Katherine Hoff, CLEE Research Fellow, also contributed to this post.

On Wednesday, the U.S. Department of the Interior's Bureau of Ocean Energy Management (BOEM) <u>announced</u> the provisional winners of the first offshore wind energy lease auction in the Pacific. The five leases—three off of <u>Morro Bay</u> and two off of <u>Humboldt</u>—fetched more than \$757 million in total from five separate winners: RWE Offshore Wind Holdings, LLC; California North Floating, LLC (operated by Copenhagen Infrastructure Partners); Equinor Wind US, LLC; Central California Offshore Wind, LLC (operated by Ocean Winds); and Invenergy California Offshore, LLC. The total winning bids were greater than those for the <u>Carolina Long Bay</u> auction and lower than the <u>New York Bight</u> auction held earlier this year, but the California auction resulted in lower winning bids on a dollars-per-acre basis than New York Bight or Carolina Long Bay.

This is a pivotal moment for offshore wind in the United States, as these leases represent not only the first Pacific offshore wind auctions but also the first commercial projects in the US that will use floating platforms rather than the fixed bottom platforms used in Atlantic coast projects, where shallower waters allow turbines to attach directly to the seabed. Floating platforms are operational in Scotland's Hywind project (30 megawatts (MW)), Norway's Hywind Tampen project (60 MW)—both developed by Equinor, one of the California auction winners—and Portugal's WindFloat Atlantic project (25 MW). However, California's five new lease areas could generate an estimated 4.6 gigawatts (GW) (equivalent to 4,600 MW) of offshore wind energy—or roughly 40 times the total installed capacity already online in Scotland, Norway, and Portugal—putting California on track to become a global leader in floating offshore wind.

Earlier this year, the Biden administration <u>established a goal</u> of deploying 15 GW of floating offshore wind capacity by 2035, which is in addition to the administration's <u>existing target</u> of 30 GW of offshore wind (primary fixed bottom turbines) by 2030. In August, the California Energy Commission, as directed by <u>Assembly Bill 525</u>, adopted <u>planning goals</u> for 2 to 5 GW (2,000 to 5,000 MW) of offshore wind off of California's coast by 2030 and 25 GW (25,000 MW) by 2045. This week's auctions bring these federal and state goals into sharper focus, as energy produced in the auctioned areas could satisfy the state's 2030 goal and could contribute nearly 20 percent to the state's 2045 goal and more than 30 percent to the federal 2035 goal.

However, it's too soon to count the expected generation yet; the provisional winners have a long way to go before placing steel in the water or before any energy hits the grid. BOEM's leases grant the winners permission to apply to begin a series of site characterization and survey activities, *not* permission to construct. In the coming years, lessees must submit a

Site Assessment Plan and a Construction and Operations Plan to BOEM for review, along with project-specific environmental impact analyses consistent with the National Environmental Policy Act (NEPA). Throughout these analyses, lessees are expected to engage with government agencies (including federal, state, local, and tribal entities) and stakeholders ranging from the commercial fishing industry and labor unions to environmental justice communities and environmental advocates. The California auctions also introduced greater bidding credits (providing bidders an incentive to invest in local communities and supply chain development) and more detailed lease stipulations (such as by requiring that lessees communicate with fisheries and tribal communities) than seen in previous BOEM leases. When all of these steps are considered, construction could be at least 7 or 8 years away, according to BOEM's own estimation of the timeline (see slide 12 here).

The projects must also overcome logistical and financial hurdles before generating power. A combination of factors led to slightly lower winning bids (\$2,028/acre) than BOEM received for its Carolina Long Bay auction in May 2022 (\$2,861/acre), and at almost \$9,000/acre the February 2022 New York Bight auction dwarfed the California results. These differences are driven partially by the higher risk associated with developing the California lease areas. Bidders had to weigh numerous uncertainties, including:

- the inherent risk of developing the relatively new floating wind technology,
- supply chain constraints and inflation
- a lack of existing port infrastructure and supply chain components,
- limited transmission infrastructure (especially in the Humboldt Bay area, although the Morro Bay area's transmission capacity may be complicated by the pending extension of the Diablo Canyon nuclear plant), and
- uncertainty about buyers for the energy produced (compared to some East Coast states' approach of setting procurement goals or requirements).

Decisions around port, supply chain, transmission, and workforce logistics, along with certainty about power purchasers, will help reduce the risk of developing an offshore wind industry in California, laying a framework for potentially greater bids in any future Pacific coast auctions.

Despite the long path ahead, offshore wind offers many potential benefits for California, given that it can balance the state's existing solar and onshore wind portfolio and contribute substantially to clean energy goals, as well as reduce the need for onshore large-scale facilities. We'll be watching closely as the provisional winners take their next steps in the uncharted waters of Pacific offshore wind. We will post more information here as we learn

more.

Check out CLEE's <u>2021 report</u> on California offshore wind and our offshore wind <u>dashboard</u>. Katherine Hoff's <u>August 2022 Legal Planet post</u> provides information on offshore wind and the Inflation Reduction Act.