Laying the Groundwork for Future Offshore Wind

New Jersey's demand for electricity is forecasted to grow significantly as population and development increase and greater reliance on technology, including shifts to vehicle and building electrification create more demand on our grid. Offshore wind represents a major opportunity for the U.S. – and New Jersey – as a grid scale, domestic, renewable power source to help meet growing demand, while also reducing emissions, creating good paying, long-term jobs, and achieving a more sustainable and livable future.

Although offshore wind projects will likely not be completed in the next few years, New Jersey can still take tangible steps to ensure future success. This pause gives our state the opportunity to reevaluate the processes by which we procure offshore wind power in the future and invest in the onshore infrastructure necessary for projects to be successful. We should learn from prior Board of Public Utilities solicitations, unsuccessful projects, and community challenges and adopt changes to the process that will facilitate a faster completion of future projects and ensure projects are developed responsibly for the environment, workers, and local communities.

Additionally, an offshore wind farm is only useful if it is connected into the electric power grid that delivers electricity to our communities. While

offshore wind farms will generate power 10 miles or more from the nearest coastline, that energy will need to be transmitted from the ocean to points onshore and connect into our existing electric grid to power our homes, businesses and critical infrastructure. The challenge around onshore transmission – moving power from a cable landing point along the coast and connecting to the existing electric grid – will be significant and will require cooperation from coastal communities and those along the new transmission routes. The state needs to invest in grid upgrades along our coast that will have the dual benefit of creating additional reliability for coastal communities and enable easier connection of offshore wind or other power projects to the grid in areas that historically did not produce electricity.

The ideal model of offshore wind transmission has evolved significantly, and the state should use the next few years to ensure we can implement best practices in the future. In early solicitations, each project developer was responsible for mapping out their own transmission route from ocean to grid. Had these projects advanced, and the state continued this practice, there would have been multiple points of interconnection along the coast, requiring approval from several communities, adding time and complexity to the transmission process. Instead, New Jersey's Board of Public Utilities (NJBPU) collaborated with grid operator PJM on a groundbreaking State Agreement Approach (SAA) to streamline offshore wind transmission. This led to the selection of the Larabee ollector Station ‚L S), which will enable up to four offshore wind projects to connect at a single point along a designated route, reducing environmental and community impacts. The state is now working on Pre-Build Infrastructure (PBI) to support transmission cables reaching LCS. While this effort is underway, New Jersey must continue to plan for further transmission investments to meet its offshore wind goals and position itself as a leader in grid readiness.

RECOMMENDATIONS

Review and adapt future goal and solicitations

- Analyze and amend current state offshore wind goals to reflect the current conditions, capacity, and timelines of future projects to provide more certainty to the industry
- Evaluate and update the solicitation process and foundational law "Offshore Wind Economic Development Act" (OWEDA) to learn from previous challenges and increase the chance of success, especially with regards to the uncertainty around project costs

Continue current and future transmission planning and investments

- Advance the solicitation of the PBI by awarding the project and supporting its build out, ensuring a fully developed critical transmission system for decades to come
- Study and explore a State Agreement Approach 2.0
- Ensure the BPU has the resources to adequately review and approve offshore wind transmission projects, and participate in regional transmission planning efforts
- Explore long-term regional transmission planning that will meet the policy interests and energy needs of New Jersey and other nearby states

Promote community benefits and increase engagement

- Support and facilitate collaboration between developers and host communities to ensure future projects have public support and provide a variety of benefits to communities
- Continue to effectively communicate with host communities about ongoing transmission plans, construction efforts and developments, creating public forums for community members to express their thoughts and opinions and ensuring there is a publicly available website maintained with relevant planning and project details
- Engage with local communities in coordination with developers to learn about their concerns and desires for offshore wind and, as appropriate, incorporate suggestions into future solicitations and projects
- Establish and maintain a working group of diverse pro-offshore wind stakeholders to inform, educate, and coalesce support

Future-proof transmission

- Direct the EDA to continue workforce development initiatives and work with local trade unions to educate the next generation of workers
- Direct the BPU to work with local utility companies to upgrade and repair coastal transmission facilities to facilitate offshore wind and increase storm resilience
- Build energy storage system to be used as a transmission asset from electricity generated from offshore wind and provide energy resilience benefits for neighboring communities