

BOEM Pacific Region: Ongoing Study

Title	Port of Coos Bay Infrastructure Assessment for Offshore Wind Development (PR-21-PRT)
Administered by	Pacific OCS Region
BOEM Contact(s)	Whitney Hauer (whitney.hauer@boem.gov)
Procurement Type(s)	Contract
Conducting Organization(s)	Moffatt & Nichol
Total BOEM Cost	\$149,508
Performance Period	FY 2021–2022
Final Report Due	September 2022
Date Revised	March 24, 2022
PICOC Summary	
<i><u>Problem</u></i>	Existing port infrastructure on the U.S. West Coast cannot fully support offshore wind development.
<i><u>Intervention</u></i>	A study of the Port of Coos Bay to inform interested parties on potential port improvements and associated costs that would support offshore wind development. These identified improvements may inform a site feasibility assessment.
<i><u>Comparison</u></i>	Modifications that would be needed to support the installation, operations, maintenance, and decommissioning of offshore wind projects are evaluated under three study scenarios.
<i><u>Outcome</u></i>	A final report that addresses the current capabilities and currently planned major projects of the Port of Coos Bay; a basis of analysis to determine the requirements of the Port under three scenarios; and modifications, improvements, or upgrades that would be needed for the Port to accommodate offshore wind development under the scenarios.
<i><u>Context</u></i>	Port of Coos Bay, Oregon, and other ports in the area.

BOEM Information Need(s): The Port of Coos Bay is one of two deepwater ports in the State of Oregon. The port could be used for the installation, service, manufacturing, and decommissioning of floating offshore wind turbine components. BOEM is seeking information documenting the current state of the port and coastal infrastructure, as well as identifying improvements that would be needed for the port to be deemed feasible as for offshore wind development. These identified improvements may inform a site feasibility assessment.

Background: There is strong and growing interest from industry in pursuing leases for offshore wind energy development along the U.S. West Coast. A previous BOEM-funded study (Porter and Phillips 2016) evaluated the infrastructure needs to support offshore wind and provided an inventory of the Pacific West Coast and Hawaii candidate port facilities. The study identified whether ports, including Coos Bay, could meet port classification characteristics with additional development or mitigation procedures. The study evaluated infrastructure to accommodate 6-MW turbine size; however, offshore

wind technology has progressed at a rapid rate with larger turbine capacities. This study will build on previous work to evaluate infrastructure capabilities and needs at the Port of Coos Bay to support anticipated floating offshore wind development in the area.

Objectives: The objective of the study is to conduct an infrastructure assessment and needs analysis for the Port of Coos Bay which will include the capabilities and upgrades that would be required to support floating offshore wind development. The study addresses modifications that would be needed to support the installation, operations, maintenance, and decommissioning of offshore wind under three scenarios:

1. Offshore wind project with the current capabilities of the Port assuming offshore wind components are fabricated elsewhere.
2. Offshore wind project considering the planned major port channel, rail tunnel, and bridge projects assuming offshore wind components are fabricated elsewhere.
3. Offshore wind project considering the planned major port channel, rail tunnel, and bridge project improvements assuming fabrication and assembly of some offshore wind components onsite.

Methods: The study assesses the current capabilities and currently planned major projects of the Port of Coos Bay, which include the port- and sea-side, and includes 1) a desktop review of previous assessments and planned projects; 2) coordination with the Port of Coos Bay; and 3) documentation of historical dredging records.

The study determines the requirements of the Port of Coos Bay under the three scenarios that would be needed to enable floating offshore wind development from the Port with the development of a basis of analysis. If there is an aspect of a floating offshore wind project that cannot be accommodated by the Port of Coos Bay, then capabilities of other ports in the area are identified. The basis of analysis includes the floating offshore wind turbine characteristics, as vetted by the offshore wind industry and the assumptions used in the scenarios.

The study identifies the modifications, improvements, or upgrades that will be needed for the Port of Coos Bay in order to accommodate offshore wind development. A high-level cost estimate will be developed based on the different development scenarios.

Specific Research Question(s):

1. What are the current capabilities and currently planned major port- and sea-side projects of the Port of Coos Bay?
2. What are the modifications, improvements, or upgrades that will be needed for the Port of Coos Bay in order to accommodate offshore wind development, under given scenarios, that would be needed for a site feasibility assessment?
3. What are the associated costs for the upgrades under each scenario?

Current Status: The contract was awarded on September 20, 2021 and a post-award meeting was held September 28, 2021. The study is underway assessing current capabilities and currently planned major projects of the Port and developing the basis of analysis to determine the Port requirements.

Publications Completed: N/A

Affiliated WWW Sites: N/A

References:

Porter A and Phillips S. 2016. *Determining the Infrastructure Needs to Support Offshore Floating Wind and Marine Hydrokinetic Facilities on the Pacific West Coast and Hawaii*. U.S. Department of the Interior, Bureau of Ocean Energy Management, Pacific OCS Region. OCS Study BOEM 2016-011, 238 p. <https://www.boem.gov/BOEM-2016-011/>