What’s the Holdup? How Bureaucratic Obstacles Are Undercutting the True Potential of American Wind Power

“A great wind is blowing, and that gives you either imagination or a headache.”

I. INTRODUCTION

Wind power is now the fastest growing source of alternative energy in the United States, due in part to desires to increase utilization of cleaner energy and to withdraw from dependence on foreign energy. Studies have shown that if properly harnessed, the United States has enough wind-energy potential to provide well over the amount of electricity currently consumed nationally. Capitalizing on this potential, thirty-eight states currently maintain utility-scale wind projects, with fourteen states amassing over one thousand megawatts (mW) of energy from these projects. Although all current wind power

1. GAMALIEL BRADFORD, DAUGHTERS OF EVE 192 (1930) (quoting Catherine the Great).
4. See 2011 MARKET REPORT, supra note 2 (providing statistical information on state wind-farm sizes); see also PATRICIA E. SALKIN, 4 AMERICAN LAW OF ZONING § 37:9 (5th ed. 2011) (displaying statistics
generated in the United States is produced through land-based operations, the country is pursuing offshore projects—specifically the perpetually delayed Cape Wind project located off the coast of Massachusetts. If the United States wants to continue expansion of wind power both efficiently and lucratively, it must develop a regulatory scheme designed, updated, and maintained specifically for this growing market.

The United States does not have any centralized regulatory, statutory, or administrative authority designed specifically to address wind energy. Potential wind projects—often-called wind farms—must traipse through a mire of local, state, and federal regulations, few of which provide regularity or guidance from project to project. On the federal level, an amalgamation of statutes governs various facets of a wind project’s evolution: permitting, development, decommission, taxation, and rights to opposition are all governed by many different laws. In addition, states generally have their own radically different approaches to handling wind power. Many states even allow cities and towns to pass their own ordinances for handling wind power, which often result in moratoriums or competition between neighbors for lucrative turbine leases. Without any national voice or approach to the development of wind technology, the United States is at a dramatic disadvantage to countries that

5. See Brown & Escobar, supra note 2, at 502-03 (describing history of Cape Wind project and other potential offshore wind farms). The proposed site for Cape Wind, Horseshoe Shoal, is located 13.8 miles from Nantucket, an island approximately thirty miles south from the coast of Cape Cod, Massachusetts. See id. The privately developed project would include 130 wind turbines—each 250 feet tall—located completely in federal waters. See id. at 695-96 (outlining scale of Cape Wind project); Project at a Glance, CAPE WIND, http://www.capewind.org/modules.php?op=modload&name=Sections&file=index&req=viewarticle&artid=24 &page=1 (last visited Feb. 6, 2013) (providing brief overview of Cape Wind project). Along with traipsing through rigorous federal guidelines, attempting to obtain permits, and securing investments, Cape Wind has found itself embroiled in litigation for nearly a decade. See Adam M. Dinnell & Adam J. Russ, The Legal Hurdles to Developing Wind Power as an Alternative Energy Source in the United States: Creative and Comparative Solutions, 27 NW. J. INT’L L. & BUS. 535, 547-53 (2007) (describing various legal challenges to Cape Wind project); infra Part II.C.3.b (examining legal hurdles hindering Cape Wind project).

6. See Dinnell & Russ, supra note 5, at 589-90 (postulating how centralized, federal wind act could simplify regulation and develop markets); infra Part III (addressing need for centralized wind commission).

7. See Dinnell & Russ, supra note 5, at 579-80 (stating United States lacks any focused wind-regulation strategy).

8. See infra Part II.B-C (discussing various state and federal regulations necessary to create wind farms).

9. See infra Part II.B (observing large number of regulations required to develop and maintain wind farms).

10. See SALKIN, supra note 4, § 37-9 (highlighting various state approaches to controlling wind power); infra Part II.F (highlighting state approaches—successful and otherwise—to wind power).

11. See Engelman, supra note 2, at 10,557 (highlighting pitfalls of wind development in towns without zoning). “In New York, zoning authority is delegated to local governments under a system dubbed ‘home rule.’ Municipalities have the discretion to create zoning laws that are consistent with the purposes and standards of state law, but are not required to do so.” Id. Without zoning laws in place for wind development, small towns often have difficulty during the initial stages of turbine installation. See id.
have taken a proactive approach to wind technology’s introduction.\textsuperscript{12}

The United States is not without solutions, some of which have already been proposed in both the House of Representatives and the Senate.\textsuperscript{13} These proposals encompass the notion that by developing a cohesive federal framework that can keep up with quickly developing wind technology, the country can create electricity from wind exponentially faster and in greater quantities.\textsuperscript{14} Federal and state governments can begin this process by analyzing, consolidating, and stream-lining the current regulatory framework.\textsuperscript{15} In addition, the federal government should analyze the approaches taken by various states with successful systems.\textsuperscript{16} Finally, the United States would be wise to learn a lesson from other nations developing large-scale wind power worldwide.\textsuperscript{17}

This Note analyzes the dynamic changes taking place in the United States wind-power industry.\textsuperscript{18} Part II.A begins with an overview and description of wind technology in the United States, including its expanding utilization and technological progressions.\textsuperscript{19} Next, Part II.B-D will analyze the current regulatory foundation that controls wind power, including project development, environmental impact, and tax structure.\textsuperscript{20} Part II.E-F will discuss various successful regulatory frameworks from around the United States as well as around the world.\textsuperscript{21} Lastly, Part III will discuss potential solutions the United States could pursue based on ideas not yet enacted into law, reformulation of current laws, and a general refocusing on alternative-energy goals and policies.\textsuperscript{22}

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  \item[12.] \textit{See} Dinnell & Russ, supra note 5, at 565-78 (describing how countries with established wind frameworks thrive despite differences); \textit{see also infra} Part II.E (analyzing different, successful wind-power-development approaches taken by countries globally). The United States only produced 22.1\% of total wind power in the world by the end of 2009. \textit{See Wind Power, THINK GLOBAL GREEN, http://www.thinkglobalgreen.org/WINDPOWER.html} (last visited Feb. 6, 2013) (comparing global wind-energy figures).
  \item[13.] \textit{See infra} Part I.D (analyzing proposed and enacted alternative-energy regulations).
  \item[14.] \textit{See} Dinnell & Russ, supra note 5, at 579-81 (opining benefits resulting from “National Wind Power Act”).
  \item[15.] \textit{See infra} Part III.A.1 (recommending consolidation of current regulatory authority into “National Wind Agency”).
  \item[16.] \textit{See infra} Part II.F (addressing strong policies to potentially develop efficient, central wind regulation).
  \item[17.] \textit{See infra} Part II.E (expressing global views on wind development).
  \item[18.] \textit{See infra} Part II.A (describing emergence of wind power as feasible and efficient possibility for energy).
  \item[19.] \textit{See infra} Part II.A (analyzing wind-capacity increases and concurrent technological progression).
  \item[20.] \textit{See infra} Part II.B (observing various federal regulations concerning wind development).
  \item[21.] \textit{See infra} Part II.E-F (considering numerous state and global approaches to wind development).
  \item[22.] \textit{See infra} Part III (arguing for “National Wind Agency” based on benefits of centralized authority and national wind support).
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II. HISTORY

A. The Emergence of Wind Power in the United States

Wind power has emerged as the leader in the alternative-energy market both for its efficiency and for its feasibility.\(^{23}\) Based on the most current estimates available, the United States generated 4100.656 million megawatt-hours (mWh) of total electricity in 2011, which was a 0.6% decline from the 4125.060 million mWh produced in 2010.\(^{24}\) While total United States energy production declined, the generation of wind energy increased twenty-seven percent over that same period: 120.177 million mWh in 2011 versus 94.652 million mWh in 2010.\(^{25}\) In fact, the National Renewable Energy Laboratory (NREL) has increased its earlier estimates for possible wind-power generation by 26,223,000 gigawatt-hours (gWh) because of tremendous improvements in wind technology.\(^{26}\) Wind energy accounted for thirty-five percent of newly installed electrical capacity in the United States since 2007—more than twice the amount installed by the coal and nuclear industries combined.\(^{27}\)

A primary reason for the surge in wind-energy production is the dramatic increase in efficiency and cost-effectiveness the market has undergone.\(^{28}\)
instance, current wind turbines stand at an average height of eighty meters, whereas previous technologies were limited to heights averaging fifty meters. 29 Access to stronger winds is a tremendous benefit considering developable wind sites have average wind speeds between 6.5 and 10 meters per second. 30 Further, the development of affordable computer programming has allowed experts to estimate wind speeds in a given area within .35 meters per second, allowing for increasingly accurate turbine siting. 31 Finally, modern wind developers now have the ability to develop complex siting maps, allowing them to pinpoint optimal locations to install new turbines. 32

The emergence of wind as a feasible source of energy has also bolstered its nationwide usage. 33 Today’s wind turbines, though large and complex, are both quiet and reliable. 34 These developments have lead to diverse siting opportunities—from ridges to cities. 35 In the first half of 2011 alone, the
country installed 2151 mW of wind power, an astonishing seventy-two-percent increase from the first half of 2010. In addition, the NREL estimates that the United States could generate twenty percent of its total electrical output from wind by 2024. This reality is bolstered by the fact that a wind farm generally needs fifteen to thirty acres per mW to be operational, but leaves a total footprint of only three to five percent of that acreage. Finally, in order to create more versatile turbines that can produce electricity consistently at different wind speeds, the Department of Energy’s Wind and Hydropower Technologies Program is researching low-speed technology.

B. Federal Wind Regulations: Purposes and Aims

Although alternative-energy development—lead by wind power—is now vital to the future of United States energy needs, Congress has not yet developed a cohesive framework for the development or implementation of wind farms. Instead, the country has relied upon a conglomeration of federal and state statutes, none of which encompasses the totality of wind-project development. The most pertinent federal regulations to the onshore-wind
industry include the Public Utilities Regulatory Policies Act (PURPA), the Endangered Species Act (ESA), and the Energy Policy Acts of 1992 (EPACT92) and 2005 (EPACT05). Setting the foundation for renewable energy to break into mainstream electricity markets, PURPA’s goals included increasing the efficiency of existing electric utilities, providing equitable rates for consumers, and developing renewable energy.

1. PURPA’s Effect on the Wind Industry

PURPA was the first set of laws affording independent power producers the ability to sell their electricity competitively by requiring public utilities to buy it at state-determined rates. Before PURPA, electric utilities generally enjoyed monopoly status; the utility provider had a protected geographic region where it alone sold power, and it controlled the generation, transmission, and distribution of its power. Under PURPA, a “qualifying facility”—including many producers that generate electricity from wind, among other sources—is entitled to a range of exemptions that are not available to other independent power producers. Most importantly, electric utilities must purchase all energy offered to them by qualifying facilities at a price equivalent to the utility’s “avoided cost”: a price determined by the costs of electric capacity or expedited permitting process. As of 2002, the BLM had authorized 500 mW of installed wind capacity by issuing twenty-five permits. In addition, the BLM has developed a three-stage process to authorize wind projects by granting temporary easements on land it controls. See id. at 88-90. The stages include easements allowing for site testing, monitoring, and eventual development. See id. at 89-90.

42. See infra Part II.B.1-5 (discussing pertinence of federal regulations to onshore wind power).


44. See FERREY, supra note 43, at 78-79 (asserting PURPA ensures viability and marketability of new forms of energy). Along with encouraging the vitality of independent power producers, PURPA was designed to reduce dependence on foreign sources of energy as well as protect the current energy markets of the United States by diversifying the types of electricity that utilities purchase. See Real de Azua, supra note 33, at 503-04 (describing purposes and aims of PURPA).

45. See FERREY, supra note 43, at 78-79 (describing makeup of pre-PURPA regulations); see also Real de Azua, supra note 33, at 504 (articulating how PURPA broke utility monopoly over power generation). Transmission systems include the generally recognized high-voltage wires that move power, while distribution systems include the lower-voltage wires that branch from the utility to the individual user. See Real de Azua, supra note 33, at 504. It should be noted that before PURPA, the utility alone had discretion to decide from which power producers it chose to purchase energy. See id. at 503-04.

46. See FERREY, supra note 43, at 92 (stating qualified facilities receive privileges other energy producers may not). There are two recognized types of qualifying facilities: cogenerators, which are not relevant to this Note; and small power producers, which generate electricity from alternative-energy resources such as wind. See § 796(17)(A) (defining small power-production facility under PURPA in language identical to Federal Power Act); see also Real de Azua, supra note 33, at 504 (defining qualifying facilities). Small power producers are generally limited in size to less than 80 mW of electrical output. See FERREY, supra note 43, at 89.
energy that the utility itself would generate or buy elsewhere but for the purchase from the qualifying facility.\textsuperscript{47} In addition, qualifying facilities are exempt from the Federal Power Act and most state regulations, which could have potentially treated them as if they were public utilities or corporate organizations.\textsuperscript{48}

2. The Implementation of PURPA and the Challenges Created

By implementing these theoretically helpful incentives for the alternative-energy industry, PURPA aimed to guarantee a market for renewable electricity which may not have had competitive access otherwise.\textsuperscript{49} In practice, however, PURPA has been an efficient tool for opponents of wind production to delay wind-farm development by arguing over the rates of avoided cost, as well as filing complaints concerning the inherently intermittent nature of wind energy.\textsuperscript{50} In response, the Federal Energy Regulatory Commission (FERC) added a provision to PURPA to allow utilities to stop purchasing energy from small qualifying facilities if the FERC finds that the facility has “nondiscriminatory access” to wholesale electric markets.\textsuperscript{51} Opponents have

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  \item \textsuperscript{47} Ferrey, supra note 43, at 91-92 (explaining purchase regulations for utilities); see Fred Sissine, Cong. Research Serv., IB 10041, Renewable Energy: Tax Credit, Budget, and Electricity Production Issues, at CRS-4 (2006), available at http://fpc.state.gov/documents/organization/60712.pdf (defining avoided cost); see also Real de Azua, supra note 33, at 504-05 (commenting upon intent behind avoided cost idea). Utilities are required to purchase all power offered to them by qualifying facilities regardless of transmission or location. See Ferrey, supra note 43, at 92. However, PURPA does not require a utility to pay more than its avoided cost. See id. at 93.
  \item \textsuperscript{48} See Ferrey, supra note 43, at 98 (describing exemptions awarded to qualifying facilities); Real de Azua, supra note 33, at 505 (analyzing exemptions to qualifying facilities and commenting upon their purpose).
  \item \textsuperscript{49} See Ferrey, supra note 43, at 79 (stating PURPA provides qualifying facilities with sustainable market for their power); Real de Azua, supra note 33, at 505 (stating exemptions for qualifying facilities intended to offer them guaranteed markets). Congress further bolstered the emerging markets for wind energy by codifying the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989, which declared national goals for wind research. See 42 U.S.C. § 12003 (2006) (establishing Wind Energy Research Program). The Wind Energy Research Program aimed to increase wind-turbine output, reduce maintenance cost, increase structural and aerodynamic knowledge that may be applied to wind technology, and improve the interconnections between wind farms and conventional utilities. See id. § 12003(1)(A). Specific goals for wind research included reducing the average wind cost to between three and five cents per kilowatt hour by 1995, reduce operation and maintenance costs to less than one cent per kilowatt hour by 1995, reduce capital costs dramatically, and increase capacity to twenty-five to thirty-five percent by 1995. Id. § 12003(1)(B).
  \item \textsuperscript{50} See Real de Azua, supra note 33, at 506 (describing unforeseen wind-power issues arising from implementation of PURPA). The main problem concerning avoided-cost calculations arises from the fact that different jurisdictions use different calculations to decipher avoided costs, and these figures vary greatly. See id. In addition, many states have challenged PURPA’s absolute power-purchasing requirement because intermittent wind power may produce issues traditional forms of power do not, ultimately raising prices for consumers. See Concerned Citizens of Cattaraugus Cnty., Inc., Concerned Citizens, http://concernedcitizens.homestead.com/files/windfarms/PURPA.html (last visited Feb. 6, 2013) [hereinafter Cattaraugus].
  \item \textsuperscript{51} See 16 U.S.C. § 824a-3(m)(1) (2006) (explaining exception to usual mandatory-purchase rules); Cattaraugus, supra note 50 (analyzing market-competition exception to PURPA); see also Sissine, supra note 47, at CRS-4 (noting utilities need not purchase from qualifying facilities with adequate market access). If a wind farm’s capacity is under 20 mW, however, the presumption under PURPA is that the producer will not be
even pushed for penalties to be imposed on qualifying wind facilities if actual output strays substantially from projected estimates. Fortunately for wind developers, the FERC disagreed and issued Order 890, which exempted intermittent energy sources from imbalance penalties.

3. Animal Protection Policies and Wind Development

Another federal statute crucial to the development of the wind industry is the ESA, which has the power to stop a federal project if it is impossible to mitigate negative effects on an endangered species. The ESA makes it illegal to “take” any endangered species within the United States, a regulation particularly important for wind developers during the siting and construction of wind turbines. If wind developers want to shield themselves from development problems, they may apply for an incidental-take permit so long as any taking that occurs is incidental to the project. However, incidental-take
permits do not give wind developers carte blanche to develop lands inhabited by certain animals; the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) provide additional protection for certain species. Therefore, wind developers must be extremely cognizant of the environments on which they plan to build in order to avoid litigation over environmental damage.

4. The Introduction and Development of the Production Tax Credit

The United States reached a landmark in the development of alternative energy with the EPACT92. Perhaps the most important feature of EPACT92 for wind developers was the milestone incentive known as the Production Tax Credit (PTC). The PTC provides a 1.5-cent-per-kilowatt-hour tax credit for electricity created by wind at qualifying facilities. Consequently, the PTC “is...
increasing the American manufacturing base, and the jobs that go with it,” according to Dennis Bode, CEO of the American Wind Energy Association (AWEA).62

5. Functionality of the Production Tax Credit

The PTC has been vital to the exponential growth of wind energy over the past twenty years, and has been extended multiple times.63 However, because the PTC has not been implemented continuously, and instead undergoes periods of lapse and renewal, the wind industry is faced with a recurring “boom-and-bust cycle.”64 This lack of stability scares investors from making long-term investments in wind energy, thereby creating dramatic lapses in wind implementation during the uncertain six to eight months before the expiration date.65 In addition, the “bust” periods have cost thousands of Americans their

an eligible wind turbine and sells the power to an unrelated party.” Real de Azua, supra note 33, at 500. The credit can be claimed starting on the date the facility was put in service, and for up to ten years thereafter. See id.

62. Wind Rebounds in 2Q, supra note 27; see Press Release, Am. Wind Energy Ass’n, New Study: Wind Energy Success Story at Risk with 54,000 American Jobs in the Balance (Dec. 12, 2011), http://awea.org/newsroom/presreleases/Navigant_study.cfm [hereinafter Wind Energy Success Story] (examining effects of PTC on American jobs). If the PTC were extended for another four years, it has the potential to develop 46,000 American manufacturing jobs. See Wind Energy Success Story, supra.


64. See Wiser, supra note 60, at 7 (presenting evidence behind boom-and-bust cycle of wind development). Due to the short life of each PTC cycle, wind development is crunched into short periods of time, dramatically undercutting potential wind development and potency of the industry as a whole. See id. (analyzing boom-and-bust cycle results). During times when the PTC has lapsed or is nearing a lapse, the wind industry has routinely plunged in capacity installation. See id. at 6 & fig.3 (displaying drastic changes in wind capacity installation between boom-and-bust years). Dr. Wiser of the Lawrence Berkeley National Laboratory has studied five ways in which a lapse in the PTC has been detrimental to the wind industry: slowed development, higher costs, greater reliance on foreign manufacturing, stagnation of transmission projects, and reduced private research and development. See id. at 7-8; see also Christopher Riti, Comment, Three Sheets to the Wind: The Renewable Energy Production Tax Credit, Congressional Political Posturing, and an Unsustainable Energy Policy, 27 PACE ENVTL. L. REV. 783, 791 (2010) (opining reasons behind investment stagnation of lapsing PTC).

65. See Am. Wind Energy Ass’n, Wind Energy Production Tax Credit (PTC), GREEN ENERGY COUNCIL, http://www.greenenergycouncil.com/pdfs/PTC_Factsheet.pdf (last visited Feb. 6, 2013) (articulating and graphing reasons why financing becomes strained during PTC renewal periods); see also CONCERNED SCIENTISTS, supra note 61 (explaining how PTC lapse cuts short lengthy development time necessary for wind development). Development of a wind farm often takes more than two years; interruption of the PTC can be disastrous to this process. See CONCERNED SCIENTISTS, supra note 61. In addition, PTC expiration causes wind developers to rush into finishing, leading to added costs, smaller projects, and ultimately higher electricity
jobs while the industry’s technological-advancement capabilities stagnate. The wind industry consistently lobbies for a stable PTC because it makes wind much more attractive to electric utilities and investors alike, fostering additional growth and efficiency in a market rendered volatile without it.

C. The Unique Task of Regulating Offshore Wind Development: A Work in Progress

1. Background on Federal Offshore Wind Regulation

The United States has yet to develop a comprehensive framework dedicated solely to developing its copious offshore-wind-energy potential. Rather, it appears that proposed wind farms will have to navigate a number of different regulations, none of which were authored with the development of offshore-wind energy in mind. Originally, the Rivers and Harbors Act of 1899 governed construction in federal waters, and gave the Army Corps of Engineers authority to decide where private entities could build. However, Congress shifted authority to the Minerals Management Service under EPACT 05 in order to increase alternative-energy production. In addition to the regulations in prices. See Am. Wind Energy Ass’n, supra (describing consequences of PTC expiration on wind-project development).

66. See Concerned Scientists, supra note 61 (analyzing impacts of irregular PTC cycles and damage caused by “busts”).

67. See Wiser, supra note 60, at 7 (examining policy considerations surrounding PTC); see also Carolyn S. Kaplan, Congress, the Courts, and the Army Corps: Siting the First Offshore Wind Farm in the United States, 31 B.C. ENVTL. AFF. L. REV. 177, 182-85 (2004) (discussing efforts to renew PTC); Concerned Scientists, supra note 61 (lobbying Congress to renew PTC).

68. See Firestone et al., supra note 23, at 72. Without a comprehensive, working foundation, offshore production will perpetually lack legitimacy and individual projects will face a multitude of obstacles with each proposal. See id. at 74 (opining on difficulties offshore-wind development faces without established infrastructure). Although difficult, the various challenges facing wind power—political, social, environmental, doctrinal, and otherwise—are not insurmountable if given the proper support and dedication. See Steven Clarke et al., U.S. Offshore Wind Collaborative, U.S. Offshore Wind Energy: A Path Forward 7 (2009), http://www.usoffshorewind.org/wp-content/uploads/2012/06/PathForward.pdf (proposing ability to develop regulations for offshore wind power if adequate support given).

69. See Firestone et al., supra note 23, at 78-81 tbl.1 (listing variety of potential statutes governing offshore-wind development). Pertinent federal regulations outside the scope of this Note include the Clean Water Act, the Clean Air Act, the Marine Mammal Protection Act, the National Historic Preservation Act, the Coastal Zone Management Act, and the Federal Aviation Act. See id.


place for onshore wind farms, offshore-wind developers are faced with the burden of complying with additional regulations, such as the National Environmental Policy Act (NEPA). 72

2. The Effects of NEPA on Offshore-Wind Development

NEPA was developed in response to the drastic environmental damage incurred from human development, including “high-density urbanization, industrial expansion [and] resource exploitation.”73 The NEPA process requires that agencies determine whether their proposed action will have a significant effect on the environment and, if so, to consider the social and economic impacts while developing mitigation strategies.74 In terms of offshore-wind development, NEPA’s role is substantial because a request for a navigable-water permit will first require a NEPA evaluation.75 Agencies may choose from three routes during their NEPA evaluation: creating an Environmental Impact Statement (EIS), undertaking an Environmental Assessment, or arguing that the action is a Categorical Exclusion.76 Considering wind turbine preparation and installation will likely always have a significant impact on the site of placement, wind developers should routinely be prepared for an EIS; the other two avenues deal with less intrusive

changed the structuring of this agency in 2010, creating the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) to replace BOEMRE per Order No. 3299. See id.; DEPT OF INTERIOR, ORDER NO. 3299, ESTABLISHMENT OF THE BUREAU OF OCEAN ENERGY MANAGEMENT, THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, AND THE OFFICE OF NATURAL RESOURCES REVENUE (2010), http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile &PageID=32475 (ordering restructuring of BOEMRE). The BOEM is now responsible for leasing areas of the Outer Continental Shelf and studying potential effects of projects before construction begins, while the BSEE is responsible for oversight, safety, and environmental protection of all offshore energy activities. See Reorganization, supra (explaining differences between BOEM and BSEE). Particularly important to the wind industry is that the BOEM will have exclusive control over NEPA analyses. See id.; see also infra Part II.C.2 (discussing NEPA’s control over offshore wind farms).

72. See Engelman, supra note 2, at 10,553 (stating large-scale wind farms must undergo detailed analyses of potential environmental impacts under NEPA).


75. See CITIZEN’S GUIDE, supra note 74, at 4 (discussing NEPA triggering from permit applications); see also 33 U.S.C. § 403 (2006) (concerning navigable-water permitting). A navigable-water permit is crucial to any construction taking place in waters used by humans for transportation or other commerce. See § 403.

environmental proposals. Although an EIS requires a multitude of steps, it is the most comprehensive evaluation an agency can undertake when determining potential environmental effects a project will create, and consequently alerts the public to the progress of a project in order to allow for public comment.

3. Cape Wind: A Case Study
   a. The Origins of Cape Wind

   The $900-million, 130-turbine Cape Wind project is aiming to be the nation’s first offshore wind farm. The project, which began in 2001, would occupy approximately twenty-four square miles of Horseshoe Shoal, 13.8 miles off the coast of Nantucket, Massachusetts. Although opponents have criticized the project due to turbine visibility from otherwise undisrupted shorelines, the project has the potential to provide seventy-five percent of the total electrical need for Cape Cod and the Massachusetts islands. Even though Cape Wind will be built more than three miles from shore, thus placing it within federal jurisdiction, the transmission lines required to carry electricity to the mainland are under Massachusetts jurisdiction, an idiosyncrasy of offshore-wind development that will occur in nearly every project that delivers...
power from federal waters to state utilities. Therefore, the Cape Wind project has had to fulfill both state and federal permitting regulations, oftentimes causing unnecessary delay due to the redundancy of meeting two sets of similar requirements.

b. Regulatory Uncertainty

The first step taken by the project’s developers, Cape Wind Associates (CWA), was to file an Environmental Notification Form (ENF) under the Massachusetts Environmental Policy Act (MEPA), a state statute similar in structure to NEPA. Three years later, CWA filed both a draft Environmental Impact Report and draft EIS, which the Secretary of the Office of Energy and Environmental Affairs in Massachusetts found adequate and in compliance with MEPA. Although the Secretary encouraged efficiency by recommending that CWA align their final EIS and EIR with federal filings under NEPA, EPACT05 made this impossible. After the Secretary found a
subsequent MEPA Final EIR adequate, the Energy Facilities Siting Board (EFSB) of Massachusetts approved CWA’s application to construct the requisite electricity transmission cables within Massachusetts waters as well as to connect them to the mainland electrical infrastructure. However, the Cape Cod Commission (CCC), designed to protect the interests of the Cape Cod region, denied Cape Wind’s application for the cable project for lack of information, a move that threatened to further prolong the project. Rather than appealing this decision, CWA applied for an EFSB Composite Certificate—which overrides local authorities in order to expedite certain construction projects—and was approved on May 27, 2009. In addition, United States Secretary of the Interior Ken Salazar released a final Record of Decision and Lease to CWA in 2010, but challenges still plague the project, including opposition by Native American tribes and private citizens or companies.

D. Attempting to Create a Unified Voice on Wind Regulation

1. Proposed Regulations for Renewable Energy Development

Lawmakers have not completely balked at attempting to introduce federal regulations designed to develop the nation’s wind industry. United States draft EIS was required under NEPA and restarted the federal permitting process. See id. This tremendous setback splintered the federal and state permitting processes. See id. (commenting upon differing federal and state schedules after EPACT05).

87. See id. at *3-4. The Secretary’s approval came in light of the Alliance to Protect Nantucket Sound’s claims that the final EIR did not adequately address alternatives, mitigation efforts, and environmental impacts. See id. at *3. In granting the MEPA Compliance, the Secretary commented upon the importance of the program:

I believe that an ambitious program of renewable energy development is in the interests of the citizens of Massachusetts . . . . While new technologies are not without impacts themselves, these pale in comparison to the scale of impacts that continued fossil fuel emissions will have on the environment of Massachusetts.

Id. at *4. He also noted that CWA provided the Secretary with information related to its entire project, including the portions governed exclusively by federal law, in an effort to mitigate any additional issues with MEPA or the EFSB. See id. See generally MASS. GEN. LAWS ANN. ch. 164, §§ 69K-69O (West 2013) (codifying way in which EFSB not bound by MEPA or local permitting decisions before taking action).


89. See Town of Barnstable, 27 Mass. L. Rptr. at *9 (discussing EFSB Composite Certificate); see also ch. 164 § 69K. The Town of Barnstable challenged EFSB’s authority to override decisions by CCC, but the case was dismissed because “the issue of EFSB’s jurisdiction vis à vis the Cape Cod Commission Act should be resolved by EFSB in the first instance, subject to a direct appeal to the SJC.” Town of Barnstable, 27 Mass. L. Rptr. at *9.

90. See Schroeder, supra note 24, at 1653 (describing road ahead for Cape Wind).

91. See infra notes 92-100 and accompanying text (discussing both proposed and enacted legislation
Representatives Edward Markey and Todd Platts attempted to introduce a comprehensive plan to reach President Obama’s goal of creating twenty-five percent of our energy from renewable means by 2025. The bill, nicknamed the American Renewable Energy Act (AREA), could have also created approximately 350,000 jobs in the renewable energy sector. In addition, the American Clean Energy and Security Act of 2009, which passed in the House but was defeated in the Senate, would have offered billions of dollars in subsidies for the development of renewable energy as well as the codification of a twenty percent renewable-energy standard. Further, the proposed Program for Offshore Wind Energy Research and Development Act of 2010 (POWERED) would have provided research grants and an expanded list of incentives for offshore-wind development if it had become law in 2010. The summer of 2011 saw the Incentivizing Offshore Wind Power Act, which aimed to increase investment tax credits relating to offshore wind, but the bill never made it out of the House of Representatives.

2. Federal Programs Designed to Foster Wind Development

In an effort to spur the growth of wind farms along the Outer Continental...
Shelf, Secretary Salazar has launched the “Smart from the Start” initiative.97 A focal point of the initiative is the identification of Wind Energy Areas (WEAs), offshore locations that are most favorable for wind-energy development in the Atlantic Ocean.98 While the leasing and siting processes are underway, the former Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) plans to track applications required for offshore transmission lines contemporaneously, reducing overall permitting time and allowing developers to set more aggressive completion deadlines.99 The Atlantic Offshore Wind Energy Consortium was also established, allowing eleven coastal states to collaborate on offshore-wind goals.100

Perhaps the most controversial piece of legislation to address the need for wind development is the 2009 American Recovery and Reinvestment Act (Stimulus).101 Along with extending the PTC through 2012, the Stimulus granted qualifying parties the ability to choose among different tax credits in order to optimize the performance of their specific project.102 The Stimulus

97. See Press Release, U.S. Dep’t of the Interior, Salazar Launches ‘Smart from the Start’ Initiative to Speed Offshore Wind Energy Development off the Atlantic Coast (Nov. 23, 2010), http://www.doi.gov/news/pressreleases/Salazar-Launches-Smart-from-the-Start-Initiative-to-Speed-Offshore-Wind-Energy-Development-off-the-Atlantic-Coast.cfm [hereinafter Salazar] (describing history and creation of “Smart from the Start” initiative). The purpose of “Smart from the Start” is to expedite the siting and leasing processes wind developers must undergo by minimizing redundancies and increasing communication between the federal and state agencies involved. See id. Michael Bromwich, Director of the former BOEMRE, posits that “[t]his accelerated and focused approach to developing the nation’s Atlantic wind resources will encourage investment while ensuring projects are built in the right way and in the right place.” Id.

98. See id. By continually collecting data and information on WEAs, the Interior Department believes it will be better prepared to permit and site these areas. See id. BOEM and BSEE will also help collect site-assessment data by initiating NEPA Environmental Assessments while working with relevant federal agencies that may require permitting. See id. Finally, if building a wind farm on a given WEA would not significantly impact the environment, BOEM would offer leases starting at the end of 2011. See id.

99. See id. (addressing delay between siting wind farms and permitting corresponding transmission lines).

100. See Greg Watson, Atlantic States Offshore Wind Consortium, COMMONWEALTH CONVERSATIONS: ENERGY SMARTS (June 14, 2010), http://energy.blog.state.ma.us/blog/2010/06/gregs-offshore-wind-post-draft.html (focusing on creation of Atlantic Offshore Wind Energy Consortium). According to Greg Watson, Senior Advisor to the Secretary for Clean Energy Technology, “[t]he mission of the Consortium is to promote a coordinated approach to the development of wind resources on the Outer Continental Shelf.” Id. The Consortium will also be instrumental in the identification and research of WEAs. See Salazar, supra note 97 (identifying Consortium’s work with federal government to identify and permit WEAs).


102. See id. §§ 1102, 1603 (codified at 26 U.S.C. § 48 (2006 & Supp. V 2011)) (stating credit options for developers qualifying for PTC). Two alternatives to the PTC were codified: the thirty-percent Investment Tax Credit, and the Treasury Grant Program. See id. (describing each tax credit respectively). Under section 1102, a facility that could otherwise claim the PTC may instead elect to claim a thirty-percent Investment Tax Credit, allowing wind facilities to be leased without a loss of credit. See id. § 1102 (amending 26 U.S.C. § 48 (2006 & Supp. V 2011) to include qualified energy facilities). In addition, small wind investors—who could not previously claim a full thirty-percent Investment Tax Credit—have had that cost cap removed, allowing them to enjoy the full refund. See id. § 1103 (codified at 26 U.S.C. § 48 (2006 & Supp. V 2011)). Additionally, the Treasury Grant Program, which can be claimed in lieu of the Investment Tax Credit, does not constitute income and reduces the owner’s basis in the property by fifty percent. See id. § 1603 (codifying Treasury Grant
also authorized $1.6 billion of new, clean renewable-energy bonds for renewable-energy producers, including wind projects, coupled with a $1.25-billion research-and-development grant. Further, the manufacturing tax credit creates a thirty-percent credit for investment in qualifying manufacturing projects, up $2.3 billion in allocations. Other pertinent provisions include a $305-million grant to the BLM and $500 million for renewable-energy job-training programs.

E. Wind Power Abroad

Outside the United States, particularly in Europe, wind power has become an extremely important and lucrative form of electricity. In fact, at 84,278 mW, wind power accounts for a full 9.6% of the European Union’s overall electrical needs. By the end of 2010, seven European countries had installed 3000 mW or more of wind power: Denmark, France, Germany, Italy, Portugal, Spain, and the United Kingdom. In fact, twenty-four percent of Denmark’s total electrical need is met by wind power. Europe’s emergence as a leader in wind power stems from many factors, particularly its regulatory focus on making wind development simple, as well as its commitment to installing renewable electrical generation, rather than traditional means. Due to the


104. See id. § 1302 (codified at 26 U.S.C. §§ 46, 48C, 49 (2006 & Supp. V 2011) (providing manufacturing tax credit for certain qualified projects). A qualified project is one that “re-equips, expands, or establishes a manufacturing facility for the production of . . . property designed to be used to produce energy from the sun, wind, geothermal deposits . . . or other renewable resources.” Id.


107. European Statistics, supra note 106, at 3. The rise in wind-power use in Europe has been steady; the annual average market growth is roughly 17.6%. See id.

108. Id. at 4. Sweden and the Netherlands also both have installed capacities greater than 2000 mW. Id. Notably, the United Kingdom has recently installed the world’s largest offshore wind farm, Walney Farm. See Zachary Shahah, World’s Largest Offshore Wind Farm Opening Today, CLEANTECHICA (Feb. 9, 2012), http://cleantechnica.com/2012/02/09/worlds-largest-offshore-wind-farm-opening-today/ (announcing completion of 367.2-mW Walney Farm). Walney Farm has the capability of powering 320,000 homes in the United Kingdom. Id.

109. See European Statistics, supra note 106, at 11. Denmark’s closest competitors in terms of total electrical consumption from wind power are Portugal and Spain, with 14.8% and 14.4%, respectively. See id.

110. See Dinnell & Russ, supra note 5, at 567-69 (analyzing European energy dominance); cf. European Statistics, supra note 106, at 9 fig.3.1 (graphing increases in European Union wind installation). Europe has been influential in supporting alternative-energy development, particularly by welcoming infrastructure
ease with which wind energy can be utilized, the markets for European wind-
energy investment, production, and distribution have skyrocketed.111

1. Germany: A Model in Size

No two countries have had greater success with wind power than Denmark
and Germany.112 Germany is considered the global leader in wind energy with
27,214 mW of installed wind energy at the end of 2010—nearly ten percent of
the country’s entire energy consumption.113 Germany’s success stems largely
from interplay between 1990s governmental commitments to renewable
energy, coupled with an insurance industry that provided coverage to wind
investors during the early years of wind-technology development.114 In
addition, Germany has become a world leader in repowering—or early
replacement of—less efficient turbines with modern machines capable of
producing far larger outputs.115 As investment flourished and efficiency
became streamlined, German states saw drastic increases in utility revenue,
radical job creation, and an explosion in wind-energy export markets.116
Finally, Germany is a pioneer in offshore wind; the country’s first offshore
wind farm, Alpha Ventus in the North Sea, is already operational.117

projects. See Dinnell & Russ, supra note 5, at 567. Coupled with this positive attitude, Europe has imposed
mandatory pollution caps upon its member nations and provided public subsidies for renewable alternatives. See id. at 568.
111. See Dinnell & Russ, supra note 5, at 568 (portraying how favorable political action has benefited
European alternative energy markets).
112. See id. at 569-71 (examining German and Danish success with wind power).
113. European Statistics, supra note 106, at 11 fig.3.7.
114. See Dinnell & Russ, supra note 5, at 569 (opining on factors pertinent in German wind policy). In
order to make the wind industry competitive, the German government created a number of tax breaks and
incentives to boost electrical production. See id. (discussing governmental action taken to boost “nascent wind
sector”). In addition, Germany’s growth was aided by its insurance industry that provided coverage for wind
turbines, which, at the time, were a particularly risky investment. See id. The insurance industry “effectively
redistributed the risk associated with undertaking a wind power development, thereby increasing investment
potential.” Id.
115. See Peter Fairley, Europe Replaces Old Wind Farms, IEEE SPECTRUM (Jan. 2009),
http://spectrum.ieee.org/green-tech/wind/europe-replaces-old-wind-farms (highlighting European “repowering”
efforts). Germany’s wind-energy association aims to add 15,000 mW of repowered capacity by 2020, fifty
percent more than expected to be added at new sites both on- and offshore. Id. Placing more efficient turbines
in areas that have double the power capacity as an original wind farm can produce four times more energy. See id.
Further, because upcoming German regulation will require that wind farm operators compensate residents
whose property values were reduced by turbines, less efficient turbines will be dismantled and likely shipped to
developing nations, another potential wind export on which Germany could capitalize. See id. (opining
potential effects of dismantling inefficient turbines in light of modern technology).
116. See Dinnell & Russ, supra note 5, at 569-70 (analyzing effects of wind development on German
economy). Of particular mention is that in 2005 alone, German wind export revenues ballooned sixty-five
percent, increasing by €1.2 billion. Id. at 570.
117. Press Release, Alpha Ventus, Alpha Ventus Achieves Positive Interim Results—Offshore Power Yield
farm contains twelve, five-megawatt turbines in thirty-meter-deep water. Id. Between November 2010 and
July 2011, the farm produced 190,000 mWh of electricity, five percent higher than expected. See id. In
2. Denmark: A Model in Percentages

Denmark has also made an impact in the renewable-energy field with its dedication to weaning off of traditional forms of energy.\footnote{See Bryan Walsh, \textit{Denmark's Wind of Change}, \textit{TIME} MAG., Mar. 16, 2009, \url{http://www.time.com/time/magazine/article/0,9171,1883373,00.html} (focusing on Denmark's shift from classic to renewable energy).} Denmark is a frontrunner in turbine manufacturing; the Vestas turbine produced in Lem, Denmark is considered one of the best in the world.\footnote{See id.} Manufacturing and export of wind technology has become so lucrative in Denmark that, as of spring 2009, Denmark controlled one-third of the global wind market, earning the country billions of dollars.\footnote{See id.} In addition, Denmark’s government developed a subsidy program beginning in 1979 that helped create a market for wind energy.\footnote{See id.} The United States could learn a valuable lesson from Denmark’s shift in energy policy; Denmark decided to make the shift from oil to wind after its 1973 oil crisis, a time when ninety percent of Denmark’s energy was born from petroleum.\footnote{See id.}

\textit{F. Progressive State Policies That Foster Wind-Energy Development}

Many states, municipalities, cities, and towns have taken different approaches to regulation and development of wind power, while many have yet to develop any regulations at all.\footnote{See id.} Because state and local governments are
given so much authority to choose how to develop wind power, a logical first step is to develop an “Energy Advisory Committee,” which ideally involves citizens in siting, goal setting, implementation, and development.124 In addition, most states have had success implementing Renewable Portfolio Standards (RPS), which require utilities to obtain a percentage of power from renewable-energy resources such as wind.125 Ultimately, the state and local utilization of an RPS system intends to stimulate technological development and open up renewable-energy markets to allow new forms of energy to become competitive with conventional forms of electricity.126 Although each state has a different RPS with diverse incentives and goals, successful elements include: garnering support from the governor and legislature in a particular state, developing and maintaining a credible noncompliance mechanism, conducting performance reviews, and analyzing the energy potential in different locations.127 Two states in particular have developed systems that have made them leaders in wind-energy development: Texas and Minnesota.128
1. Texas

Texas has created the Competitive Renewable Energy Zone (CREZ) system, which allows electricity produced by wind turbines in more remote parts of Texas to be moved to more densely populated areas.129 The coupling of the CREZ with an aggressive RPS has resulted in Texas producing 10,135 mW of installed wind-generation capacity—three times more than any other state.130 Texas also takes an extremely relaxed stance on turbine siting; developers need not address wildlife concerns or obtain environmental certification before beginning to build.131 This combination has allowed Texas’s wind-energy development to flourish even when facing a number of problems, namely a lack of public input concerning turbine installation, diminishing wind strength with soaring temperatures, and rising electrical prices.132

2. Minnesota

As opposed to Texas’s laissez-faire approach, Minnesota’s approach is highly centralized around its state Public Utilities Commission.133 Centralizing the power to grant or revoke permits in one office allows Minnesota to make development decisions quickly and efficiently.134 Minnesota has also passed a


131. See Engelman, supra note 2, at 10,563 (characterizing Texas’s approach to wind regulation as “laissez faire”). In fact, developers need not even conduct a local permitting review in order to begin construction. See id. In addition, Texas’s jurisdiction extends 10.36 miles offshore, giving the state much more leeway to build offshore than nearly any other state. See Brown & Escobar, supra note 2, at 508. Texas has responded accordingly, giving the Texas Land Office “complete autonomy with respect to leasing within the offshore Texas jurisdiction and approving the construction of offshore structures, such as offshore wind farms.” Id.

132. See Engelman, supra note 2, at 10,563; see also Bryce, supra note 130 (arguing wind unreliable and expensive during hot summer months in Texas). Additionally, Texas’s laissez-faire approach allows for very little public commentary on where turbines are sited, creating resentment for the market as a whole. See Engelman, supra note 2, at 10,563 (describing lack of public involvement throughout Texas system).

133. See Engelman, supra note 2, at 10,562 (commenting upon centralized nature of Minnesota’s regulatory approach). Handling wind permitting in one office has been described as “one-stop shopping” because developers neither contact a handful of separate state agencies nor search for permitting regulations. See id. (describing benefits of centralized regulatory system).

134. See id. (demonstrating efficiency behind centralizing wind regulation). The Public Utilities Commission’s board has five members who are considered experts in the field. See id. By having them make
community-based energy development (C-BED) statute in order to foster wind
development in smaller communities. Further, Minnesota has exempted
wind energy from property and sales taxes, as well as providing tax incentives
for businesses. However, Minnesota must also address various issues,
including the feasibility of turbines in cold temperatures as well as limited
public input in a system where a centralized authority has final decision-
making power.

III. ANALYSIS

Wind power in the United States will never reach its true potential until the
United States creates a comprehensive, centralized framework specialized for
its development. First and foremost, the United States must develop a voice
for renewable energy, one that proclaims the benefits of wind power, maintains
government integrity by following through with its proposals, and adheres to
the environmental preservation inherent in the endorsement of renewable
energy. In addition to solidifying the nation’s stance on renewable energy,
dedication to the wind industry could have a number of potential economic
benefits: increasing turbine and transmission manufacturing sectors, fostering
suburban bylaw creation consistent with both national and local objectives, and
weaning the United States off foreign sources of energy. Finally—and of
utmost importance—centralization would likely have the benefit of minimizing
unnecessary bureaucratic delays that currently stifle the wind industry.

siting decisions, the state need not be concerned about them understanding the infrastructure. See id. (commenting upon benefits conferred by Public Utilities Commission Board).

BED statute provides information to communities that can empower them to negotiate directly with electrical utilities. See id. As long as a person or organization meets the criteria set forth in the statute, he or she has the ability to negotiate community wind projects with utilities, including costs of the energy produced. See id.

136. Minnesota, supra note 135. It should be noted, however, that large-scale wind projects are subject to a production tax, which gets progressively larger as the size of the project increases. See id. (displaying tax prices for various wind-farm sizes).

137. See supra notes 7-12 and accompanying text (articulating lack of developed policy for wind regulation in United States). Of particular importance in this regard is the burgeoning offshore-wind market that is governed by statutes developed without any thought towards wind farms. See supra text accompanying note 69 (mentioning how offshore-wind regulation fails to address unique, accompanying issues).

138. See supra notes 118-22 and accompanying text (analyzing benefits of consistent approach to wind development in Denmark).

139. Cf. Dinnell & Russ, supra note 5, at 581 (examining potential effects of “National Wind Power Act” on energy industries); Engelman, supra note 2, at 10,565 (suggesting centralization could offer local communities better opportunities to draft wind bylaws); Firestone et al., supra note 23, at 107 (extolling importance of regulatory scheme to direct turbine decommission).

140. Cf. supra Part II.B-C (examining bureaucratic delays created by current regulatory scheme).
A. Consolidation of Federal Jurisdiction over Onshore and Offshore Wind Development: A “National Wind Agency”

By consolidating the power shared by a plethora of statutes over wind development, the federal government would be able to minimize unnecessary delays and expedite leasing and siting procedures. As Attorneys Adam Dinnell and Adam Russ have noted, the passage of an act specifically for wind power could have similar benefits for wind as was done for the nuclear industry under the creation of the National Nuclear Safety Administration. The benefits of a “National Wind Agency” could ease burdens on existing agencies, centralize a number of requisite administrative functions, collapse all information necessary for development into one location, and reignite the nation’s interest in renewable-energy production.

1. Centralization and the Easing of Burdens on Distinct Federal Agencies

The current pseudostructure governing wind energy is not just a burden on the industry and individual projects, but on numerous agencies involved in various facets of a wind project’s life. Continual government restructuring is inefficient and costly while simultaneously burdensome to wind developers who rely on government stability to create long-term projects. By forming a condensed “National Wind Agency,” the government could compress control

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142. See Dinnell & Russ, supra note 5, at 580 (arguing for “National Wind Power Act” to consolidate federal control); supra notes 133-34 and accompanying text (justifying Minnesota’s centralized approach to wind regulation).

143. See Dinnell & Russ, supra note 5, at 580 (comparing wind industry to nuclear industry and its centralization). Ideally, a “National Wind Power Act” would “serve as the nation’s definitive authority and lone voice on wind power development, replacing the piecemeal fabric that currently exists." Id. at 581.

144. See infra Part III.A; see also Firestone et al., supra note 23, at pt. VI.E (suggesting consolidation of ocean management and planning functions). Consolidation of federal-offshore-permitting authority could begin the process of creating a unified “National Wind Agency.” See Firestone et al., supra note 23, at 108 (advocating for unified, offshore water-management entity). Professor Jeremy Firestone has advocated for a new cabinet-level department—the Department of Oceans—which could lead to substantial restructuring, planning, and management clarification over federal waters. See id. at 109-10. Professor Firestone advances that site planning and management for offshore wind farms could be improved under a Department of Oceans, and believes the industry could benefit from “one-stop regulation.” Id. at 110-11. However, Professor Firestone stops short of advocating for a full-scale National Wind Association considering his premise focuses on offshore wind and aquaculture. See id. at 74.

145. See supra Part II.B-C (analyzing various agencies and statutes that overlap control of various pieces of wind-energy development). The idea of a large government dispersing authority among a number of agencies and statutes to govern one market is hardly unique to the wind industry. Cf. President Barack Obama, Remarks by the President in State of Union Address (Jan. 25, 2011) (transcript available at http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address) (expressing disdain over lack of organization for agency jurisdiction). During his 2011 State of the Union address, President Obama joked: “The Interior Department is in charge of salmon while they’re in fresh water, but the Commerce Department handles them when they’re in saltwater. I hear it gets even more complicated once they’re smoked.” Id.

146. See supra notes 64-66 and accompanying text (demonstrating dangers behind long-term government instability); see also supra Part II.C.3 (applying regulatory uncertainty issues to Cape Wind example).
of the entirety of a wind project’s life while avoiding problems that arise from dispersed authority and temporary, haphazard restructurings. While the development of the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement has begun wind centralization, a refurbished focus on renewable development in the United States is crucial to the continued evolution of a “National Wind Agency.”

2. Creation of an Information Portal

A crucial benefit of centralizing wind regulation into one agency is consolidation of information necessary to undertake a wind project. For instance, if information required to site turbines were condensed into one agency, opponents would be discouraged from filing lawsuits under different authorities to unreasonably delay a project. In addition, developers would have access to a reliable information resource, which may encourage projects that would otherwise never begin due to lack of such an information hub. Finally, regional and local communities would gain the ability to view common permitting and zoning ordinances—as well as other bylaws drafted by other communities—all in one location.

3. The Importance of Garnering National Support for Wind Power

Creation of a “National Wind Agency” could garner positive publicity for an industry that has taken a back seat while the federal government’s focus has shifted to the 2008 economic collapse, President Obama’s healthcare reform, and energy disasters such as the Deepwater Horizon oil spill. Shining a national spotlight on renewable wind energy would be the ideal platform for

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147. See supra Part II.F.2 (exemplifying Minnesota’s wind structure as ideal for minimizing inefficiency and waste).
148. See infra Part III.A.3 (examining advantages to centralization based on support for wind energy versus traditional electrical generation).
149. See supra Parts II.B.1-3, II.C.1-2 (alluding to lack of information available in one central place); supra note 135 and accompanying text (describing C-BED statute and effect of information on negotiations between communities and utilities).
150. See Brown & Escobar, supra note 2, at pt. III (discussing numerous authorities under which wind opponents may file suit against proposed developers); Engelman, supra note 2, at pt. III (explaining civil lawsuits challenging review processes).
151. Cf. supra note 65 (noting wind farms take two years to plan).
152. See Engelman, supra note 2, at 10,566 (examining community issues existing in light of federal wind centralization). Gaining access to wind information without having to search through a number of authorities will allow localities to determine how best to handle wind energy without having to resort to moratoriums based more on fear of the unknown than on informative discourse. See id. at 10,565 (encouraging local communities to gain copious information on wind development to develop land-use approach).
advocates to extol the benefits of clean energy. In Denmark, a national focus on wind energy not only revolutionized the country’s use of energy, but also created auxiliary benefits such as an enhanced manufacturing base and breakthroughs in electric-car production. The attention could also reignite Congress to pass additional energy legislation that creates tax benefits and research incentives for wind going forward.

A supportive, nationalized voice for wind power could have the effect of halting the continuing boom-and-bust cycle that plagues the wind industry when faced with an expiring PTC. Long-term extensions of the PTC are crucial to the continued vitality and development of wind energy; without policy restructuring—including passage of a PTC extension—the renewable goals set by the United States will not be attained. In turn, the benefits resulting from a long-term PTC extension reach well beyond eradicating the wax and wane of wind investment. For instance, if the nation prepares to invest significant resources in wind development, it could immediately capitalize on growth in turbine manufacturing. However, without a nationally supportive voice—and with a continually lapsing PTC—“wind project developers [will continue to be] hesitant to plan future U.S. projects and American manufacturers [will continue to see] a marked decrease in orders.”

Continuing research into the development of wind technology will play a crucial role in progression of the industry and can be fostered by national support for wind power. While technological achievement is currently impressive, the existing regulatory framework does not extend far enough to incentivize in-depth public research into novel wind-production design. In

154. See Firestone et al., supra note 23, at 98 (displaying European commitment to renewable energy and subsequent benefits accrued).

155. See supra note 118 (analyzing auxiliary benefits Denmark received from creating national focus on wind development).

156. See supra Part II.D.1 (discussing proposed energy regulations and corresponding results).

157. See Wiser, supra note 60, at 8 (describing advantages stemming from support for, and long-term extensions of, PTC).

158. See id. at 4 (extolling imperatives of support for long-term renewable-energy policy).

159. See id. at 8-11. Some significant, auxiliary benefits resulting from a long-term PTC could include refined transmission planning, reductions in installation costs, and enhanced research and development of the industry. See id. at 9 fig.4 (graphically displaying PTC extension benefits).

160. See id. at 10 fig.5 (displaying forty-percent potential increase in US turbine manufacturing brought on by long-term PTC extension). Further, PTC extensions could save thousands of jobs in danger of being eradicated along with thousands of newly created positions. See Wind Energy Success Story, supra note 62 (examining job consequences to wind industry of not continuing PTC).

161. See Wind Energy Success Story, supra note 62 (relying on market stability in order to realize full extent of future incentives).

162. See Brown & Escobar, supra note 2, at 513 (arguing as offshore development continues expansion, research and development demand will also rise); Real de Azua, supra note 33, at 502 (demonstrating how wind energy provides swift returns on taxes used for its development); cf. Walsh, supra note 118 (addressing proactive approaches to fund wind research through collection of energy taxes in Denmark).

contrast, German public support coupled with strong insurance incentives drove research and technological enlightenment to the forefront of international wind utilization. In order to remain competitive, the United States must continue to ride the wave of the American Recovery and Reinvestment Act by setting national, long-term goals bundled with research incentives.

B. Goals and Direction for a “National Wind Agency”

1. Goals for the Future of Wind Development

Ideally, a “National Wind Agency” would combine the authorities of various agencies controlling jurisdiction over some facet of wind energy. In addition to promoting development of wind and other renewable energies, the “National Wind Agency” must also maintain environmental-protection controls that have been integral in wind permitting. The “National Wind Agency” could therefore administer NEPA reviews and enforce sanctions under the EPA, MBTA, and BGEPA all while allowing states and localities the ability to follow the progress of each project through one agency.

2. The Necessity of Public Involvement in Wind Siting

Considering wind turbines are often located within close proximity to communities, public input and local involvement will always be a factor in determining whether turbines can be installed. Of particular importance is the public’s ability to comment on a project and make recommendations for the project’s design, structure, electrical output, and overall future. Therefore, an increase in public involvement could not only have the effect of addressing public issues surrounding the development and timeline of a project, it could also increase transparency and foster support for proposed wind farms.

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164. See supra notes 114, 116 (portraying German policies favorably in light of success).
166. See supra Parts II.B.1-3, II.C.1-2, III.D (summarizing statutory authority over wind energy). In other words, one central agency would control the various stages of wind-energy creation: zoning, siting, permitting, environmental-impact analyses, construction, transmission, distribution, and decommission. Cf. supra Part II.F.2 (describing centralized wind procedures in Minnesota).
167. See supra Parts II.B.1-2, II.C.1-2 (integrating stringent environmental standards before permitting wind-turbine construction).
168. Cf. supra note 71 (granting BOEM NEPA analysis during small agency reorganization as example of authority consolidation).
169. See supra note 11 and accompanying text (highlighting importance of local involvement in wind development).
170. See supra note 38 and accompanying text (noting public commentary necessary under NEPA review); see also Firestone et al., supra note 23, at 86-87 (noting public commentary important factor in differences among state regulatory systems).
171. See Brown & Escobar, supra note 2, at 514-15 (addressing popular public concerns about wind power, including “not in my backyard” attitude); see also Engelman, supra note 2, at 10,560 (“Without zoning
Allowing for enhanced public involvement in light of a large federal restructuring will likely be welcome to communities fearing lack of control over turbines in their own neighborhoods. 172

3. Creating a System for Offshore Wind Development

The progress realized from the “Smart from the Start” initiative and the incentives created from the Stimulus shape the future of American wind energy markets. 173 “Smart from the Start” has already fostered speedy planning of a number of offshore wind farms off the coasts of Delaware, New Jersey, Maryland, and Virginia, all states without comprehensive offshore plans before the initiative’s passing. 174 Additionally, the project has garnered extensive support for Outer Continental Shelf construction because of the streamlined licensing parameters.175 The Stimulus has also been extraordinarily deferential to renewable-energy providers by funding research and development, recognizing the need for a growing manufacturing base, and rewarding developers with numerous tax and insurance incentives.176 The Stimulus has been effective in extolling many requirements for a more efficient wind industry, from portraying renewable energy in the national spotlight to providing a proper infrastructure for long-term wind investment.177 In order for the renewable-energy industry to continue growing in the United States, future legislation must be not only financially sound, but also spread out over time, because wind development benefits exponentially from long-term stability.178
The federal government does not have to develop an offshore-wind system entirely on its own; the successes achieved abroad could have tremendous influence on the ultimate construction of United States policy. For instance, Germany has recognized that construction of large-scale wind projects rests on the stability of a project’s future and therefore maintains close cooperation with appropriate regulatory and environmental authorities. Consistent with the recommendations of this Note, the EWEA also “recommends utilizing a ‘one-stop shop’ for leasing, permitting, and environmental assessment to streamline the approval process for offshore wind energy development.” Concomitant with wind-jurisdiction centralization, the United States could consider Denmark’s approach to manufacturing and exportation of electricity, contemporaneously creating demand for clean American energy and American-made wind products, while further garnering local support for the industry.

As the first offshore-wind project undertaken in the United States, the ultimate outcome of Cape Wind will be a yardstick to measure progress of future offshore-wind endeavors. Cape Wind has continued to gain steam in recent years, obtaining federal permitting approval from Secretary Salazar on April 28, 2010 and gaining support from prominent Massachusetts legislators. Additionally, Cape Wind received a final permit from the Environmental Protection Agency to construct and operate the wind farm on the Outer Continental Shelf. A third obstacle has recently been overcome by the Massachusetts merger of NSTAR and Northeast Utilities. Under the agreed-upon merger, Cape Wind has secured financing for nearly one hundred percent of its power output, preparing the project to begin construction in

179. See Brown & Escobar, supra note 2, at 512 (“In fact, U.S. offshore wind developers will likely rely on much of Europe’s offshore wind technology and experience in constructing and operating . . . proposed U.S. offshore wind farms.”).

180. See Press Release, Alpha Ventus, supra note 117 (detailing reasons behind German wind stability and ultimate success). The German model represents the benefits of teamwork when attempting to develop a market in uncharted waters. See id. The German government places strict guidelines on how it wants its projects to be developed, and the speed at which they must be completed, in order to develop the industry as thoroughly as possible. See id.

181. Firestone et al., supra note 23, at 97 (introducing “best practices” developed in European offshore wind markets). Denmark has made use of this recommended system, resulting in greater clarity concerning the facets of developing a wind project. See id.

182. See supra Part II.E.2 (exemplifying benefits achieved by Danish regulatory system and hypothesizing similar results in United States).

183. See Brown & Escobar, supra note 2, at 512 (stating pace of American offshore-wind development will depend on Cape Wind).


186. See Ailworth, supra note 184 (examining details of major utility merger in Massachusetts).
IV. CONCLUSION

The future of American wind energy lies in the realization that change will not occur overnight. An industry as complex as wind-energy production will not spring to life like the wind that powers it. Undoubtedly, careful attention must be paid to the way wind electricity is created, manufactured, transmitted, and regulated. Yet developing a centralized, federal regulation system for wind—and wind alone—will unlock the keys to the next chapter in American pioneering and set us on course for energy independence in the future. Considering the amount of time, money, and political posturing spent to extract and import fuel from abroad, the United States must shift its focus to a future where it controls its own electrical destiny.

Creation of a “National Wind Agency” would not only alleviate a bevy of existing problems for the federal government—thereby reducing costs—it has the potential to capture the nation’s attention. Only capturing the attention of the American public will transform its electricity infrastructure. American energy consumption is at a crossroads; the demand will not shrink to accommodate the rapidly dwindling supply of importable fuel, and the market will not be able to sustain sharp price increases indefinitely. By investing in wind-energy production in its infancy, the United States can set out on a course for energy independence, embodied in nature’s truly unlimited power source: wind.

Anthony V. Bova

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187. See id. (detailing construction timetable for Cape Wind after utility merger).