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26 July 2018
State of New Jersey
Board of Public Utilities
Reference: Docket No. QX 18040466
Titled: Offshore Wind Solicitation of 1,100 Megawatts

Greetings from Maryland,

My name is Michael Moss, I own & operate a small business in Baltimore which services visiting ships from around the world. Under the prior administration we were introduced and became active in the Business Network for Offshore Wind, a Non-Profit established to identify the local supply chain. Struggling to survive in the depressed industry of Ship Building & Repair it was easy to see the values associated with Offshore Wind.

The more we observed it became apparent how our skills could be used to support this emerging industry. Since OSW includes a significant maritime component, as a marine engineer of unlimited horsepower who services oceangoing ships and understands power generation we were quick to accept this proposed technology. After Four (4) years of participation, we have made Three (3) trips to Europe visiting facilities, attended numerous international and domestic events and learned a great deal while pursuing professional relationships. On occasion, have spoken about "Foundations - What can be done locally" and "Optimizing Marine Terminals for O&M " In addition, have also testified before the MD Senate & House of representatives on the economic benefits associated with OSW.

Demand, Load & Cost of Electricity will continue to increase as our population plugs more things in. Surrounding States are imposing high Renewable Portfolio Standards and seeking similar solutions. Large Scale, Utility Size, Wind Turbines can drive Generators to economically satisfy future needs.

Offshore Wind is primarily about Stabilizing & Lowering the Cost of Electricity over the Long Term Acceptance and utilization of OSW technology has secondary benefits which are difficult to quantify in dollars. Offshore Wind contributes to our National Security through energy independence. Offshore Wind cuts down on carbon emission gases from fossil fuel steam driven power plants which creates savings in health care costs as well as impacting climate change. Offshore Wind will create jobs and contribute to the Local, State & Regional economy.

With Reference to New Jersey, most agree, OSW is a good thing and the question is,
How to implement it responsibly?

1. **How should BPU stagger/phase in New Jersey's offshore wind procurement to realize the State's goal of 3,500 megawatts? Should this schedule be announced before any solicitations are released?**

New Jersey must announce an "All In" - IRREVOCABLE maximum procurement plan to be issued in 3 phases. Like Airports or Seaports, Power Plant development costs for major stakeholders are gigantic. Government engagement is essential and critical to have for the financiers. Private Sector Investments must provide a positive financial return to their stock holders. Dedicated facilities costing millions of dollars need to be purpose built or have existing structures modified to satisfy future needs.

This commitment will send the message that New Jersey is just getting started:

To satisfy the state RPS of 50% Class I renewable energy by 2030

To provide the confidence for major stakeholders needed to move forward with huge investments.

To proceed with required State funded infrastructure improvements.

2. **How should the BPU structure the initial solicitation for 1,100 megawatts of offshore wind capacity as called for under EO8?**

Solicit a Request For Proposal from Developers to supply 366 MW of OSW power for a period of 20 - 25 years (the life of the machine) at a BPU determined rate. To build the industry there needs to be cooperation and collaboration between states and developers. It is best to have more than one vendor or put all your eggs in one basket. Competition and Collaboration is beneficial. Like in Maryland, it would be wise to award a minimum of two (2) or possibly three (3) - individual projects for a total of 1,100 megawatts to responsive developers based on their technical proposals. A "fair & reasonable" rate, consistent with present market plus extra to create the incentive needed to Kick Start the projects. This rate is only for the first 1100 MW. The amount could be more than Maryland, Massachusetts, RI & Connecticut.

Experienced and responsible developers know what is required and will each deliver their MW for the agreed amount. This procurement process enables more than one company to participate which is critical to help build out the supply chain. Based on their performance, additional awards for more MW could be issued at a revised rate.

3. **Should the BPU request proposals scaled at 1,100 megawatts, or should the BPU request proposals in smaller blocks of capacity (i.e. 400 megawatts)?**

Smaller Projects at the beginning is recommended rather than larger ones. Power can be introduced incrementally. Its best to crawl before you walk then walk before you run. Construction & Installation take time, Small projects can be performed in fewer seasons and the benefits can be realized sooner. A small problem on a small job may not be complicated to correct but a small problem on a large job can easily become a big one. Since this industry does not yet exist in our country there is a significant gap in expertise between what is needed and what is available so time is required to prepare the workforce. Don't underestimate, even 400 MW is a large project. To help you visualize, a 400 MW project equals, Fifty (50) - 8 MW units which consists of over 400 very large components.

Fifty (50) Foundations
Fifty (50) Transition Pieces
Two Hundred (200) Tower sections
Fifty (50) Nacelles
One Hundred Fifty (150) Blades

These items are heavy and occupy a lot of space. Port Elizabeth, Port Newark, Camden or Paulsboro are not ready to accommodate this equipment. Without impacting other tenants a dedicated facility is needed to optimize the handling of this cargo. Suggest starting small.

4. How may a solicitation be structured to ensure strong competition from multiple OSW developers?

There are Four (4) Developers, suggest the issuance of three (3) contracts each to supply 366 MW or two (2) @ 550 MW for a fixed amount. Developers will aggressively compete to put their most attractive offer forward.

5. What conditions should be included to ensure maximum competition in terms of OREC Price?

Offer the developers a favorable rate and that will generate the most interest.

6. OWEDA requires the OREC Price to be an all-in price that includes the full cost of the construction, operation and decommissioning of the project with all revenues being refunded to ratepayers. What measures can be included in project proposals to optimize all revenues over the life of the project?

Providing NJ issues RFP for 400 MW to be supplied for 20 years at an agreed Rate then the State is in control of the revenue. BPU can learn from the experience and amend for future contracts.

7. OWEDA requires that offshore wind developers demonstrate a net economic benefit for the State. How should the BPU ensure net economic benefits in order to be able to compare applications?

The Execution of the 1st phase of the Master Plan must allow developers some flexibility. Their task is to build something from scratch ahead of schedule and under budget then return for Phase 2 and 3. If the "Set Price" by the BPU for Phase 1 is accepted by the developers then the BPU can control the Local Content factor. Investments in infrastructure improvements and workforce development need to be made and these costs can be shifted to the developers.

The overall objective is to supply sufficient electricity to keep up with demand at an affordable rate and also reduce the carbon footprint.

Cost Savings will be realized in Health Care and through Environmental Benefits related to Climate Change. In addition, OSW will create many jobs in areas that were not presently here. As the industry matures, more jobs will be created. The industry requires specialty companies with unique experience and equipment. Encouraging them to participate in the US market will bring economic benefits. NJ has much capacity within its borders running from the Hudson along the Atlantic Coast and up the Delaware River. With coordination and planning, it could become the Mid-Atlantic epicenter.

8. What other elements should BPU consider including in the 1,100 megawatt offshore wind solicitation called for under EO8 (e.g. storage, other technologies)

Like Air Traffic or Ground Control, Marine Coordination is a needed service for monitoring during the construction process and during Operation & Maintenance of any wind farm. 1100 MW project - would equal one hundred thirty seven (137) 8 MW Wind Turbines Offshore over the horizon. Boats, Ships and personnel will all be out there. Developers need companies who monitor and manage the Marine Coordination. This cost should be borne by the operators.

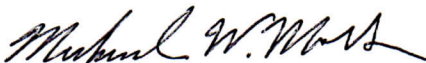
Nature is unpredictable. Be aware of what you cannot see. Scour protection to minimize sub-sea erosion must be considered to avoid unanticipated consequences.

9. Should the BPU request bids for expandable, nondiscriminatory, open-access offshore transmission facilities for the efficient delivery of power to the onshore

Distribution & Transmission of the power is equally as important as Generation. The BPU must have a Master Plan which is safe, Cost Effective, Environmentally acceptable and provides Redundancy. The existing land based grid is limited and in need of upgrade. Transmission requires a "Step Up "in Voltage for transporting power over long distances to reduce losses. Every project requires a grid connection and if not planned from the beginning as wind farms grow there will be different size cables crossing each other in every direction heading to shore. The idea of having an Offshore Connection Point, complete with Sub-Stations as proposed by Atlantic Wind Connection has technical merit. Running a large cable of heavy capacity to suitable locations to the North and South brings the power directly to the load center and provides redundancy. We support this concept.

Thank you for allowing us the opportunity to present our thoughts and hope they are helpful.

Respectfully Submitted,



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