

U.S. Offshore Wind Industry

STATUS UPDATE 2021

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 off the coast of Block Island, Rhode Island. The two-turbine, 12 MW Coastal Virginia Offshore Wind pilot project finished construction in June 2020 and came online in January 2021.

The U.S. now has a total offshore wind pipeline of over 28,000 MW in federal lease areas issued to date. In addition, two offshore wind demonstration projects are planned for development in state waters off Ohio and Maine. Project developers currently expect 14 offshore wind projects totaling 9,112 MW to be operational by 2026.

States are driving strong demand for offshore wind energy and have established targets to procure a total of almost 32,000 MW of offshore wind by 2035. To date, six states have selected nearly 9,000 MW of offshore wind through state-issued solicitations. Additional solicitations are planned for the coming years to help states meet their offshore wind energy goals.

At the federal level, the Department of Interior's Bureau of Ocean Energy Management (BOEM) has issued 15 active commercial wind energy leases. In a December 2018 offshore wind lease auction, three separate parcels each went for a record \$135 million, underscoring robust competition and market interest. All offshore wind lease auctions to date have totaled over \$472 million. BOEM is now in the planning stages for identifying and leasing areas off California, Hawaii, New York, and South Carolina. In May 2021 BOEM issued a Record of Decision (ROD) for Vineyard Wind, approving the installation and operation of up to 84 offshore wind turbines off the coast of Massachusetts.

With stable policies in place, the Department of Energy found the U.S. could develop a total of 86 GW of offshore wind projects 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. In fact, a recent analysis by ACP found that developing 30 GW of offshore wind could support up to 83,000 jobs and deliver \$25 billion annually in economic output by 2030.

State Activities Driving Offshore Wind Demand

Connecticut

- In June 2018, Connecticut selected 200 MW from the Revolution Wind project through a renewable energy RFP. The Connecticut PUC approved Ørsted's 20-year PPA with Eversource Energy and United Illuminating Co in December 2018. Connecticut selected an additional 100 MW from Revolution Wind at the end of 2018.
- In June 2019, Connecticut enacted a law requiring the state to procure 2,000 MW of offshore wind by 2030. The state selected Vineyard Wind's 804 MW Park City project as the winner of a large-scale solicitation in December 2019. Eversource Energy and United Illuminating finalized contracts for the project in May 2020.

Maine

- In June 2019, the Governor of Maine directed the PUC to approve a contract for the 12 MW New England Aqua Ventus floating demonstration project and announced a new Maine Offshore Wind Initiative. The PUC approved the contract between Central Maine Power and developer Maine Aqua Ventus in November 2019.

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).
- Maryland 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 389 MW off the coast of Maryland.
- In May 2019, Maryland passed an offshore wind mandate for an additional 1,200 MW by 2030. The state opened its second offshore wind solicitation in March 2020.

Massachusetts

- Massachusetts enacted a law in 2016 for the state to procure 1,600 megawatts of offshore wind by 2027. The state later passed legislation expanding authorization for utilities to procure an additional 1,600 MW by 2035. The Massachusetts Department of Energy Resources formalized that recommendation in May 2019.
- In May 2018, Massachusetts utilities selected the 800 MW Vineyard Wind project as the winner of its first offshore wind solicitation. National Grid USA, Eversource Energy, and Unutil Corp signed power purchase agreements for Vineyard Wind at a total levelized price of \$65/MWh.
- Massachusetts issued its second offshore wind RFP in May 2019 and selected the 804 MW Mayflower Wind project in October as the winning bid. National Grid USA, Eversource Energy, and Unutil Corp signed contracts for the projects in January 2020.

- In March, 2021, Massachusetts enacted a law directing utilities to purchase an additional 2,400 MW of offshore wind by 2027, bringing the state's target to 5,600 MW by 2035.

New Jersey

- New Jersey passed legislation in May 2018 to raise its offshore wind target from 1,100 MW to 3,500 MW by 2030. In November 2019, Governor Murphy issued an Executive Order to increase the state's target to 7,500 MW by 2035.
- In June 2019, New Jersey granted the state's first OREC award to Ørsted's 1,100 MW Ocean Wind project, the largest offshore project planned in the U.S. to date.
- New Jersey opened its second offshore wind solicitation in September 2020, seeking up to 2,400 MW.

New York

- In January 2017, New York Governor Cuomo announced a commitment to develop 2,400 MW of offshore wind by 2030. In January 2019, Governor Cuomo increased the state's target to 9,000 MW of offshore wind by 2035, which was signed into law in July 2019.
- The Long Island Power Authority signed a 20-year power purchase agreement with Deepwater Wind for the 90 MW South Fork Wind Farm in 2017, and agreed to buy an additional 40 MW in November of 2018.
- In July 2019, New York announced the winners of its first offshore wind solicitation: Ørsted & Eversource's 880 MW Sunrise Wind project and Equinor's 816 MW Empire Wind project. NYSERDA signed 25-year OREC contracts with both projects in October 2019.
- In January 2021, New York announced that Equinor was the winner of its second solicitation. The company was selected to provide 1,260 MW from Empire Wind 2 and 1,230 MW from Beacon Wind 1.

Rhode Island

- In May 2018, Rhode Island selected 400 MW from the Revolution Wind project through a competitive procurement. National Grid and Ørsted signed a contract for the project at a real levelized price of \$74/MWh.

Virginia

- Dominion Energy and Ørsted finished construction of the 12 MW Coastal Virginia Offshore Wind Project in June 2020, the first project in federal waters.
- Governor Northam issued an Executive Order in September 2019 calling for 2,500 MW of offshore wind by 2026. In March 2020, the Virginia legislature passed a bill establishing an offshore wind target of 5,200 MW by 2034 for utility Dominion Energy.
- In September 2019, Dominion Energy announced plans to build and own a 2,640 MW offshore project by 2026, the largest project planned in the U.S. to date.