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Draft New Jersey Offshore Wind Solicitation #3 Comments

Vestas applauds the New Jersey Board of Public Utilities (BPU) and Governor Murphy for New Jersey's continued commitment to building its offshore wind industry. Further, Vestas congratulates Governor Murphy and the State of New Jersey for increasing the state's target for offshore wind to 11,000 MW by 2040 via EO 307 and extending its national leadership in offshore wind. Both the Third Offshore Wind Solicitation and EO 307 are fundamental to enabling New Jersey to meet its goals of 50% renewable energy by 2030 and 100% clean energy by 2050, providing critical climate change mitigation while creating a thriving clean energy economy in New Jersey.

The investments New Jersey has made to date have helped spur the growth of the offshore wind supply chain, create thousands of jobs in New Jersey and the surrounding region, and established the state as a leader on climate action and a just transition to clean energy. In the Draft New Jersey Offshore Wind Solicitation #3, New Jersey once again places itself at the forefront of this booming industry. We commend the State's intent to create good jobs, promote energy independence, and decarbonize its energy sector.

With more than 40 years in the wind industry, Vestas has installed more than 157 GW of wind power and has more than 140 GW under service, including more than 8 GW offshore. As the largest global wind OEM, Vestas is experienced in developing, owning, and operating factories, as well as partnering with local suppliers to bring prosperous and lasting economic impact. In addition to manufacturing and local content expertise, Vestas also brings our proven global track record in the offshore wind realm, from engineering design, prototyping, testing and verification through to installation, commissioning and service.

Vestas is the preferred supplier for Atlantic Shores 1, a 1.5 GW New Jersey offshore wind project that will provide clean energy to power the equivalent of 700,000 homes each year.

Vestas appreciates this opportunity to respond to the Draft New Jersey Offshore Wind Solicitation #3 and looks forward to the continued support for offshore wind in New Jersey.

1. Volume to be Awarded through NJ3

Given New Jersey's goal of making the state a hub for offshore wind, Vestas strongly encourages the BPU to award at minimum 3,600 MW through NJ3. Certainty with regards to future wind project

capacities and firm volumes is the number one priority for OEMs and other suppliers to trigger investment decisions of scale.

NJ's ambitions of 11,000 MW of offshore wind by 2040 demonstrates a clear signal to the supply chain for future demand, however it is the amount of firm volume spread continuously over multiple years compared to total factory output that is the primary consideration for OEM investment. OEMs require committed volumes to comprise the majority of a factory's planned output to trigger and finance investments at scale and reduce the risk associated with those investments.

If New Jersey opts to award limited volume through NJ3, no OEM will not have sufficient firm volume to justify investments of full-scale manufacturing. Even if NJ4 brings more firm volume onto the market as scheduled in Q3 2024, critical milestones for supply chain investment decisions will have passed, limiting OEMs' ability to deliver supply chain localization soon enough for the first projects awarded; thus, a cycle of insufficient volume continues, preventing the development of the local supply chain.

Instead, the NJ BPU should award a minimum of 3,600 MW through NJ3 and consider expansion of the solicitation beyond 4,000 MW to truly enable investor confidence, allowing the supply chain to develop at scale.

2. Creating a Common Market for US Supply Chain Investments

For the reasons listed in the preceding section, ***Vestas strongly encourages New Jersey to introduce in NJ3 a mechanism for recognizing 'local content' from other states on a reciprocal basis***, meaning that Applicants could receive economic benefit points for use of the offshore wind supply chain in neighboring states and vice-versa.

States on the Eastern Seaboard together represent a very significant market for offshore wind, one that is large enough to sustain multiple supply chain investments spanning OEMs. However, when that volume is disaggregated on a state-by-state basis, with each state requiring local content and disregarding the local supply chain that has been built up in neighboring states, the supply chain is splintered and thus business case certainty of large supply chain investments declines, hindering development. Vestas' 50+ years of manufacturing experience as well as economic research demonstrates that economic benefits of supply chain investments are not limited to the borders of the state in which a facility is constructed.

New Jersey has an opportunity to continue demonstrating its leadership in the offshore wind supply chain ecosystem by creating a mechanism for recognition of local content in neighboring states and awarding economic benefit points to Applicants via this mechanism. The inclusion of this concept in New Jersey 3 would revolutionize the offshore wind supply chain, critically reducing the level of uncertainty of future offshore wind project capacities and firm volumes from one state to the next, thus catalyzing domestic supply chain investments in New Jersey and neighboring states. Vestas believes that the total economic gain for New Jersey would be larger as a result of introducing a system of reciprocity than the state would otherwise get in a market that disaggregates demand. Vestas is already engaging intensively with neighboring states of New Jersey to further develop the concept of the Common Market, so that use of the New Jersey supply chain is also recognized and incentivized by neighboring states.

3. Procurement from Existing or Already-Under-Development Supply Chain Facilities

The Draft Solicitation Guidance Document positions that the State has a preference for incremental supply chain infrastructure, which could include a new Tier 1 Manufacturing Facility, “for which the State has a preference for a blade or tower facility, and a further preference for a facility to be constructed at the New Jersey Wind Port that offers full-scale manufacturing of a component not already available within the State.” The Draft Document continues that “other potential commitment examples include expanding, or procuring from, an existing or already-under-development supply chain facility”.

Vestas recommends for the BPU to increase the relative importance of procurement from an existing or already-under-development supply chain facility. These existing or already-under-development facilities depend on having stable demand from offshore wind projects in New Jersey, however the State does not explicitly state a preference for their continued use. Seen from the Vestas perspective, our plans for a nacelle module facility associated with Atlantic Shores *now becomes a disadvantage* for future procurement rounds, as those will favor new investment. Existing investment must be advantaged in future rounds, not disadvantaged, or manufacturers will instead have every reason to delay investment. The current draft gives no benefit to first movers and raises the possibility that commitments for NJ3 will later be superseded in NJ4, and so on.

Applicants therefore need to know that the State sees value and will award commensurate economic benefit points in its evaluation of Proposals for the continued operation of existing or already-under-development supply chain facilities. It is critical that the State be explicit in this preference and the value that procurement from these facilities brings in evaluation of Applicants. Explicit preference for continued sourcing from these facilities will also enable further confidence to OEMs and the supply chain, who need to know that any incremental supply chain infrastructure proposed through NJ3 will be highly valued in solicitations to come.

4. Indexation

Vestas supports the inclusion of the inflation adjustment for OREC pricing that reflects the core underlying factors that affect offshore wind projects. This is especially vital for NJ3, as the relevant projects are at least 5 years from construction and in many cases, even longer. Vessel availability and rates, for instance, have become very volatile as supply chain issues have made it more lucrative for vessel owners to transport containers rather than WTG components. Other commodities, such as steel, bunker fuel, carbon, and resin have experienced staggering price increases over the last 3 years; domestic steel, for example has experienced an increase of 250% from March 2020 to January 2023, and forecasts showing US steel plate prices stabilizing well above pre-pandemic levels. The shipping rates and commodities in addition to wage growth and inflation greatly impact the costs of tier one components. The timeline between when OREC agreements are reached and when projects are manufactured and constructed introduces significant uncertainty and therefore risk which developers bear: the longer developers are exposed to these fluctuations, the riskier their business case becomes. This dynamic, in which an OREC price is fixed early but manufacturing and execution costs are exposed to various market forces over a period of many years, has played heavily into the recent situation in Massachusetts. Flexibility in the OREC structure to reflect this dynamic helps ensure continuing project viability, and does so via transparent, third-party indices that allow the state to also ensure fair treatment for ratepayers.

Could the BPU provide more information on the F values proposed? Vestas does not understand the fixed F value or the 0.2 F value assigned to it.

5. Funding for the Supply Chain

For supply chain facilities to sustain jobs over the long-term, the facilities must be cost-competitive on a global scale so demand for the components produced is stable. If components produced come at a cost premium over those produced elsewhere globally, then orders for the more expensive factory will drop off unless there is a consistent and explicit preference for use of the local supply chain.

The New Jersey Offshore Wind Tax Credit program can contribute to making New Jersey a more cost competitive region for the development of the offshore wind supply chain. However further funding for the supply chain is required to enable New Jersey to be on par with or less expensive than global supply chains.

Vestas strongly encourages New Jersey to allocate funding for the development of the offshore wind supply chain. Investment Tax Credits or grants to offset capital expenditures would significantly reduce upfront investments required by the private sector, lessening one of the major barriers to supply chain development. In addition, the NJ BPU explicitly states its preference for manufacturing facilities to be located at the New Jersey Wind Port. Vestas strongly encourages the BPU to offer subsidized land / lease payments to reduce operational expenditures of any supply chain facilities proposed. Any payments associated with land that OEMs must bear will in turn increase the cost of the components produced by the facilities, thus increasing the cost of the power produced by the offshore wind projects that source components from those facilities. Ultimately, these costs simply reappear in the cost of electricity born by New Jersey ratepayers.

As previously stated, any manufacturing facilities that are established will compete with global and regional supply chains in terms of cost. Neighboring states have offered direct funding for the development of the offshore wind supply chain, most notably New York by pairing \$500 million of state funding with private investment via ORECRFP22-1 and the subsequent rounds.

New Jersey should consider offering direct funding, whether in the form of Investment Tax Credits, grants, and/or subsidized land lease payments to enable New Jersey to be a cost-competitive region for offshore wind manufacturing, enabling the longevity of facilities and long-term economic benefits.

6. New Jersey Offshore Wind Tax Credit

Vestas applauds the NJ EDA for the creation of the Offshore Wind Tax Credit program (OSW Tax Credit), as tax credits and other financial incentives are a critical element to enabling New Jersey to be a globally cost competitive region for the offshore wind supply chain.

Vestas has had the opportunity to collaborate with the NJ EDA on valuation of the Offshore Wind Tax Credit program, and offers the following recommendations for ways to enable the program to be more effective in its goal of spurring private capital investment and employment growth:

- Proposed modifications to the tax credit:
 - o Currently the tax credit is based on the net positive economic benefit as modeled by the EDA. The proprietary, economic modeling makes it difficult for a taxpayer to calculate

the total incentives available. We suggest a straightforward calculation allowing taxpayers to self-calculate the total incentive. This will provide more flexibility in business modeling of multiple scenarios that reflect the fluid nature of potentially proposed solutions.

- With any emerging industry there are countless uncertainties, especially with long term outlooks. Taxpayers naturally want to form strong partnerships with the NJ EDA and the local community and provide the best overall commitment. However, if a taxpayer does not meet its commitment the recoupment process is punitive in nature with a high rate of penalties (up to 25%) and interest. Removing the penalties and interest from the recoupment will reduce risks and incentivize taxpayers to commit to higher goals.
- Capping the tax credits based on proposed investment/employment levels, rather than actual investment/employment levels does not incentivize taxpayers to increase investment in the State in subsequent years. Many states provide investment tax credits which are directly related to capex, which increase commensurately as investments and employment levels rise beyond what is initially proposed. As written, increasing investment beyond our initial commitment will not result in any additional incentives.
- Converting the OSW Tax Credits into direct pay or refundable credits will help alleviate the immense, upfront capital investment.
- Reduction of the application fees: currently it is \$150k for under 300 employees and \$300k if over. In addition, the fees below appear to be mandatory beyond the application process. These fees, in addition to the recoupment process, might disincentivize taxpayers from participating in the program.
 - Non-refundable fee prior to receipt of tax credit certificate: \$150k for under 300 employees and \$300k if over.
 - Annual servicing fee: \$50k per year for under 300 employees and \$75k per year if over.
- It appears that the credit awarded to tenants is limited to their total lease payments made during the tax period. Capping the credit to the lease payments could disincentivize increased investment after meeting the minimum thresholds.
- In addition to the application fee, it appears that applicants might need to pay the full amount of any third-party analysis costs. Without knowing an estimate for this, we may not be able to reasonably estimate costs for business modeling purposes.
- Based on our understanding, the minimum number of new full-time employees may include those resulting from an equipment supply coordination agreement, which seems to require employees spend 80% of their time in New Jersey, but not specifically at the qualified wind energy facility or site. It also appears that new employees not resulting from an equipment supply coordination agreement must have their primary office at the site and spent at least 80% of their time at the facility. Could you please clarify if our understanding is correct? In addition, could employees not resulting from an equipment supply coordination agreement be primarily based at other locations than the Wind Port, if it still primarily supports the project?

7. Full-Scale Manufacturing

As referenced in the preceding point, the Draft Solicitation Guidance Document positions that the State has a preference for incremental supply chain infrastructure of “full-scale manufacturing”. Vestas considers the following to constitute “full-scale manufacturing”:

8. The New Jersey Wind Port

The Draft Solicitation Guidance Document positions that the State has a preference for “[a new Tier 1 Manufacturing facility] to be constructed at the New Jersey Wind Port”. Vestas has identified some challenges that may hinder the New Jersey Wind Port from becoming a Tier 1 manufacturing hub, and encourages the State of New Jersey to develop and fund solutions to address these challenges in its plans for New Jersey Wind Port development:

- The land transportation corridor to the Wind Port is limited, and total inbound material flow must be considered. A single two-lane road provides access into the Wind Port, no rail access exists, and there is a requirement to pass through the security gate of the Salem and Hope Creek Nuclear plants. During times of heavy activity such as refuel outages at the Nuclear plants or pre-assembly for offshore wind projects, there is potential for inbound logistics delays. If tier-one manufacturing is added to the NJWP, such as tower manufacturing, steel and other inbound materials must be trucked or delivered quay side. New Jersey should consider in its development plans solutions that address these challenges, such as road expansions and berthing capacity increases.

Further, Vestas encourages the BPU to also consider supply chain development that is not located at the New Jersey Wind Port. Further upriver on the Delaware River, for example, are areas that are considered both Overburdened Communities and Brownfield sites, where supply chain development could provide critical investment and jobs.

9. Exclusivity

The Draft Solicitation Guidance Document states “an applicant that enters into a new Tier 1 supply chain infrastructure commitment cannot do so on an exclusive basis”. Vestas believes that supply chain infrastructure proposed through NJ3 should (and must) be able to supply a range of offshore wind projects, rather than being exclusive to an Applicant. However, Vestas must also have the ability to negotiate exclusive or priority financial, pricing or business arrangements with Applicants in order to derive enough business case certainty for potential investments. Further, the volume from multiple applicants bidding into NJ3 may need to be aggregated to create sufficient volumes for different supply chain infrastructure commitments considered. Vestas proposes the exclusivity provisions mirror those in NY ORECRFP22-1, in which:

- Applicants are prohibited from entering into any arrangements with any OEMs or suppliers that materially restricts the ability of such parties to collaborate with other Applicants in developing Supply Chain Infrastructure commitments.
- The exclusivity prohibitions are not intended to prohibit Applicants from negotiating exclusive or priority financial, pricing or business arrangements with OEMs or suppliers that would take effect if the applicable Applicant is awarded under NJ3 so long as such arrangements do not prohibit such OEMs or suppliers from negotiating separate and distinct deals with other Applicants (for example, separate arrangements could be negotiated by a single OEM or supplier

with multiple Applicants, each of which is contingent on the applicable Applicant's proposed Supply Chain Infrastructure commitment being awarded in this solicitation).

10. Other Questions:

- Please confirm that the Annual OREC Allowance is measured at the Point of Interconnection.
- Please explain the mechanism by which Applicants can modify proposed nameplate capacity after award, if no changes to the Annual OREC allowance are proposed?
- Given the required use of the SAA solution, are all radial cables from offshore wind projects required to be HVDC?
- Please explain the circumstances or events the state is concerned with in requesting the shut down procedures for immediate blade stoppage. In general, immediate shut down procedures will cut power either from the turbine to the grid or vice versa to protect either side from a potential hazard. This process is easily explained and is implemented to avoid damage to either the substation or the turbine depending on the direction of the potential power surge. Vestas can also provide details on how to pause the turbine, slow the blades, and lock the rotor from further revolutions while work is being performed. However, this is not immediate and typically requires manual labor.

Thank you for your consideration and the opportunity to comment on the draft document.

Respectfully,



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