redacted]

[redacted]

13. What voltage would you recommend for future mesh network and why?

A voltage recommendation requires the Board provide clarity on the expected capacity to be shifted between OSW wind farms as part of a meshed network. The required capacity dictates the voltage requirements. For example, NYSERDA's requirement for the meshed network to handle 400 MW of shifted capacity requires a single 230kV class cable. This solution will vary based on the Board's proposed meshed network solution.

Other

14. Please provide any additional information that you would like Board Staff to consider in development of the SGD.

As previously mentioned, Attentive Energy congratulates the Board on the monumental SAA award. This unique portfolio of transmission solutions will set the foundation for the next wave of OSW procurements in the State. We provide these additional comments for the Board's consideration.

[redacted]

[redacted]

We again thank the Board for the opportunity to provide feedback, and ask questions, in response to NJ3 OREC RFI. We look forward to supporting New Jersey and its communities as a long-term partner. If you have any additional questions or seek clarification to any of our responses, please do not hesitate to contact me at christen.wittman@totalenergies.com or (508) 272-6987.

Sincerely,

Christen Wittman
Project Director