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Submitted via email to board.secretary@bpu.nj.gov

Carmen D. Diaz
Acting Secretary of the Board
New Jersey Board of Public Utilities
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RE: In the Matter of the Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates (OREC), Docket No. QO22080481

Bluepoint Wind commends the New Jersey Board of Public Utilities (NJBPU or Board) on recent decisions to advance the State Agreement Approach (SAA) in support of offshore wind (OSW) and its goal of achieving 11 GW of offshore wind capacity by 2040. The decision of the NJBPU in the SAA docket illustrates the importance of progressing towards a robust grid that supports significant offshore wind deployment. It is Bluepoint Wind's belief that New Jersey is starting in the right place: onshore. The Board's decision, released on October 26, 2022, was a landmark, making a commitment to fund critical onshore infrastructure needed to unlock the potential for the offshore wind off our shores. The leadership that the Board, and New Jersey broadly, is showing by its pursuit of the SAA process, working with PJM and the many interested stakeholders, is creating a powerful model for other States[1] and we encourage the Board to continue moving forward in that direction.

About Bluepoint Wind

Bluepoint Wind, LLC is a partnership between Ocean Winds, an international offshore wind energy company created by EDP Renewables (EDPR) and ENGIE (50:50), and New York-based Global Infrastructure Partners (GIP). Together, these companies have a successful track record of over 50 years of experience in development, financing, construction, and operation of renewable energy projects, including more than 15 years on offshore wind projects. Ocean Winds has offshore wind farm projects currently under development, construction, or operating in communities all over the world, including in the UK, France, Belgium, Portugal, Poland, Korea, and – closer to home – in Massachusetts.

[1] Noting the many comments to the five New England States in response to their RFI regarding electric transmission infrastructure improvements to integrate clean energy resources (such as offshore wind) that reference the SAA process and decision as a model, https://newenglandenergyvision.com/new-england-states-transmission-initiative/, and in particular the comments of Ocean Winds: https://newenglandenergyvision.files.wordpress.com/2022/11/ocean-winds-comments.pdf.

In February 2022, BOEM awarded Bluepoint Wind an offshore wind lease (OCS-A 0537) in the New York Bight lease auction. The Bluepoint Wind lease encompasses 71,522 acres and is located approximately 53 nautical miles off the coast of New Jersey. At expected capacity, the offshore wind farm has the potential to deliver enough clean wind energy to power up to 900,000 residential homes and help New Jersey meet its ambitious clean energy goals. Bluepoint Wind's perspective is based on the experience of developing offshore wind resources across Ocean Winds' portfolio of projects in the US, Europe, and Asia.

Bluepoint Wind Responses

Bluepoint Wind appreciates the opportunity to comment on issues related to the Board's recent decision and offers the following comments in response to the RFI. While we have attempted to provide thoughtful feedback on the questions posed by the Board, Bluepoint Wind also offers a recommendation for a different contracting approach for the Prebuild Infrastructure for the Board's consideration. This alternative approach has been included after our responses to the specific questions posed by the NJBPU.

Design Considerations for the Prebuild Infrastructure

As set forth in the SAA Decision, the Board directed Board Staff to require the "Prebuild" in the Third Solicitation. The Prebuild would require a single offshore wind developer to construct the necessary transmission infrastructure (Prebuild Infrastructure), which includes duct banks and access cable vaults, for its own project as well as the additional project(s) (up to four total cable bundles in total) needed to fully utilize the SAA Capability created by the Larrabee Tri-Collector Solution.

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 specification of these requirements.

   Bluepoint Wind response: The requirements should include:

   - Nearshore survey information to the extent Atlantic Shores/MAOD has surveyed the approach to the Sea Girt landing (i.e., from at least the boundary of state waters to shore) and included it as part of any proposal submitted to the SAA window.
   - Specifics on the characteristics of the Sea Girt site, assuming MAOD has done appropriate due diligence review of the location and included such information in their proposal to the NJBPU. This would include definition of the optimal landfall locations on the Sea Girt site including approach to the landfall (i.e., from the north or south), start/end locations of any HDD both at landfall and along the onshore route, onshore corridor width to accommodate up to four total HVDC cable bundles including the required separation between cable circuits, specifications of any existing underground infrastructure at the site, and any known locations of proposed cable vaults.
   - If redundancy is to be considered (i.e., spare cable vaults or duct banks for future projects above and beyond those allowed for in the Larrabee Tri-Collector Solution).
   - Estimated schedules and permitting plans submitted by MAOD in their proposal to construct the corridor if available.

- Confirmation that the Prebuild Infrastructure must align with the actual transmission capacity, i.e., the SAA Capability, that is being offered to make it clear to offshore wind developers what capacity per project may be proposed at this location.
- Complete proposal documents, studies, surveys, presentations, or any other documentation submitted by MAOD and JCP&L in conjunction with their SAA proposals, as it is presumed that the development costs for these items will be recovered in rate base and should thus be provided to developers attempting to utilize the SAA Projects.

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.

   Bluepoint Wind response: Construction schedules must be carefully managed. If two OSW projects with similar Commercial Operations Dates (CODs) are attempting to work in the same corridor, even after the Prebuild Infrastructure has been installed, this could create disruptions to both parties' schedules. Additionally, thermal analysis should be undertaken to ensure the necessary separation is considered between projects/circuits so that cable de-rating does not occur at any point, including in duct banks or cable vaults, and limit the capability of the infrastructure. Studies should be undertaken to determine necessary mitigations to any elevated levels of EMF that may impact siting and installation of the cable circuits.

   It should be noted that the feasibility of installing DC transmission from four projects in a common ROW will depend on the capacity of the specific ROW. There is the potential to need more than a single route to the Larrabee Tri-Collector Solution, especially given the execution risks of multiple projects installing equipment in the Prebuild Infrastructure at once, should the projects have similar installation schedules to achieve their respective CODs.

Cost Recovery Structure for Costs Associated with the Prebuild Infrastructure

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

   Bluepoint Wind response: Bluepoint Wind understands the Board to be asking for feedback on how Prebuild Infrastructure costs should be factored into any proposed OREC schedule, and if costs should be recovered over the typical 20-year tenor of an OREC PPA or an alternative payment schedule.

   To avoid complexity, a solution may be for ratepayers to pay for the Prebuild Infrastructure through a special PJM SAA-related tariff for New Jersey customers. If such a tariff were not to

exist, Bluepoint Wind would propose the transmission investment be recovered over a 5-year period, as this serves to minimize the total costs borne by the ratepayers.

Construction and Operating Considerations for the Prebuild

Infrastructure Awardees in future New Jersey offshore wind solicitations (and other awardees in the Third Solicitation, if multiple projects are selected) will be required to utilize the Prebuild Infrastructure. As part of project construction efforts, awardees would be required to install their transmission cables in the Prebuild Infrastructure, utilizing the prebuilt duct banks and cable vaults designated to their project. To the extent possible, please consider these questions from the perspective of both the entity that constructs the Prebuild Infrastructure and an entity that will utilize 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?

   Bluepoint Wind response: The constructor of the Prebuild Infrastructure must build it with the specifications provided by the other projects that will utilize the asset. Specifically, the constructor should consider all the necessary technical and physical aspects of the offshore wind projects' onshore cable systems such as the size (i.e., cable outer diameter), minimum bend radius, thermal constraints, etc. of the HVDC cables that will use the system.

   The NJBPU should also establish a schedule for delivery of the Prebuild Infrastructure that does not impede the development and delivery of the offshore wind project(s) and includes incentives to ensure that the parties building the infrastructure are accountable to a schedule that aligns with all the users of the infrastructure.

   One important consideration in the development of the Prebuild Infrastructure is the potential for the constructor's project to be delayed for some reason, and that delay impacting other users of the Prebuild Infrastructure. For example, the Construction and Operations Plan (COP) of the constructor could be delayed, thereby delaying the final investment decision (FID) and the constructor's ability to implement the Prebuild Infrastructure. The NJBPU should have plans in place to ensure that the Prebuild Infrastructure can move forward if the constructor faces a significant delay in their ability to proceed.

   A path could be to implement the Prebuild Infrastructure through the PJM Competitive Planning Process or another SAA process if appropriate, instead of via the OREC solicitation. However, this approach may not be without its flaws. On the positive side, it would give the NJBPU control over the path to financing and cost recovery, which would not be the case if the Prebuild Infrastructure was a part of a generation project. On the negative side, the Prebuild Infrastructure may not be able to benefit from any tax incentives. In addition, to reduce permitting risk, the NJBPU and the New Jersey Department of Environmental Protection should work with the constructor to

facilitate the State and local permitting processes. While these issues need further examination, the timing and permitting risks associated with the OREC funding model are significant and may be more important to resolve than the incremental tax benefits.

As alluded to previously, Bluepoint Wind has also identified an alternative contracting approach to develop the Prebuild Infrastructure that would not rely on a single offshore wind developer and would still accomplish the Board's goals. Please refer to the section "Recommendation for an Alternative Approach for Prebuild Infrastructure" found at the end of this document.

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

   Bluepoint Wind response: The SGD should stipulate any specific operational requirements that the constructor and owner of the Prebuild Infrastructure will be obligated to accommodate for future users of the Prebuild Infrastructure. The NJBPU should also consider building in flexibility to the cost recovery for the construction and operation of the Prebuild Infrastructure, as it is possible that numerous operational details and requirements regarding the development of the Prebuild Infrastructure will not be known until the specific projects utilizing the Prebuild Infrastructure are awarded, constructed, and operated.

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

   Bluepoint Wind response: Challenges may arise at the shore landing if the approach to the site is not carefully considered. For example, it may be more beneficial for an OSW project to approach the shore landing from a more northerly direction, i.e., limit other infrastructure crossings and minimize the offshore cable route length, which could be disrupted if the Prebuild Infrastructure dictates that all export cables must approach from the south. Additionally, if there is no clear direction on the technology and operating voltage for the future projects, then there could be a situation where Prebuild Infrastructure is put in place that is not able to support the installation of future projects. For example, if duct banks are installed that are either too small or result in a thermal limit to a future project's onshore cable system, then new duct banks may be required to be installed. Possible mitigations include the early identification and permitting of the onshore route from landfall to the Larrabee Tri-Collector Solution, as well as the assessment of different transmission system configurations that could be accommodated by the Prebuild Infrastructure. This definition would ideally be needed *well in advance* of any OREC solicitation to ensure OSW developers have adequate time to incorporate this information into their proposals.

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?

Bluepoint Wind response: There are several risks associated with the Prebuild Infrastructure that may translate to adverse cost or schedule implications. In addition to our response to question 4, there are design risks that could have a significant impact. For example, the Prebuild Infrastructure could be over-designed, meaning the infrastructure installed is more than what is required to connect future projects. This could lead to the Prebuild Infrastructure being more expensive than necessary.

Conversely, it could be under-designed with the installation not being fit for use by future developers. In this scenario, additional engineering and construction work would be required and potentially even re-permitting of the route might be needed if a significant change is required to make the infrastructure suitable. Ultimately, the required modifications could have both cost and schedule implications that would increase the financial burden on the NJ ratepayers. Bluepoint Wind recognizes the challenge that comes with finding the "sweet spot" in design and encourages the Board to thoughtfully consider the exact requirements needed or to facilitate the necessary conversations with all potential future users, to ensure that design standards are agreed upon upfront and the Prebuild Infrastructure can offer maximum value.

Further, it should be made clear who bears the cost burden to rectify design issues, whether or not it is the future OSW project, and if this cost is to be included and specifically identified in any OREC bid or if it is the original constructor who must "make good" the previous work. To put it differently, it should be clearly defined at what point in time any change in ownership of the Prebuild Infrastructure from the constructor to another party would occur and what liabilities are transferred along with it.

Multi-party interface issues will arise from the Prebuild Infrastructure, but Bluepoint Wind believes they are manageable. The design of the Prebuild Infrastructure should consider sequencing of future projects, to the extent possible, to ensure that no two projects are trying to install their cables at the same time in the same area. If this is not carefully managed, the two projects may interfere with each other, which would result in schedule delays. Bluepoint Wind would encourage the NJBPU to carefully consider this aspect as well.

Enabling Potential Future Development of a Mesh Network

A mesh network is an offshore transmission configuration in which the offshore substations for individual offshore wind projects are linked by connecting several offshore platforms. Board Staff is considering requiring projects bidding in the Third Solicitation to be built with design elements that will enable future connection to a mesh network.

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

Bluepoint Wind response: We again commend the Board for its forward thinking on the inclusion of a future mesh network. A planned, coordinated approach to offshore transmission will provide several benefits both to future OSW projects and ultimately the ratepayers[2]. Operating voltages, transmission technology, and OEM-specific compatibility issues must be carefully considered to maximize the benefits of a mesh network. These criteria must also be provided to developers of the transmission network, and to the extent the requirements impact offshore wind developers, *well in advance* of any solicitation to enable the criteria to be included in project design development.

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?

   Bluepoint Wind response: Depending on the operating voltage and transmission technology, additional transformers and associated switchgear (i.e., circuit breakers, disconnect switches, ground switches, measuring devices, and reactive power compensation if needed) may need to be incorporated into the offshore design. This needs to be carefully considered and included prior to any proposal response to a state-sponsored solicitation to ensure that developers include these requirements in their responses.

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

    Bluepoint Wind response: Per our response to question 9, a clear definition of the equipment required to be housed on the OSW developer's offshore platform is essential to determining physical requirements. The technical specifications of the identified equipment will contribute to defining the physical requirements. Bluepoint Wind counsels the NJBPU to thoroughly define these requirements in advance of incorporating a mesh network requirement, and consider the time needed for leaseholders to integrate such requirements into project plans *well in advance* of any future OREC solicitation.

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?

[2] Pfeifenberger, J., Tsoukalis, J., & Newell, S. (2021). *The Benefit and Cost of Preserving the Option to Create a Meshed Offshore Grid for New York*. The Brattle Group. https://www.brattle.com/wp-content/uploads/2021/12/The-Benefit-and-Cost-of-Preserving-the-Option-to-Create-a-Meshed-Offshore-Grid-for-New-York.pdf

(i) **Bluepoint Wind response:** If considering New Jersey only, there is an opportunity to fully optimize an offshore mesh network configuration based on the OSW goals of the State (i.e., selection of appropriate operating voltages based on the ability to connect to certain points of interconnection (POIs), identification of transmission technology to support the efficient transport of offshore wind energy to shore points, "right-sizing" any mesh links, etc.). An analysis may be performed that determines the optimal size of "meshes" or interlinks between offshore platforms that is localized to the capabilities of the onshore grid and provides the greatest benefit to New Jersey ratepayers.

(ii) If considering New Jersey and other PJM states' projects, then a broader study should be undertaken to integrate the offshore wind targets of all states, including assessing onshore POIs appropriate to use for any offshore network. This study should consider the locations of different load pockets and the associated transmission infrastructure in proximity to it. This may also result in connections between platforms needing to be at different operating voltages or utilizing different transmission technologies depending on the distances between platforms. Further, nodal pricing must be taken into consideration in the event the pricing in one PJM state differs from that in another.

(iii) If considering New Jersey, other PJM states', and downstate New York projects, then a more holistic planning effort would need to be undertaken. The New York State transmission system uses different operating voltages than those of New Jersey and PJM. Harmonization of New York's transmission system with PJM's would be necessary to ensure operation of the offshore grid and enable power to be transferred where and when it is most needed. This may be accomplished using back-to-back HVDC converter stations, as is common practice, but may incur additional costs that must then be analyzed to determine if the benefits outweigh these costs. Additionally, the transfer capabilities between offshore links may differ between New Jersey (PJM) and New York (NYISO), so these connections should be studied to determine optimal limits.

(iv) In addition, regulatory and commercial arrangements should be examined to avoid cross-subsidization of ORECs from different state's offshore wind purchase arrangements, as well as the use case of the inter-state offshore mesh lines for PJM-NYISO internodal power flows among the onshore POIs. Such an interstate energy arbitrage use case can help fully utilize the new transmission inter-ties during low-wind conditions among the States to maximize customer benefits in all coastal communities.

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

Bluepoint Wind response: The advantages would be a series of requirements that are consistent across both states, thereby enabling an easier integration of the two offshore systems. The disadvantages include potentially limiting transfer capabilities between the offshore platforms if this capability is not the most beneficial to the State of New Jersey. This also may not further reduce the number of transmission circuits to shore that could otherwise be considered by the development of a higher capacity offshore transmission network that can connect multiple OSW projects through a single offshore node.

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

    Bluepoint Wind response: Bluepoint Wind does not recommend a specific operating voltage for the future mesh network but encourages the NJBPU to consider ways to "future-proof" the transmission to ensure development of a highly efficient and cost-effective system that helps New Jersey advance its admirable offshore wind goal of 11 GW by 2040. The technology decision will also be vital (i.e., the selection of AC or DC for the mesh network), as that may also guide selection of the most appropriate operating voltage.

Other

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

    Bluepoint Wind response: Please clarify if the NJBPU's award of the Larrabee Tri-Collector Solution is expected to meet the full transmission needs for the New Jersey Round 3 OREC Solicitation. Please also clarify if the NJBPU anticipates that capacity delivered in Round 3 bid proposals may include alternate routes and POIs identified as capable of supporting the State's OSW goals.

    Bluepoint Wind reiterates the need for as much information as possible to be shared from MAOD's proposal as it relates to potential development of the Prebuild Infrastructure. The SGD should include a "site readiness" review of MAOD's work to give confidence to OSW developers that the infrastructure will be in place when needed. This would include presentations, information on the land adjacent to the proposed AC switchyard, due diligence to understand if the adjacent land is permittable and buildable, and details on anticipated method for connection of future projects, among other information. It will be necessary for OSW developers to be able to provide input to MAOD on the specifics of their project to ensure that the design of the Larrabee Tri-Collector Solution is optimized for each of the connecting projects.

    Additionally, as previously noted, any detailed offshore survey information MAOD used to develop its proposed approach to the NGTC facility at Sea Girt would need to be shared to ensure consistency with the Board's Order, as this may influence design thinking for Prebuild

Infrastructure proposals. Finally, Bluepoint Wind encourages the NJBPU to carefully consider the number of awards that utilize the new Larrabee Tri-Collector Solution and their proposed installation schedules to minimize potential disruption and delay, which would hinder the State's ability to meet its ambitious offshore wind goals. Regardless, close coordination with OSW developers will be essential for the successful implementation of the Larrabee Tri-Collector Solution.

Finally, and importantly, given the complexities of the construction and utilization of the Prebuild Infrastructure, Bluepoint Wind strongly recommends that the full capacity of the SAA award and the Prebuild Infrastructure be awarded at the same time. Doing so would allow a comprehensive view on the best way to design, implement, and utilize the system. It would also ensure that all users of the system could go through a parallel permitting process so that the future utility of the Prebuild Infrastructure and Larrabee Tri-Collector are not in doubt to future awardees.

Recommendation for an Alternative Approach for Prebuild Infrastructure

Bluepoint Wind applauds the NJBPU for its forward-thinking and proactive SAA award for the Larrabee Tri-Collector Solution. The Prebuild Infrastructure will certainly de-risk the construction activities for the future users of the project. However, the constructor of the Prebuild Infrastructure might inadvertently face some complications with the construction of the Prebuild Infrastructure. Bluepoint Wind would like to propose an alternative approach for NJBPU consideration to address these concerns.

Challenges with the NJBPU Proposed Process

While Bluepoint is very supportive of the SAA award and the proposed solution, there are challenges that should be addressed and incorporated into the final SGD related to timing, permitting, and Investment Tax Credit (ITC) eligibility.

On timing, the OSW project awarded the Prebuild Infrastructure (constructor) can be delayed for many different reasons, thus negatively impacting the timing of all projects. Furthermore, once the Prebuild Infrastructure is available, the construction sequence of all future projects will need to be carefully managed as it will be challenging for multiple developers to implement their projects around the same time in the same area at the Sea Girt landfall, within the common ROW, and adjacent to the Larrabee Tri-Collector.

On permitting, the constructor would need to be solely responsible for undertaking the heavy lift of all the associated Federal, State, and local permitting and public review processes. This would be especially difficult if the constructor is sufficiently advanced in its COP and permitting processes, which would need to be amended to include the Prebuild Infrastructure.

On ITC eligibility, Bluepoint recognizes that maximizing federal tax credits is a critical aspect of the SAA award criteria. Given the current ambiguity regarding ITC applicability and guidelines, it might be fiscally

imprudent for the Prebuild Infrastructure to be constructed by the first OREC-awardee. The Internal Revenue Service might potentially view the costs of the "cable-ready" Prebuild Infrastructure as a common transmission solution and therefore ineligible for ITC.

Potential Alternative "Shovel Ready" Approach

These issues could be solved by the NJBPU soliciting transmission proposals from the local TO or other PJM Qualified Transmission Developer (QTD) that would undertake the siting, routing, design, engineering, and State and local permitting for the Prebuild Infrastructure outside of an OREC solicitation and through the SAA process, which would thereby deliver to the constructor what we have termed a "Shovel Ready" project. All selected OSW developer users would provide input into the design process to ensure the design meets their needs and accounts for future technological advancements. The constructor would then only be responsible for the physical construction (and not the engineering and permitting) of their own onshore elements plus the Prebuild Infrastructure for all future users, including duct banks and vaults.

Doing so would minimize or eliminate review of the Prebuild Infrastructure from the federal permitting process and give near full control to the State as it implements its offshore wind plan. The Shovel Ready process would occur in parallel with the offshore wind developers' COP and Federal permitting process, ready in time for the constructor, thus minimizing potential delays. It also simplifies the COPs of all the OSW developers due to the greater certainty of the onshore project element locations, potentially leading to a more expeditious review of the COPs.

New Jersey rate payers will receive more competitive generation proposals if the permitting envelopes – and the risks associated with the federal, State, and local permitting processes – are reduced. Since the theoretical Shovel Ready developer would be a QTD, the NJBPU could allow them to recover their costs via development of a PJM SAA-related tariff for New Jersey customers. While these issues need further examination, the timing and permitting risks associated with the OREC funding model are significant and these may be more important to resolve than the incremental tax benefits.

Regardless of the approach adopted, NJBPU's close coordination with BOEM is encouraged to minimize any delays with federal permitting, especially for the first NJBPU SAA offtake awardee.

Conclusion

Bluepoint Wind appreciates this opportunity to comment on these issues, and we reiterate our support and enthusiasm for the steps the NJBPU has taken to further develop transmission in support of offshore wind through the SAA.

Sincerely,

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