Offshore Wind Energy Development in the U.S.

The United States has a vast offshore wind energy resource with a technical potential of more than 2,000 gigawatts (GW), or nearly double the nation’s current electricity use. Harnessing America’s offshore wind resources presents an enormous opportunity to create tens of thousands of highly-skilled jobs, revitalize coastal communities, and deliver large amounts of clean, reliable energy to the country’s biggest population centers.

The U.S. currently has one operational offshore wind project with many more on the way. The nation’s first commercial offshore wind project, the Block Island Wind Farm, came online in December 2016. Developed by Deepwater Wind, the Block Island Wind Farm is a 30 megawatt (MW) project with five turbines located three miles off the coast of Block Island, Rhode Island.

According to the Department of Energy, the U.S. has a total project pipeline of 25,434 MW of offshore wind energy as of June 2018. This pipeline includes 3,892 MW of project-specific capacity and 21,542 MW of undeveloped lease area potential capacity. Out of this pipeline, project developers have announced that roughly 2,000 MW of new offshore wind capacity is expected to be operational by 2023. States including Maryland, Massachusetts, Rhode Island, and Connecticut have completed solicitations for nearly 1,770 MW of offshore wind energy, and additional solicitations are planned for the near future.

The Department of Interior’s Bureau of Ocean Energy Management (BOEM) has issued twelve active commercial wind energy leases to date. Another four projects have submitted unsolicited lease applications to BOEM, while four demonstration projects have obtained exclusive development rights to a site from federal or state authorities. While a majority of the nearer-term activity is concentrated in the Atlantic off the Northeast coast, projects have also been proposed off the Southeast coast, in the Pacific off of California and Hawaii, and the Great Lakes.

With stable policies in place, the Department of Energy found the U.S. could develop a total of 22 GW of offshore wind projects by 2030 and 86 GW by 2050. As we continue to develop this homegrown resource, costs will continue to drop, value to consumers will grow, and the U.S. will see new jobs and investments in manufacturing and port infrastructure.
Recent State Activities Driving Offshore Wind Demand

Massachusetts
• Massachusetts passed a law in August 2016 requiring utilities in the state to procure 1,600 megawatts of offshore wind power by 2027. The state passed new legislation in August 2018 that would double the offshore wind target to 3,200 MW by 2035.
• In May 2018, Massachusetts utilities selected 800 MW from Avangrid Renewables and Copenhagen Infrastructure Partners’ Vineyard Wind project as the winner of their first major offshore wind solicitation. National Grid USA, Eversource Energy, and Unitil Corp filed power purchase agreements to buy energy and RECs from Vineyard Wind at a total levelized price of 6.5 cents per kilowatt hour, the lowest offshore wind PPA price in the U.S. to date.
• In addition, the Bureau of Ocean Energy Management (BOEM) announced a Proposed Sale Notice in April 2018 for two additional wind energy areas off of Massachusetts.

New York
• In January 2017, New York Governor Cuomo announced a commitment to develop up to 2.4 GW of offshore wind by 2030. Later that month, the Long Island Power Authority approved a 20-year power purchase agreement with Deepwater Wind for the 90 MW South Fork Wind Farm.
• In January 2018, Governor Cuomo called for solicitations of at least 800 MW of offshore wind in two RFPs to be held in 2018 and 2019. The state will also invest $15 million to train workers for offshore wind jobs and develop port infrastructure.
• Additionally, New York released its Offshore Master Plan in January 2018, which identifies areas for potential development and options for procuring offshore wind, among other things.

New Jersey
• In January 2018, New Jersey Governor Murphy signed an Executive Order outlining a goal to develop 3,500 MW of offshore wind by 2030, and directed his administration to develop an offshore wind plan.
• The state passed legislation in May 2018 to increase its offshore wind target from 1,100 MW to 3,500 MW by 2030, fulfilling the Governor’s Executive Order.
• In August, EDF Renewables and Fishermen’s Energy of New Jersey filed an application for approval of their 25 MW Nautilus Offshore Wind Project from the New Jersey Board of Public Utilities.

Maryland
• Maryland’s Offshore Wind Energy Act of 2013 amended the state’s RPS to include offshore wind and to provide financial support for projects in the form of Offshore Wind Renewable Energy Credits (ORECs).
• The Maryland Public Service Commission completed the first large-scale solicitation of offshore wind in the U.S. in May 2017, awarding ORECs to U.S. Wind and Deepwater Wind for two projects totaling 368 MW off the coast of Maryland that will come online between 2020 and 2022.

Connecticut
• In January 2018, the Connecticut Department of Energy and Environmental Protection issued a generation-based RFP for renewable energy, including offshore wind. The state selected 200 MW from Deepwater Wind’s Revolution Wind project as a winner in June 2018.
• Connecticut Governor Malloy has also announced that the state will invest $15 million to revitalize a shipping pier to attract offshore wind developers.

Rhode Island
• In May 2018, Rhode Island selected 400 MW from Deepwater Wind’s Revolution Wind project through a competitive procurement process in collaboration with Massachusetts.

Virginia
• In August 2018, Dominion Energy filed with Virginia for approval to build the 12 MW Coastal Virginia Offshore Wind Project. In the same month, Ørsted signed the first U.S. offshore turbine order with Siemens Gamesa to supply two 6-MW turbines for the project.

For more information visit https://www.awea.org/policy-and-issues/u-s-offshore-wind or email Nancy Sopko, nsopko@awea.org