

January 31, 2023

Port of Long Beach pitches 'largest offshore wind facility in US' for California 25GW goal

Container ship at California Port of Long Beach Photo: Scott Lederer/Flickr



City-owned harbour is among nation's busiest but is far south of lease areas and faces development challenges from military, ecological, and aviation concerns

By **Tim Ferry**

The Port of Long Beach in southern California is proposing to build a 400-acre (1.6km²) floating wind assembly terminal to help enable the state's 25GW sector ambitions. The so-called Pier Wind proposal would see land within the port developed into "the largest facility specifically designed to accommodate the assembly of offshore wind turbines in the US," the port operator said.

"As a deepwater port with the best attributes in this state for a purpose-built wind turbine assembly facility, the Port of Long Beach figures to have a major role in this exciting new programme," executive director Mario Cordero said. "We have the ideal location, the skilled workforce, and the space. We are confident that we will have a strong, highly regarded proposal for this new venture."

The port, along with neighbouring Port of Los Angeles, is the busiest harbour complex in the US, serving as gateway to commerce with Asia. It is located 25 miles (40km) south of downtown Los Angeles. The proposed terminal would not impact other port operations, added Cordero.

The Port of Long Beach's plans "can be part of the multi-port strategy that California needs to manufacture, assemble and service floating offshore wind turbines and towers," said Adam Stern, executive director, Offshore Wind California, a trade group of offshore wind developers and technology companies.

Long Beach is more than 200-miles (322km) from the closest leases at Morro Bay. Floating wind turbines towed from the port would need to pass through the heavily congested sea lanes of the Channel Islands while contending with potential height restrictions near Los Angeles International Airport and Vandenberg Space Force Base.

Vessel operators will also need to take into account voluntary speed limits within state marine sanctuaries to mitigate the **possibility of whale collisions** – an increasing concern for the Atlantic sector – which will stretch transport time.

California has the nation's largest offshore wind ambitions, aiming for 2-5GW by 2030 towards 25GW by 2045. Last December, the Bureau of Ocean Energy Management, the regulator of energy development in federal waters, **auctioned five leases in two separate wind energy areas** (WEAs) facing the central California coastline at Morro Bay and off the northern reaches of Humboldt County.

The highly anticipated auction – the first commercial scale floating wind tender in the world – brought in some \$750m for up to 7GW of potential capacity, a lower sum than expected. Cheap lease prices are attributed in part to multiple hurdles that will need cleared for large scale development, chiefly lack of port capacity.

Ambition meets reality

The state has 11 deepwater ports including San Francisco and San Diego, but only the Port of Humboldt Bay located near the Humboldt WEA has been tipped for floating wind marshalling and installation. **The port has already received \$10.5m from the state** and is hoping to get another \$44m in federal matching grants for a \$124m conversion. Maritime firm Crowley has signed on as lead contractor for the Humboldt redevelopment and aims to be its operator as well.

Morro Bay, by contrast, has no floating wind-capable port in the vicinity, and with development along the state's extensive coastline strictly regulated, building a new port will be arduous and time consuming.

The California Energy Commission is collaborating with the state Lands Commission on a report detailing the port and coastal infrastructure needs of the sector **per state law AB525** signed by governor Gavin Newsom in 2021. AB525 mandates the exploration of floating wind development to help the state meet its climate and emissions goals.

The National Renewable Energy Laboratory (NREL) is working on a parallel study, with both expected to be released this year. NREL estimates that **half of US offshore wind pipeline** is at risk of delayed delivery due to supply chain, vessel, and port bottlenecks. Meeting the **30GW by 2030 "national goal"** set by President Joe Biden will require at least \$8bn in port investment alone, NREL said.