

## WINDPOWER MONTHLY

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# Offshore wind could boost Californian grid's reliability – Schwarzenegger report

**Schwarzenegger Institute claims 10GW of offshore wind power off the Pacific coast would also slash emissions and create jobs**



The USC Schwarzenegger Institute for State & Global Policy looked at potential impacts of 10GW of offshore wind being deployed off California

By **Nadia Weekes**

Deploying large amounts of offshore wind off the coast of California would increase the reliability of the [US](#) west coast state's electricity grid, according to a new report endorsed by American Clean Power California (ACP-CA).

The study – released by a think tank named after former California governor and Hollywood star Arnold Schwarzenegger – also found that 10GW of offshore wind would create tens of thousands of jobs, dramatically reduce carbon emissions and lead to annual cost savings in energy generation of \$1 billion.

Earlier this year, a [bill was introduced in the California assembly](#) calling for the state to target 10GW of offshore wind capacity by 2040, with an interim target of 3GW by 2030.

According to the USC Schwarzenegger Institute for State and Global Policy's report, the hourly generation profile of offshore wind offers the perfect solution to California's grid balancing problems.

Current renewable energy generation in California is heavily reliant on solar PV, which peaks around noon, and onshore wind, which peaks around midnight. But Pacific winds tend to blow constantly and peak between 6pm and 9pm, when energy demand is highest, according to the report, California's Offshore Wind Electricity Opportunity.

“By bridging the late-afternoon gap between diminishing solar radiation and rising electricity consumption, offshore wind could also reduce the need to import power from other Western states, and, moreover, allow California to develop additional renewable capacity without destabilising the grid,” the report's authors state.

Because offshore wind is typically stronger and more consistent than onshore wind, the proposed large-scale deployment of offshore wind capacity would provide more constant power to the grid, further reducing the need for backup gas generation.

Being located close to coastal load centers, it would also decrease the need for transmission system upgrades and provide greater flexibility to independent system operators by helping to decentralise the system.

“I have always said that California needs an all-of-the-above energy strategy and there is no doubt that offshore wind is an important part of that portfolio,” said Arnold Schwarzenegger.

ACP-CA's director Danielle Osborn Mills said the report demonstrated that offshore wind had a big role to play. “We need all hands on deck to bring it to California's coasts in this decade,” she said.

“As the state wrestles with the unrelenting impacts of climate change and ongoing threats to the electric grid, this new technology checks all of the boxes,” she added, pointing to its job creation and cost reduction potential.

“This new technology is a perfect complement to the clean energy system California has today and a vital part of the diverse clean energy portfolio we will need to achieve our longer-term climate and renewable energy goals,” Mills said.