

# RECHARGE

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## US raises sails on 4.5GW California floating wind auction with Morro Bay approval

Surfers packing it up at Morro Bay, California  
Photo: Penelope/Getty Images/iStockphoto



*Leasing round in Pacific promised before year's end, but development will need to overcome port, transmission, and supply chain bottlenecks*

By **Tim Ferry** 5 October 2022 21:51 GMT *UPDATED* 6 October 2022 15:57 GMT

The US took another stride towards giga-scale floating wind development with the finding of no significant impact (Fonsi) on the Morro Bay lease area off the coast of central California.

The Bureau of Ocean Energy Management (BOEM), the regulator of energy development in federal waters, today (5 October) announced the completion of its environmental assessment of the nearly 240,898 acres (975km<sup>2</sup>) of the Morro Bay wind energy area (WEA).

“The completion of our environmental review is an important step forward to advance clean energy development in a responsible manner while promoting economic vitality and well-paying union jobs in central California,” said BOEM director Amanda Lefton.

The approval of Morro Bay’s environmental review follows the finding of Fonsi for the Humboldt WEA last May and clears the path for offshore wind leases to go forward in the coming months.

The two WEAs together cover some 373,284 acres (1,510km<sup>2</sup>) and hold at least 4.5GW at BOEM’s rating of 3MW per km<sup>2</sup>, but could hold over 7GW. BOEM has pledged to hold a single offshore wind leasing auction for both WEAs off California before the end of the year.

“This environmental review marks another important step forward for offshore wind in California and sets the stage for BOEM to proceed with its initial lease auction at the Morro Bay and Humboldt WEAs later this fall,” said Adam Stern, executive director for industry trade group, *Offshore Wind California*. “As an industry, we’re committed to ensuring that floating offshore wind has a minimal impact on the environment and coexists well with local communities, marine life, and all other ocean users.”

California is spearheading the floating wind industry with goals of up-to 5GW of capacity by 2030 and 25GW by 2045. These targets are in line with the Biden administration’s recently released **Floating Wind Shot** aiming for 15GW of floating wind in American waters by 2035.

Twenty-three bidders have qualified to participate in the California auction, including many of the world’s most prominent players, such as Orsted, Avangrid, and Equinor, as well as local utilities and investment firms.

Although BOEM has not yet announced an auction for the California WEAs, it would likely be held prior to the end of November per the **Inflation Reduction Act (IRA)**, which now ties offshore wind leasing to the offshore oil & gas sector.

### **QUALIFIED BIDDERS INTO FLOATING WIND AUCTION OFF CALIFORNIA**

- 547 Energy
- Algonquin Power Fund (America)
- Arevia Power
- Avangrid Renewables
- Castle Wind
- Central California Offshore Wind
- Cademo Corporation
- Clearway Renew
- EDF Renewables Development
- EDPR Offshore North America
- Equinor Wind US
- JERA Renewables NA
- Marubeni Power International
- Mission Floating Wind
- Northcoast Floating Wind
- Northland Power America
- Orsted North America
- Redwood Coast Energy Authority
- Redwood Coast Offshore Wind
- RWE Renewables
- Shell New Energies US
- US Mainstream Offshore
- wpd offshore Alpha

Source: Bureau of Ocean Energy Management

The IRA requires that BOEM auction off at least 60 million acres for the offshore oil & gas sector in the previous 12 months prior to the offshore wind round. As the bureau recently reinstated the offshore oil & gas round held last 17 November, the California offshore wind auction would likely be held before this anniversary. BOEM has so far declined to confirm this timeline, however.

### **California challenges**

California has up to 200GW of offshore wind potential, according to data from the National Renewable Energy Laboratory, and both the state and federal governments have ambitious near-term targets, but analysts are sceptical of the sector's prospects.

Offshore wind project timelines from tendering-to-commissioning run between 8-10 years, even in mature markets like the UK, while new markets such as California can expect even longer duration. The **state's deep waters**, which drop to 1,000 metres-plus in the WEAs, will further complicate efforts.

"Floating is still a very nascent technology that hasn't been commercialised yet. Coupled with the fact California has extremely deep waters, that adds cost as well," Chelsea Jean-Michel, wind energy analyst for BloombergNEF, told *Recharge*.

Floating development in the state will face similar bottlenecks as the industry sees in other markets, particularly the lack of transmission, port capacity, and supply chain, but to a worse degree. Sparsely populated northern California has insufficient grid transmission capacity to deliver Humboldt WEA's 1.5GW to load centres of the San Francisco Bay, and building new transmission capacity will require **at least an \$8bn investment** and numerous federal, state, and local permits.

**Morro Bay has access to sufficient grid capacity** for around 3GW of offshore wind power due to the closure of several gas-fired power plants near the WEA, but lacks port infrastructure, with no obvious candidate in sight.

The **Port of Humboldt in Eureka, California** is targeted for offshore wind redevelopment, but is over 800km away, while closer ports at Long Beach and Los Angeles are heavily congested with container traffic.

California also lacks substantial industrial and manufacturing capacity that could be repurposed for the floating wind sector.

Despite foreseeing the state missing its early targets, BNEF predicts the California will lead the US to a leading role in the global floating sector from 2030, with 4.6GW of cumulative installed capacity in American waters, possibly including **Oregon**, the Gulf of Maine, and the **Central Atlantic**, by 2035, second only the UK's 7.6GW.