

Clean energy and conservation collide in California coastal waters

February 14 2024, by Nadia Lopez and Josh Saul, Bloomberg News



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Two of President Joe Biden's biggest priorities—conservation and the switch to clean energy—are colliding in the ocean off California's quiet Central Coast.

Located halfway between San Francisco and Los Angeles, Morro Bay boasts a rich ecosystem of fish, otters and migrating whales that the Indigenous Chumash people want to protect with a new marine sanctuary. But 20 miles (32 kilometers) out, developers plan some of the West Coast's first offshore wind farms, where 1,100-foot-tall turbines (335 meters) tethered to the seabed will help California cut its carbon emissions.

One U.S. government agency appears poised to approve the sanctuary. Another already leased 376 square miles of ocean for wind development, just outside the sanctuary's boundaries. Now, a fight is brewing over whether the scenic bay itself should be left out of the sanctuary, to give undersea power cables from the wind farms a place to come onshore.

Both sides see larger stakes. California officials say they need offshore wind to reach the state's goal of eliminating carbon emissions by 2045. But huge swaths of the coast are already shielded by a string of federal ocean sanctuaries. Even if it excludes Morro Bay, the proposed Chumash Heritage National Marine Sanctuary would extend that protected zone another 134 miles, blocking most wind development from Santa Barbara to north of San Francisco.

The dispute in eco-conscious California highlights the intense opposition large renewable power projects often face, even in states committed to the fight against climate change.

And it comes as the offshore wind industry worldwide struggles with supply chain disruptions and inflation woes that have led to failed projects and canceled contracts in the eastern U.S. The estimated cost of electricity from a U.S. [offshore wind farm](#) jumped nearly 50% from 2021 to 2023, according to the BloombergNEF research company, threatening state and federal goals to get more clean power from the sea. Biden wants 30 gigawatts of offshore wind installed by 2030, enough to

power more than 10 million homes.

"California and the whole West Coast can become a leader in floating wind, but it can't be a leader if the federal government is going to put obstacles in place in the form of massive sanctuaries," said Erik Milito, president of the National Ocean Industries Association, an industry trade group.

For the people behind the sanctuary proposal, that kind of development-first approach to the ocean is precisely what they're trying to prevent. Leaving room for the wind farm cables now, they say, could provide an opening later for oil exploration or seafloor mining.

"If renewable energy developers are allowed to run afoul just like fossil fuel interests do, what's the point?" said Violet Sage Walker, chairwoman of the Northern Chumash Tribal Council. "There is so much at risk here. Morro Bay is a sacred place, yet its history of environmental degradation spans generations. We do not want to see this legacy of disrespect continue."

California officials say, however, that a balance between conservation and development can be struck. Enough coastal waters remain unprotected by sanctuaries that the state should be able to meet its offshore wind goals, said David Hochschild, chair of the California Energy Commission. "I don't want to understate how complex and significant the challenges are that we have to work through, but none of the problems are outside the realm of being solvable," he said.

With calm, sparkling waters and wildflower-covered hills, Morro Bay teems with retirees, surfers and those who prefer a slower life. From the shore rises a striking landmark held sacred by tribes—Morro Rock, a volcanic dome the local Chumash call Lisamu' towering 580 feet above the bay. Sea otters sunbathe on nearby rocks, while harbor porpoises

break the glassy ocean's surface.

The tribal council has pushed for years to preserve the area, and the proposed sanctuary would be the first ever nominated by a tribe. While it would cover a wide stretch of coast, the plan always included Morro Bay, long the site of Indigenous ceremonies. But last year, the National Oceanic and Atmospheric Administration, which oversees marine sanctuaries, proposed moving the sanctuary's northern border to just south of the bay, creating a corridor for undersea power cables. The move infuriated the sanctuary's backers.

"Gaps in protection leave everyone vulnerable and would leave our communities without protection or a voice," Walker said.

It wasn't quite what the wind industry wanted, either. The companies planning the wind farms want to bring the cables ashore at Morro Bay and at the Diablo Canyon [nuclear power plant](#), which lies about 10 miles to the south and is slated to be retired in 2030. The plant has big transmission lines that could connect the wind farms' electricity to the state's grid. While NOAA says it would consider allowing undersea power cables within a sanctuary, industry representatives say the proposed process—involving permits that would need to be renewed every five years—is unworkable, posing too great a risk to their projects.

"The initially sought sanctuary would have been an existential threat. It appears to still be a threat," said Timothy Fox, a managing director of the research firm ClearView Energy Partners.

The farms themselves would be unlike any ever built in the U.S. The seabed drops sharply off most of the California coast, so the wind turbines would float on platforms anchored by cables, rather than be bolted into the seafloor itself. The U.S. Bureau of Ocean Energy Management in 2022 leased the area—and another off Humboldt

County in far northern California—to developers, including Equinor ASA, Golden State Wind, Invenergy, RWE AG and Vineyard Offshore. Together, the two sites are expected to generate up to 4.5 gigawatts of electricity, enough to power 1.5 million homes.

California's climate plans call for 25 gigawatts of offshore wind power by 2045, a goal that will require far more sea space than has been leased so far. But the wall of sanctuaries will hinder development along Central California, while wind speeds off the Southern California coast are considered too low to make turbines practical. That leaves the waters off sparsely-populated Northern California, which lacks the power transmission lines wind farms would need.

Despite the lack of infrastructure, Hochschild considers the area nearly ideal, with strong winds waiting to be tapped. The federal government has already allocated \$427 million to develop a marine terminal in Humboldt to aid construction of the region's first offshore turbines.

"The North Coast, which is not subject to too many sanctuaries, has great potential and is really one of the best wind resources there is," Hochschild said.

A state report in January identified six additional patches of ocean that could, together, fulfill California's offshore wind goals: five along the northern coast and one near the existing Morro Bay leases. But the report warned that up to half of those areas "could be unsuitable for offshore wind development due to conflicts with marine resources and other uses of the sea space."

Some Chumash tribe members are willing to accept the carve-out for transmission lines if it means getting their long-sought sanctuary approved, in part because they fear former President Donald Trump could block the effort if he returns to office.

"We need to get the Chumash Heritage National Marine Sanctuary designated, even if it means lowering the northern boundary," said Sam Cohen, government affairs officer at the Santa Ynez Band of Chumash Indians. "We can use other mechanisms to protect both sacred sites and marine resources that are closer to shore."

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Citation: Clean energy and conservation collide in California coastal waters (2024, February 14) retrieved 28 April 2024 from

<https://techxplore.com/news/2024-02-energy-collide-california-coastal.html>

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