E&E NEWS PM

September 15, 2022

Biden admin promises 15 GW of floating offshore wind by 2035

A spinning turbine from Dominion Energy Inc.'s pilot offshore wind project off the coast of Virginia Beach. Francis Chung/E&E News



The effort will involve agencies across the federal government and an Energy Department initiative aimed at slashing the costs of the developing technology.

BY: HEATHER RICHARDS

E&E NEWS PM | The Biden administration announced Thursday a commitment to lift 15 gigawatts of floating offshore wind by 2035, saying it will coordinate an ambitious effort to drive down costs and bring the budding industry to the deep waters of the Pacific Ocean.

White House national climate adviser Gina McCarthy told reporters that the U.S. could lead the globe in developing floating offshore wind, a still-emerging technology that moors turbines to the seafloor via cables when waters are too deep to support fixed foundations. Its advancement will be necessary to tap much of the world's offshore wind resources, including along the West Coast of the United States.

"We're launching efforts to seize a new opportunity: floating offshore wind," McCarthy said. "Floating technologies are in their early stages, which means today's forward-leaning, coordinated actions are about innovation and about deployment."

The linchpin in reaching the 15-GW goal will be a research and development initiative housed at the Department of Energy aimed at slashing the cost of floating offshore wind development by 70 percent by 2035. The aim is to reach \$45 per megawatt-hour.

Additionally, more than \$50 million in prize money and research and demonstration dollars are being deployed in a floating wind push that includes DOE, as well as the departments of the Interior, Commerce and Transportation.

Biden officials characterized the floating wind target as a logical expansion of the White House's existing goal of 30 GW of offshore wind by the end of the decade and its larger ambition to decarbonize the nation's electricity grid by 2035.

"America's offshore wind sector has the resources and the market certainty to make that 30-GW goal a reality," said Energy Secretary Jennifer Granholm. "But we're not going to stop there."

DOE's adding a floating offshore wind branch to its "Energy Earthshots" initiatives, which Granholm said would help the industry surmount existing technological and cost challenges that make floating wind lag behind traditional fixed bottom development. Just 100 megawatts of floating wind are deployed globally today, compared to 50,000 MW of fixed bottom offshore wind, officials said today.

DOE's Earthshot series brings together technical expertise within the department's different programs to work through technological and cost hurdles for deploying clean energy. Other Earthshot initiatives are exploring enhanced geothermal, carbon removal, long-term storage and hydrogen.

The floating wind push also includes roughly \$50 million in initiatives, including funding from last year's congressional infrastructure spending deal. That includes a \$1 million port analysis on the West Coast to identify the network of ports and port upgrades needed to support floating offshore wind construction and support.

The DOE is also working on a West Coast transmission study to look at how to integrate offshore wind to the Washington state, Oregon and California grid.

Other spending includes a Bureau of Ocean Energy Management and DOE study of offshore wind and bats, as well as several projects funded by DOE and the New York State Energy Research and Development Authority exploring how offshore wind, marine life and fisheries can co-exist, the agencies said today.

Raising offshore wind in deep waters will also require coordination from BOEM, the agency tasked with leasing offshore areas for wind and overseeing project permitting. The agency has already slated the first offshore wind lease sale in California, off the coast of Morro Bay, for later this year, and it is in the early stages of defining wind energy areas for future lease off the southern Oregon coast.

"Our goals are ambitious, but they are absolutely necessary," said Interior Secretary Deb Haaland. "Nowhere is that more evident than the opportunity of floating wind. More than half of the nation's offshore wind resources are in deep waters."

The federal floating initiative could be a much-needed boost for the Pacific, with California first in line to capture the new industry, state and industry officials said Thursday.

"I think our country is exiting a period of debate about whether to go big on clean energy and entering what I call the 'great implementation,' where we're just going to get this stuff built," said California Energy Commission Chair David Hochschild.

California has a goal to reach 25 GW of offshore wind by 2045 — with 5 GW by 2030. The industry is key to the state reaching its goal of a 100 percent decarbonized grid by 2045. But key to these initiatives is driving down costs, something Hochschild said has worked in other industries, citing a 90 percent reduction in the price of solar over roughly a decade.

"We can do the same for offshore wind," he said. "What helps make that possible is having big goals, with big new investment and a long-term runway that provides the stability that the industry needs to be able to scale, invest and innovate."

Oregon Gov. Kate Brown, a Democrat, said the Biden administration's level of investment will be an "extraordinary" boon to its own efforts to decarbonize and meet climate targets.

"This technology has the potential to unlock gigawatts of energy in Oregon and along the entire West Coast if we develop the resources necessary to develop it," she said.

Galvanizing floating wind will also boost its chances in other regions of the U.S., like the Gulf of Maine, the mid-Atlantic and the Gulf of Mexico, noted Adam Stern, executive director of the trade group Offshore Wind California.

The Department of Energy's initiative will help goose a supply chain nationwide, he said.

"Taking the lead on floating wind will mean many gigawatts of clean power, helping to meet our climate goals, and tens of thousands of jobs for California and U.S. workers," he said.