

FY 25 – 26 Multimodal Project Discretionary Grant Application Dirigo Atlantic Floating Offshore Wind Port Sears Island, Maine



Project Requirements

Statutory Selection Requirements

(1) The project will generate national, or regional economic, mobility, or safety benefits.

This project will generate significant national and regional economic benefits through the creation of the first purpose-built floating offshore wind port on the East Coast. The construction of this port will provide significant national benefits through leveraging existing initiatives such as the Department of Energy's *Floating Offshore Wind Shot* and the *Federal-State Offshore Wind Implementation Partnership* which includes eight other East Coast states and the USDOT along with multiple other federal agencies all working to accelerate the offshore wind industry through multiple avenues, including port development. ¹ The development benefits of the port will extend past the Gulf of Maine, enabling more robust supply chains and driving down the cost of installation of floating offshore wind.

In addition to the national benefits, there are significant regional economic benefits to Maine and the Northeast. Community Based Organizations (CBOs), companies, and labor organizations in Maine are already preparing for the construction of the port on Sears Island and the University of Maine research array opportunity as a precursor to full commercial scale floating offshore wind development in the Gulf of Maine. Diamond Offshore Wind will be the port's first tenant and will construct the research array using floating foundation technology developed by UMaine. The Maine Community College System has partnered with Ironworkers Local 7 to develop offshore wind training at no cost to participants with support from the Governor's Energy Office's Clean Energy Partnership (CEP) Program. The Maine Community College System, Maine Maritime Academy, and the Maine Building and Construction Trades Council have Memoranda of Understanding to provide high-quality workforce opportunities with the developers of the research array project that is planned to be constructed at Sears Island.² Further, UMaine has developed a series of multi-disciplinary micro-credential courses on offshore wind, including undergraduate and graduate-level courses on offshore wind, and established an undergraduate concentration program in offshore wind with support from the CEP to prepare Maine's future offshore wind workforce.

In 2020, Maine Governor Janet Mills announced a goal of 30,000 clean energy jobs in the state by 2030, and the state is already more than halfway toward achieving that goal. Analyses for *The Maine Offshore Wind Roadmap* identified 117 key occupations essential for floating offshore wind development, requiring a range of skills and education levels from high school diplomas with apprenticeships to PhDs. The Sears Island development provides an unprecedented opportunity to expand on Maine's existing talent and generate 1,300 family-supporting jobs during port construction and 350 jobs during ongoing port operations, which will initially serve the state-led

¹ The White House, Fact Sheet: Biden Administration Launches New Federal-State Offshore Wind Partnership to Grow American-Made Clean Energy, <u>https://www.whitehouse.gov/briefing-room/statements-</u>

releases/2022/06/23/fact-sheet-biden-administration-launches-new-federal-state-offshore-wind-partnership-to-growamerican-made-clean-energy (last visited May 4, 2024).

² See <u>https://www.maine.gov/mdot/grants/infra/</u>.

floating offshore wind research array planned in the Gulf of Maine. The port will be developed to support upcoming commercial floating offshore wind projects in the Gulf of Maine and beyond.³ As Maine DOT advances the planning and construction on Sears Island, it will do so in accordance with the workforce components of P.L. 2023, Chapter 481, which provides for compensation and benefit thresholds, hiring guidelines, and apprenticeship program requirements.

While there will be significant short-term benefits to the workforce in the Searsport region, once a commercial scale wind port is constructed, the Searsport project will generate long-lasting and quality jobs and workforce opportunities for Low Income/Disadvantaged Communities (LIDACs) in the area and will prepare workers for continued careers in offshore wind. Maine LD 1895 was passed into law in 2023 and was developed with input from several labor organizations, employeeowned companies, and other CBOs. This statute includes establishing standards for local hiring and workforce development and safety, including recruiting traditionally underrepresented populations and developing registered apprenticeship programs under Maine law using industryapproved training structures.⁴ The proposed project will help inform Maine's future Power Purchase Agreements (PPAs) to ensure good paying jobs for Maine people, a broad distribution of economic opportunities and benefits, and meaningful stakeholder engagement. Based on similar offshore wind developments, potential lease payments that are likely to be made by offshore wind energy generation companies can be estimated. Based on four recent similar lease agreements, it is estimated that lease payments may be between \$60,000 and \$280,000 per acre per year. Therefore, over a period of 25 years, a 100-acre site is likely to generate between \$125 million and \$560 million in private sector contributions to the State of Maine as a direct result of the port being constructed.

(2) The project is cost effective.

The Benefit Cost Ratio (BCR) on this project is 11.59 with a sensitivity analysis exhibiting a BCR of 38.42 due to the supplanting of fossil fuel created energy with wind-created energy. There are also significant savings in tugboat operator travel time, savings in operating costs, and reduced tugboat emissions. However, it is important to note that there are many benefits that could not be captured by the Benefit Cost Analysis but nonetheless are significant benefits to the State of Maine. These include the immense avoided economic and societal costs that would not be realized if the port is not constructed and the state continues to rely on fossil fuels. Additionally, it is expected there will be an anticipated lease payment for the barge that will ultimately defray a significant portion of the barge costs but cannot be estimated at this time. The other very significant benefit this project offers is a U.S. flagged, Jones Act compliant barge that can be used up and down the eastern seaboard for emergency activity, such as clearing out the remnants of the Francis Scott Key Bridge in Maryland or moving equipment from port to port if needed in a national emergency. These benefits are significant but cannot be quantified.

³ BOEM will release the next round of leases for the Gulf of Maine in 2nd quarter of 2024.

⁴ See <u>https://www.maine.gov/mdot/grants/infra/</u>

(3) The project will contribute to one or more of the national goals described under Section 150.

The project contributes to several national goals described under Section 150. The two goals most directly contributed to are the Freight Movement and Economic Vitality goal and the Environmental Sustainability goal. As discussed in Requirement 1, the port provides strong local, state, regional, and national economic benefits that advance the Freight Movement and Economic Vitality goal. Offshore wind generation is a significant renewable resource available for the Northeast to secure needed greenhouse gas (GHG) emission reductions at the size and scale required to meet Maine's own decarbonization targets as well as the Biden Administration's. Floating offshore wind technology is the most transformative clean energy generation option available to advance the Environmental Sustainability goal, as it will allow access to substantial wind resources not accessible by fixed-bottom offshore wind technologies, while securing U.S. leadership in an emerging floating offshore wind global marketplace. While the potential of floating offshore wind is immense - 58 percent of the U.S. offshore wind resources are in deep waters requiring floating technologies - the resource has yet to be harnessed in significant capacity. To unlock this energy and economic opportunity, port infrastructure for the deployment of wind turbines needs to be vastly improved otherwise the lack of infrastructure will hinder the region's ability to meet state and national offshore wind and decarbonization targets. With increasing demands on the power sector to decarbonize and carry significantly more load as the economy transitions to electrification, floating offshore wind is the under-realized and critically needed resource to meet decarbonization goals.

Decarbonization of the New England electric grid will require a balance of renewable energy resources and technology complementing a predominantly offshore wind-based supply. Maine enjoys densely populated coast with high energy demand near the coastline. While space and siting constrain large land-based power plants, offshore wind offers clean, reliable power proximate to load centers. This is acutely true during the winter months when peak loads cannot only rely on renewable resources like solar power.⁵ Based on an analysis of 2019 electricity usage and projections Maine has more than enough offshore wind potential to provide sufficient electricity to cover projected demand with full electrification of the economy.⁶ The Biden Administration has recognized the unique importance of the Gulf of Maine as a deep-water area to capture vast offshore wind energy potential via floating offshore wind. On March 15, 2024, DOI's BOEM⁷ finalized the WEA for the Gulf of Maine with the potential to support 32 GW of clean energy

⁶ Offshore Wind for America, The Promise and Potential of Clean Energy Off Our Coasts, <u>https://publicinterestnetwork.org/wp-content/uploads/2021/03/Offshore-Wind-For-America-2021.pdf</u> (last visited May 4, 2024).

⁵ Considerations for Floating Wind Energy Development in the Gulf do Maine, National Renewable Energy Laboratory, <u>https://www.nrel.gov/docs/fy23osti/86550.pdf</u> (last visited May 4, 2024).

⁷ BOEM Finalizes Wind Energy Area in the Gulf of Maine and Announces Upcoming Environmental Review of Potential Offshore Wind Leasing Activities,

https://www.boem.gov/newsroom/press-releases/boem-finalizes-wind-energy-area-gulf-maine-and-announcesupcoming#:~:text=In%20support%20of%20the%20Biden,WEA)%20in%20the%20Gulf%20of (last visited May 4, 2024.

generation.

(4) The project is based on the results of preliminary engineering.

MaineDOT is at the 30-percent design level and is continuing to advance environmental and permitting processes. MaineDOT expects to file permit applications by the fall of 2024.⁸ Significant public outreach has been undertaken to inform the early design specifications. MaineDOT has initiated communication with environmental agencies and interested parties. Preliminary baseline data collection to identify natural resources is substantially complete. Efforts to identify cultural and other resources potentially affected by the project are ongoing. This information will be used to avoid and minimize impacts while meeting the purpose and need of the project.

(5) With respect to related non-federal financial commitments, one or more stable and dependable sources of funding and financing are available to construct, maintain, and operate the project, and contingency amounts are available to cover unanticipated cost increases.

As outlined in the match commitment letter, the total project cost is \$760 million, with a \$456 million request. MaineDOT is committed to obtaining these matching funds raised through a combination of other federal, state, and private sector sources, such as anticipated lease payments. The contingency amount for the project is \$50 million. There is a pending \$130 million application through the EPA's Climate Pollution Reduction Grant Program through the Maine Governor's Energy Office for construction funding. The port has its first tenant, Diamond Offshore Wind (in partnership with the University of Maine), that will provide the first revenue through lease payment once the port is constructed. These payments, in addition to the upcoming revenue resulting from the two Bureau of Ocean Energy Management lease auctions in 2024 and 2028, will augment revenue from private developers to ensure funding is available to construct, maintain, and operate the port and barge as well as cover any unanticipated cost increases. This project will be included in MaineDOT's *Work Plan* and the Statewide Transportation *Plan*. U.S. DOT can be confident in MaineDOT's assurance that the project will be constructed on time and on budget and that the port will be used immediately following construction completion.

(6) The project cannot be easily and efficiently completed without Federal funding or financial assistance available to the project sponsor.

Federal funding is critical to the completion of this project. As noted in multiple sections of this grant application, the capital expenditure for this project is significant due to the massive size and complexity of the development of floating offshore wind turbines. Therefore, Maine must have investment partners to construct a port that can handle this commodity. Without significant federal

⁸ Supporting documentation available at <u>https://www.maine.gov/mdot/grants/infra/</u>.

funding the project will not be able to go forward. Unfortunately, there is no natural way to phase the project down to small enough segments for the State of Maine to construct the project on its own. The U.S.-flagged, Jones Act-compliant barge should be thought of as an extension of the berths themselves. Without the barge to lower the wind turbine platform into the water one of two things must occur to utilize the port – either the platforms must be built elsewhere and towed to the Sears Island port for assembly (which adds approximately 1,040 nm to the project per wind turbine), <u>or</u> the final assembly of the turbines is simply delayed until funding becomes available to construct the U.S.-flagged barge.

(7) The project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project.

The project schedule is below:

Key Milestones	Completion Date
Maine Offshore Wind Port, Sears Island	
Maine DOT File Permits	Q3 2024
Draft Environmental Impact Statement (EIS) Published	Q2 2025
Complete Design	Q4 2025
Final EIS Submitted	Q2 2026
Maine DOT Obtain Permits	Q3 2026
Advertise for Construction	Q4 2026
Begin Construction	Q1 2027
Construction Complete	Q3 2029
Closeout	Q4 2029

The construction start date is in Q1 2027 with construction end date is in Q3 2029. These dates will be able to be moved up if the pre-construction activity is completed in an expeditious manner.

(8) The applicant has, or will have, sufficient legal, financial, and technical capacity to carry out the project.

MaineDOT has the sufficient legal capacity to construct a port on Maine-owned property. Attached is the Funding Commitment Document. As detailed in the <u>Project Readiness</u> portion of this application MaineDOT has the technical capacity to carry out the project. Furthermore, MaineDOT has assessed the risks associated with this project and has submitted mitigation strategies to address each risk.

(9) The application includes a plan for the collection and analysis of data to identify the impacts of the project and accuracy of forecasts included in the application.

Please see the data collection plan provided with this application. Even if selected for an award under INFRA or Rural, MaineDOT is committed to collecting and analyzing the data outlined in the MEGA Data Collection Plan to ensure the accuracy of forecasts and commitments laid out in the application.