

RECHARGE

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Governor's 20GW California goal 'shows state damn serious' about floating wind power

California Gov. Gavin Newsom. Photo: Getty/Getty Images



Newsom's increased 2045 target satisfies offshore industry by upping ante but falls short of calls for 50GW and demurs from short-term goal

By **Tim Ferry**

California governor Gavin Newsom laid out his goals for offshore wind with a call for 20GW by 2045 in a move that analysts told *Recharge* should reassure the industry the state is “damn serious” about a long-term role for floating turbines off its coast.

Newsom's target beats state planners' draft proposals for 15GW by 2045 and 20GW by 2050 and is in line with recommendations by the industry, although it falls short of calls from some campaigners for as much as 50GW in the same time frame and the Governor refrained from setting a 2030 goal.

Newsom made the suggestions in an open letter to the California Air Resources Board (CARB), the leading agency charged with overseeing the state's lofty climate ambitions, which include an 40% reduction in greenhouse gas emissions off 1990 baselines by 2030, and economy-wide carbon neutrality by 2045.

“California is home to one of the world's best offshore wind resources in the world and I am confident that this clean, domestic source of electricity can play an important role in meeting our state's growing need for clean energy,” Newsom wrote. “That is why I am asking the California Energy Commission (CEC) to establish a planning goal of at least 20GW by 2045.”

The CEC formulates and implements state-wide energy policy and is tasked under California's offshore wind statute, **AB525, signed into law last September by Newsom**, with setting 2030 and 2045 offshore wind targets.

Important signal to industry

Wood Mackenzie senior wind energy analyst Samantha Woodworth told *Recharge* that Newsom's 20GW by 2045 target sends an important signal to the nascent industry that California is serious about offshore wind.

“It's obviously an attention-grabbing headline that gets the gears turning in developers' minds, [suggesting that] even if I don't get a lease in the auction at the end of this year, there's going to be other opportunities, and it's going to be a well-supported industry,” Woodworth told *Recharge*.

The 20GW target demonstrates “that California is damn serious about offshore wind”.

The state has some of the nation's top wind resources, estimated by the National Renewable Energy Laboratory (NREL) at 200GW of technical potential, with wind speeds particularly along the state's northern coastlines exceeding 9.5 metres per second, as well as a huge economy and population of nearly 40 million.

The Bureau of Ocean Energy Management (BOEM), the regulator of energy development in federal waters, has **proposed a lease auction for the end of this year** for 373,000-acres in the Morro Bay and Humboldt wind energy areas (WEA) which has already attracted 23 qualified bidders, including some of the world's top offshore wind developers, such as Equinor, RWE, Shell New Energies, and Total.

Yet the industry will face multiple hurdles, including **deep waters exceeding 1,000 metres, requiring nascent floating platforms**, as well as a **severe lack of port** or supply chain capacity, qualified personnel, and **transmission infrastructure**.

Newsom's 20GW target references not only the five leases being offered by BOEM in the upcoming auction, conservatively estimated to encompass 4.5GW of capacity, as well as several other areas in the central and northern coastlines that have been identified by both federal and state regulators for possible offshore wind development.

Newsom is “doubling down on a set of numbers that can be backed up with analysis”, Wood Mackenzie’s Woodworth told *Recharge*.

“The CEC’s final goals will send an important signal to the industry and other state and federal agencies that California is committed to moving forward expeditiously to make responsible development of offshore wind power a reality,” said Adam Stern, executive director, Offshore Wind California, a trade group of offshore wind developers and technology companies.

This spring the CEC drafted goals of 3GW of offshore wind capacity by 2030 and 10GW-15GW by 2045, but then **withdrew these targets to consider new evidence from stakeholders**, including researchers at the Goldman School of Public Policy at the University of California at Berkeley, that the state could reach as high as 50GW by 2045.

“Deploying 50GW results in one of the lowest wholesale electricity costs, while adding significantly to resource diversity... reducing the grid’s reliance on deploying heroic levels of solar and batteries in an all-electric future,” the UC Berkeley researchers wrote in comments to the CEC.

The UC Berkeley researchers chided the CEC for not fulfilling its mission under the mandate of AB525 by only including the roughly 20GW of areas that had already been investigated by state and federal agencies in its determination of California’s “maximum feasible potential” offshore wind development, rather than the full sweep of technical potential as estimated by NREL.

'Look to full feasibility'

In its comments to the CEC, the UC Berkeley researchers said that “in order to determine the maximum feasible potential, the CEC should study this full 150-200GW for feasibility.”

Willet Kempton, with the University of Delaware (UD) and technical advisor to UD’s Special Initiative for Offshore Wind (SLOW), which has done substantial economic impact research on the industry, added in comments to the CEC that California would need far more ambitious goals just to proportionately match those already seen in the US northeast.

“If we approximately scale already-required New York and New Jersey requirements proportionally to California, equivalent California state targets would be approximately 20-30GW by 2030 to 2035,” Kempton wrote. “Such a level of offshore wind commitment is plausible and is now required by law in other coastal states.”

While Newsom satisfied industry with the higher long-term target, he demurred on supporting the industry's call for 5GW of floating wind by 2030, perhaps reflecting the bottlenecks facing the industry.

BloombergNEF estimates that California will unlikely see any floating wind before the end of the decade, while Wood Mackenzie's Woodworth sees less than 3GW by then.