Grounding the Cape Wind Project: How the FAA Played into the Hands of Wind Farm Opponents and What We Can Learn from It

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I. INTRODUCTION

In the search for alternative energy sources, many countries have turned to harnessing wind power as a clean source of renewable energy.\(^1\) While onshore wind farms have been sited in various states, the United States lags behind foreign countries such as Denmark, Ireland, the United Kingdom,\(^2\) and China\(^3\) in establishing offshore wind farms. But it has not been for lack of trying.\(^4\) Many anticipated that the Cape Wind project, slated for construction in Nantucket Sound, would become the first offshore wind farm in the United States.\(^5\) However, the project has been plagued by litigation since 2002.\(^6\) In October 2011, opponents of the Cape Wind project won one battle in their war to permanently ground the project when the District of Columbia Circuit Court of Appeals (D.C. Circuit) vacated a Federal Aviation Administration (FAA) “no hazard” determination in relation to the project as arbitrary and capricious for failure to follow its own internal guidelines.\(^7\) This was the first legal victory for the opposition in a string of unsuccessful lawsuits designed to block the project’s construction.\(^8\)

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5. See Schulz, supra note 2, at 416, 421–22.
8. Id. at 36; see, e.g., Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep’t of the Army, 398 F.3d 105, 115–16 (1st Cir. 2005) (upholding summary judgment for the U.S. Army Corps of Engineers on the basis that the Corps complied with legal obligations in granting a permit to build an offshore data tower in Nantucket Sound); Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd., 932 N.E.2d 787, 791 (Mass. 2010) [hereinafter *Alliance II*] (affirming the siting board’s decision to conditionally approve construction of underground transmission lines); Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd., 858 N.E.2d 294, 295 (Mass. 2006) [hereinafter *Alliance I*] (affirming the siting board’s decision to grant a “certificate of environmental impact and public interest”); Town of Barnstable, Mass. v. Cape Wind Assocs., LLC, 27 Mass. L. Rptr. 111, 2010 WL 2436837, at *1, *13, *15 (Super. Ct. 2010) (finding issuance
The Cape Wind story offers a dramatic example of the gridlock that occurs when two evenly matched opponents, both deeply committed to their diametrically opposed viewpoints, single-mindedly pursue their goals. In fact, the story is so dramatic that it attracted the attention of filmmakers and ultimately spawned a movie, “Cape Spin! An American Power Struggle.” While the film may be part “comic,” the issues surrounding the Cape Wind permitting process and the high costs of lobbying and litigation are not.

If one opposes offshore wind development or fears that a streamlined process will fail to adequately weigh the impacts of a particular project, then an inability to adequately study the problem, bring together the stakeholders, and establish a working statutory scheme may be welcome. But if one supports the development of offshore wind, as have our past two Presidents, then continuing down the path blazed by Cape Wind is unacceptable. Even those who remain ambivalent as to whether the government should focus its resources on pursuing offshore wind energy may care about reforming the process simply because of the large-scale investment of both private capital and tax dollars spent on regulatory review and litigation related to the siting process.

Other authors have proposed passing new, comprehensive legislation to overhaul the current, complex statutory regime.
or amending current legislation\textsuperscript{15} to expedite the permitting process. Proposing a comprehensive solution to the regulatory woes encountered in offshore wind permitting is beyond the scope of this comment. Rather, this comment limits its focus to the role the FAA has played in the Cape Wind saga and what the FAA can do within the current framework, as well as proposes incremental steps to facilitate the process of getting offshore wind off the ground.

First, Part II examines the historical backdrop of offshore commercial wind farm development that is necessary to understand how the developments in the Cape Wind project, particularly those concerning the FAA, fit into the broader picture. Next, Part II discusses the impetus for developing offshore wind as part of the nation's overall renewable energy plan and presents a high-level overview of the potential and problems generally associated with developing offshore wind. Then, Part II discusses the Cape Wind project specifically, including its opponents, its proponents, and the litigation history leading up to the \textit{Town of Barnstable, Mass. v. FAA (Barnstable II)}\textsuperscript{16} decision. Further, Part II concludes with a brief, comparative look at the development of offshore wind in other nations, with an emphasis on the United Kingdom. Part III presents the current state of the law, beginning with the regulatory framework for obtaining a lease and wind farm permit. Most of Part III discusses the \textit{Barnstable II} case, and the section ends with a discussion of the United Kingdom's Civil Aviation Authority (CAA) Policy and Guidelines on Wind Turbines.\textsuperscript{17} Finally, Part IV analyzes the "Smart from the Start" implementation, discusses the judicial review of the FAA's "no hazard" determination, and proposes future actions for the FAA in light of the October 2011 vacate-and-remand order. The focus of this comment is on solutions that can be implemented based on and within the existing legal and statutory framework to facilitate—rather than hinder—offshore wind farm development.


\textsuperscript{16} 659 F.3d 28 (D.C. Cir. 2011).

\textsuperscript{17} \textit{CIVL AVIATION AUTH., CAP 764: CAA POLICY AND GUIDELINES FOR WIND TURBINES} (Jan. 2012), available at http://www.caa.co.uk/docs/33/Cap764.pdf.
II. HISTORICAL BACKGROUND

Although domestic onshore electricity production via wind energy dates back to 1887, modern commercial wind turbines were first installed in California a century later.\(^\text{18}\) The past two Presidents, though motivated by different political ideologies, have both supported increasing domestically produced renewable energy technologies, including wind energy.\(^\text{19}\) Until 2010, the United States had been the leader in wind energy capacity—all via land-based wind turbines.\(^\text{20}\) However, in 2010, China replaced the United States as the leader in installed capacity.\(^\text{21}\) Currently, the United Kingdom leads the world in the offshore wind energy market, with Denmark following.\(^\text{22}\) Although the United States has significant wind resources available offshore, those resources remain untapped.\(^\text{23}\) For the past decade, developers have attempted to acquire the requisite permits to construct and operate offshore wind farms,\(^\text{24}\) yet not one operational commercial offshore wind farm exists in the United States.

A. THE POTENTIAL OF OFFSHORE WIND ENERGY

The U.S. Department of Energy (DOE) encourages the development of wind energy to realize environmental, economic, and

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\(^{18}\) Schroeder, supra note 15, at 1635.

\(^{19}\) See Brian Merchant, Meet Wind Power’s New Spokesman: George W. Bush?, TREEHUGGER (Apr. 2, 2010), http://www.treehugger.com/corporate-responsibility/meet-wind-powers-new-spokesman-george-w-bush.html (noting that although former President Bush established laws conducive to wind energy development when he was Governor of Texas, as President he did not pass similar laws even though he recognized the potential of wind energy); see also infra note 65 (discussing President Obama's support of wind energy).


\(^{21}\) See id. (stating that by year-end 2010, China had the largest installed capacity).


\(^{24}\) See Karen Lee Ziner, Offshore Harvest of Wind Is Proposed for Cape Cod, N.Y. TIMES, Apr. 16, 2002, at F3 (the Cape Wind project has been in the works since 2002).
energy goals. Chief among those goals is energy diversification in clean technologies that leads to greenhouse gas emission reductions. The DOE estimates that within the next twenty years, 20% of the country’s electricity could be supplied by wind energy. This fits into the aggressive presidential goal of using clean energy to supply 80% of our national electricity consumption by 2035. Offshore wind energy production would move the nation toward that goal because offshore wind energy emits no carbon dioxide. In fact, the DOE and the Department of the Interior (DOI) have estimated that in terms of greenhouse gas emission reductions, for every one gigawatt of offshore wind capacity that replaces the equivalent amount of fossil fuel-powered electricity, the country could realize an annual reduction in over 2.5 million tons of CO2 emissions. Additionally, offshore wind energy generation could diminish water pollution.

In addition to the environmental gains from using offshore wind to power electricity, the nation could realize valuable economic gains by pursuing offshore wind energy. One significant gain includes scaling back both U.S. reliance on foreign oil and its associated importation and political costs. These costs include not only the direct cost of oil, but also the resulting impacts that rising oil prices have on the U.S. economy. Additionally, at least one author has proposed that shifting the source of the electricity supply to wind power could save the high costs of cleaning up domestic oil spills, such as the cost resulting from the 1989 Exxon Valdez spill in Alaska and the 2010 British Petroleum (BP) spill in the Gulf of Mexico. The

26 See id.
29 Id.
30 Id. at 6.
31 See Schulz, supra note 2, at 419–20.
32 See id. at 419.
33 See Rigano, supra note 14, at 204–06 (citing war costs, decreased GDP, increased price of consumer goods, lower employment, and recession as indirect economic costs of rising oil prices).
34 See id. at 207–10, 212–13.
Exxon Valdez spill cost approximately $3.5 billion to clean up, and at the time this comment was written, BP had already spent $14 billion in cleanup costs.

Although some opponents of offshore wind projects support land-based wind energy facilities as an alternative to offshore wind, that view may fail to consider several important factors that make offshore wind development attractive. Offshore wind offers a comparative advantage over land-based wind due to its relative strength and consistency. Additionally, offshore wind farms could be sited near the areas of greatest electricity demand. Further, because of the finite nature of land, its availability for wind farm development is inversely related to population and the construction of other developments, increasing the challenge of siting future large-scale, land-based wind farms. The finite availability of land may be particularly important given the land area required to site a wind farm as compared to that required by a power plant.

B. The Problem with Offshore Wind Energy

Not everyone agrees that the potential benefits of wind energy delivered via commercial wind farms, whether onshore or offshore, are worth pursuing. One land use and environmental

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35 Shelley DuBois, 6 Big Oil Spills, and What They Cost, CNNMoney (May 19, 2010, 12:28 PM), http://money.cnn.com/galleries/2010/fortune/1005/gallery.expensive_oil_spills.fortune/2.html (noting that when adjusted for inflation, the cost was $6.3 billion in 2010 dollars).
38 Beaudry-Losique et al., supra note 28, at 6.
39 See id. (“The 28 coastal and Great Lakes states in the continental United States use 78% of the nation’s electricity.”).
40 Schulz, supra note 2, at 418–19.
41 See Stone & Zdeb, supra note 6, at 3 (noting that “siting [a wind farm] requires an especially large footprints”).
42 See, e.g., Susan Lorde Martin, Wind Farms and NIMBYs: Generating Conflict, Reducing Litigation, 20 Fordham Envtl. L. Rev. 427, 441–43 (2010) (noting residents and environmentalists opposed a proposed farm in Nevada on multiple grounds, including noise, impact on property values, aesthetics, and threats to birds).
lawyer has highlighted several problems associated with delivering wind energy on this scale.43 Adverse environmental impacts resulting from commercial wind farms include habitat destruction or alteration, death of bats and birds, as well as noise and light pollution.44 The turbines also disrupt a variety of communication signals, thus impacting devices used for both personal and defense purposes.45 Critics also question whether established onshore wind farms are actually delivering the promised environmental gains.46 Several factors have invited this criticism: the disconnect between the timing of the demand for electricity and the availability of wind-generated power, the necessity of backup power generators, the level of greenhouse gas emissions during the construction of a commercial wind farm, and the disturbing instances where existing transmission lines are insufficient to accept and deliver the electricity produced by wind farms.47 Perhaps one of the most disturbing criticisms involves the cost of commercial wind farms, with a significant source of revenue—more than half, by some estimates—coming in the form of government assistance.48

C. WHAT IS CAPE WIND?

In 2002, Cape Wind, a project of Energy Management Inc. (EMI) and Wind Management Inc., proposed to erect 170 turbines in Horseshoe Shoal near the center of Nantucket Sound; the offshore wind farm would be called Cape Wind.49 Project developers have since reduced the number of turbines to 130.50 Nantucket Sound lies between Cape Cod, Massachusetts,

44 Id. at 3.
45 Id.
46 Id.
47 Id. at 4–6 (noting that one large wind farm in New York was shut down even when capable of producing energy because the transmission lines lacked capacity to handle the supply).
48 Id. at 1–3 ("Utility-scale wind projects enjoy a -164% tax rate[, and] . . . a wind farm that generates 20 megawatts on average [annually] . . . receives over $4 million in federal assistance, or more than half the revenue received from sales of electricity.").
49 Ziner, supra note 24.
Martha’s Vineyard, and Nantucket. Cape Wind chose this site near Cape Cod because it offered what they considered an ideal mix of desirable factors, including water depth, distance to land, reliable winds, and minimal impact on commercial shipping and boating. The turbines would rise approximately 440 feet above the water, with a distance between each structure of roughly .34 to .54 nautical miles. Cape Wind would lie approximately five to fourteen miles from land, depending on whether one measures the distance to Cape Cod or to one of the islands. Upon completion, the wind farm would cover approximately twenty-five square miles, or approximately one-sixth of Nantucket Sound.

Project stakeholders anticipate that the wind farm would, on average, produce enough electricity to supply 75% of the electricity demands on the islands and Cape Cod. Further, stakeholders anticipate that when the farm operates at its peak, it would produce nearly 2.5 times that amount of electricity. Cape Wind estimates that the project could reduce oil consumption by over 100 million gallons of oil annually. By early 2010, an estimated $45 million of private capital had been spent on the Cape Wind project, yet turbine construction had not even begun.

A myriad of actors have inserted themselves or been drawn into the Cape Wind drama. Jim Gordon, Cape Wind’s CEO and staunchest supporter, established EMI as an independent en-

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53 Frequently Asked Questions, supra note 50 (describing the wind turbines’ placement as between six and nine football fields apart).
54 Id. (“Cape Wind will be farther away from the nearest home than any other electricity generation facility in Massachusetts.”).
55 Barnstable II, 659 F.3d 28, 30 (D.C. Cir. 2011); The Sound, supra note 51 (stating that the total area of Nantucket Sound is “163 square nautical miles”).
57 See id. (estimating the project’s average production at 170 megawatts and its peak production at 430 megawatts of electricity).
59 Editorial, Cape Windbags, Wall St. J., Apr. 30, 2010, at A16 (noting the funds were expended on regulatory- and litigation-related costs).
ergy company in the 1970s. In 2001, Gordon sold EMI and concentrated his efforts on Cape Wind’s development. Supporters of the project have included Massachusetts Governor Deval Patrick and multiple organizations, including Clean Power Now and Greenpeace. Additionally, President Obama has endorsed wind farms generally as one piece in the overall plan to meet the nation’s renewable energy and environmental goals; in fact, his administration has attempted to aid in at least one dispute that arose with Cape Wind.

Multiple individuals and organizations have opposed the Cape Wind project. The loudest united voice of opposition belongs to the Alliance to Protect Nantucket Sound (Alliance). Irate property owners established the Alliance as a non-profit organization to defeat the Cape Wind project and preserve the Sound. One of the Alliance’s largest financial supporters is Bill Koch, a “fossil fuel magnate.” Early in the review process, both Attorney General Thomas Riley and Senator William Dela-

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61 *Id.*


64 Drash, *supra* note 60.


66 See Juliet Eilperin, *Wind Farm Off Massachusetts Meets Strong Resistance; White House Trying to End Fight Over Project That Faces Criticism*, WASH. POST, Feb. 8, 2010, at A4 (discussing Interior Secretary Salazar’s February 2010 trip to Nantucket to attempt to meet with Native American tribes who opposed the Cape Wind project on both cultural and historic grounds).


hunt championed a suspension of the process until changes in the federal regulatory scheme were made.\textsuperscript{70} Other notable political project opponents include Mitt Romney, former Massachusetts Governor and the 2012 Republican presidential nominee, and the late Senator Edward Kennedy.\textsuperscript{71}

Although both Cape Wind and the Alliance agree that wind energy provides a desirable source of clean energy,\textsuperscript{72} they agree on little else. Project developers assert “[t]he slender supporting towers will be painted to blend in with the horizon, making them visible one half-inch above the horizon on clear days.”\textsuperscript{73} However, the Alliance claims the project will negatively impact the view at all times.\textsuperscript{74} Both positions have credence and depend on seemingly irreconcilable perspectives.\textsuperscript{75} Additionally, project proponents and opponents hotly contest the costs and benefits of Cape Wind.\textsuperscript{76} In addition to believing the wind farm to be an alternative clean energy source, Cape Wind believes the project will boost the Cape’s economic health through increased jobs and tourism.\textsuperscript{77} The Alliance takes the opposite view and sees the project as negatively impacting not only the economy but also the environment and public safety.\textsuperscript{78} Specifically,

\begin{itemize}
  \item \textsuperscript{70} See Schulz, supra note 2, at 424.
  \item \textsuperscript{71} See Kimmell & Stalenhoef, supra note 15, at 201, 206.
  \item \textsuperscript{72} Compare The True Cost of Electricity, CAPE WIND, http://www.capewind.org/article32.htm (“Wind stands out as the energy source that best balances environment, health and economics—it is a true alternative for cost-effective energy.”), with Fulton, supra note 37 (“The Alliance supports wind power as an alternative energy source.”).
  \item \textsuperscript{73} Project Siting and Visual Simulations, supra note 52.
  \item \textsuperscript{74} View, ALLIANCE TO PROTECT NANTUCKET SOUND, http://www.saveoursound.org/cape_wind_threats/view/ (stating that “the Cape Wind project would be highly visible both day and night from Cape Cod and from the islands of Nantucket and Martha’s Vineyard. The plant would dramatically alter the natural landscape and negatively impact several historic landmarks.”).
  \item \textsuperscript{75} This is the author’s view. To view pictorial simulations of the proposed wind farm, see the websites listed supra notes 52 and 74.
  \item \textsuperscript{77} Boosting Cape Cod’s Economy, CAPE WIND, http://www.capewind.org/article2.htm (last visited Sept. 1, 2012).
  \item \textsuperscript{78} See Cape Wind Threats: The Environment, supra note 76; Economic Boondoggle, ALLIANCE TO PROTECT NANTUCKET SOUND, http://www.saveoursound.org/cape_wind_threats/economy/ (last visited Sept. 1, 2012); Cape Wind Threats: Public
opponents expect a negative impact on tourism directly related to the wind farm's degradation of the scenic views on the Cape and the islands. Opponents also see the turbines as threatening the safety of boats and aircraft, particularly during storms. Both sides have remained resolute over the past decade, with Cape Wind tenaciously pursuing the permitting process and the Alliance attempting to block the project at every opportunity.

From a political standpoint, project opponents were able to stall the permitting process at several turns. The fees for lobbying costs alone have reached seven figures. At the state level, the Energy Facilities Siting Board initially dragged its feet in issuing approval to the project, but it later approved the project over the Cape Cod Commission's denial of the permit. At the national level, congressional allies proposed amendments to various bills involving energy, defense, and the Coast Guard that, if passed, would be problematic for Cape Wind. Though unsuccessful, the proposals "added great cost and uncertainty to the project." Additionally, in 2005, Cape Wind suffered another setback with the passage of the Energy Policy Act, which resulted in a new permitting process. Subsequently, a lengthy dispute ensued over whether the project could be blocked under the National Historic Preservation Act (NHPA), causing further delays in the quest to obtain the permits and, ultimately, the lease.

Perhaps one of the most effective delay tactics used by the Alliance has been their dogged pursuit of litigation to block the project's construction. In 2010 alone, the Alliance spent an estimated $500,000 in legal fees. After the U.S. Army Corps of Engineers (Corps) granted a conditional permit in 2001 allowing Cape Wind to construct a data tower in Horseshoe Shoals, the Alliance sued in federal court on the grounds that the Corps either lacked authority to issue the permit or that it


79 See Schulz, supra note 2, at 423.
80 Id. at 423–24.
81 See Eilperin, supra note 66 (stating that lobbying fees have cost "millions").
82 See Kimmell & Stalenhoef, supra note 15, at 206–08.
83 Id. at 203–04.
84 See id. at 205–06.
85 Id. at 208–11.
86 See Rezendes, supra note 69.
acted arbitrarily and capriciously in approving the permit.\textsuperscript{87} The district court granted summary judgment in favor of the Corps and Cape Wind, and the First Circuit affirmed.\textsuperscript{88} But over three years had passed from the initial application for the permit until the appellate court issued its opinion.\textsuperscript{89}

The Alliance repeatedly challenged the project in state courts. In 2005, the same year the First Circuit issued its opinion, Cape Wind obtained a conditional permit from the Energy Facilities Siting Board for the transmission lines that would serve as the link between the offshore wind farm and the onshore power grid.\textsuperscript{90} The Alliance unsuccessfully turned to the state courts to vacate the board’s decision, which was upheld in 2006.\textsuperscript{91} The next year, the Alliance and others brought additional litigation seeking to overturn another decision of the siting board and have an environmental regulation invalidated.\textsuperscript{92} But in 2010, the state’s highest court again affirmed the board’s decision and found the environmental regulation valid.\textsuperscript{93} The Alliance attacked the project in court on multiple fronts simultaneously. For example, in 2007, the Alliance sought to have the Final Environmental Impact Report certificate issued by the state secretary of the Executive Office of Energy and Environmental Affairs declared arbitrary and capricious.\textsuperscript{94} However, the court issued a judgment on the pleadings, finding that the Secretary did not act arbitrarily or capriciously in issuing the certificate and dismissed the complaint.\textsuperscript{95} In December 2011, the Alliance’s challenges to the Department of Public Utilities also failed.\textsuperscript{96}

\textsuperscript{87} Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep’t of Army, 398 F.3d 105, 107–08 (1st Cir. 2005).
\textsuperscript{88} Id. at 108.
\textsuperscript{89} See id.
\textsuperscript{90} Alliance II, 932 N.E.2d 787, 791 (Mass. 2010).
\textsuperscript{91} See Alliance I, 858 N.E.2d 294, 298, 302 (Mass. 2006).
\textsuperscript{92} See Alliance II, 932 N.E.2d at 791.
\textsuperscript{93} Id. at 815.
\textsuperscript{94} Town of Barnstable, Mass. v. Cape Wind Assocs., LLC, 27 Mass. L. Rptr. 111, 2010 WL 2436837, at *1, *10 (Super. Ct. 2010) (the Alliance was one of the petitioners in this case).
\textsuperscript{95} Id. at *15.
\textsuperscript{96} See Alliance to Protect Nantucket Sound, Inc. v. Dep’t of Pub. Utils., 959 N.E.2d 413, 417–18 (Mass. 2011) (upholding the Department of Public Utilities’ approval of a power purchasing contract between Cape Wind and National Grid); Alliance to Protect Nantucket Sound, Inc. v. Dep’t of Pub. Utils., 959 N.E.2d 408, 409 (Mass. 2011) (affirming Department’s denial of motion to reopen administrative record).
To date, the Alliance’s legal challenges to the Cape Wind project met success in court only in their challenge to the FAA’s determination that Cape Wind presented no aviation hazard.\footnote{Barnstable II, 659 F.3d 28, 36 (D.C. Cir. 2011).} This case will be discussed in detail in Part III below. In that instance, the court found the FAA’s “no hazard” decision arbitrary and capricious.\footnote{Id. at 34.} Because findings of arbitrary and capricious decisions can be corrected by administrative agencies,\footnote{See, e.g., id. at 36 (“The FAA may ultimately find the risk of these dangers to be modest.”); see also Press Release, Cape Wind, Cape Wind Statement on Court of Appeals Opinion Regarding the FAA (Oct. 28, 2011), available at http://www.capewind.org/news1216.htm [hereinafter Cape Wind Press Release] (noting their expectation that a further explanation of the FAA’s “no hazard” determination will allow the project to move forward).} this may be just a passing legal victory for the Alliance. However, the Alliance has at least one other lawsuit in the works.\footnote{See Compl. at 1, Pub. Emps. for Envtl. Responsibility v. Bromwich, No. 1:10CV01067, (D.D.C. June 25, 2010), available at http://www.marinelog.com/PDF/capewindcomplaint.pdf (The Alliance is listed among the plaintiffs in this lawsuit seeking declaratory and injunctive relief against the DOI and others for authorizing the Cape Wind project on the grounds that it violates, inter alia, environmental laws and will harm birds in the area).} In June 2010, the Alliance joined with others in filing suit against the U.S. Bureau of Ocean Energy Management (BOEM), the DOI, and the Fish and Wildlife Service for granting approval to Cape Wind to move forward with construction of the wind farm, claiming that the decision violated environmental laws and harmed wildlife.\footnote{See id.}

While some tout Cape Wind’s ability to move beyond these hurdles as an ultimate success,\footnote{See, e.g., Walter Brooks, Clean Power Now Passes into History, CAPE COD TODAY (Dec. 22, 2011, 10:00 AM), http://www.capecodtoday.com/news/headlines/2011/12/22/clean-power-now-passes-into-history (stating that “the fight seems to have been all but won”).} such success did not come without cost or considerable delay to any return on investment from the project. Even in early 2012, the prospects of constructing and operating Cape Wind looked grim.\footnote{See Sean Corcoran, Sean Corcoran’s Cape Wind Blog, WCAI (Jan. 11, 2012), http://www.wgbh.org/wcai/cape_wind_blog.cfm (noting that the consultants doubt Cape Wind will operate by mid-2015).} In fact, the ability to delay a project over so many years has been viewed, from other vantage points, as a success;\footnote{See, e.g., Cassidy, supra note 67 (quoting Audra Parker, President and CEO of the Alliance, as saying, “Cape Wind has suffered serious setbacks this year . . . Cape Wind is not going to be built”).} driving up overall project

\begin{footnotesize}
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\item Barnstable II, 659 F.3d 28, 36 (D.C. Cir. 2011).
\item Id. at 34.
\item See, e.g., id. at 36 (“The FAA may ultimately find the risk of these dangers to be modest.”); see also Press Release, Cape Wind, Cape Wind Statement on Court of Appeals Opinion Regarding the FAA (Oct. 28, 2011), available at http://www.capewind.org/news1216.htm [hereinafter Cape Wind Press Release] (noting their expectation that a further explanation of the FAA’s “no hazard” determination will allow the project to move forward).
\item See Compl. at 1, Pub. Emps. for Envtl. Responsibility v. Bromwich, No. 1:10CV01067, (D.D.C. June 25, 2010), available at http://www.marinelog.com/PDF/capewindcomplaint.pdf (The Alliance is listed among the plaintiffs in this lawsuit seeking declaratory and injunctive relief against the DOI and others for authorizing the Cape Wind project on the grounds that it violates, inter alia, environmental laws and will harm birds in the area).
\item See id.
\item See, e.g., Walter Brooks, Clean Power Now Passes into History, CAPE COD TODAY (Dec. 22, 2011, 10:00 AM), http://www.capecodtoday.com/news/headlines/2011/12/22/clean-power-now-passes-into-history (stating that “the fight seems to have been all but won”).
\item See Sean Corcoran, Sean Corcoran’s Cape Wind Blog, WCAI (Jan. 11, 2012), http://www.wgbh.org/wcai/cape_wind_blog.cfm (noting that the consultants doubt Cape Wind will operate by mid-2015).
\item See, e.g., Cassidy, supra note 67 (quoting Audra Parker, President and CEO of the Alliance, as saying, “Cape Wind has suffered serious setbacks this year . . . Cape Wind is not going to be built”).
\end{enumerate}
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costs with numerous delays can ultimately kill a particular project. Neither the political delays nor the legal delays to Cape Wind bode well for the successful future development of other offshore wind projects in the United States, as Cape Wind's lengthy battle could discourage potential investors from investing in similar projects in other locations. Planned projects require private backing to succeed. Other planned domestic offshore wind farms include the Mid-Atlantic Wind Park off the Delaware coast, Deepwater Wind in Rhode Island, and Garden State Offshore in New Jersey, among others. As of December 2011, the future of the Mid-Atlantic Wind Park looked bleak.

D. Offshore Wind Farms Across the World

While the United States' attempts to get offshore wind off the ground have been flailing over the past decade, other nations have successfully implemented offshore wind projects. Some credit the Kyoto Protocol as one of the driving forces behind the expansion of wind energy across the globe. Currently, in Europe, offshore wind farms operate in the United Kingdom, Germany, Denmark, Sweden, Finland, the Netherlands, and

106 See Map of Offshore Wind Energy Activity in North America, supra note 4 (containing interactive map of planned and proposed wind farm projects).
110 See Hurdle, supra note 105.
111 See Kyoto Protocol, Times Topics—N.Y. Times, http://topics.nytimes.com/topics/reference/timestopics/subjects/k/kyoto_protocol/index.html (last updated Dec. 12, 2011) (explaining the Kyoto Protocol is a multi-national agreement among many United Nations countries, including Japan, Canada, Russia, Australia, and Europe made in 1997 in an effort to reduce greenhouse gas emissions. The United States is not a party to the agreement, which is set to end in 2012).
Belgium. Additionally, China has launched an offshore wind farm as well.

As recently as 2007, two authors highlighted several similar challenges to developing offshore wind projects in the United States and in the United Kingdom. Those similarities included lengthy approval processes, cumbersome regulatory frameworks, environmental opposition, and cries of "NIMBY" from the citizenry. However, at that time, the United Kingdom had already begun restructuring its regulatory processes and including affected persons early on in the siting process. By the close of 2010, the United Kingdom led the world in offshore wind energy production. The success of the U.K. offshore wind development efforts is due, at least in part, to the government's support in terms of both establishing clear renewable energy policies and committing financial resources to spur development.

A review of Cape Wind's history demonstrates the myriad issues involved in developing offshore wind. While offshore wind powers electricity in several foreign countries, the United States has yet to realize the goal of establishing offshore wind as a viable alternative energy source. Commentators have proposed numerous reasons for this failure. Part III will consider three reasons: (1) the unwieldy regulatory structure for permitting offshore wind farms; (2) the FAA's role in exposing the Cape Wind...
project to successful legal challenge; and (3) the lack of a comprehensive aviation policy for wind turbines similar to that of the FAA's British counterpart, the CAA.

III. CURRENT STATE OF THE LAW

As there are no operational offshore wind farms in the United States, the permitting process for offshore wind farms remains largely untested from commencement to completion. Developers of offshore projects have found the permitting process, particularly at the federal level, exasperating. Further, each decision point requiring agency approval offers opponents an additional opportunity to delay a project by either lobbying decision-makers or bringing costly litigation to challenge an agency's decision.

A. REGULATORY STRUCTURE FOR SITING OFFSHORE WIND FARMS

The DOI is responsible for our nation's energy supply. The Energy Policy Act of 2005 vests authority over the permitting process for offshore wind development with the Secretary of the Interior. Much has been written on the cumbersome and complex process offshore wind farm developers face to obtain the permits necessary to site and construct their facilities. For one, the sum of infrastructure necessary to take energy from a turbine and connect it to the power grid physically crosses federal, state, and local territories and thus is subject to each jurisdiction. In response to the challenges faced by Cape Wind, Interior Secretary Salazar implemented the "Smart from the

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122 See F.B. VAN CLEVE & A.E. COPPING, U.S. DEP'T OF ENERGY, OFFSHORE WIND ENERGY PERMITTING: A SURVEY OF U.S. PROJECT DEVELOPERS 3.4 (Nov. 2010), available at http://www.pnl.gov/main/publications/external/technical_reports/PNNL-20024.pdf ("Developers noted that clear instructions from agencies were often lacking as many state or federal agencies are developing a permitting process at the same time they are trying to permit the first wave of projects.").

123 Id. ("Frustration with the federal permitting process was common to all respondents working at the federal level.").

124 Kimmell & Stalenhoef, supra note 15, at 203-04, 211.


129 Rigano, supra note 14, at 224.
"Start" initiative near the end of 2010 to improve and streamline offshore wind farm siting and development on the Atlantic Outer Continental Shelf (OCS). The initiative vested exclusive jurisdiction in managing wind projects on the OCS with the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE), which is under the DOI. However, the BOEMRE was subsequently reorganized in 2011 into the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE).

The BOEM now maintains oversight of the offshore renewable energy program. The leases, grants, and permits (both for construction and operation) for wind farms on the OCS fall within the purview of the BOEM. However, although the BOEM has responsibility for the OCS, any development project must comply with a myriad of federal laws. The Energy Policy Act of 2005, while establishing the framework for leasing and permitting offshore wind energy projects on the OCS, does not provide the entire picture for the permitting process because it does not supersede existing federal laws that were designed to protect our natural, environmental, and historic resources. Due to their locations, many potential offshore wind farms must comply with all preexisting, applicable laws, such as the National Environmental Protections Act (NEPA), the Coastal Zone Management Act (CZMA), which exemplifies the interplay

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131 Id.


between state and federal jurisdiction, and the Marine Mammal Protection Act among others. Under federal jurisdiction, there are more than twenty separate laws and executive orders with which a potential offshore wind farm must comply. This means the BOEM is responsible for coordinating review of compliance with numerous federal agencies, including the Council on Environmental Control, the Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, the EPA, the Corps, the U.S. Coast Guard, the National Park Service, the Advisory Council on Historic Preservation, the Federal Energy Regulatory Commission, and the FAA. And that is only at the federal level. States, which retain authority over the lines connecting the turbines to the power grid, have their own sets of laws, which may or may not mirror federal laws and add to the complexity of the permitting process. Each law involved, whether local, state, or federal, adds another hurdle over which a project may potentially stumble, taking a developer out of the race to provide offshore wind energy.

Given the height of offshore wind turbines, one federally-governed area with which construction projects must comply is aviation safety. Developers must, under federal law, notify the FAA of construction projects that may affect the navigable airspace. The FAA then reviews construction projects that may obstruct or interfere with the navigable airspace, navigation equipment, or facilities, determines the projects' impact on air

141 For a complete listing of the applicable federal laws and a brief description of each in a table format, see NEW ENERGY FRONTIER: BALANCING ENERGY DEVELOPMENT ON FEDERAL LANDS, supra note 130, app. 5, at 119–22.
142 Id. (The table in Appendix 5 contains a listing of the laws and the corresponding agency or office responsible for its oversight.).
143 For a presentation of state law issues involved in the permitting of Cape Wind, see Schroeder, supra note 15, at 1653–57.
144 See, e.g., supra Part II (describing the litigation history of Cape Wind). While Cape Wind may be an extreme example of a litigious battle waged between developers and opponents, it demonstrates one possible path where both sides have deep pockets and determination. See id.
146 See 14 C.F.R. § 77.9.
safety and navigation, and issues a report of its findings. Before 2011, two legal scholars had identified the FAA determination as a potential target wind farm opponents could use to defeat such projects. The Alliance pursued that route, successfully grounding (at least temporarily) the Cape Wind project in 2011.

B. BARNSTABLE II: THE CASE THAT GROUNDED CAPE WIND

In Barnstable II, the Alliance and others challenged the FAA’s determination that the Cape Wind project presented no hazard to aviation as arbitrary and capricious for failing to follow its own regulations. In response, the FAA argued that the plaintiffs lacked standing to bring their suit and that the FAA’s “no hazard” determination was sound. The court agreed with the plaintiffs. Standing to bring a lawsuit requires that the plaintiff show injury, causation, and redressability. In Barnstable II, the FAA challenged only causation and redressability; injury was undisputed. To prevail, the Alliance and the town of Barnstable were required to show the connection between the injury and the FAA’s action (causation), and that prevailing on the merits of the case would rectify their injury (redressability). The FAA’s argument hinged on the fact that the DOI, rather than the FAA, had the ultimate responsibility for granting the lease for the Cape Wind project. The court, however, rejected this technicality, finding that if the FAA indeed determined that the wind turbines posed a safety hazard, the DOI would withhold the lease either indefinitely or until the safety issues were remedied, thus redressing the plaintiffs’ potential injury.

147 See 49 U.S.C. § 44718(1) (b), (2).
148 See Ernest E. Smith & Becky H. Diffen, Winds of Change: The Creation of Wind Law, 5 Tex. J. Oil Gas & Energy L. 165, 198 (2010) (stating that “fighting the FAA permits required for wind farms is one more way opponents may try to fight or stall the installation of wind farms”).
149 See Barnstable II, 659 F.3d 28 (D.C. Cir. 2011).
150 Id. at 31.
151 Id.
152 Id.
153 Id.
154 Id.
155 Id.
156 Id. at 31–32.
157 Id. at 32.
The court found two key factors supporting redressability in this case: the statutory grant of authority the DOI has for issuing the lease and the lease language itself. The DOI has authority to grant leases on the OCS under 43 U.S.C. § 1337. However, the statute requires the DOI to consider safety before issuing any lease. Further, the court heavily relied on the language the DOI had written into the wind farm lease that required Cape Wind’s compliance with any safety mitigation requirements the FAA imposed in its report.

The court rejected the FAA’s argument that the plaintiffs lacked standing to challenge the “no hazard” determination because the determination was non-binding on the DOI’s ultimate decision to grant the lease. In so doing, the court relied heavily on National Parks Conservation Ass’n v. Manson, a case in which the court found standing despite the non-binding nature of the DOI’s opinion because the DOI’s opinion would considerably impact the state of Montana’s decision as to whether the project in question could commence. In this case, because the court deemed it likely that a FAA finding of inmitigable hazard would lead the DOI to withhold the lease, the court held that the petitioners had standing to bring the lawsuit.

With the issue of standing decided, the court turned to the question of whether the FAA’s determination was arbitrary and capricious because it violated its own guidelines. The internal guidelines at the heart of the issue in this case were the FAA’s “Procedures for Handling Airspace Matters” (FAA Procedures). Chapters 6 and 7 of the FAA Procedures address FAA obstruction studies and their resulting determinations, respectively. The FAA based its “no hazard” determination on the

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158 See id.
161 Barnstable II, 659 F.3d at 32.
162 See id. at 33.
163 414 F.3d 1 (D.C. Cir. 2005).
164 Id. at 6–7.
165 Barnstable II, 659 F.3d at 31, 34.
166 Id. at 34.
167 Id.; see FAA, ORDER NO. JO 7400.2G, PROCEDURES FOR HANDLING AIRSPACE MATTERS (Apr. 10, 2008), available at http://www.faa.gov/documentLibrary/media/Order/7400.2G.pdf [hereinafter FAA PROCEDURES]. Note that the procedural guidelines were subsequently amended in May, 2011 and are available at http://www.faa.gov/documentLibrary/media/Order/AIR.pdf. The changes apply to air traffic organizations and thus do not impact the analysis in this article.
168 FAA PROCEDURES, supra note 167, at ch. 6–7.
fact that the proposed turbines would not exceed the 500-foot height limitation whereby a structure is deemed to have an adverse effect on Visual Flight Rules (VFR) operations. While this was a correct interpretation of one provision of the FAA Procedures, the court found that the FAA failed to consider other relevant provisions. Specifically, the court criticized the FAA’s failure to analyze record evidence of potential harmful impacts on VFR navigation, including the number of flights in the region that fly below an altitude of 1,000 feet, the resulting distance separating the aircraft from the turbines, and the implications of the FAA’s weather compression studies. The court scathingly accused the FAA of “catapult[ing] over the real issues and the analytical work required by its handbook.”

Cape Wind opponents may declare the court’s decision to vacate the FAA determination a victory. However, the victory is anything but permanent. The court left room for the FAA to declare that the project presents no hazard when it stated:

The FAA may ultimately find the risk of these dangers to be modest, but we cannot meaningfully review any such prediction because the FAA cut the process short in reliance on a misreading of its handbook and thus, as far as we can tell, never calculated the risks in the first place.

It follows then, from the court’s opinion, that so long as the FAA conducts the airspace obstruction analysis according to its own procedures and adequately explains its results, it is free to determine that the Cape Wind project presents either no hazard or one that can be mitigated using specified techniques.

Although Barnstable II was the first refusal of the courts to uphold a siting decision for an offshore wind farm project, the FAA was no stranger to the court declaring one of its decisions arbitrary and capricious in connection to onshore wind farms. In Clark County, Nevada v. FAA, the county took issue with the FAA’s

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169 Barnstable II, 659 F.3d at 34-35.
170 Id. at 35 (noting the turbines must be studied for possible harms occurring under procedures 6-3-3(a)-(f)).
171 Id. at 35-36.
172 Id. at 36.
173 Id.
174 See id. (declaring the uncertainty of whether following the handbook will result in a final hazard determination or not).
175 Id.
176 See id.
177 See Clark Cnty., Nev. v. FAA, 522 F.3d 437, 441, 443 (D.C. Cir. 2008) (vacating the FAA determination under the arbitrary and capricious standard).
“does not exceed” determination in connection with a proposed eighty-three turbine wind farm that would be located near a planned airport. In that case, the county claimed the FAA violated the Administrative Procedures Act (APA) because it failed to offer a reasoned explanation for its determinations regarding the proposed wind farm. The court agreed. The proposed turbines in that case had an estimated height of 400 feet, triggering notification of potential airspace obstruction and subsequent FAA analysis of the project. The FAA Procedures also drove the study in that case. Specifically, the FAA decided that “each turbine ‘does not exceed [the Subpart C] obstruction standards, does not have substantial adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities, and would not be a hazard to air navigation.’” The court reviewed the FAA decision under the arbitrary and capricious standard of review, a deferential standard that determines only whether the administrative agency engaged in reasoned decision making, and considered all of the relevant factors in the record.

The court found that the FAA failed to engage in reasoned decision making. Instead, in reviewing the FAA’s report and the record, the court found that the evidence conflicted with the FAA’s conclusions. In deciding the case, the court relied on the FAA’s own report, the FAA Procedural Handbook, and a consultant’s impact study. The FAA’s own report and the consultant’s study both indicated the project presented potential hazards and interference. Because the FAA failed to offer a reasoned explanation that addressed these potential hazards,

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178 Id. at 438–40.
179 Id. at 438–39.
180 Id. at 439.
181 Id. at 438–39. Note that the statute (49 U.S.C. § 44718(b)) and the regulation (14 C.F.R. § 77) are the same statutory mandates that triggered notification of, and study by, the FAA in the Cape Wind project.
182 Id.
183 Id. at 439–40.
184 Id. at 441.
185 Id. at 442.
186 Id. at 441–42 (stating that “the only evidence in the record available to [the] [c]ourt actually support[ed] the opposite conclusions—that the turbines both would exceed the FAA’s obstruction standards and would interfere with radar systems at the new airport”).
187 Id. at 442.
188 Id.
the court found for the plaintiffs and vacated the FAA’s determinations.\footnote{Id. at 443.}

C. The United Kingdom’s Aviation Policy for Wind Turbines

The CAA is the FAA’s counterpart in the United Kingdom.\footnote{See About the CAA, Civil Aviation Authority, http://www.caa.co.uk/default.aspx?catid=286 (last visited Sept. 1, 2012) (stating that the CAA is responsible for air safety and regulation, among other things).} In July 2006, the CAA published the first edition of its “CAA Policy and Guidelines on Wind Turbines” (CAA Policy).\footnote{CAP 764: CAA Policy and Guidelines on Wind Turbines, supra note 17, at Revision History p. 1.} The FAA has no similar policy available or easily accessible to project stakeholders. The CAA Policy reflects an understanding that aviation safety in wind farm development must be considered to successfully launch projects.\footnote{See id. Forward p. 1, ¶ 1.3–1.6.} The flexible document incorporates updates from interested parties every other year.\footnote{Id. Forward p. 2, ¶ 4.1.} The comprehensive CAA Policy puts key information in stakeholders’ hands by providing detailed explanations of the following: (1) the role of the CAA; (2) the effects of wind turbines on aviation, including the resulting safety issues and range of mitigation options; and (3) the planning process to develop wind turbines.\footnote{See id. Contents pp. 1–2.}

The CAA drafted the CAA Policy to educate interested parties about the aviation issues associated with wind turbines and to “ensur[e] greater consistency in the consideration of the potential impact of proposed wind turbine developments.”\footnote{Id. Forward, p.2.} The guide clearly spells out the CAA’s policy on wind energy and how it fits into the United Kingdom’s overall energy goals, yet it recognizes that within the policy and guidelines each project must be evaluated on an individual basis.\footnote{Id. ch. 1, p.1.} The CAA Policy also discusses the interaction of a project’s review with other related laws.\footnote{See, e.g., id. ch. 1, p. 1, ¶ 4.1, ch. 3, p. 2, ¶¶ 5.1–5.2.} Chapter 2 of the CAA Policy discusses in detail how wind turbines affect aviation, including their impacts on primary and secondary radar systems, navigation and commu-
cation systems, air traffic services, and helicopter operations. Additionally, the chapter presents information regarding the cumulative effects on airports, the economic impacts on airports, turbulence problems, and the impacts on both the military and emergency response units.

By clearly describing the potential aviation safety problems wind turbines present, Chapter 2 sets the stage for the remainder of the document. Chapter 3 builds on this foundation by discussing official and unofficial safeguarding, which authorizes local airport operations managers to assess proposed development projects in their area for possible adverse impacts. Chapter 4 then identifies and describes the range of mitigation techniques available to address potential aviation safety hazards presented by wind farms.

The final chapter describes, in detail, the entire wind farm planning process as it relates to aviation safety compliance. Historically, the CAA offered pre-planning consultation services to wind farm developers; however, though these services have ceased, the CAA Policy offers guidelines and considerations, such as factors that would more heavily impact aircraft operations, to aid developers in their own pre-planning efforts. The remainder of the chapter provides an overview of the formal planning process for wind farm assessment and approval, and discusses how the CAA fits into the process.

This section considered the current state of the law concerning offshore wind permitting. The statutory framework remains unwieldy. The FAA has failed to follow its own internal guidelines and, in the process, has left the Cape Wind project exposed as easy prey for its highly litigious opponents. And further, in the past decade, the FAA has failed to establish an easily accessible, succinct aviation policy on wind turbines. The current state of affairs identifies three areas on which the fed-

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198 See id. ch. 2, pp. 1–5.
199 Id. ch. 2, pp. 6–10.
200 Id. ch. 2.
201 See id. ch. 3, p. 1.
202 See id. ch. 4.
203 See id. ch. 5.
204 See id. ch. 5, ¶ 1.1 (noting that as of December 25, 2010, the CAA no longer offers pre-planning consultation, and developers are now expected to conduct the assessment).
205 See id. ch. 5, pp. 1–2, tbl. 1 ¶¶ 1.1–1.2.
206 Id. ch. 5, pp. 3–6.
207 Barnstable II, 659 F.3d 28, 36 (D.C. Cir. 2011).
eral government should focus to successfully launch future projects.

IV. ANALYSIS

A. "SMART FROM THE START": AN IMPROVEMENT THAT NEEDS FINE-TUNING

The Cape Wind fiasco demonstrates that the failure over the past decade to successfully get one U.S. offshore wind project on the path to construction goes beyond a complex regulatory scheme in which the right hand of the federal government is unaware of what the left hand is doing. With the sheer number of laws and different agencies involved, the federal process is more aptly analogized to a jellyfish with numerous tentacles gone awry, each on their own trajectory, preventing the system from moving towards its stated goal. A decade later, the permitting process still reeks of a piecemeal regulatory scheme, rather than a cohesive process in line with an aggressive renewable energy goal that purports to make offshore wind energy a priority. "Smart from the Start" is a step toward bringing order to the chaos, but it has not gone far enough. The BOEM, the lead agency ultimately responsible for issuing the requisite leases and permits,208 can do more in terms of agency coordination and provision of information to stakeholders.

The DOI, in its May 2011 joint report to Congress with the U.S. Department of Agriculture, recognized that the FAA plays a role in the nation’s quest to deliver clean energy via wind farms.209 With the exception of Appendix 5, which presents the regulatory scheme for offshore wind farms in table format,210 the joint report does not specifically discuss the FAA’s role in the offshore wind regulatory framework.211 Rather, in its section on offshore wind, the report emphasizes the requisite compliance with environmental legislation that projects need for approval of a BOEM lease on the OCS.212 But the report merely lumps together “other federal agencies” and “other reviews” that

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210 See id. at 119–22.
211 See id. at 35–40 (discussing the current regulatory scheme to establish offshore wind projects on the OCS).
212 See id. (Note the emphasis of CZMA, NEPA, and the wildlife-related environmental acts listed on the chart on page 37, contrasted with the absence of the
are not part of the environmental review process and gives them little attention.\textsuperscript{213} The absence of further discussion of other agencies, such as the FAA, in the section of the report devoted to the offshore wind permitting process may be due to the untested nature of the process. Or, it could indicate a minimization of the laws and agency involvement outside of the "major" environmental impact studies.

One could look by analogy to the report's description of the onshore permitting process to get a sense of the DOI's view of where the FAA fits into the overall scheme.\textsuperscript{214} The DOI does mention the FAA in that discussion.\textsuperscript{215} However, this document focuses not on the FAA's role in the overall permitting process, but rather on "preserv[ing the] night sky integrity" by developing safety warning systems that are an alternative to the flashing lights currently required on objects that protrude more than 200 feet in the air.\textsuperscript{216} Focusing on only those agencies perceived to be the key players — those responsible for the various environmental reviews — is shortsighted. What good is it if a project passes all the "major" hurdles by complying with key legislation, like NEPA and CZMA, but stumbles over relatively "minor" steps like NHPA\textsuperscript{217} or falls when it undergoes FAA review?\textsuperscript{218} Still, after a decade of attempts to bring order and structure to the offshore wind farm siting process at the federal level, "Smart from the Start" falls short of coherent, comprehensive planning. In light of the D.C. Circuit's decision in \textit{Barnstable II} to vacate the FAA's "no hazard" determination on the Cape Wind project,\textsuperscript{219} failure to consider the FAA's role in approving a structure of this height is folly.

One article concerning the 2011 offshore wind conference stated, "As [Secretary] Salazar pointed out, this is an industry

\begin{footnotesize}
\begin{enumerate}
\item See id.
\item See id. at 35–69.
\item \textit{Id.} at 55.
\item \textit{Id.} at 55, 128 (noting that current regulations require flashing lights at night on structures exceeding a height requirement to warn pilots flying at low altitudes).
\item See Kimmell & Stalenhoef, \textit{supra} note 15, at 208, 223–24 (reporting that the dispute over a historic preservation review delayed the project by a year and a half).
\item See \textit{supra} Part III(B) (discussing the court's decision in \textit{Barnstable II}).
\item See id.
\end{enumerate}
\end{footnotesize}
that does not really exist yet.”220 On its face, that statement is either intellectually dishonest or grossly ethnocentric.221 It is true that no such industry has succeeded in the United States, but the industry does exist—in fact it “really exist[s],”222 just not in U.S. territory. The reality is that other nations have succeeded in launching this industry223 where the United States has failed, repeatedly. And there is surely something to be learned from others’ success.

At a minimum, the DOI, and the BOEM specifically, should provide a clear understanding of the role that each federal agency potentially plays in the permitting process. While initially the focus was on the necessary environmental reviews of the project, the DOI should now revise its documentation of the offshore wind permitting process. The revisions should focus on the other reviews—including both the FAA safety review and determination, and the historic preservation review processes—necessary to obtain the requisite permits before construction can commence. The BOEM, as the lead coordinating agency, should make this information available and easily accessible to all stakeholders. While the BOEM should be responsible for spearheading the planning, coordination, and provision of information to stakeholders concerning the permitting process, individual agencies must be individually accountable for their roles in the permitting process.

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220 Wald, supra note 23 (referring to the offshore wind industry).
221 See id. Perhaps the author meant that no offshore wind industry has been established in the United States. However, to state that the industry itself does not really exist either refuses to recognize others’ achievements because we have failed where they have succeeded, or it implies that an industry has not really “arrived” unless it has been established in the United States.
222 See, e.g., Lessons Learned on Offshore Wind—And the Next Steps, GWEC (Jan. 30, 2008), http://www.gwec.net/index.php?id=77&L=0&tx_ttnews[backPid]=76&tx_ttnews[pointer]=11&tx_ttnews[tt_news]=128&cHash=f2b6ab8687 (noting that even by October 2007 Germany, Sweden, Denmark, and the United Kingdom all had successfully established operational offshore wind farms). See also EU Offshore, supra note 22 (documenting that as of 2010, EU offshore wind capacity was nearly 3,000 MW and that eight of the nine wind farms that had been constructed that year alone were “fully grid connected”).
223 United Kingdom, supra note 119 (As of 2010, “[w]ith 1,341 MW of installed capacity offshore, the UK continue[d] to be the world’s leading offshore wind market. A further 1,154 MW of offshore capacity are under construction, the majority of which may come online as early as 2011. A milestone in 2010 was the opening of Thanet, the world’s largest offshore wind farm . . . .”).
B. LESSONS (THAT SHOULD HAVE BEEN) LEARNED FROM THE JUDICIAL REVIEW OF FAA DETERMINATIONS CONCERNING WIND FARMS

Whereas the important factor in real estate is "location, location, location," judicial review under the arbitrary and capricious standard boils down to "explanation, explanation, explanation." An agency's informal decision making is reviewed under the highly deferential arbitrary and capricious standard of review. To withstand judicial scrutiny, an agency must consider the relevant factors and provide a reasoned explanation for its decision. But a lack of reasoned decision making—no explanation—results in remand with direction for the agency to adequately explain its decision.

Given the litigious nature of the Alliance, the FAA should have known that any determination it made concerning Cape Wind would be closely scrutinized. The Alliance endeavors to prevent Cape Wind from realization, whether by refusal of permits or abandonment of the project by investors. The FAA played right into the Alliance’s plan. And, in light of the court’s decision in Clark County, the FAA is without excuse for failing to adequately explain why Cape Wind presents no hazard to aviation safety.

Despite the fact that the wind farm at issue in the earlier case was onshore, while the 2011 case concerned an offshore facility, there were several similarities between the two cases. Both cases involved FAA review of wind turbines. Whether onshore or offshore, the FAA should have studied the reasons for the court’s rejection of its safety determinations on other wind farm projects. Since the court struck down a prior FAA determination because the FAA offered an inadequate explanation, the FAA was on notice in 2008 that any future determinations must be adequately explained. Both cases had vocal factions who vehemently opposed the construction of the proposed wind

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226 Id. at 57.
228 Barnstable II, 659 F.3d 28, 30 (D.C. Cir. 2011); Clark Cnty., 522 F.3d at 438.
229 Barnstable II, 659 F.3d at 30; Clark Cnty., 522 F.3d at 438.
230 Clark Cnty., 522 F.3d at 443.
farms in their communities.\textsuperscript{231} In 2008, opponents challenged the FAA's safety determination in court to ground that project.\textsuperscript{232} The FAA should have also expected a challenge to its safety determination concerning Cape Wind and should have painstakingly explained its decision. And, in both cases, the FAA had been involved previously in the projects and should have been intimately aware of the strength of the opposition.\textsuperscript{233}

Under existing federal regulations, the height of wind turbines\textsuperscript{234} for commercial wind farms will trigger FAA review of any proposed offshore wind project.\textsuperscript{235} Future FAA reviews of proposed offshore wind farms must consider every way a proposed project could adversely affect air navigation and aviation safety. Thorough analysis of all the factors outlined in the handbook, consideration of all safety issues raised by stakeholders, and an explanation of how the FAA arrives at its ultimate determination, including any necessary mitigation measures, should be part and parcel of all future FAA reviews of offshore wind farms.

The FAA's failure to follow its own guidelines after an adverse judicial review in 2008 indicates deficiencies concerning the steps necessary to produce a solid analysis and an explanation that can withstand judicial scrutiny. Going forward, the FAA should explore where the breakdown has occurred in past reviews—whether it was due to a lack of training, shoddy analysis, or failure to effectively communicate the results of a study. Self-review would help the FAA produce stronger studies, reduce delays due to litigation and judicial vacation of its findings, and ultimately facilitate the permitting process. Intentional planning can help the FAA facilitate the process of meeting aviation safety goals by screening out projects that truly pose an immi-
gable hazard, facilitating mitigation techniques where appropriate, and streamlining the permitting process for those projects that pose no hazard.

C. LESSONS FROM THE UNITED KINGDOM: AVIATION SAFETY REVIEW IN THE BROADER REGULATORY SCHEME

A comparison of the FAA's website containing information relating to wind farm siting and the CAA's website concerning wind energy shows that the CAA is more proactive in making such information available to stakeholders. For example, the FAA has a "Wind Turbine FAQs" section on its website.\(^{236}\) The CAA has a page devoted to wind farms under its airspace policy tab, and the page contains hot links to related documents, including the CAA's Policy on Wind Turbines.\(^{237}\) In contrast to the United Kingdom's well-developed policy document,\(^{238}\) the FAA's "Wind Turbine FAQs" section contains twenty-one questions and answers to guide prospective project developers through the process of the FAA obstruction evaluation and resulting determination.\(^{239}\) The FAA should consider facilitating communication with project stakeholders by making available the relevant information concerning the FAA's role in the offshore permitting process.

The FAA should develop a wind turbine policy document modeled after the CAA Policy to aid in the obstruction review of wind turbines and to provide valuable information to stakeholders in an efficient manner. The beauty of the CAA Policy is that it contains a wealth of information in one relatively concise document.\(^{240}\) An FAA policy statement modeled after the CAA Policy could extract from the FAA Procedures\(^{241}\) only those

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\(^{238}\) See supra Part III(C) (describing in detail the comprehensive nature of the CAA Policy).

\(^{239}\) See Wind Turbine FAQs, supra note 236.

\(^{240}\) Note, the CAA Policy is only sixty-four pages long, including several blank pages inserted as section breaks between the chapters. See CAP 764: CAA POLICY AND GUIDELINES ON WIND TURBINES, supra note 17. Thus, the policy stands in sharp contrast with the reams of paper one often associates with government policies and reports. See, e.g., Drash, supra note 60 (referencing a 4,000-page government study of Cape Wind as typical of numerous assessments of the project). See also FAA PROCEDURES, supra note 167 (a 345-page document).

\(^{241}\) See FAA PROCEDURES, supra note 167.
procedures relevant to wind turbines. The FAA should establish a clear policy regarding wind turbines, like the U.K. document, that specifically ties in the “Smart from the Start” initiative and facilitates national renewable energy goals. The FAA document should be tailored to address the aviation safety and air navigation hazards that are encountered in the United States. Likewise, the FAA could explain the domestically approved and available mitigation techniques for each corresponding safety hazard or potential interference. Additionally, the FAA could clearly explain the FAA obstruction study procedure, the process of issuing a final determination on a project, and how the determination fits into the overall federal regulatory process for issuing offshore wind permits and leases.

D. CURRENT PERMITTING PROCESS: MAINTAINING THE STATUS QUO AT WHAT COST?

Maintaining the status quo in offshore wind permitting is unnecessarily costly and therefore unacceptable. To date, the goal of establishing commercial offshore wind farms remains a goal only. Yet millions of dollars have been invested in Cape Wind alone with no result. Interior Secretary Salazar approved the permit for Cape Wind in 2011, yet by the end of that year, the project had failed to break ground. The result is millions of dollars spent with nothing to show for it. The nation has paid the opportunity costs associated with not having that private capital available for other ventures that may have yielded results. And Cape Wind’s enormous costs and zero results will deter private investors from funding similar green energy projects going forward. Additionally, the community bears the human cost resulting from neighbors battling each other for a decade and counting.

V. CONCLUSION

As a nation, the United States has made increasing the amount of electricity we get from renewable energy sources, including clean energy, a priority over the next few decades. If

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243 See Barnstable II, 659 F.3d 28, 30 (D.C. Cir. 2011).
offshore wind energy is to be a viable source of renewable energy, the DOI must take a hard look at all of the players involved in the permitting process and make sure that not only the “major” agencies involved in the environmental review process but also the less-visible agencies, who review projects for adverse impacts, all do their part to facilitate the permitting process. This comment has examined the role of the FAA in the offshore wind permitting process and how its failure to follow its own internal regulations has momentarily derailed the Cape Wind project. In the future, the FAA and other federal agencies involved in reviewing plans for adverse impacts must, at a minimum, consider how their reviews fit into the overall regulatory framework. The FAA should develop a policy document specific to wind turbines. Additionally, the FAA must train their reviewers to follow the FAA’s internal guidelines and clearly explain both their obstruction study methodology and all resulting safety determinations. Putting all the relevant information in one source available to project stakeholders can help streamline the review process, reduce costs of obtaining information and complying with federal regulations, and facilitate communication between persons interested in a particular project.
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