



The Sheppard Mullin Six OFFSHORE WIND IN CALIFORNIA

Here are six key things to be aware of in the development of floating offshore wind in California:

1. The Department of the Interior (“DOI”) has identified 399 square miles of federal waters off California’s central coast region, northwest of Morro Bay (“[the Morro Bay 399 Area](#)”), as a Wind Energy Area (“WEA”) allowing for the development of up to 3 GW of offshore wind. This site has been of particular interest to developers due to the availability of existing onshore grid connection. DOI is also advancing the [Humboldt Call Area](#), located in federal waters off California’s northern coast, as another potential WEA. The combined WEAs could produce enough electricity to power 1.6 million homes.
2. The Bureau of Ocean Energy Management (“BOEM”), partnering with the State of California, will hold an Intergovernmental Renewable Energy Task Force meeting on June 24, 2021, to discuss the identified WEAs. If preliminarily approved, the WEAs must undergo extensive environmental review under the National Environmental Policy Act, and BOEM must undertake important consultation with tribal representatives and other stakeholders. BOEM expects the central and northern WEAs may be ready for auction through a combined Proposed Sale Notice in mid-2022.
3. In further support of the development of offshore wind off the coast of California, Governor Gavin Newsom proposed a modest \$20 million in the [2021-2022 budget](#) to fund such activities as stakeholder engagement, accelerated permitting, and upgrades for port infrastructure. The budget should be enacted by the legislature in June. Similarly, California State Assemblyman David Chiu of San Francisco has sponsored [Assembly Bill 525](#), which would require an assessment of the necessary waterfront improvements and transmission upgrades to support offshore wind installations. The bill is awaiting a floor vote in the Assembly and has received bipartisan support and endorsements from the Natural Resources Defense Council and the Sierra Club.
4. With over 800 miles of coastline in California alone, there is significant offshore wind energy potential on the west coast. However, the outer continental shelf in the Pacific drops off to deeper water much more quickly than it does in the Atlantic. This means that floating wind turbines will be needed on the west coast rather than turbines affixed to the sea floor as on the east coast, which are restricted to a maximum water depth of approximately 60 meters. There are also number of interconnection and transmission challenges presented by offshore wind in California that developers have already had to contend with on the east coast, including where and how to feed power from offshore wind farms into the land-based grid infrastructure. While there is an existing substation in Morro Bay, a recent [study](#) by the National Renewable Energy Laboratory found that onshore transmission infrastructure is limited near the northern WEA, which could result in higher interconnection costs associated with onshore substation upgrades or any build-out of high-voltage onshore bulk transmission infrastructure that may be required to interconnect offshore wind projects with the California ISO market.
5. Already several commercial-scale floating offshore wind projects are being proposed for the Pacific;¹ however, currently there are only two, relatively small floating wind farms in operation worldwide—the [Hywind Scotland Pilot Park](#) in the North Sea, consisting of five 6 MW turbines with a total installed capacity of 30 MW, and the [Windfloat Atlantic](#) project off the coast of Portugal, consisting of three 8.4 MW turbines affixed to semi-submersible platforms, with a total installed capacity of 25 MW. Research efforts are underway to assess the viability of larger floating wind turbines using technology originally developed for the oil and gas industry. These include projects funded by the U.S. Department of Energy (through its Advanced Research Projects Agency, or ARPA-E) under its Aerodynamic Turbines Lighter and Afloat with Nautical Technologies and Integrated Servo-control (ATLANTIS) program, including one project undertaken by GE Research to design and develop a 12 MW floating offshore wind turbine using tension leg platform technology.
6. While challenging technologically and economically, floating offshore wind turbines have advantages in that they do not require specialized and expensive jack-up Wind Turbine Installation Vessels (“WTIVs”) for offshore wind turbine installation as are required in the Atlantic, which is notable because there are currently no Jones Act-qualified WTIVs, and there is projected to be a shortage of these vessels in the coming decade. Instead, floating wind turbines can be constructed turn-key and towed out from nearby ports to be attached to pre-installed moorings by Jones-Act qualified tugboats and offshore service vessels. These vessels could be drawn from the oil & gas sector, where a number of U.S. operators have accrued decades of translatable experience with towing and anchoring floating oil platforms. Additionally, unlike fixed-bottom turbines, floating wind turbines do not require pile-driving using hydraulic hammers. This is particularly significant off the coast of California, where the acoustic impact of such construction on migratory whales is a major concern.

¹ For example, Seattle-based Trident Winds LLC, which subsequently formed [Castle Wind, LLC](#), a joint venture with EnBW North America Inc. (a regional subsidiary of German company Energie Baden-Württemberg AG), submitted an unsolicited [application](#) to BOEM in 2016 for a 650–1,000 MW floating offshore wind project off of Morro Bay and the Redwood Coast Energy Authority, together with EDPR Offshore North America LLC and others, submitted an unsolicited [application](#) to BOEM for a 100-150 MW floating project off the coast of northern California.

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Ben helps developers, utilities, infrastructure funds, banks and institutional investors finance, buy and sell infrastructure projects, and advises the companies that develop and own those projects, across the United States. While his experience spans asset classes and transaction types, he focuses on tax credit monetization transactions and renewable energy generation facilities.



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Paul has been an energy lawyer since 1984. Over a career of almost 30 years, he has negotiated all manner of project contracts, including power purchase agreements, hedges, interconnection and transmission agreements and equipment procurement and construction contracts. He represents parties in M&A transactions involving development and operating wind and solar generating projects. He works with renewable energy technologies, including on large wind, solar and biomass projects, and on conventional power plants using fossil fuels, as well as gas storage projects.



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Laurette focuses her practice on leasing and commercial lending transactions. She represents varied developers and debt and equity investors in the negotiation and due diligence of key project documents, the structuring and documentation of project debt and equity financing and the closing of tax advantaged investments, most recently in renewable energy that includes wind, solar and biofuels.



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Gail has more than 35 years of experience in all facets of environmental and energy law and policy. Her practice includes permitting and compliance, transactional due diligence, litigation and legislative matters. She works closely with traditional, renewable energy and energy storage developers on environmental and land use matters, including issues relating to climate resiliency, carbon emission reductions and community outreach, and advises on energy transactions, including commodity trading of environmental attributes. Gail also works with a non-profit organization and New York City's Office of Sustainability to advance energy efficiency in existing and new buildings. She sat on Mayor Bloomberg's Energy Task Force for a decade.



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