

A WIND(OW) OF OPPORTUNITY: WHY TEXAS IS IN THE BEST POSITION TO DEVELOP OFFSHORE WIND ENERGY

Comment

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I. TURNING THE BIG BLUE GREEN

Currently, the United States faces political, economic, and environmental pressure to diversify its fuel sources due to the risks presented by heavy reliance on foreign fuels.¹ At the same time, to meet the

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1. See U.S. DEP’T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY’S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY 1 (2008), [hereinafter 20% WIND ENERGY BY 2030]

country's growing demand for electricity, the United States must increase its electricity supply by 22.5% by the year 2035.² As a result, industry leaders are turning to alternative energy sources and exploring uncharted territory.³ Fortunately, an estimated 900,000 megawatts (MWs) of wind energy exists off of the United States coastline—an untapped resource that presents an opportune solution for the industry's needs.⁴ Offshore wind energy presents several advantages over onshore wind energy and traditional fuels.⁵ Notably, offshore wind energy emits fewer greenhouse gases than traditional energy producers, has the potential to create tens of thousands of long-term jobs, and is located closer to the majority of the United States population than onshore wind resources.⁶ Analysis of European success with offshore wind energy development illuminates the importance of centralized planning and effective economic incentives in meeting renewable energy quotas.⁷ Conversely, analysis of the hopelessly flawed and stalled Cape Wind project in the United States sheds light on the shortcomings of America's federal regulatory scheme.⁸

Complementary to the EU's centralized renewable energy regulatory scheme are the individual member states' national goals, financial incentives, and mandates for renewable energy.⁹ It follows that an integral part of Texas's success will be the ability to create a favorable environment for offshore wind development in the state, independent of the federal government.¹⁰ Texas played a leading role in the energy market, and its continued pioneering of onshore wind energy, makes it seem natural, if not likely, that Texas will be among the “first in the water” to develop offshore

available at <http://www1.eere.energy.gov/wind/pdfs/41869.pdf>; WALTER MUSIAL & BONNIE RAM, NAT'L RENEWABLE ENERGY LAB., LARGE-SCALE OFFSHORE WIND POWER IN THE UNITED STATES 10 (2010), available at <http://www.nrel.gov/docs/fy10osti/40745.pdf> (noting the dwindling supply of fossil fuels that are increasingly imported from unreliable nations).

2. U.S. DEP'T OF ENERGY, 2010 WIND TECHNOLOGIES MARKET REPORT 5 (2011), [hereinafter 2010 WIND TECHNOLOGIES MARKET REPORT] available at <http://www1.eere.energy.gov/wind/pdfs/51783.pdf>.

3. See WALTER MUSIAL & SANDY BUTTERFIELD, NAT'L RENEWABLE ENERGY LAB., FUTURE FOR OFFSHORE WIND ENERGY IN THE UNITED STATES 1 (2004), available at <http://www.nrel.gov/docs/fy04osti/36313.pdf>.

4. *Id.* at 4.

5. See Erica Schroeder, *Turning Offshore Wind On*, 98 CALIF. L. REV. 1631, 1639 (2010).

6. See President Barack Obama, Earth Day Speech (Apr. 22, 2009), http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-in-Newton-IA [hereinafter Earth Day Speech]; Schroeder, *supra* note 5, at 1640.

7. See discussion *infra* Part II.B (explaining the successful evolution of the European offshore wind energy industry).

8. See Dominic Spinelli, *Historic Preservation & Offshore Wind Energy: Lessons Learned from the Cape Wind Saga*, 46 GONZ. L. REV. 741, 743 (2011); see also discussion *infra* Part II.C (explaining the impact of a fractured federal regulatory scheme in delaying the United States' first proposed wind farm for over a decade).

9. See Brian Snyder & Mark J. Kaiser, *A Comparison of Offshore Wind Power Development in Europe and the U.S.: Patterns and Drivers of Development*, 86 APPLIED ENERGY 1845, 1850 (2009).

10. See discussion *infra* Part VI.B (explaining the proposal for Texas's offshore wind industry).

wind energy.¹¹ In addition to its history as an energy leader, Texas retains within its jurisdiction an additional six miles off of its coastline.¹² This means that offshore wind farm developments will be primarily subject only to state regulations, thereby avoiding the confusion that stalled the Cape Wind project for so long.¹³ Championing the industry will not come without a fair amount of sweat equity, however, because formidable opponents remain even after regulatory impediments are overcome.¹⁴ Environmental concerns, aesthetic opposition, and cost hindrances may block development just as easily as poor legislating has.¹⁵

Consequently, forethought and centralized planning are critical to the United States and Texas's success in developing a viable offshore wind industry.¹⁶ In addition to favorable legislation, economic incentives and a statewide commitment to the development of offshore wind energy will aid the industry's growth within the state by bolstering arguments in favor of the industry instead of cultivating opposition.¹⁷

This Comment will compare and contrast the successes and failures of the European offshore wind industry with the United States' and offer solutions for Texas moving forward. Part III of this Comment will discuss the federal regulations affecting offshore wind in the United States in depth, while Part IV will primarily address Texas's statutory environment, as well as its energy history in general, and wind energy history specifically. Part V briefly covers additional barriers to the development of offshore wind in the United States and Texas. Lastly, Part VI presents a recommendation for both the Federal and Texas legislatures moving forward, with an emphasis on avoiding the mistakes made in the Cape Wind project and capitalizing on inherent advantages in Texas law. The analysis will show that cooperation is key to completing the transition from blue American waters to green.

11. See Jesse Jenkins, *Texas Offshore Wind Energy Project Poised to be 'First in the Water'*, THE ENERGY COLLECTIVE (June 9, 2011), <http://www.theenergycollective.com/jessejenkins/58832/texas-offshore-wind-energy-project-poised-be-first-in-water>.

12. See *United States v. Louisiana*, 363 U.S. 1, 65 (1960); see also *infra* notes 104-14 and accompanying text (explaining Texas's jurisdictional history).

13. See Press Release, TOWER Conference 2011, Texas Close to Get the Nation's First Offshore Wind Farm (Aug. 10, 2011), [hereinafter TOWER Conference 2011] http://tower-conference.com/fileadmin/ahk_usa/Dokumente/Press/Press_2011/180810_1st_Press_Release_TOWER_JZ.pdf.

14. See discussion *infra* Part V (explaining the environmental, political, and economic barriers to expansion).

15. See discussion *infra* Part V (explaining the environmental, political, and economic barriers to expansion).

16. See Schroeder, *supra* note 5, at 1639.

17. See *id.*; Benjamin Nussdorf, *Emulating Europe: Setting a Course for Offshore Renewable Energy*, 25 NAT. RESOURCES & ENV'T 29, 29 (2011).

II. THE WIND PATTERN THUS FAR

Despite the global financial crisis and an overall reduction in energy demand, cumulative wind power generation in the United States grew by 15% in 2010 and is projected to continue growing.¹⁸ This growth is undoubtedly intentional and can be attributed in part to legislative support at both the federal and state levels.¹⁹ President George W. Bush, in his 2007 State of the Union Address, stressed:

It is in our vital interest to diversify America's energy supply, and the way forward is through technology Let us build on the work we have done and [set a goal to] reduce gasoline usage in the United States by 20 percent in the next 10 years To reach this goal, we must increase the supply of alternative fuels Achieving these ambitious goals will dramatically reduce our dependence on foreign oil²⁰

As part of a collaborative effort on the heels of President Bush's broad directive, the Department of Energy, in 2008, called for a national goal of 20% wind energy by the year 2030.²¹ Then, in response to elevated energy prices, environmental pressures, and supply uncertainties, Congress further promoted the wind industry through the American Recovery and Reinvestment Act of 2009, which renewed production tax credits for wind energy projects through 2012.²² The tax credits represent a continued commitment to the national goal of diversifying energy sources and developing clean, renewable energy by extending benefits to the marine renewable industry.²³

President Barack Obama continued the trend of support and openly addressed the need for more renewable energy development in his 2010 State of the Union Address: “[P]roviding incentives for energy efficiency and clean energy are the right thing to do for our future, because the nation that leads the clean energy economy will be the nation that leads the global economy. And America must be that nation.”²⁴ Currently, industry leaders

18. See 2010 WIND TECHNOLOGIES MARKET REPORT, *supra* note 2, at 5.

19. See American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5 §§ 1101-02, 1603, 123 Stat. 319, 364 (codified as amended at I.R.C. § 45 (West 2011)); see also Tex. S.B. 20, 82d Leg., R.S. (2011) (relating to grant programs for certain natural gas motor vehicles and alternative fuel facilities).

20. President George W. Bush, State of the Union Address (Jan. 23, 2007), available at <http://georgewbush-whitehouse.archives.gov/stateoftheunion/2007/>.

21. See 20% WIND ENERGY BY 2030, *supra* note 1, at 1.

22. See Schroeder, *supra* note 5, at 1631-32.

23. *Id.*; *Stimulus Bill Promises to Buoy Marine Renewables Industry*, OCEAN RENEWABLE ENERGY COALITION (Feb. 20, 2009), <http://www.oceanrenewable.com/2009/02/20/stimulus-bill-promises-to-buoy-marine-renewables-industry> (discussing applicable provisions of the stimulus bill that affect marine renewable energy, including offshore wind development).

24. President Barack Obama, State of the Union Address (Jan. 27, 2010), available at <http://www.whitehouse.gov/the-press-office/remarks-president-state-union-address>.

are creating alliances to influence legislation and increase interest in offshore wind energy as part of the energy solution.²⁵ In his testimony before the House Natural Resources Committee, the Offshore Wind Development Coalition President, Jim Lanard, addressed two specific legislative priorities of the coalition: (1) long-term extension of the Federal Investment Tax Credit and (2) restoration of the Department of Energy Loan Guarantee Program for renewable energy projects.²⁶ Most recently in 2011, the Department of Energy awarded \$43 million to forty-one projects across twenty states to spur offshore wind development, research, and administration.²⁷

Many states, including Texas, are similarly establishing their own renewable energy goals and incentives.²⁸ Texas's Public Utility Regulatory Act, for example, sets a goal of "10,000 megawatts of installed renewable [energy] capacity by January 1, 2025."²⁹ In 2010, New Jersey passed what is arguably the most innovative state initiative regarding offshore wind.³⁰ In its incentive package, the New Jersey legislature created not only financial incentives but also a megawatt goal for offshore renewable energy, as well as a streamlined application process.³¹ Similarly, a number of private groups have formed to address and overcome barriers to offshore wind energy.³² Despite this widespread support and recognition of the need for alternative energies, the United States has seen nothing but controversy concerning offshore wind development—one of the country's most plentiful, advantageous, and untouched resources.

A. The Case for Offshore Wind

Marine renewable energy as a whole presents distinct advantages over both onshore renewable energy and traditional energy sources.³³ First, the

25. See American Energy Initiative: Identifying Roadblocks to Wind and Solar Energy on Public Lands and Waters, Part II—The Wind and Solar Industry Perspective: Hearing Before the H. Comm. on Natural Res., 112 Cong. 1-2, 4 (2011), [hereinafter Lanard] available at <http://www.gpo.gov/fdsys/pkg/CHRG-112hrg66728/html/CHRG-112hrg66728.htm>. The Offshore Wind Development Coalition is comprised of developers, service providers to the industry, environmental consultants, law firms, the American Wind Energy Association, and more. *Id.* at 1.

26. *Id.* at 4.

27. *Department of Energy Awards \$43 Million to Spur Offshore Wind Energy*, U.S. DEP'T OF ENERGY (Sept. 8, 2011, 9:46 AM), http://apps1.eere.energy.gov/news/daily.cfm/hp_news_id=323.

28. See TEX. UTIL. CODE ANN. § 39.904(a) (West 2007); Gregory K. Lawrence, *The Race Is On: N.J. Legislature Passes Offshore Wind Incentive Package*, 15 GREEN ENERGY NEWS NO. 16 (July 9, 2010), <http://www.green-energy-news.com/contribute/articles2010/2010sub003.html>.

29. UTIL. § 39.904(a).

30. See Lawrence, *supra* note 28.

31. *Id.*

32. See MUSIAL & RAM, *supra* note 1, at 34 (discussing the U.S. Offshore Wind Collaborative, American Wind Energy Association Offshore Wind Working Group, Offshore Wind Development Coalition, and more).

33. Peter J. Schaumberg & Ami M. Grace-Tardy, *The Dawn of Federal Marine Renewable Energy*

waters off of the United States' coastlines offer steadier and more powerful wind resources.³⁴ Thus, for the same amount of technology, offshore wind reaps increased production and greater benefits than onshore wind.³⁵ Cumulatively, the United States' offshore wind resource is approximated at almost four times the electric capacity currently on the United States' electric grid.³⁶ Secondly, once installed, wind farms emit fewer greenhouse gases and air pollutants than traditional fuel sources.³⁷ While the minimal environmental impacts of wind energy production apply to both on-and-offshore wind energy, onshore wind energy is naturally produced far from population centers, whereas offshore wind tends to be located closest to the country's population centers—the coastline.³⁸ In fact, 75% of the United States' population is expected to live near the coast by 2025.³⁹ As opposed to onshore wind farms, which are typically located in rural areas far from population centers, offshore wind farms can deliver energy to high population areas without the need for an extensive transmission system, thereby avoiding higher costs and an increased carbon footprint.⁴⁰ Lastly, expanding any industry creates jobs.⁴¹ President Obama recognized this valuable potential in his 2009 Earth Day Speech:

It's estimated that if we fully pursue our potential for wind energy on land and offshore, wind can generate as much as 20 percent of our electricity by 2030 and create a quarter-million jobs in the process . . . jobs that pay well and provide good benefits. It's a win-win: It's good for the environment; it's great for the economy.⁴²

Lest one infer that federal support is single-handedly turning the United States' waters green—a look beyond the words in speeches and statutes reveals that federal legislation is precisely where the problem lies and why Texas holds a superior advantage.

B. Europe: Leading by Example

While the United States led the world in installed onshore wind capacity through 2010, falling only to China at the turn of 2011, it has

Development, 24 NAT. RESOURCES & ENV'T 15, 15 (2010).

34. MUSIAL & BUTTERFIELD, *supra* note 3, at 3-4.

35. *See id.*

36. MUSIAL & RAM, *supra* note 1, at 1.

37. Schroeder, *supra* note 5, at 1639.

38. *See id.* at 1640.

39. Schaumberg & Grace-Tardy, *supra* note 33, at 16.

40. *See id.*; MUSIAL & BUTTERFIELD, *supra* note 3, at 3.

41. *See* Earth Day Speech, *supra* note 6.

42. *Id.*

generated no offshore wind capacity to date.⁴³ Instead, Europe first pioneered offshore wind and continues to be the leader with over 3,000 MW of installed offshore wind capacity.⁴⁴ As of June 2011, Europe had a total capacity of 3,924 MW operating in forty-nine wind farms throughout the continent.⁴⁵ Much of Europe's success in the offshore renewable energy arena is attributable to the comprehensive legal framework, created by the European Union (EU) in 2001, that imposes mandatory national targets on member nations.⁴⁶ Notably, the EU was able to bring the Thanet Offshore Farm—one of the world's largest offshore farms—online in just under four years.⁴⁷ Not only is Europe leading the industry in capacity, but also it leads in technology as well.⁴⁸ In the first half of 2011, Europe was able to increase average capacity per turbine, using fewer turbines, due to advanced technology and larger machines.⁴⁹ Europe is also expanding both the size of its wind farms and the depth of the water in which the turbines stand.⁵⁰

The EU has demonstrated a unified commitment to thwarting climate change and increasing renewable energy for a number of years, as is evidenced by its participation in treaties such as the Kyoto Protocol, the Maastricht Treaty of 1992, and the Amsterdam Treaty of 1997.⁵¹ To meet the mandated emissions reductions in the treaties, member nations set goals and offered financial incentives through tax credits, feed-in tariffs, credits, tenders, grants, and carbon taxes.⁵² In particular, the feed-in tariff, thought

43. See Wu Qi, *China Takes Total Capacity to 41.8GW*, WIND POWER MONTHLY (Jan. 13, 2011, 2:50 PM), <http://www.windpowermonthly.com/news/rss/1049368/China-takes-total-capacity-418GW/> (indicating that China's installed wind capacity is up 62% over 2010); see also MUSIAL & RAM, *supra* note 1, at 34.

44. EUROPEAN WIND ENERGY ASS'N, *THE EUROPEAN OFFSHORE WIND INDUSTRY – KEY TRENDS AND STATISTICS: 1ST HALF 2011* (2011), available at http://www.ewea.org/fileadmin/ewea_documents/documents/00_POLICY_document/Offshore_Statistics/20112707OffshoreStats.pdf.

45. *Id.*

46. See Nussdorf, *supra* note 17, at 29. See generally EUROPEAN WIND ENERGY ASS'N, *supra* note 44, at 2-3 (describing the key aspects of the renewable energy directive).

47. See Nussdorf, *supra* note 17, at 29 (noting that “[t]his project is illustrative of how the [EU] is planning, approving, and building offshore wind farms in roughly half the time it takes simply to get regulatory approval in the United States”). Beyond the scope of this Comment, but an important side effect, is that the EU's lead in the industry leaves American manufacturers—such as General Electric—at a serious disadvantage, causing them to lose bids in the United States to European manufacturers—such as Siemens and Vestas—who have offshore experience. See *id.*

48. See generally EUROPEAN WIND ENERGY ASS'N, *supra* note 44, at 2-3 (describing the particular technologies utilized by European countries' offshore wind farms).

49. See *id.*

50. See Snyder & Kaiser, *supra* note 9, at 1846.

51. See Nussdorf, *supra* note 17, at 30; Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162, <http://unfccc.int/resource/docs/convkp/kpeng.pdf>; Treaty on European Union and Final Act, Feb. 7, 1992, 31 I.L.M. 247; Treaty of Amsterdam Amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts, Oct. 7, 1997 O.J. (C 340) 1; Snyder & Kaiser, *supra* note 9, at 1845-48, 1850.

52. See Snyder & Kaiser, *supra* note 9, at 1850 (describing the feed-in tariff as the price submitted by the developer, thereby assuring profitability of the project).

by many to be the most beneficial to the industry, provides more certainty to developers than traditional federal incentives and programs in the United States because contracts are awarded based on a guaranteed price.⁵³ Additionally, European regulatory schemes encourage and expedite offshore development.⁵⁴ The central planning efforts of the member nations speed development by offering a streamlined process and stipulating minimal fees for use of the seabed.⁵⁵

Promotion of renewable energy has also played a crucial role in the EU.⁵⁶ Member countries typically select a framework for implementation and then connect that framework with political tools such as subsidies, tax exemptions, or information campaigns to promote the industry.⁵⁷ While the individual countries' planning procedures, incentives, and goals vary greatly throughout the nations, the EU's unified commitment to renewable energy development is the driving force behind its success.⁵⁸ At the other end of the spectrum, the lack of such a commitment is a primary reason why the United States has not experienced similar success.⁵⁹

C. The U.S. Offshore Experience: Cape Wind

It is widely acknowledged that the United States has led the world in onshore wind energy, yet this edge has not translated to offshore development.⁶⁰ Along with unprecedented federal support of the industry, however, the United States has seen a recent increase in interest in offshore wind development.⁶¹ The infamous Cape Wind project was first proposed in 2001, only to endure federal jurisdictional issues and state and local opponents for over nine years.⁶² The Cape Wind project remained the only player in the game while other developers sat by watching, taking notes, and waiting for a move from the federal government.⁶³ In 2010, however, eight offshore wind developers bid to lease land off the coast of Maryland and more than twenty projects nationwide are in the planning and permitting process.⁶⁴ Most illustrative of the current state of the United States' offshore production, though, is the Cape Wind project.

53. *See id.*; Danyel Reiche & Mischa Bechberger, *Policy Differences in the Promotion of Renewable Energies in the EU Member States*, 32 ENERGY POL'Y 843, 843-45 (2004).

54. *See Snyder & Kaiser, supra* note 9, at 1851.

55. *Id.* at 1846 (contrasting the minimal seabed use fees in Europe with the royalties required in the United States that affect the profitability of projects).

56. Reiche & Bechberger, *supra* note 53, at 846.

57. *Id.*

58. *See id.* at 843-45.

59. *See infra* notes 184-189 and accompanying text.

60. *See MUSIAL & RAM, supra* note 1, at 7-10, 24.

61. *Id.*

62. *See Spinelli, supra* note 8, at 742-43; *see also* Nussdorf, *supra* note 17, at 30.

63. *See Spinelli, supra* note 8, at 742-43.

64. *See Lanard, supra* note 25, at 2; MUSIAL & RAM, *supra* note 1, at 24.

Cape Wind Associates proposed to develop a 420 MW wind farm in 2001 in the Nantucket Sound in Massachusetts.⁶⁵ As the first proposed offshore wind farm in the United States, every move made by all of the players involved was novel and unprecedented. Not long after its proposal, Cape Wind faced its first challenge when the Army Corps of Engineers took control of the permitting process of what was thought would be the first offshore wind farm in the country.⁶⁶ A group of Massachusetts taxpayers, known as Ten Taxpayers, claimed that the project needed a state fisheries permit because, even though the project was to be located in federal waters, the activities would affect state fish.⁶⁷ The First Circuit ultimately held that the federal government had jurisdiction under the Outer Continental Shelf Act and denied the Ten Taxpayer's claim.⁶⁸ Unfortunately for Cape Wind Associates, *Ten Taxpayers* would not be the last jurisdictional battle they would face.⁶⁹

The Cape Wind project faced its second obstacle with the "Not in My Backyard," or "NIMBY," groups.⁷⁰ Interest groups such as the Alliance to Protect Nantucket Sound and Ocean Public Trust Initiative of Earth Island that opposed the Cape Wind project proved to be formidable opponents to the project, and support from individuals such as former U.S. Senator Edward Kennedy, former Massachusetts Governor Mitt Romney, and various other powerful Massachusetts public figures only bolstered their efforts.⁷¹ Focused primarily on environmental concerns, the Alliance to Protect Nantucket Sound brought suit against the Army Corps of Engineers in 2003.⁷² Namely, the Alliance alleged that the Army Corps of Engineers was not in proper compliance with the National Environmental Policy Act.⁷³ The Army Corps, which had continued the permitting process in spite of the legal uncertainties surrounding the project, prevailed at the district court level and again in the First Circuit.⁷⁴

Not long afterward, Congress passed the Energy Policy Act, which finally granted jurisdictional authority to the Department of the Interior's Mineral Management Service, which then took control of the permitting

65. See Schroeder, *supra* note 5, at 1648-50.

66. See *Ten Taxpayers Citizen Grp. v. Cape Wind Assocs.*, 278 F. Supp. 2d 98, 99 (D. Mass. 2003), *aff'd*, 373 F.3d 183 (1st Cir. 2004); see also Schroeder, *supra* note 5, at 1650 (discussing the uncertainty surrounding the permitting process when the Cape Wind project began).

67. See *Ten Taxpayers Citizen Grp.*, 278 F. Supp. 2d at 99; Schroeder, *supra* note 5, at 1651.

68. See *Ten Taxpayers Citizen Grp.*, 373 F.3d at 197; Schroeder, *supra* note 5, at 1651.

69. See *infra* text accompanying notes 72-76.

70. See generally Susan Lorde Martin, *Wind Farms and NIMBYS: Generating Conflict, Reducing Litigation*, 40 FORDHAM ENVTL. L. REV. 427, 446 (2010) (describing NIMBY as a term to refer to those who fight against the siting of developments that may adversely affect the community in some way).

71. See Spinelli, *supra* note 8, at 748; Schroeder, *supra* note 5, at 1651-52.

72. See *Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep't of the Army*, 398 F.3d 105, 108 (1st Cir. 2005).

73. See *id.*; Schroeder, *supra* note 5, at 1651-52.

74. See *Alliance to Protect Nantucket Sound*, 398 F.3d at 108; Schroeder, *supra* note 5, at 1651-52.

process from the Army Corps of Engineers.⁷⁵ In 2009, a new obstacle was brought to the forefront of the project: the Aquinnah and Mashpee Wampanoag Indian Tribes.⁷⁶ Despite series of negotiations with the tribes and stakeholders in Cape Wind, Secretary of the Interior Ken Salazar was unable to allay the tribes' insistence that the Nantucket Sound is sacred tribal ground and should be placed on the National Register of Historic Places—posing a threat of yet another delay.⁷⁷ Nonetheless, Secretary Salazar completed the federal siting process in 2010.⁷⁸ That same year, Cape Wind successfully negotiated a power purchase agreement for one-half of the electricity the project will produce⁷⁹ and is continuing negotiations to reach a second agreement.⁸⁰ The Cape Wind project serves two purposes in this analysis: (1) to commend the pioneering and perseverance of the project's proponents and (2) to serve as an example of when the project faced delays (whether self-imposed or as a result of regulations) so that subsequent developers and legislatures may remedy the mistakes that postponed the Cape Wind project for over a decade.

III. THE UNITED STATES' FEDERAL REGULATORY FRAMEWORK

The decentralized regulatory process facing developers in the United States represents a critical element in the United States' inability to compete on a global level with other nations developing offshore wind energy. To be sure, the Department of Energy is taking great strides to make the permitting process more efficient, but even after settling the jurisdictional dispute between the Army Corps of Engineers and the Minerals Management Service, the regulatory process for renewable energy projects in federal waters is far from ideal.⁸¹ Veritably, almost all statutes governing

75. See Energy Policy Act of 2005, 43 U.S.C. § 1337 (2007); Schroeder, *supra* note 5, at 1651-52. See generally Thomas C. Jensen, *Offshore Renewable Energy Development After the Energy Policy Act of 2005* 3 (Mar. 2007) (unpublished paper presented at the American Bar Association Section of Environment, Energy, and Resources 36th Annual Conference on Environmental Law, available at <http://www.oceanrenewable.com/wp-content/uploads/2007/03/aba-ocs-paper-final.pdf> (discussing the chain of authority over offshore permitting).

76. See Schroeder, *supra* note 5, at 1652 (citing Graham Jesmer, *Federal Decision Could Make or Break Cape Wind's Future*, RENEWABLEENERGYWORLD.COM (Jan. 20, 2010), <http://www.renewableenergyworld.com/rea/news/article.2010/01/federal-decision-could-make-or-break-cape-winds-future>).

77. See Katie Zezima, *Interior Secretary Sees Little Hope for Consensus on Wind Farm*, N.Y. TIMES (Feb. 3, 2010), <http://www.nytimes.com/2010/02/03cape.html>.

78. See Schroeder, *supra* note 5, at 1653.

79. See Exec. Office of Energy & Envtl. Affairs, *Department of Public Utilities Approves Contract for Offshore Wind Power*, MASS.GOV (Nov. 22, 2010), <http://www.mass.gov/eea/pr-pre-p2/cape-wind.html>.

80. See Erin Ailworth, *Cape Wind Seeks Utility Deal Tie-In*, BOSTON GLOBE (Oct. 24, 2011), http://www.boston.com/business/articles/2011/10/04/cape_wind_wants_nstar_northeast_utilities_to_buy_its_power_as_part_of_merger/.

81. See Energy Policy Act of 2005, 43 U.S.C. § 1337 (2007); Schroeder, *supra* note 5, at 1651-52. See generally Jensen, *supra* note 75, at 2 (stating that U.S. policymakers have not developed a straightforward regulatory system).

the development of offshore wind in the United States were not written with offshore wind in mind, but instead were pieced together from various areas of the law to formulate a piecemeal system of regulation.

A. Primary Jurisdiction

The Department of the Interior holds the ultimate authority and jurisdiction over matters in federal waters under the Outer Continental Shelf Lands Act (OSCLA) as amended by the Energy Policy Act of 2005.⁸² The Department of the Interior delegated much authority to the Minerals Management Service (MMS), now the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE), to oversee non-traditional uses of the Outer Continental Shelf.⁸³ Additionally, the MMS published its final rule establishing a program to issue leases, rights-of-ways, and easements for renewable energy projects on the Outer Continental Shelf and clearly outlined the responsibilities of the MMS and the Federal Energy Regulatory Committee (FERC).⁸⁴ In October of 2011, the MMS split into two divisions: BOEMRE and the Bureau of Safety and Environmental Enforcement.⁸⁵ BOEMRE will play the most active role in the siting and regulation of offshore development.⁸⁶ Specifically, the Office of Offshore Renewable Energy Programs oversees renewable energy development on the Outer Continental Shelf.⁸⁷ To assist potential offshore developers, the Office promulgated a set of initial guidelines, which set out qualification requirements for interested parties, information about the Outer Continental Shelf, lease and grant administration processes and details, pertinent financial information, planning requirements including design and installation, environmental and safety requirements, and lastly, decommissioning requirements.⁸⁸ The guidelines present a fairly comprehensive look at the applicable rules and regulations, but they are not all

82. Outer Continental Shelf Lands Act, 43 U.S.C. § 1801 (2007); 43 U.S.C. § 1337.

83. See 43 U.S.C. § 1801; Atlantic Wind Energy Workshop, Synopsis of Federal & State Regulatory & Research Activities, at 1 (July 2011), available at http://www.boem.gov/offshore/renewableenergy/PDFs/AWEW_Handout.pdf [hereinafter Atlantic Wind Energy Workshop].

84. Renewable Energy and Alternative Uses of Existing Facilities on the Outer Continental Shelf, 74 Fed. Reg. 19,638-871 (Apr. 29, 2009). FERC oversees and regulates the wholesale market for electricity, including transmission and grid connection and, under the MMS Final Rule, has exclusive jurisdiction over hydrokinetic projects. See FED. ENERGY REGULATORY COMM'N, *Overview of FERC*, www.ferc.gov/about/overview.asp (last updated Apr. 9, 2012); MINERAL MGMT. SERV. GUIDELINES FOR THE MINERALS MANAGEMENT SERVICE RENEWABLE ENERGY FRAMEWORK 1 (July 2009), available at http://www.boemre.gov/offshore/renewableenergy/PDFs/REnGuidebook_03August2009_3_pdf [hereinafter MMS GUIDELINES].

85. *Regulatory Update on Wind Energy Permitting and Development*, 41 ENVTL. L. REP. NEWS & ANALYSIS 10977, 10979 (Nov. 2011).

86. *Id.*

87. See Atlantic Wind Energy Workshop, *supra* note 83, at 4.

88. See MMS GUIDELINES, *supra* note 84, at 2.

inclusive.⁸⁹ As the Cape Wind project demonstrates, federal interests are not the only interests that must be satisfied.⁹⁰

Beyond its initial guidelines, BOEMRE executed Memoranda of Understanding with several federal administrative agencies, such as the National Oceanic and Atmospheric Administration, the Department of Energy, and the U.S. Fish and Wildlife Service.⁹¹ These memoranda help to define respective parties' roles and priorities within the permitting and development process.⁹² While the MMS was ultimately granted jurisdiction over offshore wind in federal waters, the Army Corps of Engineers still plays a part insofar as developers are required to obtain a permit from the Corps and are subject to Corps review and regulation of certain structures and work located in, or affecting, the navigable waters of the United States.⁹³ The United States Coast Guard plays a similar role pursuant to the Ports and Waterways Safety Act, which authorizes the Coast Guard to implement safety and traffic control measures.⁹⁴

B. Supplementary Statutory Control

Beyond the agencies that have jurisdiction over the safety, navigation, and construction in federal waters, the Environmental Protection Agency has significant control over energy structures and providers in the United States and imposes stringent standards upon development.⁹⁵ The United States Fish and Wildlife Service plays a complimentary role in ensuring compliance with the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Endangered Species Act.⁹⁶ The National Oceanic and Atmospheric Administration also assists agencies in developing environmental review documents under the National Environmental Policy Act (NEPA), and the Council on Environmental Quality provides oversight for all federal agencies affected by NEPA.⁹⁷ Likewise, the Federal Aviation

89. *See id.*

90. *See supra* Part II.C.

91. Atlantic Wind Energy Workshop, *supra* note 83, at 2.

92. *See id.*

93. *See, e.g.*, Rivers and Harbor Appropriation Act of 1899 § 10, 33 U.S.C. § 403 (2006).

94. *See* Ports and Waterways Safety Act, 33 U.S.C. § 1221 (2006).

95. *See generally* Clean Water Act, 33 U.S.C. § 1251 (2006) (enumerating the responsibilities of the Environmental Protection Agency regarding the United States' water).

96. *See* Migratory Bird Treaty Act, 16 U.S.C. § 703 (2006); Bald and Golden Eagle Protection Act, 16 U.S.C. § 668 (2011); Endangered Species Act of 1973, 16 U.S.C. § 1531 (2006); Exec. Order No. 13,186 § 3, 66 Fed. Reg. 3,853 (Jan. 17, 2001).

97. National Environmental Policy Act of 1969, 42 U.S.C. § 7401 (2011); Environmental Quality Improvement Act of 1970, 42 U.S.C. § 4371 (2011). The number of environmental protection statutes that require compliance is seemingly endless. *See, e.g.*, Endangered Species Act, 16 U.S.C. § 1531; Marine Mammal Protection Act of 1972, 16 U.S.C. § 1361 (2006); Magnuson-Stevens Fishery Conservation and Management Act of 1976, 16 U.S.C. § 1341 (2006); National Marine Sanctuaries Act, 16 U.S.C. § 1431 (2006); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 (2006); Atlantic Wind Energy Workshop, *supra* note 83, at 12.

Administration must approve of turbines erected in the navigable airspace as far out as twelve nautical miles in federal waters.⁹⁸ The Advisory Council on Historic Preservation may also play a role in the permitting process, as it did in the Cape Wind project.⁹⁹

As a whole, the regulatory patchwork lends itself easily to doubt and criticism but not necessarily pessimism. Maureen Bornholdt, who currently manages the Department of the Interior's Offshore Renewable Energy Program, conceded "[t]he statutory environment that we're operating in is not as simple, perhaps, as with state lands or local lands."¹⁰⁰ But Congress is not raising a white flag yet; in 2010, Secretary Salazar launched the "Smart from the Start" Initiative to facilitate offshore wind development on the Atlantic Coast, where offshore wind energy has piqued the greatest interest.¹⁰¹ The initiative will permit the newly created BOEMRE to identify priority areas, collect data, and promote efficiency, with a goal of eliminating up to one year from the leasing process by doing much of the preliminary work in advance of bidding.¹⁰² In the meantime, the Gulf Coast of Texas presents a suitable hub for development—with unique features that have the potential to make it the most advantageous area for offshore wind development in the United States.¹⁰³

IV. THE LONE STAR ADVANTAGE: TEXAS'S OFFSHORE REGULATORY FRAMEWORK

A. *Historical Development*

Long before Texas was extracting its natural resources for public use, it was fighting to retain the jurisdiction it held as a sovereign: the Republic of Texas.¹⁰⁴ In a series of decisions known as the *Submerged Lands Cases*, the United States Supreme Court articulated the doctrine of "equal footing" and recognized paramount federal rights in defining federal and state

98. See Federal Aviation Act of 1958, 49 U.S.C. § 44718 (2006); 14 C.F.R. § 77 (2005).

99. See National Historic Preservation Act of 1966, 16 U.S.C. § 470 (2006); Archaeological and Historical Preservation Act of 1974, 16 U.S.C. §§ 469-69(c)(2) (2006) (authorizing the Secretary of the Interior to consider the effects of the permitting on historic properties and to salvage and archaeological data deemed significant); *supra* notes 62-64 and accompanying text.

100. *Regulatory Update on Wind Energy Permitting and Development*, *supra* note 85, at 10977-79.

101. 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), available at www.doi.gov/news/pressreleases/Salazar-Launches-Smart-from-the-Start-Initiative-to-Speed-Offshore-Wind-Energy-Development-off-the-Atlantic-Coast.cfm.

102. See *id.*; Danielle Murray, *Riding the Wave: Confronting Jurisdictional and Regulatory Barriers to Ocean Energy Development*, 5 GOLDEN GATE U. ENVTL. L.J. 159, 193 (2011); *Report of the Renewable Energy Committee*, 32 ENERGY L.J. 405, 417 (2011).

103. See discussion *infra* Parts IV.B-C.

104. See *United States v. Texas*, 339 U.S. 707, 709 (1950).

control off the coasts of the United States.¹⁰⁵ In *United States v. Texas*, Justice Douglas stipulated that Texas presented novel arguments before the Court, arguments not presented in the similar cases of *California* and *Louisiana*.¹⁰⁶ Those arguments rested largely on the “preadmission history of Texas.”¹⁰⁷ Texas asserted several defenses in its favor, including that (1) as the Republic of Texas, it was a sovereign nation and the owner of the sea bed, at which point it acquired an interest in it, and that (2) as an independent nation it “had open, adverse, and exclusive possession and exercised jurisdiction and control over the land, minerals, etc., underlying that part of the Gulf of Mexico . . . three marine leagues from shore”¹⁰⁸ Texas, like California and Louisiana, was denied on the premise that states may not extend their sovereignty beyond that which other states were excluded, i.e., the “equal footing” doctrine.¹⁰⁹ Just three short years later, however, Congress responded with the Submerged Lands Act of 1953, which superseded *United States v. Texas*.¹¹⁰ In fact, the Committee passing the resolution remarked that “[t]he purpose of this legislation is to write the law for the future as the Supreme Court believed it to be in the past”¹¹¹ Section 1301 limits “boundaries” to three geographical miles from the coastline, and three marine leagues (nine geographical miles) from the states surrounding the Gulf of Mexico.¹¹² Two months later, Congress passed the Outer Continental Shelf Land Act (OCSLA) to refine the Submerged Lands Act and expressly declared federal sovereignty over the outer continental shelf beyond the States’ respective territories.¹¹³ Soon after, the Supreme Court recognized Texas’s retention of jurisdiction under the Acts, stating that “pursuant to the Annexation Resolution of 1845, Texas[s] maritime boundary was established at three leagues from its coast for domestic purposes Accordingly, Texas is entitled to a grant of three leagues from her coast under the Submerged Lands Act.”¹¹⁴

Within their offshore jurisdictions, states retain the right to develop and use the land and its underlying resources, so that coastal states

105. See *United States v. California*, 332 U.S. 19, 29-30 (1947); *United States v. Louisiana*, 339 U.S. 699, 703 (1950); *Texas*, 339 U.S. at 716; see also Aaron L. Shalowitz, *Boundary Problems Raised by the Submerged Lands Act*, 54 COLUM. L. REV. 1021, 1022-24 (1954) (describing the *Submerged Lands Cases*).

106. See *Texas*, 339 U.S. at 712.

107. *Id.* at 712-13.

108. *Id.* at 711.

109. See *id.* at 719.

110. See Submerged Lands Act, 43 U.S.C. § 1301 (2006).

111. S. REP. NO. 133, at 8 (1953); see also Shalowitz, *supra* note 105, at 1026 (discussing the effect of the new law).

112. 43 U.S.C. § 1301; Shalowitz, *supra* note 105, at 1027.

113. See Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-1356a (2006); David W. Robertson, *The Outer Continental Shelf Lands Act's Provisions on Jurisdiction, Remedies, and Choice of Law: Correcting the Fifth Circuit's Mistakes*, 38 J. MAR. L. & COM. 487, 495 (2007).

114. *United States v. Louisiana*, 363 U.S. 1, 65 (1960).

developing and extracting resources within their waters are able to regulate their own development.¹¹⁵ Thus, Texas has six additional miles within which to develop offshore wind energy; combined with the added benefit of the shallow nature of the Gulf of Mexico, Texas has at least two key advantages over the majority of the United States.¹¹⁶ Upon closer analysis, it becomes clear that the state holds many more.¹¹⁷

B. *Drill Baby Drill*¹¹⁸

Texas and the coastal states surrounding the Gulf of Mexico generally have a strong and unprecedented history of offshore oil drilling in the United States.¹¹⁹ The history is not spotless, however, and has been the source of great controversy at many points in history,¹²⁰ as well as subject to several moratoria on drilling on the Outer Continental Shelf.¹²¹ Additionally, the permitting and leasing process for offshore drilling is likewise not yet ideal.¹²² As recently as March of 2011, Congress introduced legislation that would streamline the permitting process and shorten the time frame for development significantly.¹²³ Currently, the offshore oil permitting and leasing process consists of four stages: a five-

115. See 43 U.S.C. § 1301; ADAM VANN, OFFSHORE OIL AND GAS DEVELOPMENT: LEGAL FRAMEWORK, CONG. RESEARCH SERV., RL 33404, 3 (2011), available at www.fas.org/sgp/crs/misc/RL33404.pdf.

116. See 43 U.S.C. § 1301; Francis J. Gonyor, *Beyond All Boundaries?—A Study of Marine Jurisdiction of the State of Texas—Past History and Current Issues*, 17 HOUS. J. INT'L L. 253, 255 (1994). But see Jim Lanard & Daron Threet, *Federal and State Measures Expedite Offshore Permitting*, N. AM. WINDPOWER 1 (2011), http://www.dicksteinshapiro.com/files/News/efab40b5-c2c4-4bda-a68d-c4b6e5c527f3/Presentation/NewsAttachment/2125a721-aa4f-4250-80fc-c61fda678d78/Federal_State_Measures_Offshore_Permitting.pdf (“Regardless of where a project is located, both federal and state approvals are needed.”).

117. See *infra* Part IV.C.

118. Jennifer Larson, *Challenges Under OCSLA and the Future of Offshore Drilling Under the Obama Administration*, 13 SMU SCI. & TECH. L. REV. 55, 55 (2009) (explaining the oft exclaimed presidential campaign slogan of Arizona Senator John McCain and former Governor Sarah Palin in 2008).

119. See JOSEPH PRATT ET AL., OFFSHORE PIONEERS: BROWN & ROOT AND THE HISTORY OF OFFSHORE OIL AND GAS 7 (1997).

120. See generally Lindsay K. Scaief, *Upping the Ante in the Oil Industry: Why Unlimited Liability for Oil Companies Will Deal America a Bad Beat*, 43 TEX. TECH. L. REV. 1319 (2011) (discussing the history of oil spills in the United States, the recent Deepwater Horizon spill, and the ramifications of unlimited liability for offshore oil companies).

121. VANN, *supra* note 115, at 4 (explaining that President George H.W. Bush issued the first of these moratoria in 1990, which President Bill Clinton extended in 1998).

122. See generally *id.* (explaining the extensive regulations affecting offshore oil and gas development).

123. Putting the Gulf of Mexico Back to Work Act, H.R. 1229, 112th Cong. §§ 101-102 (2011); Cong. Flores: *Reform Drilling Permit Process, Reduce Delays, End Uncertainty*, TEX. INSIDER (March 18, 2011, 12:01 PM), <http://www.texasinsider.org/?p=44100>; VANN, *supra* note 115, at 5.

year planning process,¹²⁴ leasing,¹²⁵ exploration,¹²⁶ and development and production.¹²⁷

Nevertheless, Texas has remained an offshore drilling hub, due in part to its proximity to the Gulf of Mexico with its deepwater resources that led to an offshore oil boom in the early 1990s.¹²⁸ Additionally, the existing infrastructure used to develop offshore oil, such as industrial fabricators and service companies, can be used for turbines as well, and will reduce operation and maintenance costs for offshore wind across the board.¹²⁹ It follows that Texas and Texas's companies' involvement and experience in the offshore drilling phenomenon posture it perfectly to emerge as the leader of offshore wind development.¹³⁰

C. The Shift to Wind: How Being an Onshore Leader Helps Texas Get in the Water First

The year 2006 marked an important point in history for Texas: it overtook California as the leader in wind energy.¹³¹ Add together Texas's success in oil, both on and offshore, and its recent advances in onshore wind production, and the result is a true energy pioneer.¹³² Perhaps most unique to Texas is its independent transmission grid.¹³³ The Energy Reliability Council of Texas (ERCOT) operates exclusively within Texas, a stark contrast with most states, which rely upon interconnection with fragmented intrastate transmission.¹³⁴ In 2007, the Public Utility Commission of Texas instructed ERCOT to study and develop options for building transmission lines—the infamous Competitive Renewable Energy

124. See Submerged Lands Act, 43 U.S.C. § 1344 (1978); VANN, *supra* note 117, at 5.

125. See 43 U.S.C. §§ 1337, 1345; Vann, *supra* note 115, at 5.

126. See Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1340 (1985); VANN, *supra* note 115, at 5.

127. See Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1351 (1978); VANN, *supra* note 115, at 5.

128. See LESLEY D. NIXON, MINERALS MGMT. SERV., DEEPWATER GULF OF MEXICO 2009: INTERIM REPORT OF 2008 HIGHLIGHTS 22 (May 2009), available at <http://www.gomr.boemre.gov/PDFs/2009/2009-016.pdf>.

129. Tim Breen, *Texas Offshore Wind Project Eyes Test Turbine by End of 2011*, OFFSHORE WIND WIRE (May 17, 2011), <http://offshorewindwire.com/2011/05/17/texas-test-turbine-by-end-of-2011>.

130. See *id.*

131. See AWEA *Quarterly Market Report: Texas Overtakes California as Top Wind Energy State*, ALL AMERICAN PATRIOTS (submitted on July 30, 2006, 9:54 AM), <http://www.allamericanpatriots.com/node/15564>.

132. See TOWER Conference 2011, *supra* note 13.

133. See *About ERCOT*, ERCOT, <http://www.ercot.com/about> (last visited Oct. 7, 2012).

134. John Shelton, Comment, *Who, What, How, & Wind: The Texas Energy Market's Future Relationship with Wind Energy and Whether It Will Be Enough to Meet the State's Needs*, 11 TEX. TECH ADMIN. L.J. 401, 403 (2010); see also ERCOT, *supra* note 133 (detailing ERCOT's independent role in Texas as carrying eighty-five percent of the state's electricity across seventy-five percent of Texas land).

Zone lines, or CREZ lines—for delivering renewable energy.¹³⁵ As of 2011, the CREZ lines are under construction and are poised to transmit power by 2013 with the potential to double the state’s wind capacity.¹³⁶ The efficiency and sovereignty of Texas over the interconnection process is yet another advantage the Lone Star State has over its sister states in developing offshore wind.¹³⁷ The eminence of Texas’s entry into the offshore market prompted a press release by the 2nd Annual Texas Offshore Wind Energy Roundtable Conference to note Texas’s unique advantages:

Offshore wind has undoubtedly benefited from the state’s distinctive business environment. With stable, long-term policies, and its own transmission network, Texas offers unrivaled business opportunities for the offshore wind industry. Furthermore, the state offers an exceptional combination of laws and conditions due to its unique history as an independent nation Because of this, any project located within 10 miles off the coast of Texas does not have to deal with federal regulators. Project developers only have to obtain leases from the Texas General Land Office.¹³⁸

While Texas’s statutory outlook is certainly promising, offshore development is still subject to a grant of permit by the Army Corps of Engineers.¹³⁹ In fact, Coastal Point Energy’s Galveston Wind Project, the project poised to commence within the year, has but one “permitting hurdle to clear” for the Army Corps.¹⁴⁰ Additionally, projects in state waters remain subject to U.S. Fish and Wildlife Service authority as well as the Departments of Defense, Homeland Security, and Transportation, meaning that a project in Texas’s waters would not be wholly independent of federal regulations.¹⁴¹ A project in Texas’s waters would, however, have an incredible advantage over federal projects due to the stark reduction in

135. Press Release, Energy Reliability Council of Texas, ERCOT Files Wind Transmission Options with Commission (Apr. 2, 2008), available at http://www.ercot.com/news/press_releases/print/255; Shelton, *supra* note 134, at 404.

136. See Kate Galbraith, *Wind Power Transmission Lines Rise Across Texas*, THE TEX. TRIBUNE (Oct. 21, 2011), <http://www.texastribune.org/texas-energy/energy/wind-power-transmission-lines-rise-across-texas/>.

137. See Shelton, *supra* note 134, at 403.

138. TOWER Conference 2011, *supra* note 13. The TOWER Conference combines a consortium of leading policymakers, developers, and influential industry leaders in Texas with the experience of Europe’s offshore success. *Id.* The TOWER Conference also supports the Offshore Wind Law (OWL) panel to analyze the unique laws affecting Texas. *Id.*

139. Lanard & Threet, *supra* note 116, at 1.

140. See Breen, *supra* note 129 (noting that even though Texas projects remain subject to grants from the Corps and the Rivers and Harbors Act, the pared down process is much faster than the entire federal process).

141. See Jensen, *supra* note 75, at 8-10.

federal hurdles it must cross.¹⁴² From a pure policy standpoint, there is no reason why Texas as a whole should not capitalize upon this inimitable advantage.

V. THE TIP OF THE ICEBERG?

The splintered regulatory scheme is undoubtedly the greatest obstacle to offshore wind development in the United States. As one commentator noted, “[i]t manages to be fragmented and redundant, prescriptive and vague, authoritarian and leaderless.”¹⁴³ Unfortunately, it is not the only hurdle developers face.¹⁴⁴ Environmental opposition, aesthetic opposition, and cost-benefit concerns persist after developers cross the initial regulatory barriers.¹⁴⁵

A. Environmental Concerns

Contributing to the regulatory mess but independent of the permitting process are statutes such as the National Environmental Policy Act, the Migratory Bird Treaty Act, and the Endangered Species Act, discussed previously.¹⁴⁶ Additionally, environmentalists remain skeptical that even those projects that meet existing statutory requirements are satisfactory.¹⁴⁷ The expectation that the first offshore project deployed in the United States would be in Texas prompted the Sierra Club, a well known environmental action group, to outline their concerns to the Army Corps of Engineers during their review of the Galveston projects permit application.¹⁴⁸ Despite praise of the projects proactive handling of environmental issues, the Sierra Club remains worried about bird deaths throughout the Gulf of Mexico.¹⁴⁹ The lower Gulf Coast sees more than 200 species of birds annually due to the convergence of three migratory bird corridors, many of which are on national and state endangered lists.¹⁵⁰ So Texas, unlike other coastal areas

142. *See id.*

143. *Id.* at 2.

144. *See* Schroeder, *supra* note 5, at 1653.

145. *Id.* at 1640-41.

146. *See* National Environmental Policy Act of 1969, 42 U.S.C. § 7401 (2011); Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712 (2006); Endangered Species Act of 1973, 16 U.S.C. § 1531 (2006); discussion *supra* text accompanying notes 94-99.

147. Mark Collette, *Sierra Club Raises Concerns About South Texas Offshore Wind Farm (USA)*, CALLER.COM (Aug. 17, 2011, 6:00 PM), <http://www.caller.com/news/2011/aug/17/sierra-club-raises-concerns-about-south-texas>.

148. *See id.*

149. *Id.* Interestingly, European scientists generally do not consider the death of birds a significant threat to bird populations due to the low ratio of deaths to number of birds flying through wind farms. *See* M.L. MORRISON, NAT’L RENEWABLE ENERGY LAB., BIRD MOVEMENTS AND BEHAVIORS IN THE GULF COAST REGION: RELATION TO POTENTIAL WIND ENERGY DEVELOPMENTS 4 (2006), <http://www.nrel.gov/wind/pdfs/39572.pdf>.

150. MORRISON, *supra* note 149, at 4.

such as the Atlantic Coast, for example, may have a heightened obstacle regarding pacifying environmental concerns to offshore wind development due to the sheer volume of birds flying through the Gulf on an annual basis.¹⁵¹ On the other hand, offshore wind developments in general have the potential to pose a greater environmental threat because, unlike onshore wind developments, they are usually introduced into pristine environments.¹⁵² But this is not the case with Texas due to its history of offshore drilling.¹⁵³ As a result, even though the Gulf Coast sees a greater amount of migratory birds, the waters have been disrupted for many years due to the presence of offshore oil rigs in the area, and the heightened risk associated with offshore wind does not apply to the Gulf Coast, notwithstanding the increased amount of migratory bird traffic.¹⁵⁴

In an effort to synthesize and give credibility to the patchwork of environmental studies done in Europe to date, the EU sponsored a compilation of environmental findings.¹⁵⁵ The findings, though difficult to quantify, show minimal impact to birds as a result of offshore wind turbines.¹⁵⁶ High mortality rates tended to occur among poorly sited facilities.¹⁵⁷ In short, regardless of a known major risk to migratory birds, simple steps can be taken to avoid any potential negative impact, such as siting developments away from bird migratory paths.¹⁵⁸ Conversely, not all environmental impacts are necessarily problematic, as studies show that some developments may support new marine habitats that could shelter animals in areas that are off-limits to fishing and navigation, as well as encourage micro-ecosystem development under the water's surface.¹⁵⁹ Moreover, any adverse effects caused by offshore wind energy are still much less dramatic than those caused by extraction of traditional fossil fuels.¹⁶⁰

B. Aesthetic Opposition: The NIMBYs and Beyond

As Cape Wind developers can testify, aesthetic opposition may pose a formidable threat to development as well.¹⁶¹ Nuisance claims against the

151. *See id.*

152. *Id.* at 10.

153. *See generally* Scaief, *supra* note 120 (discussing the history of offshore drilling in the United States).

154. *Compare* MORRISON, *supra* note 149, at 10, *with* Scaief, *supra* note 120 (analyzing the United States' offshore drilling industry's blemished record).

155. MORRISON, *supra* note 149, at 13.

156. *Id.*

157. *Id.*

158. *See id.*; MUSIAL & RAM, *supra* note 1, at 8, 10.

159. *See* Schaumberg & Grace-Tardy, *supra* note 33, at 6.

160. *See* Schroeder, *supra* note 5, at 1641.

161. *See* MARTIN, *supra* note 70, at 446 (describing NIMBY as a term to refer to those who fight against the siting of developments that may adversely affect the community in some way).

development of wind farms have generally not been successful in the United States, and particularly not in Texas.¹⁶² They do, however, cause extremely costly delay.¹⁶³ In Texas, nuisance is defined as “a condition that substantially interferes with the use and enjoyment of land by causing unreasonable discomfort or annoyance to persons of ordinary sensibilities.”¹⁶⁴ According to a Texas appellate court, successful nuisance claims involve invasions of plaintiff’s property by “light, sound, odor, or foreign substance.”¹⁶⁵ Claims based purely on aesthetic reasons have not been recognized as causes of action in Texas: “[T]he law will not declare a thing a nuisance because it is unsightly or disfigured . . . or because it is unpleasant to the eye”¹⁶⁶ But unsightliness is not the only reason for public outcry against wind farm developments.¹⁶⁷ Loss of property value due to the perceived undesirability of close proximity to turbines is a common fear held by many property owners.¹⁶⁸ Once again, Texas is fortunate in this regard because it has had the most amenable reception to wind development throughout the state than any other state.¹⁶⁹ Both environmental and aesthetic opposition may be preempted, however, by addressing stakeholders’ interests at the outset of development.¹⁷⁰ When two private firms negotiated the purchase of TXU Energy in 2008, they partnered with the Environmental Defense Fund and the Natural Resources Defense Council in order to structure the proposed buyout.¹⁷¹ The negotiations successfully avoided anticipated litigation and satisfied constituents.¹⁷² Developers and manufacturers can achieve this same end by engaging constituents and special interest groups, and the legislature can require input to the same extent to help avoid likely litigation.¹⁷³

C. It Takes Green to Go Green

Lastly, wind energy, as a whole, and offshore wind in particular, is still not entirely economical and is largely dependent on federal subsidies.¹⁷⁴

162. See Stephen Harland Butler, *Headwinds to a Clean Energy Future: Nuisance Suits Against Wind Energy Projects in the United States*, 97 CALIF. L. REV. 1337, 1354-63 (2009).

163. Kristina Culley, *Has Texas Nuisance Law Been Blown Away by the Demand for Wind Power?*, 61 BAYLOR L. REV. 943, 972 (2009).

164. Rankin v. FPL Energy, LLC, 266 S.W.3d 506, 509 (Tex. App.—Eastland 2008, pet. denied) (quoting Schneider Nat’l Carriers, Inc. v. Bates, 147 S.W.3d 264, 269 (Tex. 2004)).

165. *Id.*

166. *Id.* at 510.

167. See MARTIN, *supra* note 70, at 431; Schroeder, *supra* note 5, at 1641.

168. MARTIN, *supra* note 70, at 431; Schroeder, *supra* note 5, at 1641.

169. *But cf.* Rose v. Chaikin, 453 A.2d 1378, 1384 (N.J. Super. Ct. Ch. Div. 1982) (enjoining development of a wind farm based on a nuisance claim).

170. See Nussdorf, *supra* note 17, at 31-32.

171. *See id.*

172. *Id.*

173. *Id.*

174. See Schaumberg & Grace-Tardy, *supra* note 33, at 17.

The cost of installation and transmission of offshore wind farms is notably higher than onshore farms—an estimated 50% higher than their onshore counterparts.¹⁷⁵ Shortly after the passage of the Energy Policy Act in 2005, which only began to clarify the jurisdictional murkiness of offshore development, price was determined the greatest factor in the speed and scale of development, not policy.¹⁷⁶ To curb this effect, industry-wide efforts to reduce costs and achieve supportable economies of scale included using larger turbines to increase energy output while using fewer platforms and proposing larger wind farms to create even more jobs and manufacturing potential to offset the high cost of development.¹⁷⁷

VI. WINDS OF CHANGE

No single member of the EU that has developed offshore wind farms relied entirely upon EU legislation and policymaking to spur wind farm development.¹⁷⁸ Comparatively, no single state in the United States would be wise to rely entirely upon federal legislation and incentives to drive development. Setting a mandatory national goal for renewable energy that allows state individualization is essential to an effective national strategy.¹⁷⁹ With its unique legal and social landscape, Texas should go further by taking matters into its own hands and capitalizing upon its advantages. The following analysis draws upon the varying aspects of relevant offshore wind policies previously discussed and synthesizes their strengths and weaknesses into a comprehensive plan for both the United States and Texas moving forward.

A. It Takes Two to Tango—Texas Needs the United States to Be on Board with Offshore Wind Development

A look back to successful European countries in the trade is instructive regarding successful policy implementation. In 2007, the EU set a clear order of a 20% boost in renewable energy use by the year 2020.¹⁸⁰ This is similar to the United States' goal, set by President Bush in 2007, of 20%

175. See Schroeder, *supra* note 5, at 1641; Lanard, *supra* note 25, at 3. Mr. Lanard notes that in response to this contingency, policy arguments, such as job creation and manufacturing, must be emphasized in order to justify offshore wind development. See Lanard, *supra* note 25, at 5-6. A continued emphasis on the proximity of offshore wind production to the majority of the population serves to bolster this argument. See Schroeder, *supra* note 5, at 1642.

176. See Jensen, *supra* note 75, at 3.

177. See Lanard, *supra* note 25, at 3.

178. See Reiche & Bechberger, *supra* note 53, at 843.

179. See Nussdorf, *supra* note 17, at 29.

180. *EU Agrees Renewable Energy Target*, BBC NEWS (Mar. 9, 2007, 4:59 PM), <http://news.bbc.co.uk/2/hi/europe/6433503.stm>.

renewable energy use by the year 2017.¹⁸¹ The difference with the EU's mandate is that it is mandatory.¹⁸² As a demonstration of its commitment to meeting its own order, the EU gives preferential treatment to renewable energy, ensures access to the grid, and helps to defray interconnection costs to ensure countries meet the energy mandate.¹⁸³

The contrast in the level of commitment between the EU and the United States is easily seen in comparing the ratification of climate change treaties between the EU member states and the United States.¹⁸⁴ The U.S. commitment pales in comparison.¹⁸⁵ Approaching the issue from a different, less environmentally charged perspective, China is also demonstrating a firm commitment to renewable energy.¹⁸⁶ This show of support is likely in response to the accepted notion that whoever leads the renewable energy transition will lead the world in the twenty-first century.¹⁸⁷ China's commitment has been so astonishing that stalwart environmentalist Robert F. Kennedy, Jr. stated, "the Chinese are treating the energy technology competition as if it were an arms race."¹⁸⁸ Whatever the motive—be it environmental or economic—a demonstrated commitment to offshore wind development is an indispensable threshold that must be crossed to be successful in the offshore wind arena.¹⁸⁹

Within the United States, individual states can be, and are, firmly committed to a renewable energy goal independent of the federal government.¹⁹⁰ California led a renewable energy revolution in the 1980s, and states such as New Jersey, Virginia, and New Hampshire are creating innovative policies to aid in offshore development.¹⁹¹ Most helpful among these pieces of legislation will be simplifying and centralizing the regulatory minefield that developers have to navigate.¹⁹² One way Virginia Governor Mike McDonnell proposes funding offshore wind projects is by

181. President Bush, *supra* note 20.

182. See Nussdorf, *supra* note 17, at 29, 31 (noting that the United States commitment has largely consisted of meaningless policy proclamations).

183. *Id.* at 29-30.

184. See Timothy P. Duane, *Greening the Grid: Implementing Climate Change Policy Through Energy Efficiency, Renewable Portfolio Standards, and Strategic Transmission System Investments*, 34 VT. L. REV. 711, 723-35 (2010).

185. See generally Snyder & Kaiser, *supra* note 9, at 1854-55 (stating that only a few states have implemented policies to address clean energy issues).

186. See Joel B. Eisen, *China's Renewable Energy Law: A Platform for Green Leadership?*, 35 WM. & MARY ENVTL. L. & POL'Y REV. 1, 3 (2010).

187. See, e.g., President Obama, *supra* note 24, at 5 ("[T]he nation that leads the clean energy economy will be the nation that leads the global economy.").

188. Eisen, *supra* note 186, at 3.

189. See Snyder & Kaiser, *supra* note 9, at 1855.

190. See Steve Szkotak, *Va. Gov. McDonnell Outlines 2012 Energy Agenda*, BLOOMBERG BUSINESSWEEK (Jan. 6, 2012, 10:16 AM), <http://www.businessweek.com/ap/financialnews/D9S3H0I00.htm>; Aaron Nathans, *New Jersey Seen as Future in Wind Projects*, GOVERNORS' WIND ENERGY COALITION (Dec. 25, 2011), <http://www.governorswindenergycoalition.org/?p=756>.

191. See Szkotak, *supra* note 190; Nathans, *supra* note 190.

192. See Reiche & Bechberger, *supra* note 53, at 843-45.

funding research and development projects to aid in private development.¹⁹³ Alternatively, New Jersey's Offshore Wind Development Act requires power sold in New Jersey to include a mandated amount of offshore wind generation and sets a power purchase price.¹⁹⁴ The New Jersey Act presents a solution to what has been the downfall to several proposed projects in the United States thus far—finding buyers for expensive power.¹⁹⁵ New Jersey's approach is similar to Germany's use of the feed-in tariff to guarantee offshore wind prices for utility companies.¹⁹⁶ Although both of these methods have been criticized for the mandatory purchase of offshore wind power that is admittedly more expensive than traditional forms of electricity, amidst the push for renewable energy, they are effective ways of securing risk to developers and utility companies that their investments will be returned.¹⁹⁷ These methods, in turn, ease the development process as a whole as lower risk increases the ability to obtain loans and to acquire lower interest rates.¹⁹⁸ Denmark's approach serves as an example of a powerful, centralized approach to encouragement of renewable energy.¹⁹⁹ By 2006, Denmark had already achieved 20% energy from wind—the goal the United States set for itself in 2009.²⁰⁰ The Danish Energy Authority serves as a “one stop shop” for interested parties and works to bolster support from stakeholders as well as consumers.²⁰¹

The second constant that is clear from analyzing policy of those nations with successful offshore wind developments is the necessity of ample funding from the governing body.²⁰² The United States federal government has tried to mirror this policy by offering extremely attractive tax cuts to developers but has yet to deliver the type of funding provided by its European counterparts.²⁰³ The production tax credit undoubtedly gave a boost to the American wind industry, but alone is not sufficient to stimulate offshore wind.²⁰⁴ Although the Coastal Zone Management Act indicates that it will encourage development through “financial assistance,” in order to be successful, clear and compulsory requirements must be stated.²⁰⁵

193. Szkotak, *supra* note 190.

194. Nathans, *supra* note 190.

195. *Id.*

196. See Snyder & Kaiser, *supra* note 9, at 1850; Reiche & Bechberger, *supra* note 53, at 843-45.

197. See generally Duane, *supra* note 184, at 711 (advancing the benefits of an integrated regulatory approach to renewable energy).

198. *Id.* at 763.

199. See Schroeder, *supra* note 5, at 1659.

200. *Id.*

201. *Id.*

202. See Snyder & Kaiser, *supra* note 9, at 1934; Eisen, *supra* note 186, at 33.

203. See 20% WIND ENERGY BY 2030, *supra* note 1, at 6.

204. Duane, *supra* note 184, at 763.

205. Coastal Zone Management Act of 1972, 16 U.S.C. § 1451(j) (2006); see Schroeder, *supra* note 5, at 1664.

It is also important to note that successfully developing offshore wind is not a zero-sum game. The benefits seen by local and state economies resonate throughout the industry and have positive effects upon the economy, the environment, and global relations.²⁰⁶ Likewise, the competition among the several states, Europe, China, and other players that may emerge should remain friendly.²⁰⁷ For example, the United States can benefit from European and Chinese manufacturers' prior experience overseas.²⁰⁸ As the industry continues to grow and develop, prices will inevitably fall and benefit everyone from developers of energy to consumers of the electricity it produces.²⁰⁹ Thus, cooperation among key players cannot be overlooked or understated.

B. The Lone Star Strategy

Ultimately, Texas policymakers have a lot to learn from their predecessors' successes and shortcomings in developing offshore wind. Like the Danish, Texas must capitalize on its unique jurisdictional position and create a streamlined and centralized permitting process for developers.²¹⁰ There should be one governing body (presumably, the General Land Office, which already handles much of the permitting process), and standards that must be met to obtain the proper permits should be high enough to satisfy both state and federal requirements to avoid unnecessary overlap and delay.²¹¹ For example, environmental studies and tests should satisfy both Texas statutory requirements and federal statutory requirements. The United Kingdom has implemented a successful strategy that establishes a siting process, guides the pattern and scale of development along the coastline, ensures evaluation of environmental impacts, monitors environmental impacts, and delivers consistent regulatory rulings.²¹² Consideration of a broader development scheme as the United Kingdom has done is essential to efficient development in the Gulf as offshore wind energy becomes more and more viable.²¹³

To take a page out of the EU's book, Texas should market offshore wind development as beneficial to local economies and as able to create

206. See generally Duane, *supra* note 184, at 763 (explaining the desirability of integrated regulatory systems for the development of renewable energy).

207. See *id.* at 719-21.

208. See Erin Huggins, *Wind Energy Leaders Eye U.S. Expansion*, THE LOCAL (Dec. 14, 2011, 7:04 AM), <http://www.thelocal.de/sci-tech/20111214-39485.html> (quoting the vice president of the German-American Chamber of Commerce, stating that "I think what's good for Europe is also good for the US").

209. See Schroeder, *supra* note 5, at 1664 (noting that long-term financial incentives may bring more significant increases in investments).

210. See *id.* at 1659.

211. See *id.*; Morrison, *supra* note 147, at 4.

212. Morrison, *supra* note 149, at 25-26.

213. *Id.* at 26.

long-term local jobs along the coastline and into central Texas.²¹⁴ This will serve to bolster support among local citizens who will likely pay for part of the development, as well as local policymakers who can either do great harm or good to local construction projects depending on their stance on the matter.²¹⁵ While opposition will likely always be present, Texas's jurisprudence thus far has given wind (both on-and-offshore) a guard against frivolous nuisance claims.²¹⁶ With their rulings, the Texas courts have given the state yet another form of relief from obstacles that barred the Cape Wind project for over a decade.²¹⁷

To aid in overcoming financial hurdles, the Texas Legislature should encourage cooperation between offshore developers and the Public Utility Commission of Texas to address the need of markets for the power generated by wind farms.²¹⁸ For example, New Jersey requires a cost-benefit analysis for all proposals of offshore wind farms off its coasts, which analyzes the benefits of the project and weighs those against the costs, with approval contingent upon the justification.²¹⁹ In doing so, the strong policy arguments for offshore wind development are included, instead of a purely financial analysis that would almost certainly favor traditional forms of energy in every case.²²⁰ To contrast, the unfavorable regulatory scheme of Massachusetts contributed to the project's decade long gridlock.²²¹ The state's Coastal Zone Management Plan was a decentralized plan "based on 'at least seven memoranda of understanding between . . . state agencies . . .'"²²² To avoid Cape Wind's pitfalls, Texas must create a centralized, clear, and efficient plan to develop offshore wind off its coasts.

In conjunction with centralized planning, the legislature would be wise to seriously consider providing sustainable and lucrative economic incentives for manufacturers to attempt not only to reduce costs, but also to bring business into the state.²²³ Texas General Land Office Commissioner, Jerry Patterson, has already indicated that his sights are in fact set on attracting supply chain and manufacturing for offshore wind, much as the

214. See Reiche & Bechberger, *supra* note 53, at 846.

215. See Schroeder, *supra* note 5, at 1651-52; Spinelli, *supra* note 8, at 748.

216. See Rankin v. FPL Energy, LLC, 266 S.W.3d 506, 508 (Tex. App.—Eastland 2008, pet. denied) (citing Schneider Nat'l Carriers, Inc. v. Bates, 147 S.W.3d 264, 269 (Tex. 2004)).

217. See *id.* at 512-13.

218. See Lanard, *supra* note 25, at 6.

219. *Id.* at 3-4.

220. See *id.* Proponents of fossil fuels have relied on a similar theory to overcome environmental concerns, which they argue are outweighed by the communities dependent on the jobs provided by the fossil fuels. See Nussdorf, *supra* note 17, at 32.

221. See Schroeder, *supra* note 5, at 1655.

222. *Id.* Massachusetts has since amended its plan under the Ocean Management Plan, which lays out the state's process for ocean development. *Id.*

223. See Lanard, *supra* note 25, at 3.

oil and gas industry brought the industry to the state.²²⁴ The EU has encouraged investment from manufacturers in practice through favorable policies and a demonstrated commitment to, and prioritization of, renewable energy.²²⁵ Texas can and should do the same through similar legislation.

VII. “THE ANSWER, MY FRIEND, IS BLOWIN’ IN THE WIND”²²⁶

Victor Hugo may have had it right: “Madame, bear in mind that princes govern all things—save the wind.”²²⁷ Reigning in the wind is difficult to conceptualize and even more difficult to effectuate. The State of Texas has always been a leader in innovative and complex energy structures and should not shy away from the small window of opportunity it has to capitalize on the abundant resources just miles off of its coast. To do so would be to sacrifice distinct and valuable advantages unique to the state itself. Instead, Texas should continue in its tradition of energy leadership and commit to becoming the “first in the water.”²²⁸

224. Breen, *supra* note 129.

225. See Nussdorf, *supra* note 17, at 30-31.

226. BOB DYLAN, BLOWIN’ IN THE WIND (Columbia Records 1963).

227. VICTOR HUGO, THE INQUISITION, 178, available at http://www.archive.org/stream/victor_hugosworks19hugouoft/victor_hugosworks19hugouoft_djvu.txt.

228. Breen, *supra* note 129.