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'Most significant decision' | California floating wind boost as powerful state agency backs tenders



Morro Bay. Photo: Fred Moore/Flickr

Commission with history of 'acting independently' endorses federal plan for offshore wind, paving way for auctions to proceed

By **Tim Ferry**

The California Coastal Commission (CCC) gave prospects for floating wind off the state a major boost when it unanimously endorsed the leasing auction plan for the Morro Bay wind energy area (WEA), a month after signaling its approval for the Humboldt round, paving the way for federal auctions to proceed next autumn.

“The Coastal Commission’s conditional approval is the most significant regulatory decision California has made in support of offshore wind,” said Adam Stern, executive director of industry body Offshore Wind California.

The Bureau of Ocean Energy Management (BOEM), the federal agency under the Department of the Interior charged with regulating energy development on the outer continental shelf (OCS), **released its proposed sale notice (PSN)** 31 May for three zones in the Morro Bay WEA off central California and two in the Humboldt WEA off the state's north, totalling some 373,268 acres. BOEM will release a final sales notice following a sixty-day consultation period.

The CCC wields considerable weight in the state government, with authority over 1,100 miles (1,800km) of California coastline and authority to approve development and levy fines, and has been described as the most powerful lands use agency in the nation, based on the value of the coastal lands under its jurisdiction.

The agency’s dozen commissioners, appointed by both the governor and the assembly, unanimously endorsed the “consistency determination” that the activities associated with site assessment activities for offshore wind development in the WEAs conform with CCC’s legal mandate for the protection of the coastal environment and its stakeholders.

“The Commission has signalled to the market that this abundant, clean energy resource can advance through the federal auction and leasing activities, while still protecting the state’s coastal environment and advancing the state’s climate goals,” Stern said.

The CCC’s authority derives from the federal Coastal Zones Management Act, which gives state coastal management agencies regulatory control over all federal activities in coastal waters, including offshore oil and gas and wind development. Through the consistency review, the CCC has the power to stop or force the amendment of federal activities in coastal waters and can effectively derail development plans.

The CCC has a reputation for acting independently, and in the recent case of a desalination plant in Huntington Beach rejected the plan despite Governor Newsom’s support. “Approval was not a sure thing,” said Stern.

The Commission’s approval now allows for site assessment activities for lease winners, including the placement of ocean buoys with data collection equipment and an expected 873 boat trips in the WEAs over three years.

'Major opportunity for industry'

California **law AB525 signed by governor Gavin Newsom** last year set the state working towards large scale offshore wind development that will be key towards meeting the goals of the 100 Percent Clean Energy Act of 2018, which mandates that renewable energy and zero-carbon resources supply 60% of all retail electricity sold and state agency electricity needs by 2030.

“Offshore wind power represents a major opportunity to supply competitively priced, responsibly developed clean electricity to help meet our carbon-free goals and mitigate our growing climate risks, while protecting our marine, coastal and cultural resources,” said Paula Major, vice president for US offshore wind for Irish developer Mainstream Renewable Power.

The three lease areas in Morro Bay have a combined 3GW of capacity, while Humboldt Bay's two areas have over 1.5GW.

The California Energy Commission (CEC), the state energy policy and planning agency, estimates that California could develop 3GW of plant by 2030 and 10-15GW by 2045, but new information the CEC received from researchers at the University of California, Berkeley, indicated that **long term goals could be raised as high as 50GW**.

The state has as much as 200GW of offshore wind potential, according to a study conducted by the National Renewable Energy Laboratory, with some of the best wind resources in the country, particularly in the Humboldt WEA.

The OCS drops off steeply off its coastline, however, quickly exceeding 1,000 metres in the WEAs, **necessitating the use of floating wind technologies that are still in their infancy** and have never been tried in such deep waters.

"Offshore wind depends on economies of scale to realise its promise and potential here in California," said Major, urging the state to develop the industry "at scale [and] in smart, environmentally responsible ways.

"With consistent winds, vast coastlines, and a commitment to 100% clean energy, California is ripe to become a global leader in floating offshore wind."

While offshore wind is making strides, California still needs to overcome significant hurdles to realise its dreams. Port capacity is highly constrained, with few deepwater ports available besides the **Port of Humboldt**, which has already received \$10.5m from the CEC for what it hopes will be a \$56m upgrade to ready it for the offshore wind boom.

Transmission is another potential logjam. While Morro Bay WEA can leverage the transmission infrastructure of the soon-to-be shuttered Diablo Canyon Nuclear Station, Humboldt lies off its lightly-populated northern coastlines, which would require substantial grid upgrades to receive offshore wind power.