

## Cape Wind Energy Project

### Project Description

The Bureau of Ocean Energy Management (BOEM) has issued Cape Wind Associates, LLC (CWA) a commercial lease to construct and operate a wind energy facility on the Outer Continental Shelf (OCS) offshore Massachusetts. The facility will include up to 130 Siemens 3.6 megawatt (MW) wind turbine generators, each with a maximum blade height of 440 feet, on Horseshoe Shoal in Nantucket Sound. The project is located in Federal waters between Cape Cod, Martha's Vineyard, and Nantucket Island. The facility's total nameplate capacity will be 468 MWs, and with an average anticipated output of 174 MW, it will supply up to 75% of the electricity needs of Cape Cod and the Islands of Martha's Vineyard and Nantucket.

### Current Status

With the approval of a Construction and Operations Plan (COP) and a completed Facility Design Report (FDR) and Fabrication and Installation Report (FIR), Cape Wind Associates has satisfied almost all of BOEM's regulatory requirements for the planning and design of an offshore wind power facility. There are some remaining lease stipulations and conditions of COP approval that CWA must satisfy, and CWA must post decommissioning financial assurance in accordance with 30 C.F.R. § 585.517. The project is undergoing litigation, which could impact the overall schedule. On Feb. 26, 2015, CWA submitted a request for a 2-year lease suspension, citing project delays caused by difficulties with obtaining project financing. BOEM approved the lease suspension on July 24, 2015. The lease suspension expires on July 24, 2017, at which point the operating term of the lease again commences.

### Project History and Milestones

- In November 2001, CWA submitted an application to the Army Corps of Engineers, which assumed the lead federal regulatory role under the River and Harbors Act.
- In August 2002, the Army Corps issued a permit for Cape Wind to construct a meteorological tower to measure wind speeds and gather meteorological data. The tower was constructed in 2002 and still operates today.
- In November 2004, the Army Corps issued a draft Environmental Impact Statement (EIS) for the construction of a wind power facility.
- The Energy Policy Act of 2005 gave lead Federal regulatory authority to the Department of the Interior. The former Minerals Management Service (MMS) took the lead role, and CWA applied for a commercial lease from the bureau on September 14, 2005.
- The Cape Wind proposal was grandfathered by a savings clause in Section 388 of the Energy Policy Act of 2005, exempting the project from competition, a process typically required under the renewable energy regulations at 30 C.F.R. § 585.211.
- The Cape Wind draft EIS was published on January 18, 2008 and the final EIS was published on January 21, 2009. The analysis determined that impacts are expected to be mostly negligible to minor. Overall, the project is not expected to have a negative impact on the biological, physical,

or human environments, although there will be adverse effects to historic and cultural properties.

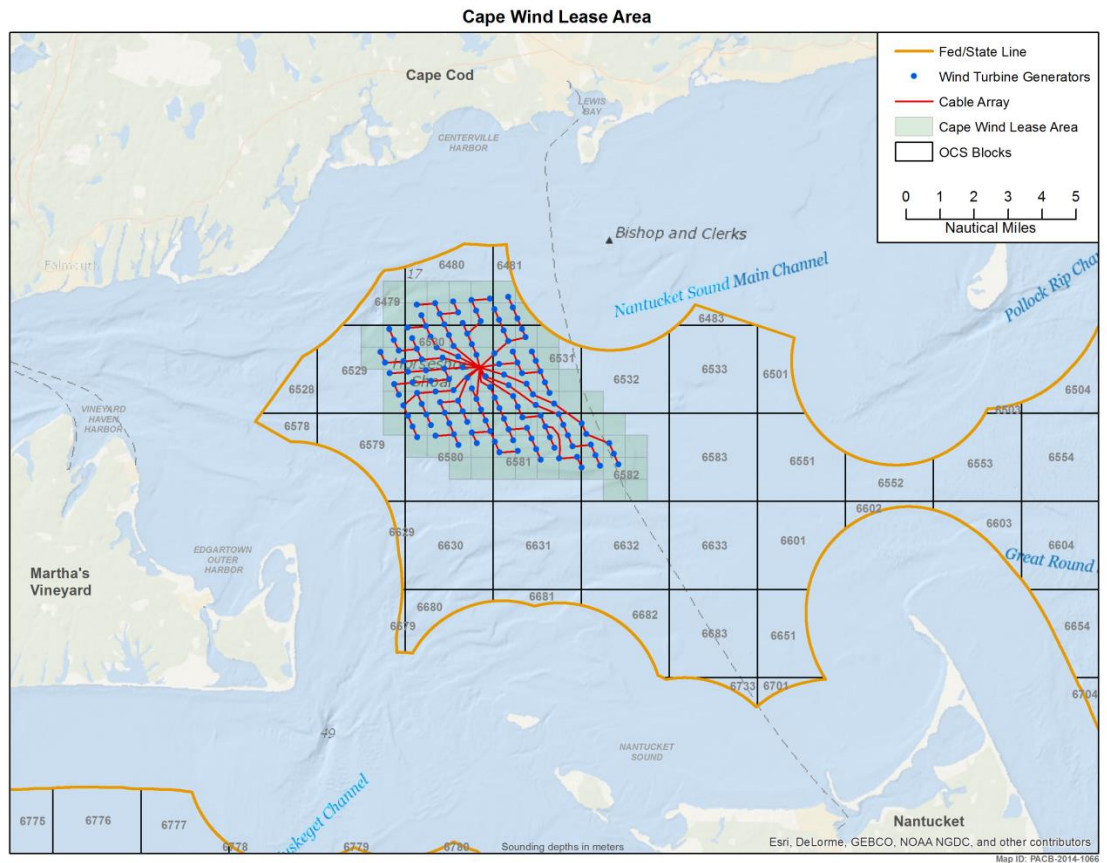
- On January 4, 2010, the Keeper of the National Register of Historic Places issued a determination that Nantucket Sound is eligible for listing as a traditional cultural property and an historic and archaeological property. On January 13, 2010, BOEM published a revised Documentation of Section 106 Finding of Adverse Effect. On March 2, 2010, Secretary of the Interior terminated Section 106 consultations after it became apparent that agreement among consulting parties could not be achieved.
- On April 28, 2010, the Department of the Interior issued the Record of Decision (ROD) approving issuance of a commercial lease for the project.
- On October 6, 2010, Cape Wind Associates signed the first commercial offshore renewable energy lease in the United States. The lease became effective on November 1, 2010.
- On October 29, 2010, CWA submitted a construction and operations plan (COP). CWA submitted an updated COP on February 4, 2011. On April 18, 2011, BOEM issued a ROD approving the COP, with conditions.
- BOEM approved Cape Wind's Avian and Bat Monitoring Plan (ABMP), after receiving concurrence from the U.S Fish and Wildlife Service, on November 20, 2012.
- Cape Wind submitted its Facility Design Report (FDR) and Fabrication and Installation Report (FIR) on May 20, 2014. On September 9, 2014, BOEM approved Cape Wind's revised COP and determined the FDR and FIR were satisfactory.
- Cape Wind submitted a COP revision on July 25, 2014. BOEM approved the revisions to the COP, with modifications, on September 9, 2014.

## Other Facts

- The Cape Wind lease term lasts 33 years; 5 years for a site assessment phase, and 28 years for commercial operations.
- The project footprint is approximately 25 square miles; the entire lease area is approximately 46 square miles, which includes a buffer area around the project.
- Cape Wind must pay a rental fee of \$88,278 per year (\$3 per acre, for a total of 29,426 acres) until production starts. Once production commences, Cape Wind will pay a yearly operating fee based on the project's output. The operating fee schedule is detailed on page B-3 of the lease.
- Cape Wind will use Siemens 3.6 MW turbines generators, model SWT-3.6-107 Version 3. The turbines will include a monopole foundation driven approximately 85 feet into the seafloor; three blades with a rotor diameter of 351 feet; and each turbine will reach a maximum height of 440 feet.
- Turbines generally "turn on" when the wind speed reaches 3 to 5 meters per second, and shut down when wind speeds exceed 25 meters per second to avoid damaging the turbine components.
- The turbines will have a spacing of 0.34 nautical miles by 0.54 nautical miles, and will include Federal Aviation Administration and U.S. Coast Guard approved lighting and marking schemes for safety measures.
- The individual turbines will be connected to an electrical service platform by 33 kV inner-array cables; total cable length is estimated at 70 miles.
- The electrical service platform will be located in the interior of the turbine array. It will collect all the electricity from the turbines, and then send the electricity to shore via two 115 kV circuit

cables that run approximately 12.5 miles each. The cables will make landfall at the Town of Yarmouth, MA.

- All the cables will be buried beneath the seafloor to a depth of at least 6 feet.
- Although this is a renewable energy project, CWA will have to purchase emission reduction credits to offset the emissions from vessels and equipment used during construction and installation activities.
- The project will be monitored 24/7 by a manned control center on Cape Cod. The control center will have communications capabilities with the U.S. Coast Guard and mariners traversing the area. In case of emergency, the turbines can be remotely shut down from the command center.
- The Cape Wind Lease and the Record of Decision, and other associated National Environmental Policy Act (NEPA) documentation, outline many mitigation measures that will be necessary to ensure protection of the marine and human environment. All of these documents are available for download on the BOEM website.



For additional information: [www.boem.gov/Renewable-Energy-Program/Studies/Cape-Wind.aspx](http://www.boem.gov/Renewable-Energy-Program/Studies/Cape-Wind.aspx).