

POLITICO

August 14, 2023

California's planning a renewable energy project at a scale never before attempted in the world

Pulp Mill at sunset in Humboldt Bay, California. | Gary Crabbe / Enlightened Images / Alamy Stock Photo



The Newsom administration's path to net-zero carbon emissions runs through one of the state's poorer, most remote areas.

By **WES VENTEICHER**

EUREKA, Calif. — A 300-foot tall smokestack from a defunct paper mill looms over the port in Humboldt Bay, a relic of the timber industry that once defined the northwestern corner of California along with the struggling salmon fishing industry and sputtering marijuana trade.

But a gust of optimism has arrived in Humboldt County over plans to develop offshore wind at a depth and scale never before attempted in the world – sparking hope and anxiety in a region that has lived through repeated boom-and-bust cycles and ended up with one of the lower per-capita incomes in the state.

“This is a generational project,” said Jeff Hunerlach, secretary-treasurer of a council of construction unions for Humboldt and neighboring Del Norte County. “I could work 20 years on this project and my kid could work 20 years on this project.”

The floating offshore wind turbines proposed would barely be visible according to a rendering from the Bureau of Ocean Energy Management. | Bureau of Ocean Energy Management



The offshore wind proposal, driven by the Biden and Newsom administration efforts to dramatically increase renewable energy, would erect dozens of turbines three times the size of that smokestack with blades as long as a football field in an area of the Pacific Ocean nearly 10 times the size of Manhattan.

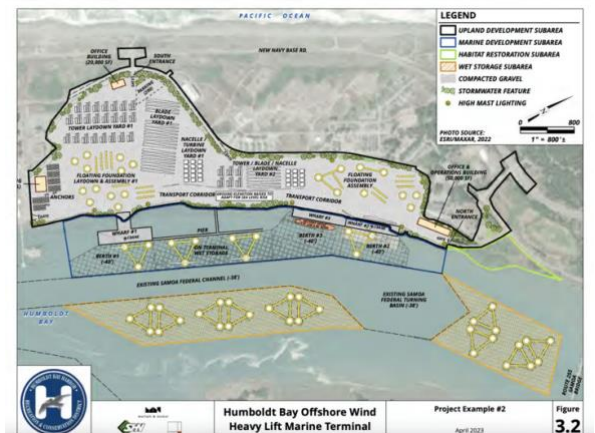
The turbines, which would be about 20 miles from shore in water up to 2,500 feet deep, are a key part of the state's plan to generate enough offshore wind energy to power more than 20 million homes.

Getting the turbines to remote Humboldt County and then assembling them would be a significant undertaking – one that would create the need for heavy investment in an area that has seen little for many years.

“It's a lot of good-paying jobs if we do it right,” said U.S. Rep. Jared Huffman (D-San Rafael), whose district includes the bay. “This can be part of lifting up the regional economy in a way that is better than anything to come along in decades.”

Rob Holmlund, executive director of the Humboldt Bay Harbor, Recreation and Conservation District, likens the endeavor to the moon landing.

A 2023 rendering prepared for the Humboldt Bay Harbor District. | Moffatt & Nichol



“We’re talking about completely transitioning our entire energy system,” Holmlund said. “It’s an ambitious goal for the betterment of humanity.”

But the project faces a host of major challenges. They include not just the obvious economic and bureaucratic hurdles but also a widespread distrust of outsiders in a region where indiscriminate logging engendered deep resentment and where an illegal marijuana industry created a counterculture haven in the fog-shrouded mountains.

The region is still recovering from mistakes of the past. International wind developers are pitching their projects just as many residents celebrate the removal of Klamath River dams the Yurok Tribe and the fishing industry [fought for decades](#). The structures destroyed rich salmon habitat to export hydropower even as many native people lived without electricity.

“It has to be done right,” said Yurok Vice Chairman Frankie Myers. “Because we have to avoid being in the same position we are now 50 years from now. I’ve spent most of my life fighting the dams. I do not want to leave my children a fight to remove offshore wind.”

The developers — German-based RWE Energy and Danish-backed Vineyard Offshore — secured federal leases in December for a combined \$332 million that include decommissioning requirements and set aside a portion of the money for community benefits.

The companies are opening offices in the area, holding meetings and sponsoring local events.

“As a company we believe there are great opportunities ahead, because this can create jobs and other opportunities,” said Lars Pedersen, Vineyard Offshore’s CEO. “But we have to do that being respectful of those who live there and have been living there a long time.”

Humboldt Bay, now marred by rotted docks and contaminated soil, was home to 250 sawmills in 1950. By the 1970s, over half of California’s fish were being pulled from the bay. The county’s [famously high-quality](#) illegal cannabis took over after that, snaking across tens of thousands of acres in the hills. The plant’s skunky odor still wafts through Eureka, but legalization made it much less lucrative.

Yurok Tribal members (bottom right) fought to remove dams from the Klamath River, once an abundant source of salmon. Officers (bottom left) are shown cutting down marijuana plants in a July 2015 raid. | Inga Spence/Alamy Stock Photo; Terray Sylvester/VWPics /Alamy Stock Photo; PA Images Alamy Stock Photo



The Newsom administration’s path to zeroing out the state’s carbon emissions by 2045 runs right through the bay. It’s the only developed port from San Francisco to Coos Bay, Oregon, able to accommodate assembly of the massive turbines. The area could ultimately supply the turbines for both California — which would need around 1,700 to reach its goal — and the rest of the West Coast. Additional leases are expected in Washington, Oregon and offshore from the Northern California counties of Mendocino and Del Norte.

President Joe Biden wants the nation to reach net-zero emissions by 2050. Offshore wind is central to both administrations’ plans due to its ability to displace the burning of fossil fuels, particularly in the evening when solar power drops off.

Reaching those goals will require the state and nation to advance offshore wind and accompanying transmission projects at speeds that governments haven’t achieved in generations.

“All of it has to work together in what is a really complex and almost overwhelming set of challenges,” said Huffman.

The Harbor District is partnering with Crowley Wind Services, a division of the international logistics company, to develop a 180-acre terminal on property occupied by a former pulp mill.

The land — which now hosts two seaweed farms, an oyster hatchery and temporary storage for freshly caught hagfish — would be transformed into an industrial terminal with up to 650,000 square feet of building space, lights mounted 150 feet in the air and giant cranes that crawl through the water on tank treads.

The district is in early permitting stages under the California Environmental Quality Act, which can be a lengthy process even as Gov. Gavin Newsom and the Legislature recently took steps to limit the duration of legal challenges filed under the law.

Gov. Gavin Newsom is planning on offshore wind powering roughly 25 million homes by 2045. | Bruce Gilbert/AP Images for Bloomberg Philanthropies

At the same time, the project developers are initiating a federal permitting process that's expected to take six years. They're assessing impacts to the economy, tribes and lands.

The projects would affect fishermen the most, impacting the Dover sole, thornyhead, and sablefish fisheries offshore and harvests of Dungeness crab, baitfish and shellfish within the bay. The extent of the threat, along with the effects on birds and whales, is still being assessed.

The companies are addressing technical challenges of operating the floating turbines and transmitting energy to shore from floating platforms connected by cable to the ocean floor 2,500 feet below. While fixed-bottom turbines are [common in Europe](#) and are arriving on the East Coast, the floating variety have never been used in such deep water.

Transmission projects of the scale needed to carry 25 gigawatts of wind energy 270 miles from Humboldt to San Francisco have in the past taken more than a decade, and an overland line would need to run through environmentally sensitive areas as well as populated communities that may not welcome them. An undersea cable is being considered, but deep underwater canyons and other features make that option logistically daunting.

On land, leaders such as Yurok Tribal Court Judge Abby Abinanti worry how the expected influx of construction and manufacturing labor, some likely to occupy temporary "mancamps," will affect vulnerable people such as native women who already go missing and are [killed at higher rates](#) than other groups.

"Our concern is that these camps end up elevating those kinds of statistics unless preventative efforts are made," said Abinanti. She also wants to make sure women have the same access as men to the new jobs through training.

And then there's the cost. The price tag to develop 25 gigawatts of offshore wind energy by 2045 is about \$100 billion — not including some major outlays such as transmission upgrades, according to a National Renewable Energy Laboratory estimate.

An offload vehicle drives through the Samoa Dunes Recreation Area, near the proposed site where wind turbines would be assembled and stored. | BLM Photo/Alamy Stock Photo

Costs have ballooned [even beyond expectations](#) in New York and New Jersey, prompting developers to seek more money from those states and their electricity customers. Wind developers have canceled some of their plans in Massachusetts and Rhode Island.

If they come, the turbines will barely be visible from shore in daylight once they're towed out to the deep sea. At night, red lights affixed to their tops will line the horizon — a new symbol for an industry that will once again redefine life on the northern coast.

