

RECHARGE

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Offshore wind could supply 'a quarter of US power needs'

The first and so far only US offshore wind farm, Block Island.
Photo: Recharge/Stromsta



Renewable source has potential to become a 'cornerstone' of American energy supplies, says University of California

By **Cosmo Sanderson**

Offshore wind could provide up to 25% of electricity in the United States by 2050 and become a “cornerstone” of its energy supply, according to a new report.

Researchers at the University of California, Berkeley, found the US has over 4,000GW of offshore wind potential available along its coastline, including the Great Lakes. That could “greatly complement” onshore wind and solar to help the US reach a 95% clean electricity grid by 2050 without “substantially impacting wholesale electricity costs.”

“With the right policy mix,” the researchers found that offshore wind could supply between 10-25% of US electricity demand by 2050. That is due to “rapidly falling technology costs” and “robust incentives” offered in the Inflation Reduction Act (IRA), passed last year by the Biden administration.

The IRA boasts \$369bn of new and extended tax incentives for renewable energy and related technologies. It has been hailed as making the US the **green envy of the world**, and its pull was demonstrated this month when it persuaded a Swiss solar manufacturer to **ditch plans** to expand its German operations in favour of setting up a new plant in Colorado.

The US is meanwhile set to stage its **first Gulf of Mexico offshore wind auction** this month, with a potential 3.7GW set to go on the block. President Biden has set a target of 30GW of offshore wind by 2030 – although the industry still faces headaches including **soaring costs, fisheries conflicts and dead whales**.

The new report, released today, found that the US can reach its net-zero goals by increasing the “ambition” around offshore wind and ramping up the rollout of onshore wind and solar facilities.

It can achieve this while “keeping the electricity prices affordable and the grid reliable.” That is despite the report saying the country will almost triple its energy demand in the next few decades, up from 4,000TWh now to 10,700TWh in 2050.

But to achieve this, the report says the US will need to install “at least 85GW of land-based wind and solar each year, as well as 27 GW of offshore wind between 2035-2050 in order to meet the increased electricity demand and reach net zero emissions in 2050.”

“For comparison, the US installed 28 GW of wind and solar in 2021.”

The report called for “significant national, regional and state policy support” to expand domestic manufacturing of components and supply chains.

The report is accompanied by a policy report from Energy Innovation, a non-partisan think tank, which found that increasing ambition for offshore wind development could inject up to \$1.8 trillion of investment into the US economy and employ approximately 390,000 workers in the sector in 2050.

“Offshore wind technology has astounding potential to form a major cornerstone of America’s electricity needs,” said Nikit Abhyankar, senior scientist at the Berkeley Center for Environmental Public Policy. “It should be realised as a key resource to meet US climate goals, playing a complementary role to onshore renewable resources.”

Mike O’ Boyle, senior director of electricity policy at Energy Innovation said that the “technical ability” to build out offshore wind is there, “we just need political leadership to pass the right policies, starting with much larger offshore wind commitments.”