

EXECUTIVE SUMMARY

Purpose of the Document

The Cape Wind Energy Project developer, Cape Wind Associates, LLC (the applicant), proposes to build, operate, and eventually decommission an electric generation facility with a maximum electric output of 454 megawatts and an average output of 182.6 megawatts, in Nantucket Sound off the coast of Massachusetts (proposed action). The proposed action would generate electricity from wind energy resources on the Outer Continental Shelf. The applicant seeks to commence construction in 2009 and begin operation in 2010.

The applicant requests a lease, easement, right-of-way, and any other related approvals from the Department of the Interior, Minerals Management Service necessary to authorize construction, operation and eventual decommissioning of the proposed action. The Minerals Management Service's authority to approve, deny, or modify the Cape Wind Energy Project derives from the Energy Policy Act of 2005 (EPA Act – http://www.mms.gov/offshore/PDFs/hr6_textconfrept.pdf). Section 388 (43 USC 1337(p) of the Act amended the Outer Continental Shelf Lands Act by adding subsection 8(p), which authorizes the Department of the Interior to grant leases, easements or right-of-ways on Outer Continental Shelf lands for activities that produce or support production, transportation, or transmission of energy from sources other than oil and gas, such as wind power.

The proposed action requires environmental review for Federal approval under Subsection 8(p) of the Outer Continental Shelf Lands Act. The National Environmental Policy Act provides the framework under which Federal agencies perform environmental review of projects for which they would be authorizing, funding, or undertaking on their own behalf. In this instance, the proposed federal actions resulting in the need for environmental review under the National Environmental Policy Act are the issuance of a lease, easement or right-of-way and related approvals by the Minerals Management Service for authorizing the construction, operation and eventual decommissioning of the Cape Wind Energy Project (the proposed action).

This Final Environmental Impact Statement provides a detailed description of the proposed action, including the construction, operation and maintenance, and decommissioning phases. An explanation of the alternative screening analysis, the locations and descriptions of the considered alternatives, as well as a comparison of impacts between the alternatives and the proposed action is also provided. The existing conditions of the affected environment are described and broken down in to the physical, biological and socioeconomic resources. A detailed analysis of the impacts on each of these resources according to construction, operation and maintenance, and decommissioning, is presented. Cumulative impacts and commitment of resources are discussed. The concept of an Environmental Management System is introduced that contains many of the mitigation measures and other commitments and requirements under which the proposed action would be constructed, operated, and decommissioned. Other important information contained in this Final Environmental Impact Statement includes agency correspondence and coordination, and supplemental studies and reports prepared by the applicant.

Project Purpose and Need

The underlying purpose and need to which the agency is responding is to develop and operate an alternative energy facility that utilizes the unique wind resources in waters offshore of New England employing a technology that is currently available, technically feasible, and economically viable, that can interconnect with and deliver electricity to the New England Power Pool, and make a substantial contribution to enhancing the region's electrical reliability and achieving the renewable energy requirements under the Massachusetts and regional renewable portfolio standards.

The Massachusetts Energy Facility Siting Board found there was a need for at least 110 megawatts of energy resources beginning in 2007 with a much greater need within the following years (Energy Facility Siting Board, Siting Decision 2004). The Massachusetts and regional Renewable Portfolio Standards mandate that a certain amount of electricity come from renewable energy sources, such as wind. Specifically, the Massachusetts Renewable Portfolio Standard requires that all retail electricity providers in the state utilize new renewable energy sources for at least 4 percent of their power supply in 2009 and increasing this percentage by one percent each year until the Massachusetts Division of Energy Resources (DOER) suspends the annual increase (<http://www.mass.gov/doer/rps/regs.htm>).

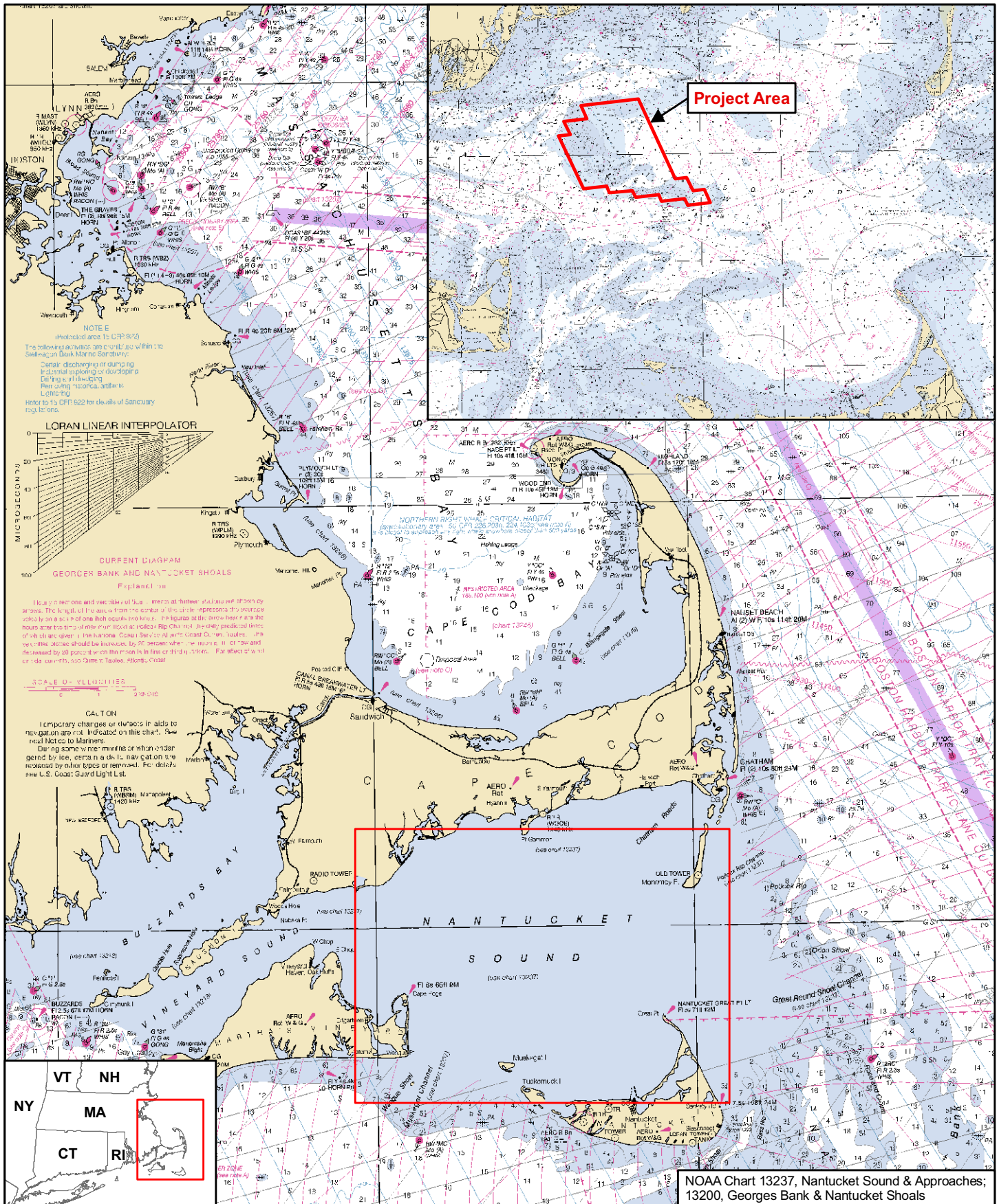
Proposed Action Description Overview

The proposed action entails the construction, operation and maintenance, and eventual decommissioning of an electric generating facility consisting of 130 wind turbine generators arranged in a grid pattern in the Horseshoe Shoal region of Nantucket Sound, Massachusetts (see Figure E-1). Each of the 130 wind turbine generators would generate electricity independently of each other. For this area of Nantucket Sound, the wind power density analysis conducted by the applicant determined that orientation of the array in a northwest to southeast alignment provides optimal wind energy potential for the wind turbine generators. This alignment would position the wind turbine generators perpendicular to prevailing winds, which are generally from the northwest in the winter and from the southwest in the summer for this geographic area in Nantucket Sound.

The wind turbine generators have a stated design life span of twenty years. However, this estimate is based on experience generated from land-based machines which are subject to higher levels of turbulence and arguably experience greater wear and tear than can be expected offshore where winds are less turbulent. It is possible that the proposed action could be operational beyond the minimum design life of twenty years.

Solid dielectric submarine inner-array cables (33 kilovolt) from each wind turbine generator would interconnect within the grid and terminate on an electrical service platform. The electric service platform would serve as the common interconnection point for all of the wind turbine generators. The proposed submarine transmission cable system (115 kilovolt) is approximately 12.5 miles in length (7.6 miles within the Massachusetts 3 mile territorial line) from the electric service platform to the landfall location in Yarmouth. The submarine transmission cable system consists of two parallel cables that would travel north to northeast in Nantucket Sound into Lewis Bay past the westerly side of Egg Island, and then make landfall at New Hampshire Avenue. The proposed onshore transmission cable system route from the landfall area to its intersection with the NSTAR electric right-of-way would be located entirely along existing paved right-of-ways where other underground utilities already exist. All of the roadways within Yarmouth and Barnstable in which the proposed transmission cable system would be placed are town owned and maintained roads with the exception of Routes 6 and 28, which are owned and maintained by the Massachusetts Highway Department. A portion of the onshore transmission cable system route would also be located underground within an existing maintained NSTAR Electric right-of-way.

Installation of the proposed action components would comprise five activities: (1) installation of the foundation monopiles; (2) erection of the wind turbine generators and electric service platform; (3) installation of the inner-array cables; (4) installation of the transmission cables from the electric service platform to the Barnstable Switching Station; and (5) installation of the scour protection around the monopiles and electric service platform piles. The electric service platform design is based on a piled jacket/template design with a superstructure mounting on top. The platform jacket and superstructure would be fully fabricated on shore and delivered to the work site by barges, where it would be installed.



CAPE WIND ENERGY PROJECT
 Project Locus Map
 Figure E-1

The proposed method of installation of the submarine cables (both the inner array cables and the submarine transmission cables) would be accomplished by the Hydroplow embedment process, commonly referred to as jet plowing. This method involves the use of a positioned cable barge and a towed hydraulically-powered jet plow device that simultaneously lays and embeds the submarine cable in one continuous trench from wind turbine generator to wind turbine generator and then to the electric service platform, or from the electric service platform to the landfall area.

The transition of the submarine transmission cables from water to land would be accomplished through the use of Horizontal Directional Drilling. Construction of the onshore transmission cable would occur in two phases. The first phase would consist of installing the ductbanks, conduits, and vaults. The second phase would consist of the installation of the onshore transmission cables, including splices and terminations.

It is anticipated that the main operation center would be located in the Town of Yarmouth. Here would be installed the remote monitoring and command center where all decisions concerning the operation of the offshore generating facility would be made. The service and maintenance vessels, supplies and personnel would be stationed at two additional onshore locations: a New Bedford location for parts storage and larger maintenance supply vessels and Falmouth for crew transport, since it is closer to the site.

Project Chronology

In November 2001, Cape Wind Associates, LLC sought permission from the U.S. Army Corps of Engineers to construct and operate a wind-powered electrical generating facility on Horseshoe Shoal in Nantucket Sound, Massachusetts. In December 2001, the U.S. Army Corps of Engineers determined that an environmental impact statement was required for the Cape Wind Energy Project. First, a Notice of Intent to prepare the environmental impact statement was published in the Federal Register and other public notices were issued. The Notice of Intent was published on January 30, 2002. Public scoping meetings were held in Boston and West Yarmouth on March 6 and March 7, 2002, respectively. Existing relevant data was then collected and reviewed to address issues discussed during scoping. The U.S. Army Corps of Engineers Draft Environmental Impact Statement was made available for public review and comment in November 2004. The public comment period lasted 60 days, commencing with a notice of availability published in the Federal Register. Public comment meetings were held on Nantucket, Martha's Vineyard, Cape Cod, and in Boston.

Prior to the enactment of the Energy Policy Act of 2005, there was a lack of clear federal regulatory authority for alternative energy projects proposed to be sited on the Outer Continental Shelf. In the absence of such authority, prior to Energy Policy Act of 2005, the U.S. Army Corps of Engineers had been acting as the lead agency for National Environmental Policy Act evaluation of the proposed Cape Wind Energy Project. Following adoption of the Energy Policy Act, and the amendments to the Outer Continental Shelf Lands Act, the Department of the Interior was given authority for issuing leases, easements, or rights-of-way for alternative energy project activities on the Outer Continental Shelf.

During the fall of 2005, the Minerals Management Service reviewed the Cape Wind application to determine its adequacy and evaluated how to proceed with its own National Environmental Policy Act evaluation. It was determined that the regulations and requirements under which the Minerals Management Service would authorize the proposed action are substantially different than those under which the U.S. Army Corps of Engineers would have authorized the proposed action, and so it was determined that a new Draft Environmental Impact Statement would need to be prepared. To ensure there was an efficient and timely National Environmental Policy Act analysis, the Minerals Management Service considered, and borrowed where appropriate, certain portions of the U.S. Army Corps of

Engineers Draft Environmental Impact Statement for the proposed action. Minerals Management Service also treated public comments on the U.S. Army Corps of Engineers Draft Environmental Impact Statement as scoping comments in Minerals Management Service's preparation of this Draft Environmental Impact Statement. The Minerals Management Service determined that an independent contractor would need to be hired to assist in the preparation of the Draft Environmental Impact Statement. A Memorandum of Understanding was prepared and signed in the spring of 2006, between Cape Wind and the Minerals Management Service, to support the environmental impact statement preparation process using an independent contractor. The contractor was selected by the Minerals Management Service in May of 2006 and work commenced on preparing a Draft Environmental Impact Statement. On May 30, 2006, the Minerals Management Service published in the Federal Register its Notice of Intent to prepare an environmental impact statement. This Notice also served to announce the initiation of the written scoping process for the environmental impact statement, and invited other Federal, State, tribal and local governments to consider becoming cooperating agencies in the preparation of the environmental impact statement.

During the remainder of 2006 and into 2007, the contractor worked with the application materials, the U.S. Army Corps of Engineers Draft Environmental Impact Statement, and other relevant and existing information to prepare the Draft Environmental Impact Statement. During this timeframe, the applicant continued to perform studies and submit new information, as well as respond to requests for additional information that were identified by Minerals Management Service and the contractor as necessary in order to prepare the Draft Environmental Impact Statement.

On January 18, 2008, the Minerals Management Service published a notice in the Federal Register stating the availability of the Draft Environmental Impact Statement. The public comment period lasted 60 days (until March 20, 2008) and then was extended another 30 days to April 21, 2008 in order to provide the public with additional time to read the DEIS and comment. MMS received comments through its public connect website on its Web page at <http://occonnect.mms.gov/pcs-public/>, via emails, via oral or hard copy comments provided at the four public hearings (i.e., the Mattacheese Middle School in West Yarmouth, Massachusetts, the Nantucket High School, in Nantucket, Massachusetts, the Martha's Vineyard Regional High School, in Oak Bluffs, Massachusetts, and at the University of Massachusetts Boston Campus, in South Boston), and via hard copy comments mailed in. In all, more than 42,000 comments were received. All comments received were logged and addressed as appropriate and are included in this Final Environmental Impact Statement.

Summary Description of Alternatives Assessed

In order to conduct a comprehensive evaluation of reasonable alternative locations for an offshore wind energy facility that would be capable of serving the New England region, Minerals Management Service identified and initially screened nine alternative locations (in addition to the proposed location on Horseshoe Shoal) along the coast from Maine to Rhode Island. The sites were chosen based on geographic diversity, having at least some potential in terms of wind resources, and the necessary area required for the proposed facility size. In addition, in development of the alternatives, Minerals Management Service took into account comments received as a part of the scoping process. Specifically, the Phelps Bank Alternative was selected as a result of interest expressed in this location by the Massachusetts Office of Coastal Zone Management, and Offshore Nauset Alternative was chosen as a result of public interest in a deep water alternative.

These geographically diverse sites included:

- Offshore Portland, Maine
- Offshore Cape Ann, Massachusetts
- Offshore Boston, Massachusetts
- Offshore Nauset, Massachusetts (East of Nauset Beach)
- On Monomoy Shoals (east of Monomoy, Massachusetts)
- On Nantucket Shoals (southeast of Nantucket Island, Massachusetts)
- On Phelps Bank (southeast of Nantucket Island, Massachusetts)
- South of Tuckernuck Island
- East of Block Island, Rhode Island

Of these nine sites that were chosen as geographically diverse, seven sites were not selected for further environmental analysis because of physical limitations and/or constraints due to (1) water depth (should be < approximately 100 feet [30 meters] in depth to be considered economically feasible) (TRC, 2006); (2) extreme wave height (should be less than approximately 20 feet [6.1 meters] high in 50 feet [15.2 meters] of water depth); (3) presence of bedrock or large boulders (this is problematic both for installation of the monopiles and proper burial of electrical interconnection lines); (4) distance from site to onshore transmission system (should be less than approximately 31 miles [50 kilometers]) for an underground alternating current transmission line; high voltage direct current transmission cables have not yet been proven to be a commercially available technology for offshore wind farms); and (5) the availability of technology to develop the site (development of floating platform technology for use in water depths >150 feet [45 meters] is beyond the milestones scheduled for project development) (see Section 3.3.4).

The sites which were not assessed for further evaluation include the Portland, Maine; Cape Ann, Massachusetts; Boston, Massachusetts; Nauset, Massachusetts (East of Nauset Beach); on Nantucket Shoals (southeast of Nantucket Island, Massachusetts); on Phelps Bank (southeast of Nantucket Island, Massachusetts); and east of Block Island, Rhode Island sites. Out of the group of nine geographic sites, the alternative sites selected for further environmental analysis include Monomoy Shoals and South of Tuckernuck Island.

In addition to the sites screened above, Minerals Management Service also screened three non-geographic based alternatives to the proposed action to see if they could produce electricity at a reasonable cost range to that of the proposed action. These design alternatives included:

- Smaller Project (half the megawatt capacity of the Proposed Alternative at the same location);
- Condensed Array (same number of turbines but closer together); and
- Phased Development (two phases of 65 turbines each)

The No Action Alternative was also included in the screening process. The analysis of the No Action Alternative provides a benchmark for Minerals Management Service in which to compare the magnitude of environmental impacts of the proposed action. The No Action alternative considers other strategies for addressing the demand for electricity in New England if the proposed action were not constructed, and the viability of those strategies and or impacts associated with those other strategies. This includes an assessment of energy efficiency, and the assessment of other energy options including fossil fuel technologies, and other alternative energy technologies.

Figure 3.3.5-1 shows the locations of the proposed alternatives that passed the first phase of screening and were therefore subject to an environmental resource and impact assessment. They include the proposed action, No Action, South of Tuckernuck Island, Monomoy Shoals, Smaller Project, Condensed Array, and Phased Development.

The South of Tuckernuck Island Alternative Site is located in the Atlantic Ocean southwest of Tuckernuck Island between Muskeget Channel to the west and the southwestern coast of Nantucket Island to the east in open waters. The Monomoy Shoals alternative site is approximately 3.5 miles (5.6 kilometers) southeast of Monomoy Island within the eastern approach to Nantucket Sound. The Smaller Project Alternative (a total of 65 wind turbine generators) would have the same electric service platform location and transmission cable location as the proposed action, and would be in the same foot print as the proposed action, but 65 wind turbine generators at the north, south and east sides of the proposed action configuration would be removed. The Condensed Array Alternative would be located in the same area as the proposed action but the wind turbine generators would be spaced closer together in a grid with a separation distance of 6 turbine rotor diameters by 6 turbine rotor diameters versus the proposed action which has wind turbine generator spacing of 6 x 9 turbine rotor diameters. The Phased Development Alternative involves constructing the full electric service platform and one half of the 130 wind turbine generators first, and then the remainder of the wind turbine generators later after the first phase has been installed and had a chance to operate so that monitoring of operational impacts can take place.

Principal Issues and Concerns

A number of comments received on the Minerals Management Service Draft Environmental Impact Statement dealt with issues and concerns about how certain information was presented or analyses performed. Minerals Management Service has taken these comments and addressed them either internally or through requests to Cape Wind during development of the Minerals Management Service Final Environmental Impact Statement. This Final Environmental Impact Statement has addressed all comments to the extent they are applicable and necessary to reach conclusions as to the scope and extent of the proposed action characteristics and potential impacts.

Impact Level Definitions

Anticipated impacts to physical, biological, socioeconomic resources and land use, and navigation and transportation from the proposed action are categorized as negligible, minor, moderate, or major. These impact levels are used in the impact section of the Final Environmental Impact Statement to provide consistency in the assessment of environmental impacts and socioeconomic issues.

The impact levels for biological and physical resources are used for the analysis of water quality, air quality, marine and terrestrial mammals, marine and coastal birds, fish resources, sea turtles, coastal and seafloor habitats, archaeological resources, and areas of special concern (such as essential fish habitats, marine sanctuaries, parks, refuges, and reserves). The four impact levels are defined as follows:

- (1) Negligible**
 - No measurable impacts.
- (2) Minor**
 - Most impacts to the affected resource could be avoided with proper mitigation, or
 - If impacts occur, the affected resource would recover completely without any mitigation once the impacting agent is eliminated.

(3) Moderate

- Impacts to the affected resource are unavoidable, and
- The viability of the affected resource is not threatened although some impacts may be irreversible, or
- The affected resource would recover completely if proper mitigation is applied during the life of the proposed action or proper remedial action is taken once the impacting agent is eliminated.

(4) Major

- Impacts to the affected resource are unavoidable, and
- The viability of the affected resource may be threatened, and
- The affected resource would not fully recover even if proper mitigation is applied during the life of the proposed action or remedial action is taken once the impacting agent is eliminated.

The impact levels for socioeconomic issues are used for the analysis of demography, employment, and regional income; land use, visual and infrastructure; fisheries; tourism and recreation; socio-cultural systems; and environmental justice. Although impact levels for direct physical impacts to archaeological resources use the definitions above, indirect visual impacts to archaeological resources are defined by the following criteria. The four impact levels are defined as follows:

(1) Negligible

- No measurable impacts.

(2) Minor

- Adverse impacts to the affected activity or community could be avoided with proper mitigation, or
- Impacts would not disrupt the normal or routine functions of the affected activity or community, or
- Once the impacting agent is eliminated, the affected activity or community would return to a condition with no measurable effects from the proposed action without any mitigation.

(3) Moderate

- Impacts to the affected activity or community are unavoidable, and
- Proper mitigation would reduce impacts substantially during the life of the proposed action, or
- The affected activity or community would have to adjust somewhat to account for disruptions due to impacts of the proposed action, or
- Once the impacting agent is eliminated, the affected activity or community would return to a condition with no measurable effects from the proposed action if proper remedial action is taken.

(4) Major

- Impacts to the affected activity or community are unavoidable.
- Proper mitigation would reduce impacts somewhat during the life of the proposed action.
- The affected activity or community would experience unavoidable disruptions to a degree beyond what is normally acceptable, and
- Once the impacting agent is eliminated, the affected activity or community may retain measurable effects of the proposed action indefinitely, even if remedial action is taken.

Summary of Impacts

A summary of overall impacts organized by resources is provided in Table E-1 and a full presentation of impacts is located in Section 5.0. A description of mitigation measures under consideration can be found in Section 9.0.

Supporting Reports

The Final Environmental Impact Statement draws directly from numerous technical and environmental reports (refer to the bibliography at Section 10.1) and also takes into consideration information in many more additional reports (refer to the bibliography in Section 10.3), as well as a substantial amount of other available scientific and technical information (refer to the bibliography in Section 10.2). Reports referenced in Section 10.1 are included directly following applicable sections of text, appearing as “(Report No.)” and include hyperlinks so that the reader of the electronic version can click on the report referenced in the text and immediately have access to the full referenced report (the CD copy of the Final Environmental Impact Statement contains the full text of all the reports referenced in this manner). In an effort to conserve paper and reduce the bulk of the Final Environmental Impact Statement, hard copies of the reports are not provided. The reports and Final Environmental Impact Statement are also available on the Minerals Management Service’s web site at: <http://www.mms.gov/offshore/AlternativeEnergy/CapeWind.htm>, or the reports and Final Environmental Impact Statement can be obtained by calling either of the following contacts:

For further information regarding this statement please contact:

James F. Bennett
Chief, Branch of Environmental Assessment
Minerals Management Service
U.S. Department of the Interior
381 Elden Street
Mail Stop 4042
Herndon, VA 20170
Phone: 703-787-1656

For further information regarding the project please contact:

Office of Offshore Alternative Energy Program
Minerals Management Service
U.S. Department of the Interior
381 Elden Street
Mail Stop 4080
Herndon, VA 20170
Phone: 703-787-1300

Hard copies of the Final Environmental Impact Statement have also been sent to the following libraries:

- Edgartown Free Public Library
- Boston Public Library
- Hyannis Public Library
- Falmouth Public Library
- Eldredge Public Library
- Nantucket Atheneum

Table E-1		
Summary of Impacts		
Resource	Impacts	
	Construction Impacts	Operation Impacts
Regional Geologic Setting	minor	minor
Noise	<i>Onshore:</i> minor <i>Offshore:</i> minor <i>Underwater:</i> minor	<i>Onshore:</i> negligible <i>Offshore:</i> negligible <i>Underwater:</i> negligible
Oceanography	<i>Currents:</i> negligible <i>Waves:</i> negligible <i>Salinity:</i> negligible <i>Temperature:</i> negligible <i>Sediment Transport:</i> minor <i>Water depth/bathymetry:</i> minor	<i>Currents:</i> minor <i>Waves:</i> negligible <i>Salinity:</i> negligible <i>Temperature:</i> negligible <i>Sediment Transport:</i> minor <i>Water depth/bathymetry:</i> minor
Climate and Meteorology	minor	negligible
Air Quality	<i>Public Health:</i> negligible <i>Visibility:</i> negligible <i>Emissions:</i> minor	<i>Public Health:</i> negligible <i>Visibility:</i> negligible <i>Emissions:</i> minor (beneficial to climate change)
Water Quality	minor	negligible (with the exception of spills)
Electric and Magnetic Fields	negligible	negligible
Terrestrial Vegetation	negligible to minor	negligible to minor
Coastal and Intertidal Vegetation	negligible to minor	negligible (negligible to minor for repairs, depending on location)
Terrestrial and Coastal Faunas other than Birds	negligible to minor	negligible (minor for migratory bats)
Avifauna	<i>Terrestrial Birds:</i> Raptors - negligible Passerines - minor <i>Coastal Birds:</i> negligible to minor <i>Marine Birds:</i> minor to moderate Pelagic Species - minor Waterfowl and Non-Pelagic Water Birds - moderate	<i>Terrestrial Birds:</i> Raptors - negligible. Passerines – minor to moderate. <i>Coastal Birds:</i> negligible to moderate <i>Marine Birds:</i> negligible to major Pelagic Species - minor Waterfowl and Non-Pelagic Water Birds - moderate
Subtidal Offshore Resources	<i>Soft-Bottom Benthic Invertebrate Communities:</i> minor <i>Shellfish:</i> minor <i>Meiofauna:</i> minor <i>Plankton:</i> negligible	<i>Soft-Bottom Benthic Invertebrate Communities:</i> minor <i>Shellfish:</i> minor <i>Meiofauna:</i> minor <i>Plankton:</i> minor
Non-ESA Marine Mammals	<i>Acoustical Harassment:</i> minor <i>Vessel Strikes:</i> minor <i>Vessel Harassment:</i> minor <i>Temporary Reduced Habitat:</i> minor <i>Turbidity:</i> negligible to moderate (due to pile driving) <i>Pollution/ Potential Spills:</i> minor	<i>Acoustical Harassment:</i> negligible <i>EMF:</i> negligible <i>Pollution/ Potential Spills:</i> minor to moderate <i>Vessel Strikes:</i> minor <i>Vessel Harassment:</i> minor <i>Fouling Communities:</i> negligible to minor

Table E-1		
Summary of Impacts		
Resource	Impacts	
	Construction Impacts	Operation Impacts
Fisheries	<i>Finfish: minor Finfish (juveniles): minor Demersal Eggs and Larvae: minor Commercial & Recreational Fishing/Gear: minor</i>	<i>Commercial & Recreational Fishing/Gear: negligible to minor Sound and Vibration: negligible to minor Vessel Traffic: minor to moderate EMF: negligible Lighting: negligible/none Alterations to Waves, Currents, Circulation: negligible Habitat Change: minor Displacement of Prey: none</i>
EFH	<i>Benthic/Demersal: minor Water Column: negligible to minor SAV/Eelgrass: negligible to minor</i>	<i>Benthic/Demersal: minor Water Column: negligible to minor SAV/Eelgrass: negligible to minor</i>
T&E	<i>Sea turtles: negligible to minor Cetaceans: negligible to minor Avifauna: negligible to minor Eastern Cottontail Rabbit: negligible</i>	<i>Sea Turtles: negligible to minor Cetaceans: negligible to minor Avifauna: minor to moderate Eastern Cottontail Rabbit: negligible</i>
Urban and Suburban Infrastructure	negligible to minor	negligible
Population and Economics	minor	minor
Environmental Justice	Negligible (i.e., not a disproportionately high impact on minority or low income populations)	negligible (i.e., not a disproportionately high impact on minority or low income populations)
Visual Resources	minor	moderate Impacts on Shore (Major impacts on-water in close proximity to proposed action)
Cultural Resources	minor	Pending on the outcome of Section 106 process
Recreation and Tourism	minor	minor
Competing Uses of Waters and Seabed	minor	minor (except for impacts to Figawi Race which are moderate)
Overland Transportation Arteries	minor	negligible
Airport Facilities and Aviation Traffic	negligible to minor	minor
Port Facilities and Vessel Traffic	minor	<i>Ship, Container and Bulk Handling Facilities: negligible Cruise Ship Traffic: negligible Ferry Operations: minor Marinas and Recreational Boating: minor to moderate Commercial fishing: minor to moderate Search and Rescue: negligible Ice: negligible</i>
Communications: Radar, EMF, Signals, and Beacons	minor	minor (moderate for radar)