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Opinion: How California can meet climate goals via offshore wind power

A wind turbine generates electricity at the Block Island Wind Farm in July 2022 near Block Island, Rhode Island. California is poised to produce a major share of energy needs through the development of offshore wind. (Photo by John Moore/Getty Images)



State can 'go big' by producing power equivalent to 12 Diablo Canyon nuclear plants

By EDDIE AHN and JEFF HUNERLACH

In the deep ocean waters 20 miles off California's coast, a clean-energy revolution is in the making – one that promises to bring big benefits to Golden State residents through quality-job creation and investments in our port communities.

Large floating offshore wind turbines – assembled by highly skilled California construction workers and their apprentices and spinning out-of-sight to most shore-dwellers – are poised to play a vital role in ensuring the state's grid reliability and energy security, as part of a diverse clean-power portfolio that keeps the lights on and electric grid humming around the clock.

Last August, the California Energy Commission determined that to reach the state's 100% clean-energy and climate goals, California needed to "go big" on offshore wind, adopting planning goals of up to 5 gigawatts (GW) by 2030 and a nation-leading 25GW by 2045.

How much electricity is 25GW? Think 12 Diablo Canyon power plants. That's 15-20% of California's planned new clean-energy resources, enough to power up to 25 million homes. Importantly, offshore wind delivers energy from strong, steady ocean winds that blow night and day, complementing California's solar-energy supply.

In December, the Biden administration held a first-ever federal auction for California offshore wind, identifying five leaseholders to deploy floating turbines at Morro Bay and Humboldt off the state's Central and North Coasts.

California's offshore wind ship is clearly sailing. That's great news for labor, environmental, environmental justice and consumer advocates who supported the AB 525 law Gov. Gavin Newsom signed in 2021. Investing in offshore wind will create tens of thousands of good-paying jobs, save ratepayers billions and help residents avoid rolling blackouts California narrowly averted last September. Offshore wind will also deliver environmental and public-health benefits by reducing dependence on fossil-fuel plants historically clustered near disadvantaged communities.

But make no mistake. While great progress has been made, essential next steps must be taken to bring California offshore wind online – including centering tribes, labor groups, and local voices in decision-making, transmission and port upgrades, a permitting roadmap, strong project labor agreements, workforce training, investing in frontline communities and additional sea space to reach California's 25GW goal.

Furthermore, California needs to establish a procurement mechanism to help energy purchasers take full advantage of economies of scale that offshore wind – and other large-scale, long lead-time clean-energy resources – employ to deliver lowest-cost power to ratepayers.

By their nature, offshore wind projects are large, capital-intensive, and require a long development runway. As the California Public Utilities Commission acknowledges, coordinating purchase of long lead-time resources may prove challenging for California's array of electricity providers.

To address this, the governor has proposed establishing a central procurement mechanism that lawmakers are considering to ensure diverse resources like offshore wind get built on time and at the lowest cost to ratepayers.

Assembly Bill 1373 offers a similar plan, including a critical backstop at the California Department of Water Resources for power providers who opt out of large-project procurement or come up short. Ensuring a reasonable procurement sunset date of at least 10 years builds certainty, and the bill can also channel investments into job creation and training by creating a new developer-funded workforce development fund. This combination of certainty and funding is vital to let all California energy purchasers benefit from offshore wind's economies of scale, support local communities and ensure California rapidly builds out transmission and port infrastructure.

We have a lot of work to do, but the time for California offshore wind has clearly come. Procuring at scale is an important addition to California's energy toolbox to advance offshore wind and other promising technologies to reach our climate, clean-energy and grid-reliability goals. It will also further investments to create strong jobs and other community benefits. As Newsom underscored in his updated Clean-Energy Transition Plan, these are worthy goals for California's future.

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