FY 25 – 26 Multimodal Project

Discretionary Grant Application

Dirigo Atlantic Floating Offshore Wind Port

Sears Island, Maine

Project Budget

Project Budget[1]

Previously Incurred Costs

Previously incurred costs include $3,616,051 in Preliminary Engineering costs as of May 1, 2024.

Future Eligible Costs

The table below outlines the costs, funding sources, uses, and percentages of Federal, non-Federal, and other Federal funding used on the Project. The entirety of the Project is in a rural area and is within a Historically Disadvantaged Community.

	Port Infrastructure	**Barge Construction**	**Total**	**Percent of Project**
MPDG Funds	$456,000,000	$0	$456,000,000	60%
Other Federal Funds	$0	$0	$0	0%
Non-Federal Funds	$134,000,000	$170,000,000	$304,000,000	40%
Total:	**$590,000,000**	**$170,000,000**	$760,000,000	100%

The total project cost to construct the Port, including the heavy-lift semi-submersible barge is **$760,000,000**. The grant request is **$456,000,000**. MaineDOT intends to apply for $16,000,000 through the FY24 Port Infrastructure Development Program (PIDP) round to complete the engineering, design, and NEPA review. Additionally, a pending application for $130 million through the Environmental Protection Agency's (EPA) Climate Pollution Reduction Grant (CPRG) program was submitted by Maine's Governor Energy Office on April 1, 2024. The table below provides a detailed budget for the project:

Item	**Description**	**Cost**
1	Contractor Mobilization/Demobilization	$40,000,000
2	Wharf	$218,000,000
3	Infill Area	$45,000,000
4	Uplands	$107,000,000
5	Road Relocation	$8,000,000
Items 1-5 Sub Total, Port Direct Cost		**$418,800,000**
6.1	Supervision (General Conditions) - 10%	$41,800,000
6.2	Bonds & Insurance	$8,200,000
6.3	Corporate Overhead & Profit - 10%	$41,800,000
6.4	Specialty Inspection and Testing	$8,200,000
7	Environmental Mitigation	$22,000,000
Items 6.1 - 6.4, Total Port Construction Cost		**$540,000,000**
8.1	Barge Construction	$3,000,000

[1] For detailed documentation of the budget and statement of work, please visit https://www.maine.gov/mdot/grants/infra/.

8.2	2 New Built Barge Structures	$120,000,000
8.3	2 New Built Tower Structures	$20,000,000
8.4	Connection System	$5,000,000
8.5	Ballasting System	$20,000,000
8.6	Construction Management	$1,000,000
8.7	Delivery	$1,000,000
Items 8.1 - 8.4, Total Heavy Lift Semi-Submersible Barge		**$170,000,000**
9	Contingency	$50,000,000
Total Project Cost		**$760,000,000**

The project is unique in that it is requesting support for a purpose-built port to handle floating offshore wind production requires two specific components (1) the port facility and the (2) barge that will load the platform into the water on which to then install the wind turbine. Maine will be responsible for ensuring that the non-federal construction costs and any cost overruns are provided from a combination of state funding and private capital.

The following details how project funds will be used:

Port Construction - Direct Costs

Item 1: Contractor Mobilization//Demobilization

Mobilization Cost involves transporting heavy machinery, equipment, tools, and materials to the site. It may also involve setting up temporary facilities such as office trailers, storage areas, and accommodation for workers, if needed. Demobilization, dismantling, and removing all equipment, machinery, temporary facilities, and materials from the site. This process may also include cleaning up the site to restore it to its original condition or as per contractual agreements. Demobilization costs can include expenses such as labor for disassembly and packing, transportation of equipment and materials away from the site, and any necessary site restoration activities.

Item 2: Wharf Construction

This item includes the cost of the construction of a 1,500 ft long by 150 ft wide concrete wharf supported by steel pipe piles and a sheet pile bulkhead wall along the quay. It involves driving land side and water side steel pipe piles and sheet pile cut off walls to the design tip elevation. It is assumed that the first two rows of the waterside piles will be driven into the bedrock necessitating rock socketing. This line item also includes an allowance for the obstruction removal that might be required during the pile driving and covers cathodic protection of the steel piles as well as dynamic load testing of the piles as well. The concrete wharf construction cost includes the placement of cast in place concrete pile caps/counterforts and bulkhead wall cap, installation of precast concrete panels and placement of cast in place concrete topping slab. Installation of Dense Graded Aggregate (DGA) on top of the topping slab, slope protection on the eastern side and installation of fender and bollards are also included in the wharf construction cost.

Item 3: Infill Area

This item includes the cost associated with the construction of the infill between the upland and the sheet pile bulkhead wall. Excavated soil from the uplands will be placed in the infill area. Slope protection including armor stones and the soil excavated from the upland will be installed on the northern and southern sides of the placed infill. This will prevent washout of the placed infill. This also includes a ground improvement soil surcharge program. The soil surcharge consists of excavated upland soils that will be piled on top oof the placed infill. This additional soil weight consolidates the placed infill and prepares it for required loading levels. The surcharge program includes the installation of reinforcement geotextile, wick drains, settlement plates, placement, and removal of the surcharge. Wick drains create a pathway for trapped moisture within placed infill which in turn accelerates the soil consolidation. The cost of DGA topping surface in the infill area is also included in this item.

Item 4: Uplands

The upland cost item covers the cost associated with the construction activities in the existing upland area within the transportation parcel on the western side of the existing shoreline. The upland construction includes tree clearing, soil excavation and export, grading and compaction of the site and installation DGA topping surface. Installation of site utilities including the site water and storm water systems, site electrical system and pulling the utilities to the site are also included in this item.

Item 5: Road Relocation

The cost required to relocate the Sears Island access road is covered in this item. This road will be the primary means of access to the port from the mainland. This work includes clearing, grubbing, common excavation and borrow, grading, gravel, stormwater treatment, soil and erosion control, paving, pavement markings, and restoring the existing road by removing the pavement, gravel, and planting native trees and shrubs.

Indirect Costs

Indirect costs refer to expenses that, while not directly tied to the construction of the specific structures or civil works, are essential for the overall execution of a project.

Item 6.1: Supervision

Considers site supervision of the construction and includes costs such as Project Manager, Superintendents, Project and Field Engineers, Quality Control and Office Staff. This also considers any non-construction equipment, materials or office space that will be required on the job site.

Item 6.2: Bond and Insurance

Construction bonds protect against disruptions or financial loss due to a contractor's failure to complete a project or failure to meet contract specifications. It provides funds to continue work if the selected contractor experiences financial failure or is not meeting job requirements.

Item 6.3: Corporate Overhead and Profit

These overhead costs are the operating expenses for the required corporate facilities and equipment.

Item 6.4: Specialty Inspection and Testing

This cost item covers the cost associated with the special inspection and quality control throughout the project. It includes but is not limited to the inspection of reinforced concrete placement, reinforcing steel, anchors and bolts, structural field welding, structural steel placement, pile driving, and ground improvement.

Item 7: Contingency

The inclusion of a $50 million contingency in the project budget is a proactive measure to account for unforeseen or undefined items that may arise during the construction process. This contingency is not a reflection of the accuracy of the estimates provided but rather serves to cover items of work that will need to be addressed and costs that will likely be incurred, even though they have not been explicitly detailed or described due to the current level of engineering investigation and estimating completed. By allocating a contingency, the project team acknowledges the inherent uncertainties and risks associated with construction projects, especially at this stage where the full scope of work may not be fully defined. The contingency provides a buffer to address unexpected changes, variations, or challenges that may arise during the execution of the project, helping to mitigate potential cost overruns and schedule delays.

Item 8: Environmental Mitigation

This item covers compensatory mitigation required to offset unavoidable impacts to coastal and freshwater wetlands, waterbodies, and other protected natural resources. Compensatory mitigation will likely consist of a combination of wetland/waterbody creation, restoration, enhancement, and preservation.

Barge – Direct Costs

The overall project design/consulting would be completed as follows:
• *Phase 1a*: Feasibility Study - determine barge major characteristics and regulatory requirements
• *Phase 1b*: Preliminary Design - for construction budgetary pricing
• *Phase 2*: Contract Design - for full classification design review and fixed-price shipyard bidding
• *Phase 3*: Production Design - 3D modeling of structure and piping systems for construction
• *Phase 4*: Contract and Construction Technical Support

Phase 1a: Feasibility Study

This phase develops the initial barge layout principal dimensions and establishes the primary barge design characteristics. Following will be the development of the barge's midship scantlings per ABS Rules for Building and Classing Steel Barges, review hull-girder longitudinal strength and still water

bending moment based on that midbody structure and create a weight estimate. By the end of this phase, the following deliverables will be developed and provided:

- Structural Midship Section Drawing
- Preliminary Steel Weight Estimate and Stability Assessment
- Outline Specification demonstrating the design philosophy, mission & system requirements and regulatory notations sought.

Phase 1b: Preliminary Design

Phase 1b Preliminary design tasks and deliverables to support obtaining shipyard budgetary pricing:

- Concept General Arrangement Drawing
- Concept Machinery Arrangement/Equipment List
- Ballast System Diagram

Phase 2: Contract Design

Phase 2 would build on Phase 1a&b design to fully develop a package to get firm pricing from the shipyard and go through the ABS review process.

Phase 3: Production Design

Phase 3 takes the contract-based design and develops it into production-ready work packages that the yard will use to sequence its build process and provide guidance on how the shipyard works on each piece of steel, piping, and machinery that will be used to make up the vessel and the platform. This work scope is often part of the contract with the shipyard and overlaps with the vessel's construction.

Phase 4: Construction Management

Phase 4 assumes that a shipyard has been selected and the vessel will move from an engineering phase to a construction phase.

Restrictions on Matching Funds

MaineDOT intends for this project to attract significant private sector interest and has begun discussions with potential tenants/investors for and commercial scale use of the Port. Given the timeline of the MPDG grant opportunity, BOEM WEA lease auction, state lease auction, and developer timelines, a significant portion of the non-Federal match is anticipated to become available after the awarding of the grant. Additionally, the Governor's Energy Office is waiting on the announcement of the CPRG application requesting $130,000,000 for the construction of the port through EPA which will require no matching funds. If awarded, the amount of state and private sector funding required will be reduced, however the project will not exceed the 80 percent Federal participation requirement.[2]

[2] A commitment letter from MaineDOT is attached in the Funding Commitment Documentation.