

OFFSHORE WIND ENERGY PERMITTING

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I. INTRODUCTION

The rising prices of fossil fuels and the potential national security implications of current energy policies have generated widespread concern in recent years. These concerns are compounded by a growing awareness that traditional forms of energy production are contributing to the global crisis of climate change. As a result, interest in development of alternative and renewable sources of energy has increased dramatically. Much of this increased attention has been directed at the development of wind energy.¹

Wind energy is regarded as the fastest growing commercial energy source in the world.² The world's wind power production multiplied more than twelve-fold from 1995 to 2005, from 4,800 megawatts (MW) to over 59,000 MW.³ The U.S. wind power capacity increased by 27% in 2006 and is predicted to grow an additional 25% in 2007.⁴ In 2005, the wind industry surpassed all previous annual records, installing nearly 2,500 MW of new capacity.⁵ On a typical day, these installations produce enough electricity to power over 2.5 million homes.⁶

¹ See Christine Real de Azua, *The Future of Wind Energy*, 14 TUL. ENVTL. L.J. 485, 490-97 (2001) (examining reasons for developing wind energy); Mark Z. Jacobson & Gilbert M. Masters, *Exploiting Wind Versus Coal*, 293 SCIENCE 1438 (2001) (outlining advantages of shifting from coal to wind as a fuel source); S. Pacala & R. Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years With Current Technologies*, 305 SCIENCE 968 (2004); Thomas L. Friedman, Editorial, *The Geo-Green Alternative*, N.Y. TIMES, Jan. 30, 2005 at A17; Gary Rivlin, *Green Tinge is Attracting Seed Money to Ventures*, N.Y. TIMES, June 22, 2005 at C1.

² See MASS. TECH. COLLABORATIVE, U.S. DEP'T OF ENERGY & GENERAL ELECTRIC, A FRAMEWORK FOR OFFSHORE WIND ENERGY DEVELOPMENT IN THE UNITED STATES at 9 (2005); U.S. DEP'T OF ENERGY & U.S. DEP'T OF THE INTERIOR, WHITE HOUSE REPORT IN RESPONSE TO THE NATIONAL ENERGY POLICY RECOMMENDATIONS TO INCREASE RENEWABLE ENERGY PRODUCTION ON FEDERAL LANDS 6 (2002).

³ See GLOBAL WIND ENERGY COUNCIL AND GREENPEACE INTERNATIONAL, GLOBAL WIND ENERGY OUTLOOK 2006 (examines the future potential for wind power up to the year 2050).

⁴ Pres Release, American Wind Energy Association (AWEA), Wind Power Capacity in U.S. Increased 27% in 2006 and Is Expected to Grow an Additional 26% in 2007 (Jan. 23, 2007), available at http://www.awea.org/newsroom/releases/Wind_Power_Capacity_012307.html.

⁵ Press Release, American Wind Energy Association (AWEA), U.S. Wind Energy Installations Reach New Milestone (Aug. 14, 2006), available at http://www.awea.org/newsroom/releases/US_Wind_Energy_Installations_Milestone_081006.html.

⁶ *Id.*

Also, the cost of wind power generation has decreased by 80% in the last 30 years, allowing it to become one of the lowest-cost sources of electricity today.⁷

A. RESOURCE POTENTIAL

There is a vast potential for offshore wind energy off the coasts of the United States. The U.S. Department of Energy (DOE) estimates the national offshore potential – excluding the Gulf of Mexico and the Great Lakes – at about 907,000 MW.⁸ These potential sources of wind energy are usually located near major population centers, which have high energy costs and limited opportunities for land-based wind development.⁹ More than half of the nation's identified offshore wind potential can be found off the New England and Mid-Atlantic coasts.¹⁰ The water in these areas typically deepens gradually as you move away from the shore.¹¹ Although the majority of the Northeast and Mid-Atlantic's development potential is located in deep water (greater than 30 meters), current technological limitations prevent such development.¹² However, initially sitting offshore wind facilities in shallow waters will facilitate a future transition to deeper waters as the technology becomes available.¹³

B. OFFSHORE WIND FAVORED OVER LAND-BASED WIND

Offshore wind energy development is generally preferred to land-based development because of transmission issues and wind conditions. Many of the strongest wind resources are

⁷ See MASS. TECH. COLLABORATIVE, U.S. DEP'T OF ENERGY & GENERAL ELECTRIC, A FRAMEWORK FOR OFFSHORE WIND ENERGY DEVELOPMENT IN THE UNITED STATES 11 (2005).

⁸ See Walt Musial & Sandy Butterfield, *Future for Offshore Wind Energy in the United States* 4 (2004), available at <http://www.nrel.gov/docs/fy04osti/36313.pdf> (report prepared for the U.S. Department of Energy).

⁹ *Id.*

¹⁰ See MASS. TECH. COLLABORATIVE, U.S. DEP'T OF ENERGY & GENERAL ELECTRIC, A FRAMEWORK FOR OFFSHORE WIND ENERGY DEVELOPMENT IN THE UNITED STATES 11 (2005).

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

located in the Midwest and western part of the country.¹⁴ However, these remote sites are located great distances from major load centers and the costs associated with transferring to those load centers is often high.¹⁵ About 54% of the population resides along the coasts, thus placing potential offshore sites much closer to load centers and alleviating some of the transmission costs incurred by remote generation sources.¹⁶

The winds found offshore are also notably stronger and less turbulent than those found on land, thus facilitating the production of more electricity.¹⁷ The energy that can be produced from wind corresponds directly with the cube of the wind speed, so that an increase as minimal as a few miles an hour would result in the production of a significantly larger amount of electricity.¹⁸ Most importantly, this increase in potential energy production results in an increase in revenue potential. Therefore, the transmission issues and less favorable conditions associated with land-based energy make offshore wind energy development a more attractive investment for potential developers.

C. OFFSHORE WIND ENERGY DEVELOPMENT IN THE UNITED STATES

Due to the U.S.'s abundant wind energy resources onshore, there has been virtually no wind energy development offshore, including along the outer continental shelf (OCS). In fact, there are currently no commercial wind energy facilities operating off the coasts of the United

¹⁴ See NAT'L WIND TECH. CTR., ABOUT THE PROGRAM: LOW-WIND-SPEED TURBINES, *available at* http://www.nrel.gov/wind/about_lowspeed.html.

¹⁵ See ARI REEVES, RENEWABLE ENERGY POLICY PROJECT, WIND ENERGY FOR ELECTRIC POWER: A REPP ISSUE BRIEF 10 (2003), *available at* http://solstice.crest.org/articles/static/1/binaries/wind%20issue%20brief_FINAL.pdf.

¹⁶ See BRUCE BAILEY, NAT'L WIND COORDINATING COMM'N, POTENTIAL FOR OFFSHORE WIND DEVELOPMENT IN THE UNITED STATES (2003), *available at* <http://www.nationalwind.org/events/offshore/030701/presentations/bailey.pdf>; ARI REEVES, RENEWABLE ENERGY POLICY PROJECT, WIND ENERGY FOR ELECTRIC POWER: A REPP ISSUE BRIEF 10 (2003), *available at* http://solstice.crest.org/articles/static/1/binaries/wind%20issue%20brief_FINAL.pdf.

¹⁷ See REEVES, *supra* note 15, at 14.

¹⁸ MINERALS MANAGEMENT SERVICE (MMS), TECHNOLOGY WHITE PAPER ON WIND ENERGY POTENTIAL ON THE U.S. OUTER CONTINENTAL SHELF 3 (2006), *available at* <http://ocsenergy.anl.gov> ("For example, a turbine at a site with an average wind speed of 16 mph would product 50% more electricity than at a site with the same turbine and average wind speeds of 14 mph.").

States. However, this lack of offshore wind energy development is on the verge of changing. As previously mentioned, the past few years have seen a dramatic increase in the attention offshore wind energy has received. There are now multiple offshore wind energy projects that have been proposed, including the Cape Wind Energy Project off the coast of Massachusetts¹⁹, Winergy's proposals for Ashbury Park (NJ), Davis Bank (MA), Five Fathom Bank (NJ), Great Egg (NJ), Gull Bank (MD), Indian River (DE), Isle of Wight (MD), and Nantucket (MA)²⁰, the Long Island Offshore Wind Park off the coast of New York²¹, and the Galveston-Offshore Wind project in the Gulf of Mexico²². Of these projects, only two are in the planning stages: the Cape Wind Energy Project and the Long Island Offshore Wind Park.²³

1. The Cape Wind Energy Project

Cape Wind Associates, a Massachusetts-based private energy company, proposed the first offshore wind energy project in the United States.²⁴ The project would be located on Horseshoe Shoal, a shallow area in Nantucket Sound, and would consist of 130 Wind Turbine Generators (WTGs).²⁵ The project was configured to have ample spacing between the WTGs so that its operation would not impede traditional uses of the project area, such as commercial and recreational navigation, aviation, and fishing.²⁶ The maximum electric output from the project

¹⁹ Cape Wind Associates, LLC, Cape Wind Energy Project, *available at* <http://www.capewind.org>.

²⁰ Winergy Power, LLC, Winergy Projects, *available at* <http://www.wineryllc.com/projects.htm>.

²¹ Long Island Power Authority, Offshore Wind Park, *available at* <http://www.lipower.org/cei/offshore.html>.

²² Texas General Land Office, Offshore Wind Energy, *available at* <http://glo.state.tx.us/news/archive/2005/events/offshorewind.html>.

²³ There are other offshore wind energy projects that may be in the planning stages as well (e.g., the Galveston-Offshore Wind project) but they are located within three nautical miles from the coast and, therefore, are subject to state jurisdiction. *See* 43 U.S.C. § 1301(a)(2).

²⁴ CAPE WIND ENERGY PROJECT, CAPE WIND ENERGY PROJECT FINAL ENVIRONMENTAL IMPACT REPORT/DEVELOPMENT OF REGIONAL IMPACT 1-1 (Feb. 15, 2007), *available at* <http://www.capewind.org/article137.htm>.

²⁵ *Id.* at 1-4.

²⁶ *Id.*

would be approximately 454 MW of renewable energy.²⁷ The wind-generated electricity produced by each of the turbines would then be transmitted through a 33 kilovolt (kV) submarine transmission cable system to an Electric Service Platform (ESP) located among the WTGs.²⁸ This electric power will be transformed by the ESP then transmitted to the Cape Cod mainland by two 115 kV submarine cable systems.²⁹ Ultimately, this project would produce clean, renewable wind-generated energy to transmit and distribute to the New England power grid.

In 2002, Cape Wind Associates installed a 196-foot scientific monitoring station at the site of the proposed Cape Wind Project. This monitoring station will serve as a meteorological data tower and measure oceanographic and meteorological data, such as information about wind, waves, currents, tide heights, and water temperatures.³⁰ In addition to providing essential information for the environmental permitting process, the data collected is being used to provide current weather and sea conditions to the public via a website.³¹ This website also uses the average wind speed collected each hour to provide the public an estimate of amount of renewable energy the Cape Wind Project would have produced.³² Based on this calculation, the public is further provided an estimate of the amount of emissions that would have been produced by generating that same amount of energy from oil, coal, and natural gas.³³

In order to construct the scientific monitoring station, Cape Wind Associates obtained a permit from the U.S. Army Corps of Engineers pursuant to section 10 of the Rivers and Harbors

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ See Press Release, Cape Wind Associates, Cape Wind Associates Receives Federal Permit to Erect Offshore Scientific Structure, Aug. 19, 2002, available at <http://www.capewind.org/news10.htm>.

³¹ See Cape Wind Scientific Monitoring Station – Current Conditions, available at <http://capewind.whgrp.com>.

³² *See Id.*

³³ *See id.*

Act of 1899.³⁴ Although this permit was granted following a six month public comment period and two public hearings, it still prompted two lawsuits. One of the lawsuits was concerned with “whether a permit from the federal government and a license from the Commonwealth of Massachusetts were required before a monopole structure could be constructed ... more than three miles off the coast of Massachusetts.”³⁵ The other lawsuit concerned the Army Corps’ ability to issue a permit for the construction of the scientific monitoring station.³⁶

2. The Long Island Offshore Wind Park

Taking a slightly different approach, the Long Island Offshore Wind Park (LIOWP) is being developed by a public/private partnership between the Long Island Power Authority (LIPA) and FPL Energy, LLC. LIPA is a non-profit municipal electric utility that serves as Long Island’s primary electric service provider.³⁷ FPL Energy, a private energy company, is the largest generator of wind power in the U.S., with 47 onshore wind farms capable of generating more than 4,000 net MW of renewable energy.³⁸ These two organizations have proposed an offshore wind park that will consist of 40 turbines located 3.6 miles southwest of Jones Beach Island, New York and be capable of generating approximately 140 MW of renewable energy.³⁹ The LIOWP will occupy 8 square miles of the OCS off Long Island and the turbines will reach heights of around 260 feet above the ocean.⁴⁰

³⁴ 33 U.S.C. § 403 (2007).

³⁵ *Alliance to Protect Nantucket Sound, Inc. v. U.S. Dept. of the Army*, 288 F. Supp. 2d 64, 66 n.1 (D. Mass. 2003), *aff’d*, 398 F.3d 105 (1st Cir. 2005).

³⁶ *See Ten Taxpayer Citizens Group v. Cape Wind Associates*, 373 F.3d 183 (1st Cir. 2004).

³⁷ *See* Long Island Power Authority, About the Long Island Power Authority, *available at* <http://www.lipower.org/company>.

³⁸ *See* FPL Energy, LLC Website, *available at* http://www.fplenergy.com/about/contents/about_us.shtml.

³⁹ *See* Notice of Intent to Prepare Environmental Impact Statement (EIS), 71 Fed. Reg. 35293 (Proposed June 19, 2006) (LIOWP).

⁴⁰ *See id.*

Once completed, the LIOWP is expected to supply power to approximately 44,000 Long Island homes.⁴¹ In order to supply these homes, a series of buried gathering lines would transmit electricity from the turbines to an ESP.⁴² The ESP would then transform the electricity and transmit it through New York state waters via a 10-mile long 138 kV transmission cable.⁴³ Ultimately, the electricity would end up at an existing electrical substation operated by LIPA.⁴⁴

The idea for the LIOWP was born in response to a series of studies conducted in 2002 and 2003.⁴⁵ The first study, Phase I, concluded that the strong ocean winds to the south of Long Island could produce large amount of clean and renewable electricity.⁴⁶ The second study, Phase II, identified potential sites where the project could be built within the next four to five years.⁴⁷ In response to the positive findings of the studies, the LIPA issued a Request for Proposals soliciting proposals from entities to develop, construct, own, and maintain an offshore wind park off the coast of Long Island.⁴⁸ After an extensive competitive bidding and selection process, the LIPA chose FPL Energy to develop the LIOWP. The LIPA and FPL Energy submitted a joint application to the U.S. Army Corps of Engineers on April 26, 2005 in order to obtain the necessary authorization to begin construction of an offshore wind energy park.⁴⁹ Although the

⁴¹ *See id.*

⁴² *See id.*

⁴³ *See id.*

⁴⁴ *See id.*

⁴⁵ LONG ISLAND POWER AUTHORITY & NEW YORK ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, LONG ISLAND'S OFFSHORE WIND ENERGY DEVELOPMENT POTENTIAL: A PRELIMINARY ASSESSMENT (2002), *available at* <http://www.lipower.org/pdfs/cei/wind/phase1.pdf> (Phase I); LONG ISLAND POWER AUTHORITY, LONG ISLAND'S OFFSHORE WIND ENERGY DEVELOPMENT POTENTIAL: PHASE II SITTING ASSESSMENT (2003), *available at* <http://www.lipower.org/pdfs/cei/wind/phase2.pdf> (Phase II).

⁴⁶ *See* Phase I.

⁴⁷ *See* Phase II.

⁴⁸ *See* Long Island Power Authority, Request for Proposals for Power Supply from an Offshore Wind Park (Jan. 22, 2003), *available at* <http://www.lipower.org/company/papers/rfp/docs/wind012203.pdf>.

⁴⁹ *See* U.S. Army Corps of Eng'rs, N.Y. Dist., Public Notice 2005-00365- L4 (June 9, 2005), *available at* http://www.fplenergy.com/projects/contents/long_island_wind_application.shtml; *see also* Press Release, FPL Energy, LLC, LIPA/FPL Energy Submit Application for Offshore Wind Project to U.S. Army Corps of Engineers (April 26, 2005), *available at* <http://www.fplenergy.com/news/contents/05039.shtml>.

application was deemed complete by the Agency on May 24, 2005, the Energy Policy Act of 2005's enactment subsequently transferred the role of lead agency to the Minerals Management Service (MMS).⁵⁰ The MMS has been preparing an Environmental Impact Statement (EIS) for the project since June 19, 2006.⁵¹

Another important aspect of the LIOWP's development has been its extensive engagement of the public throughout the planning and approval process. An example is this outreach is the work done by the Long Island Offshore Wind Initiative (LIOWI). The LIOWI is an independent coalition of local, national, and international environmental and other stakeholder groups.⁵² Before a site was even selected for the project, the LIOWI began working tirelessly to educate the public on the proposed wind park and motivate stakeholders to participate in the various public comment and regulatory review processes.⁵³ In fact, the LIOWI organized more than 70 public meetings to address residents' concerns before the site for the wind park was even selected.⁵⁴ Needless to say, the LIOWP has avoided much of the controversy generated by the Cape Wind Project. A Draft EIS is currently being prepared for the project by the MMS and is expected to be released in Summer of 2007.⁵⁵

⁵⁰ See Energy Policy Act of 2005 § 388, 43 U.S.C. § 1337; H.R. 6, P.L. 109-58 (2005) (after receiving authorization to grant leases, easements, or right-of-ways for renewable energy projects on the U.S. Outer Continental Shelf, the Department of the Interior delegated this authority to the MMS).

⁵¹ See Notice of Intent to Prepare Environmental Impact Statement (EIS), 71 Fed. Reg. 35293 (Proposed June 19, 2006) (LIOWP).

⁵² See Long Island Offshore Wind Energy Initiative, About WindWorks LI, *available at* <http://lioffshorewindenergy.org/aboutus.html>.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ See MMS, Targeted Timelines for Program Rulemaking/PEIS, Cape Wind, and Long Island Offshore Wind Park, *available at* <http://www.mms.gov/offshore/CIAP/PDFs/Visio-3timelines040207A.pdf>.

II. THE OFFSHORE WIND ENERGY PERMITTING SYSTEM

A. FEDERAL PERMITS FOR OFFSHORE WIND ENERGY DEVELOPMENT

Prior to the enactment of the Energy Policy Act of 2005, there was no federal statute that expressly governed offshore wind energy development. In response to this regulatory void, the U.S. Army Corps of Engineers (Corps) took the lead role as the federal offshore wind energy permitting authority. The Corps asserted jurisdiction over this permitting process pursuant to section 10 of the Rivers and Harbors Act of 1899 (RHA)⁵⁶, as amended by the Outer Continental Shelf Lands Act (OCSLA).⁵⁷ Under these statutes, the Corps has jurisdiction to permit any obstructions to navigation within the “navigable waters of the United States” and the OCS.⁵⁸ The “navigable waters of the United States” are defined by the Corps regulations as “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”⁵⁹

While several issues regarding the sufficiency of a Corps permit for offshore wind energy development along the OCS were being litigated⁶⁰, the Energy Policy Act of 2005⁶¹ was enacted. Section 388 of the Energy Policy Act of 2005 eliminates the regulatory uncertainty surrounding offshore wind energy development by establishing explicit authority for permitting renewable energy and related uses of the OCS.⁶² Section 388 amends the OCSLA by adding subsection 43 U.S.C. § 1337(p)(1), which authorizes the Secretary of the Interior (Secretary), in

⁵⁶ 33 U.S.C. § 403 *et seq.* (2007) (providing a system for offshore development planning, leasing, exploration, and ultimate development along the OCS).

⁵⁷ 43 U.S.C. §§ 1331-1356a (2007).

⁵⁸ 33 U.S.C. § 403 (2007).

⁵⁹ 33 C.F.R. § 329.4 (2007).

⁶⁰ *See Alliance to Protect Nantucket Sound*, 398 F.3d 105 (1st Cir. 2005).

⁶¹ Pub. L. No. 109-58 (August 8, 2005).

⁶² Pub. L. No. 109-58, § 388(a), *codified at* 43 U.S.C. § 1337.

consultation with other relevant agencies, to grant leases, easements, or rights-of-way on the OCS for specific activities, including wind energy development.⁶³ In essence, it entrusts the Department of the Interior (Department) with the authority to grant offshore property interests for the purpose of renewable energy development on the OCS and the authority to regulate activities resulting from such development.

The Act creates a framework that shifts authority to the Department without completely stripping all other agencies of their authority. It is careful to make clear that federal agencies with permitting authority under other federal laws still retain their jurisdiction, notwithstanding the enactment of section 388.⁶⁴ Thus, the offshore developments will be subject to multiple permitting requirements.⁶⁵ Despite the care taken to preserve other agencies' permitting authority, the Act fails to designate a lead agency to coordinate federal permitting and prepare NEPA analyses. The Department, however, infers from several of section 388's provisions that it is to serve as the lead agency. For example, the Secretary is directed to consult with other agencies during the process of awarding leases, easements, or rights-of-way.⁶⁶ Also, the Department must ensure that activities carried out under this new authority provide for coordination with relevant federal agencies.⁶⁷ Therefore, federal agencies may retain their permitting authority over offshore renewable energy development but the Department serves as the lead agency.

Although the Act provides the Department with broad discretion in establishing the regulatory regime for offshore renewable energy development, it does set forth several general

⁶³ *Id.*

⁶⁴ *Id.* § 1337(p)(9).

⁶⁵ *See, e.g.*, Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403 (grants permitting authority to the Corps for obstructions to navigation).

⁶⁶ *See* 43 U.S.C. § 1337(p)(1).

⁶⁷ *See id.* § 1337(p)(4)(E).

requirements. First, the Secretary must issue leases, easements, and rights-of-way on a competitive basis.⁶⁸ Second, the Secretary must provide for the duration, issuance, transfer, renewal, suspension, and cancellation of any property interest granted under the Act.⁶⁹ Third, the Secretary must establish a system of “royalties, fees, rentals, bonuses, or other payments to ensure a fair return” on any property interest granted under the Act.⁷⁰ The coastal states affected by offshore development located in an area extending three nautical miles into the OCS are to be apportioned 27 percent of the revenues received by the federal government under the Act.⁷¹

An important requirement is the regulatory deadline established by the Act. The Secretary, in conjunction with any other relevant agencies, is explicitly required to issue any regulations necessary for carrying out the Act within 270 days of its enactment.⁷² The Act was signed into law on August 8, 2005, and the 270-day deadline expired on May 8, 2006. However, the Department does not plan to issue any final regulations until Fall of 2008.⁷³

1. MMS Lease, Easement, or Right-of-Way and NEPA Review

In order to begin an offshore wind energy project on the OCS, the developer must submit an application to the MMS for a lease, easement, or right-of-way to construct and operate the facility.⁷⁴ Under section 388 of the Energy Policy Act of 2005, the Department of the Interior is authorized to issue leases, easements, or rights-of-way for renewable energy projects on the

⁶⁸ *Id.* § 1337(p)(3).

⁶⁹ *Id.* § 1337(p)(5).

⁷⁰ *Id.* § 1337(p)(2)(A).

⁷¹ *Id.* § 1337(p)(2)(B).

⁷² *Id.* § 1337(p)(8).

⁷³ MMS, Targeted Timelines for Program Rulemaking/PEIS, Cape Wind, and Long Island Offshore Wind Park , available at <http://www.mms.gov/offshore/CIAP/PDFs/Visio-3timelines040207A.pdf>.

⁷⁴ *See, e.g.*, Notice of Intent to Prepare Environmental Impact Statement (EIS), 71 Fed. Reg. 35293 (Proposed June 19, 2006) (Notice of Intent to Prepare an EIS in response to LIOWP’s application to MMS for a lease, easement, or right-of-way).

OCS.⁷⁵ This authority was subsequently delegated to the MMS, the Department's offshore resource management agency. Under its delegated authority, the MMS now serves as the lead federal agency for permitting and regulatory oversight of proposed alternate energy-related uses on the OCS. Therefore, as lead agency, the MMS is charged with undertaking an environmental review process mandated by the National Environmental Policy Act (NEPA).⁷⁶

Under NEPA, federal agencies are required to consider the environmental impacts of their actions and potential alternatives. More specifically, NEPA and its implementing regulations mandate that an EIS be prepared for "major federal actions significantly affecting the quality of the human environment."⁷⁷ Projects that must be approved by permits is one of the categories of federal actions that tends to require the preparation of an EIS.⁷⁸ An offshore wind energy project must be approved by permits, therefore it would appear to fall within one of the specified categories of federal actions. This requirement that the agency prepare an EIS is further confirmed by the MMS's response to permit applications so far.⁷⁹

Thus, the MMS, as lead agency, is charged with undertaking the NEPA environmental review process. Once this review is complete, the MMS may grant a lease, easement, or right-of-way for the development of an offshore wind energy project on the OCS.

2. Corps Section 10/404 Individual Permit

A Section 10/404 Individual Permit must also be obtained from the Corps to begin the construction of an offshore wind energy project on the OCS.⁸⁰ This permit consists of a Section

⁷⁵ 43 U.S.C. § 1337.

⁷⁶ 42 U.S.C. § 4321 *et seq.* (2007).

⁷⁷ NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1500 *et seq.* (2007).

⁷⁸ 40 C.F.R. § 1508.18(b)(4).

⁷⁹ *See, e.g.*, Notice of Intent to Prepare Environmental Impact Statement (EIS), 71 Fed. Reg. 35293 (Proposed June 19, 2006).

⁸⁰ *See, e.g.*, CAPE WIND ENERGY PROJECT, CAPE WIND ENERGY PROJECT FINAL ENVIRONMENTAL IMPACT REPORT/DEVELOPMENT OF REGIONAL IMPACT 8-1 (Feb. 15, 2007), *available at*

10 permit and a Section 404 for the discharge of dredged or fill permit. Although the Energy Policy Act of 2005 abrogated the Corps' authority as lead agency for federal offshore wind energy development, it allowed the Corps to retain its permitting authority.⁸¹ Section 10 of the Rivers and Harbors Act of 1899⁸², as amended by the OCSLA⁸³, delegates authority to the Corps to permit any obstructions to navigation within the "navigable waters of the United States" and the OCS.⁸⁴ The construction and operation of an offshore wind energy facility will result in the installation of structures within the ocean, such as wind turbine generators and electric service platforms. Therefore, the development of an offshore wind energy project on the OCS still falls under the Corps' section 10 jurisdiction and, as such, requires a permit.

Also, a permit for dredged or fill material will most likely be required from the Corps, pursuant to section 404 of the Clean Water Act.⁸⁵ This section requires a permit be obtained from the Corps before discharging dredged or fill material "into the water of the United States."⁸⁶ Since the current state of technology requires the removal of dredged materials, at least temporarily, for installation of components such as the submarine transmission cable system, a section 404 permit is required for most offshore wind energy projects. The Cape Wind Project, for example, was required to obtain a Section 10/404 Individual Permit from the Corps.⁸⁷

<http://www.capewind.org/article137.htm> (Describing the Cape Wind Project's application to the Corps for a Section 10/404 Individual Permit).

⁸¹ See 43 U.S.C. § 1337(p)(9).

⁸² 33 U.S.C. § 403.

⁸³ 43 U.S.C. § 1331 *et seq* (2007).

⁸⁴ 33 U.S.C. § 403.

⁸⁵ *Id.* § 1344.

⁸⁶ *Id.* § 1334(a).

⁸⁷ See Notice of Intent to Prepare Draft Environmental Impact Statement (DEIS) for Proposed Cape Wind Energy Project, Nantucket Sound and Yarmouth, MA Application for Corps Section 10/404 Individual Permit, 67 Fed. Reg. 4414 (Jan. 30, 2002).

3. Other Federal Reviews

In addition to the MMS and the Corps, several federal laws provide other agencies with an oversight role that may require consultation for offshore wind energy projects along the OCS. These laws and agencies may include the following: the Endangered Species Act⁸⁸ (U.S. Fish and Wildlife Service) ; the Magnuson-Stevens Fishery Conservation and Management Act⁸⁹ (National Oceanic and Atmospheric Administration); the Marine Mammal Protection Act⁹⁰ (U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration); the National Historic Preservation Act⁹¹ (National Park Service); the Fish and Wildlife Coordination Act⁹² (U.S. Fish and Wildlife Service); the Migratory Bird Treaty Act⁹³ (U.S. Fish and Wildlife Service); the Coastal Zone Management Act⁹⁴ (National Oceanic and Atmospheric Administration); the Clean Water Act⁹⁵ (U.S. Environmental Protection Agency); the Clean Air Act⁹⁶ (U.S. Environmental Protection Agency); and the Ports and Waterways Safety Act⁹⁷ (U.S. Coast Guard); and the Federal Aviation Act⁹⁸ (Federal Aviation Administration). The agencies that must be coordinated will be determined by the specifics of the proposed project.

⁸⁸ 16 U.S.C. § 1531 *et seq* (2007).

⁸⁹ 16 U.S.C. § 1801 *et seq* (2007).

⁹⁰ 16 U.S.C. § 1361 *et seq* (2007).

⁹¹ 16 U.S.C. § 470 *et seq* (2007).

⁹² 16 U.S.C. § 661 *et seq* (2007).

⁹³ 16 U.S.C. §§ 703-712 (2007).

⁹⁴ 16 U.S.C. § 1451 *et seq* (2007).

⁹⁵ 33 U.S.C. § 1251 *et seq* (2007).

⁹⁶ 42 U.S.C. § 7401 *et seq* (2007).

⁹⁷ 33 U.S.C. § 1221 *et seq* (2007).

⁹⁸ 49 U.S.C. § 44718; 14 C.F.R. Part 77 (2007).

B. STATE AND LOCAL PERMITS FOR OFFSHORE WIND ENERGY DEVELOPMENT

1. State Water Quality Certification

An applicant for a federal permit to conduct any activities, including the construction and operation of facilities, that may result in a discharge into navigable waters must provide the federal permitting agency with a State Water Quality Certification (Certification) from the state where the discharge originated, averring that the proposed activity will comply with the state's water quality standards.⁹⁹ The Certification may include effluent limitations and other conditions necessary to ensure compliance with the Clean Water Act and "any other appropriate requirement of state law."¹⁰⁰ These conditions, in turn, become part of the federal permit when issued¹⁰¹, regardless of whether the federal agency views them as impermissible.¹⁰² If the state denies the Certification, the federal permit may not be issued.¹⁰³

This certification process entrusts the states with enormous power over federally permitted activities. States not only have the authority to impose conditions on federally-issued permits, they also possess the authority to veto them. One court described the states as having "the power to block, for environmental reasons, local water projects that might otherwise win federal approval."¹⁰⁴

⁹⁹ CWA § 401(a)(1), 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 121.1(g) (defining "water quality standard").

¹⁰⁰ 33 U.S.C. § 1342(d).

¹⁰¹ *Id.*

¹⁰² *See American Rivers, Inc. v. Federal Energy Regulatory Comm'n*, 129 F.3d 99, 111 (2d Cir. 1997). The federal agency's only recourse would be to refuse to issue the permit as conditioned. *See id.*

¹⁰³ 33 U.S.C. § 1341(a)(1).

¹⁰⁴ *Keating v. FERC*, 927 F.2d 616, 622 (D.C. Cir. 1991) (*citing* *United States v. Marathon Dev. Corp.*, 867 F.2d 96, 99-100 (1st Cir. 1989)).

In order to initiate an offshore wind energy project along the OCS, the developer must obtain a state water quality certification. The state's ability to veto the project or attach conditions to its approval makes it an important component in this development. Since offshore wind energy is in its infancy in the U.S., it is unclear what types of obstacles this certification requirement will create.

2. Coastal Zone Management Act Consistency Review

Under the Coastal Zone Management Act (CZMA)¹⁰⁵, applicants for federal licenses or permits to conduct activities in or outside the zone affecting a state's coastal zone are required to provide the agency with a certification that the proposed activity complies with the state's coastal zone management program and will be conducted in a manner consistent with such program.¹⁰⁶ Upon receipt of a the certification, the agency will forward a copy of it to the state and request the state's concurrence or objection.¹⁰⁷ No federal permit will be granted until the state provides its concurrence or the Secretary of Commerce concludes that the proposed activities are either consistent with the CZMA or necessary in the interest of national security.¹⁰⁸ The state's concurrence is presumed if it fails to respond within six months unless within three months it has provided notice that there was going to be a delay.¹⁰⁹

In the context of offshore wind energy development, this certification requirement translates into a powerful tool for the states. In order to obtain a permit, a developer must certify to the MMS that the proposed project is consistent with the state's coastal zone management program. Before the MMS can issue that permit, it must obtain the state's approval. A state's

¹⁰⁵ 16 U.S.C. § 1451 *et seq.* (2007).

¹⁰⁶ *Id.* § 1456(c)(3)(A).

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* § 1456(c)(3)(B)(i), (iii).

¹⁰⁹ *Id.*

review of a proposed project requiring a federal permit is limited to that project's effect on "any land or water use or natural resource of the coastal zone of that state ..." ¹¹⁰ However, the regulations governing this review define "effect on any coastal use or resource" as: "any reasonably foreseeable effect on any coastal use or resource resulting from a Federal agency activity or federal license or permit activity." ¹¹¹ The scope of possible effects covered under this review is enormous, as it includes environmental consequences, as well as effects on public amenities and structures, such as roads. Thus, obtaining the state's approval could potentially bring the proposed project to a grinding halt.

3. Other State and Local Reviews

In addition to state water quality certification and consistency review, various state and local reviews would also be necessary. The precise approvals needed will vary depending on the state and town and on the specific details of that project. It is important to note, that these reviews may be required, regardless of whether the proposed project is located in federal waters along the OCS. Thus, depending on the state and town with jurisdiction, offshore wind energy projects may be subject to regulations from permitting authorities on the state and local levels.

The Cape Wind Energy Project illustrates the expansive nature of the state and local reviews that a proposed offshore wind energy project must undergo. In addition to the various federal agency reviews the project was subjected to, it was also reviewed by the following state and local permitting agencies: the Massachusetts Environmental Policy Act Unit, the Massachusetts Energy Facilities Siting Board, the Massachusetts Department of Environmental Protection, the Massachusetts Office Coastal Zone Management, the Massachusetts Ocean Sanctuaries Act Department of Environmental Management, the Massachusetts Highway

¹¹⁰ See *id.* § 1456(c)(3)(A).

¹¹¹ 15 C.F.R. § 930.11(g) (2007).

Department, the State Historic Preservation Officer, the Massachusetts Historical Commission, the Cape Cod Commission, the Yarmouth Conservation Commission, the Barnstable Conservation Commission, the Yarmouth Department of Public Works, and the Barnstable Department of Public Works.¹¹²

III. PROBLEMS WITH THE CURRENT PERMITTING SYSTEM

A. REGULATORY DELAY OF OFFSHORE WIND ENERGY DEVELOPMENT

The most significant problem with the current permitting scheme for offshore wind energy development is that it does not exist. The Secretary, in conjunction with any other relevant agencies, is explicitly required by section 388 of the Energy Policy Act of 2005 to issue any necessary regulations within 270 days of its enactment.¹¹³ As previously mentioned, the 270-day deadline expired on May 8, 2006. However, the Department does not plan on issuing any final regulations until Fall of 2008.¹¹⁴ Therefore, despite the Act's regulatory deadline, a permitting scheme is not expected to be established until nearly two years later.¹¹⁵

This unreasonable delay in establishing a permitting system is further exacerbated by the fact that the MMS played such a pivotal role in acquiring this permitting authority. As soon as interest developed for siting alternative energy-related activities on the OCS, the MMS began holding itself out as the most qualified agency to assume the lead role in permitting such

¹¹² See CAPE WIND ENERGY PROJECT, CAPE WIND ENERGY PROJECT FINAL ENVIRONMENTAL IMPACT REPORT/DEVELOPMENT OF REGIONAL IMPACT 1-6 (Feb. 15, 2007), available at <http://www.capewind.org/article137.htm> (Table listing required permits for proposed project).

¹¹³ See 43 U.S.C. § 1337(p)(8).

¹¹⁴ MMS, Targeted Timelines for Program Rulemaking/PEIS, Cape Wind, and Long Island Offshore Wind Park, available at <http://www.mms.gov/offshore/CIAP/PDFs/Visio-3timelines040207A.pdf>.

¹¹⁵ To date, there has been no lawsuit filed to enforce the deadline.

activities.¹¹⁶ One of the qualifications of which the agency boasted was its “unparalleled experience in multiple-use land management.”¹¹⁷ According to the MMS, the fact that it “routinely makes decisions to balance economic activities with the need to protect the environment” also made it exceptionally qualified for the role of lead agency.¹¹⁸ In fact, the Act’s centralization of permitting authority within the Department was based on legislation that the Department had introduced as early as 2002.¹¹⁹ Therefore, the responsibility for developing a regulatory framework for alternative energy-related uses of the OCS was not suddenly dropped on the MMS, rather it was something that the MMS actively pursued.

This regulatory delay is not only contrary to the deadline set by the Act, it is also contrary to Executive Order 13212.¹²⁰ This order requires that federal agencies take appropriate actions to expedite projects that will increase the production, transmission, or conservation of energy.¹²¹ More specifically, agencies are directed to expedite their review of permits for energy-related projects.¹²² The development of wind energy on the OCS is an energy-related project that can provide substantial resources to meet the national energy needs and, as such, should be addressed without undue delay.

Thus, the MMS’s regulatory delay has essentially suspended offshore wind energy development for the past two years. According to the MMS, it has a unique expertise in energy-related development such as this and has all of the resources necessary for regulating it at its

¹¹⁶ See *Hearing on H.R. 793, Alternative Energy-Related Uses on the Outer Continental Shelf and H.R. 794, The Coal Leasing Amendments Act of 2003 Before the House Subcomm. on Energy and Mineral Res., Comm. on Res., 108th Cong. (2003)* (statement of Johnnie Burton, Director, Minerals Mgmt. Serv.), available at <http://www.mms.gov/ooc/testimony/test030603.htm>.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ Exec. Order No. 13212, 66 Fed. Reg. 28357 (May 22, 2001).

¹²¹ *Id.*

¹²² *Id.*

disposal.¹²³ Since the MMS appears to have the ability to implement the necessary framework to facilitate the development of offshore wind energy, it should do so with the sense of urgency that the Act's deadline and Executive Order 13212 mandate.

B. MISUSE OF NEPA ENVIRONMENTAL REVIEW PROCESS

Along the same line as the current regulatory delay, the NEPA environmental review process is being misused as a method of obstructing future offshore wind energy development. Under the NEPA review process, the EIS should consider both the direct and indirect environmental effects of the proposed action.¹²⁴ The environmental consequences, both positive and negative, of alternatives to the proposed action, including the alternative of no action, must also be objectively compared as part of EIS.¹²⁵ During the scoping process, which is required to take place before the draft EIS is published¹²⁶, the agency should consider the significant environmental impacts associated with the proposed action, as well as any connected actions and reasonable alternatives, including the alternative of no action.¹²⁷ In the context of permitting offshore wind energy development, the MMS would be required to consider the significant environmental consequences associated with granting access rights for the construction and operation of the facility, any reasonable alternatives, and the alternative of no action. Essentially, this would translate into two potential options: permit offshore wind energy development or allow the current reliance on fossil fuel-generated electricity to continue.

¹²³ See *supra* note 116.

¹²⁴ See 40 C.F.R. § 1502.16.

¹²⁵ See *id.* § 1502.14.

¹²⁶ See *id.* § 1501.7. Scoping is the formal early coordination process for determining the scope of issues to be addressed and the significant issues associated with the proposed action. This process is initiated by the publication of a Notice of Intent in the Federal Register. 40 C.F.R. § 1508.22.

¹²⁷ See *id.* § 1508.25.

This environmental review framework should create a decision-making process based on a comparison of the proposed offshore wind energy project's impacts against the impacts associated with other forms of electricity generation, chiefly fossil fuel generation. Given the known consequences of both the options, this decision-making process would make the offshore wind energy project the appropriate decision virtually every time.¹²⁸

Consideration of the potential impacts on fish populations from offshore wind energy development illustrates this decision-making process. Despite claims that the Cape Wind Project would have significant impacts on fish populations, the project's Draft EIS found that the impacts would be minimal and temporary.¹²⁹ Conversely, the potential impacts on fish populations from fossil fuel and nuclear power plants would be significant and permanent. Fossil fuel and nuclear power plants typically use tremendous amounts of water for cooling. They pull water from the nearby lake, river, or ocean into the plant's cooling system, where it absorbs waste heat. This heated water is then dumped back into the waterbody. This process kills thousands of fish and the warmer water destroys habitats. However, an offshore wind energy project, such as the Cape Wind Project, would reduce power plant fish kills to the extent that it displaces existing generation. Therefore, the concern for potential impacts on fish populations, which is frequently used by opponents of offshore wind energy projects, would actually favor those projects under the proper environmental review process.

The Cape Wind Project provides the perfect illustration of this misuse of the NEPA environmental review process. This project has already undergone more than four years of rigorous environmental review, beginning with the Army Corps of Engineers in 2001. Nearly

¹²⁸ Various site-specific factors could prevent the choice of offshore wind energy projects, such as migratory bird-path locations or presence of preexisting structures.

¹²⁹ See CAPE WIND ENERGY PROJECT, CAPE WIND ENERGY PROJECT FINAL ENVIRONMENTAL IMPACT REPORT/DEVELOPMENT OF REGIONAL IMPACT 5-4 (Feb. 15, 2007), available at <http://www.capewind.org/article137.htm>.

three years after submitting an application to the Corps, a Draft EIS was finally issued in 2004.¹³⁰ Despite the fact that the Corps' Draft EIS was 4,000 pages, the MMS did not find it to be comprehensive enough and, as the newly appointed lead agency, demanded another Draft EIS be completed under its supervision.¹³¹ The Final EIS is not expected to be issued until Fall of 2007 and the Record of Decision is not expected until Winter of 2007.¹³² In all, the Cape Wind Project will have undergone more than six years of environmental review.

This unreasonable delay runs contrary to the intended use of the NEPA environmental review process. According to the regulations, an EIS "shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages."¹³³ Accordingly, the Council on Environmental Quality (CEQ), the agency charged with overseeing NEPA's implementation, has "advised that under the new NEPA regulations even large complex energy projects would require only about 12 months for the completion of the entire EIS process."¹³⁴ The Cape Wind Project's 4,000-page Draft EIS and its six years of environmental review would seem to be evidence that the process has gotten out of control.

Thus, the NEPA process has been converted into a tool for blocking the development of offshore wind energy. The MMS needs to rein in this environmental review process and honor

¹³⁰ See U.S. ARMY CORPS OF ENGINEERS, DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CAPE WIND PROJECT (2004), available at <http://www.nae.usace.army.mil/projects/ma/ccwf/deis.htm>.

¹³¹ See Notice of Intent (NOI) to Prepare Environmental Impact Statement (EIS), 71 Fed. Reg. 30693 (Proposed May 30, 2006).

¹³² See MMS, Targeted Timelines for Program Rulemaking/PEIS, Cape Wind, and Long Island Offshore Wind Park, available at <http://www.mms.gov/offshore/CIAP/PDFs/Visio-3timelines040207A.pdf>.

¹³³ 40 C.F.R. § 1502.7.

¹³⁴ See COUNCIL ON ENVIRONMENTAL QUALITY (CEQ), NEPA'S FORTY MOST ASKED QUESTIONS, TIME REQUIRED FOR THE NEPA PROCESS, available at <http://ceq.eh.doe.gov/nepa/regs/40/40p3.htm>.

the intention of NEPA. Based on the decision-making process that NEPA mandates, the choice of whether to permit the proposed projects should be easy for the agency to make.¹³⁵

C. NEED FOR CENTRALIZED MANAGEMENT

As the above description of the various permitting authorities illustrates, the regulatory process for offshore wind energy development can be overwhelming. In order to combat this problem, there must be some form of centralized management. In Europe, the common practice is to use a “one-stop shop office” approach.¹³⁶ Under this approach, the developers communicate with one official contact office to handle everything from administrative to legal matters. A recent study by the International Energy Agency concluded that the use of “one stop shop offices” has been a success from the point of view of both agencies and developers.¹³⁷

The MMS, as the lead agency, would be perfect for this “one-stop shop” position. As the one-stop shop agency for wind energy permitting on the OCS, the MMS could streamline the approval process by coordinating with all of the other relevant agencies. In fact, the Energy Policy Act of 2005 mandates such coordination.¹³⁸ Therefore, the MMS should coordinate efforts with the other relevant agencies to form a one-stop shop permitting office for wind energy development on the OCS.

IV. CONCLUSION

In sum, developing the United States’ potential for using offshore wind energy will contribute to security of energy supply, reduce dependency on fuel imports, reduce emissions of

¹³⁵ While an argument could be made that the MMS is simply building a strong case for future litigation, the delay has reached the point of being unreasonable.

¹³⁶ See TILL STENZEL & RICK SELLERS, INTERNATIONAL ENERGY AGENCY, OFFSHORE WIND EXPERIENCES (2005), available at <http://www.iea.org/textbase/papers/2005/offshore.pdf>.

¹³⁷ See *id.* at 35.

¹³⁸ See 43 U.S.C. § 1337(p)(4)(E).

greenhouse gases and other pollutants, and improve environmental protection. Despite a vast potential for offshore wind energy along the OCS, the MMS is holding potential development hostage through regulatory delay and time-consuming replications of environmental reviews. It is vital that the MMS reduce the regulatory confusion and establish a unified coordinated approach to ensure the expeditious, yet responsible, development of offshore wind energy.