



Bureau of Ocean Energy Management

-Facts on the Cape Wind Energy Project-

(Current as of August 2012)

Project Description

Cape Wind Associates, LLC (CWA) proposes to construct and operate a commercial wind energy facility on the Outer Continental Shelf (OCS) offshore Massachusetts. The project calls for 130, 3.6 megawatt (MW) wind turbine generators, each with a maximum blade height of 440 feet, to be installed on Horseshoe Shoals in Nantucket Sound, between Cape Cod, Martha's Vineyard, and Nantucket Island. The total capacity of the project is 468 MWs, with an average anticipated output of 183 MW, enough to supply up to 75% of the electricity needs of Cape Cod and the Islands of Martha's Vineyard and Nantucket.

Project History

- In November 2001, Cape Wind Associates LLC submitted an application to the Army Corps of Engineers, who 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 data. It was constructed in fall 2002.
- In November 2004, the Army Corps issued a draft Environmental Impact Statement (EIS).
- The Energy Policy Act of 2005 gave lead Federal regulatory authority to the Department of the Interior. The authority was delegated to the former Minerals Management Service (MMS), and Cape Wind applied for a commercial lease from MMS 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 30 CFR 585.
- The Cape Wind draft EIS was published on January 18, 2008 and the final EIS was published on January 21, 2009. The analysis showed 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, though there will be adverse effects to historic and cultural properties.
- On April 28, 2010, Secretary Salazar issued the Record of Decision (ROD) approving issuance of a commercial lease for the project.
- On October 6, 2010, Secretary Salazar and James Gordon, CEO of Cape Wind Associates, signed the first commercial offshore renewable energy lease issued in the U.S. The lease became effective on November 1, 2010.
- On October 29, 2010, CWA submitted a construction and operations plan (COP). On April 18, 2011, BOEM issued a ROD and approved the COP, with conditions.

Interesting 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 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 in the lease.

- Cape Wind will use 3.6 MW turbines produced by Siemens. 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 (FAA) and U.S. Coast Guard approved lighting for safety measures.
- The individual turbines will be connected to an electrical service platform by 33 kV inner-array cables; total cable length is 66.7 miles.
- The electrical service platform will be located in the middle of the array. It will collect all the electricity from the turbines, and then send the electricity to shore via two 115 kV cables that run 12.5 miles. The cables will make landfall at the Town of Yarmouth, MA.
- All the cables will be buried beneath the seafloor to a depth of 6 feet.
- Although this is a renewable energy project, Cape Wind will have to purchase emission reduction credits (ERCs) to offset the emissions from vessels and equipment used during construction of the project in Massachusetts and Rhode Island.
- 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.

Current Status of the Project

While the Cape Wind Associates has completed nearly all the regulatory requirements, a few items are still being addressed before construction can be authorized, such as those listed below. The project also is undergoing litigation, which may impact the overall schedule.

- Additional geophysical, geological, geotechnical, and archaeological surveys of the project area must be completed.
- The Avian and Bat Monitoring Plan must be finalized and approved.
- In accordance with 30 CFR 585, Cape Wind must submit a Facility Design Report and a Facility and Installation Report.