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Wind Energy Development on the United States Outer Continental Shelf: Balancing Efficient Development and Environmental Risks in the Shadow of OCSLA

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WIND POWER DEVELOPMENT ON THE UNITED STATES OUTER CONTINENTAL SHELF: BALANCING EFFICIENT DEVELOPMENT AND ENVIRONMENTAL RISKS IN THE SHADOW OF THE OCSLA

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Abstract: Calls for United States energy independence and concerns about dwindling fossil fuel reserves have drawn national attention to the search for viable sources of alternative energy. One such source is offshore wind power generation. Offshore wind farms have already proven successful in Europe and Australia, but none yet exist off the coasts of the United States. A private proposal to build such a facility off the coast of Massachusetts has faced strong opposition. Debate exists as to whether the Outer Continental Shelf Lands Act permits the federal government to lease areas of the Outer Continental Shelf for alternative energy development. Oil and gas extraction developments authorized under the Act have allowed accelerated development at the expense of the environment. This Note argues that a current proposal to amend the Act to include wind power generation facilities does not address the problems encountered by oil and gas developments, and calls for entirely new legislation.

INTRODUCTION: THE DEMAND FOR WIND POWER DEVELOPMENT ON THE OUTER CONTINENTAL SHELF (OCS)

We live in a world where fossil-fuel resources dwindle while demand for energy steadily increases.[1] The Organization for Economic Cooperation and Development has warned that by 2020, the demand for fossil fuels will "sky rocket" due to fast-paced economic growth in China, India, Russia, and other nations.[2] With such an increase in fos-

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[1] *See* Madelaine Drohan, *Worldview OECD: Economists Say Global Environmental Crisis Possible*, AMERICAN POLITICAL NETWORK GREEN WIRE, May 30, 1997, *at* WL 5/30/97 APN-GR 19.

[2] *Id.*; David J. Jhirad, *An Energy Policy for the 21st Century*, 28 CAN.-U.S. L.J. 315, 317 (2002) ("For the first time in history, the developing countries, as a group, will equal the

sil-fuel use, carbon emissions could double, causing "massive" pollution, shortages, and political conflicts over increasingly scarce fuel resources.[3] This looming energy crisis has focused public attention on the development of other sources of clean, affordable, and most importantly, renewable energy.[4]

As a result, public attention has come to rest on wind as an "abundant, inexhaustible, and cheap" source of energy that some believe could provide the foundation for powering the economies of the future.[5] In fact, wind power is now the fastest growing energy technology in the world.[6] Globally, wind-powered electricity generation increased by about 30 percent in 2001, and almost 500 percent overall since 1995.[7] In 2002, approximately 50,000 wind turbines were in operation around the world, including wind farms off the coasts of Great Britain, Germany, Australia, and Sweden.[8] Supporters claim that wind power could also be successful in the United States because of its "large, untapped wind potential."[9] Wind power, however, generates less than one percent of electricity in the United States,[10] and no offshore wind farms exist in U.S. waters.[11]

While fifty-four percent of the U.S. population resides in coastal states, few viable onshore sites for large-scale wind development exist

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industrialized countries in their energy demands.... Much of this growth is due to the rapidly growing energy needs of India and China.").

[3] Drohan, *supra* note 1, at 19; Jhirad, *supra* note 2, at 315 ("Once again (this time due to September 11th), energy security has come to center stage.").

[4] *See* Christine Real de Azua, *The Future of Wind Energy*, 14 TUL. ENVTL. L.J. 485, 486 (2001); Bertram Wolfe, *September 11 and Our Energy Future*, WORLD & I, Feb. 1, 2002, 2002 WL 9015505.

[5] Danielle Knight, *Environment: Wind Power is Fastest-Growing Energy Sector*, INTER PRESS SERVICE, Jan. 15, 2002, *at* 2002 WL 4912505 (quoting Lester Brown, president of Earth Policy Institute).

[6] Real de Azua, *supra* note 4, at 486,

[7] Paul Brown, *Wind Power Use Grows by 30%*, THE GUARDIAN (LONDON), Jan. 10, 2002, at 15 (stating that global wind power electric generating capacity rose in 2001 from 17,800 megawatts in 2000 to 23,300 megawatts, creating enough energy for 23 million people).

[8] Pamela Ferdinand, *Windmills on the Water Create Storm on Cape Cod*, WASH. POST, Aug. 20, 2002, at A3.

[9] Real de Azua, *supra* note 4, at 490.

[10] *Id.* at 486.

[11] *Outer Continental Shelf Energy Leasing: Hearing on H.R. 3090, H.R. 4, and H.R. 5156 Before the House Res. Comm. Subcomm. On Energy and Mineral Res.*, 107th Cong. (2002) (statement of Jamie Steve, Legislative Director American Wind Energy Association), 2002 WL 25098174.

in these areas.[12] In order to bring alternative energy sources to this population, developers are turning to offshore areas as prime targets for wind power development.[13] A number of sites are currently being considered by private developers along the eastern seaboard, in both state and federal waters.[14] The federally controlled Outer Continental Shelf (OCS) has been specifically targeted for private wind power development for two reasons: (1) it provides the best source of shallow waters and sustainable winds,[15] and (2) gaps currently exist in federal legislation that would expedite development on the OCS, enhancing the profitability of these projects.[16]

Because no offshore wind farms exist in waters of the United States, [17] the process by which currently proposed projects obtain property rights from the federal government will impact the viability of offshore wind farms as a major source of alternative energy. Thus, the question of how private development of the OCS for wind power generation should proceed is of paramount importance.

Part I of this Note describes the tensions between the environmental costs and benefits of wind power development on the OCS. Part II gives a brief history of private oil and gas development on the OCS, describing the federal statutory policy of accelerating production over environmental concerns. It also focuses on how the Outer Continental Shelf Lands Act (OCSLA)[18] uses revenue and siting as the primary methods of implementing this policy, and how concerns over the OCSLA's failure to protect the environment led to a Congressional moratorium on oil and gas leases on the OCS.

Part III highlights the current legislative gap that exists regarding wind power development on the OCS and describes recently proposed legislation that would amend the OCSLA to authorize use of

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[12] *Outer Continental Shelf Lands, Federal Coal Resources: Hearing on H.R. 793 Before House Res. Comm. Subcomm. On Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President AWS Scientific, Inc.), 2003 WL 11715983.

[13] Cape Wind Associates and Winergy are examples of developers currently planning offshore wind power generation facilities. Their proposals are posted at http://www.capewind.org/, and http://www.winergyllc.com.

[14] Besides Cape Wind's proposal, Winergy has proposed wind farm developments on 21 separate sites. WINERGY, WIND FARM STATUS, *at* http://www.winergyllc.com/sites.shtml.

[15] Maintenance of an adequate wind speed is critical to the viability of a wind power generation facility; even variations of only a few miles per hour can affect the success of a wind farm. Kim R. York & Richard L. Settle, *Potential Legal Facilitation or Impediment of Wind Energy Conversion System Siting*, 58 WASH. L. REV. 387, 388 (1983).

[16] *See* discussion *infra* Part III.A.

[17] Ferdinand, *supra* note 8, at A3.

[18] Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§ 1331–1343 (2000).

the OCS by private corporations for wind power development. Part IV introduces the theory that the stewardship philosophy of the public trust doctrine could be emphasized in new legislation as a means of moving national policy towards greater environmental protection of public resources.

Finally, Part V of this Note argues that the current legislative gap regarding alternative energy development on the OCS necessitates new legislation before development occurs. It argues that the recently proposed legislation, however, does not adequately change national policy to avoid the problems encountered by the application of the OCSLA to oil and gas development. New legislation should contain a stronger statement of the public trust philosophy of environmental stewardship, provide specific limitations on the amount of the OCS land that can be granted at one time, and use revenue payments to the federal government as a means of encouraging private developers to mitigate environmental risks.

I. Environmental Costs and Benefits of Wind Power Development on the OCS

A. *Cape Wind Associates Proposal*

The recent proposal by Cape Wind Associates, a private, for-profit corporation based in Boston, Massachusetts is currently at the center of the controversy surrounding the development of wind farms on the OCS. The waters off the coast of Cape Cod, Massachusetts have some of the best-sustained winds and shallowest depths in the country, making the area one of the most attractive sites for offshore wind farm development. [19] Cape Wind is among the new contenders for land on the OCS and plans to build the first offshore wind farm in the United States there by 2005.[20] As of January 2003, Cape Wind proposed to

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[19] Ferdinand, *supra* note 8, at A3. Cape Cod, Massachusetts has some of the strongest sustained winds in the United States, evidenced by the fact that it had more than 1000 working windmills during the nineteenth century. *Id.* The waters off the Cape are also among the shallowest in the country, facilitating offshore turbine placement. *Id.*

[20] Cape Wind Assocs., Project Overview: Project at a Glance, *at* http://www.capewind.org/ (last visited Dec. 9, 2003). Winergy of Shirley, N.Y., has proposed to build an even larger wind farm off the coast of Nantucket that would include up to 250 turbines on one of two sites on the OCS. Beth Daley, *2D Firm Proposes Nantucket Windfarm*, Boston Globe, July 25, 2002, at B1; Winergy, Nantucket 1, *at* http://www.winergyllc.com/nantucket_1.shtml (last visited Feb. 27, 2004); Winergy, Nantucket 2, *at* http://www.winergyllc.com/nantucket_2.shtml (last visited Feb. 27, 2004). This company has proposed eighteen total projects in federal and state waters off the coast of Massachusetts,

install 130 tower-mounted turbines over twenty-five square miles of Nantucket Sound.[21] The location is five miles off the coast of Cape Cod in an area known as Horseshoe Shoal,[22] and constitutes a portion of the federally owned OCS.[23]

B. *Potential Benefits*

Cape Wind's proposal promises most of the environmental and economical benefits characteristic of renewable energy production. Cape Wind predicts that their wind farm would produce enough electricity, at peak output, to power more than a half million homes, or an amount about equal to that required by Cape Cod and the nearby Islands of Nantucket and Martha's Vineyard combined.[24] On average, the project could provide about three-quarters of this demand. [25] Cape Wind claims that the electricity produced by their project would replace up to 113 million gallons of imported oil a year.[26]

The wind farm is said to generate "clean" electricity because, unlike oil and gas, it will produce no harmful emissions, which could eliminate up to 4642 tons of sulfur dioxide, 120 tons of carbon monoxide, 1566 tons of nitrous oxides, over one million tons of greenhouse gases, and 448 tons of particulates from being released into the air.[27] In

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New York, Pennsylvania, Maryland, and Virginia. WINERGY, WIND FARM STATUS, *at* http://www.winergyllc.com/sites.shtml (last visited Feb. 27, 2004).

[21] CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ABOUT THE CAPE WIND PROJECT, *at* http://www.capewind.org/ (last visited Dec. 9, 2003).

[22] *Id.*

[23] Outer Continental Shelf Lands Act, 43 U.S.C. § 1331(a) (2000) (stating that the federally-controlled OCS includes all submerged lands lying seaward of a line three miles from the states' coasts) (referring to 43 U.S.C. § 1301 (2000)).

[24] CAPE WIND ASSOCS., FREQUENTLY ASKED QUESTIONS: QUESTIONS ABOUT THE CAPE WIND PROJECT: HOW MUCH GREEN ELECTRICITY WILL CAPE WIND PRODUCE AND WHERE WILL IT GO?, *at* http://www.capewind.org/learning/ (last visited Dec. 9, 2003); CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE: ABOUT THE CAPE WIND PROJECT, *at* http://www.capewind.org/ (last visited Dec. 9, 2003).

[25] CAPE WIND ASSOCS., FREQUENTLY ASKED QUESTIONS: QUESTIONS ABOUT THE CAPE WIND PROJECT: HOW MUCH GREEN ELECTRICITY WILL CAPE WIND PRODUCE AND WHERE WILL IT GO?, *at* http://www.capewind.org/ (last visited Feb 27, 2004). This demand equals approximately 420 megawatts of electricity. David Arnold, *Wind Proposals Sweeping Region, Some Worries Remain on Aesthetic Impact,* BOSTON GLOBE, Mar. 4, 2003, at B1.

[26] CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ABOUT THE CAPE WIND PROJECT, *at* http://www.capewind.org/ (last visited Apr. 18, 2003).

[27] Real de Azua, *supra* note 4, at 494 ("Power plants are responsible for about three-fourths of the sulfur dioxide emitted in the nation, one-third of carbon dioxide and nitrogen oxide emissions, and one- fourth of the particulate matter and toxic heavy metals such as lead and mercury released into the nation's environment."); CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, CLEAN, NATURAL ENERGY, *at* http://www.capewind.org/

addition, unlike oil or coal, whose prices are volatile, the cost of wind is "forever free," and its supply is inexhaustible, which could help to reduce U.S. dependence on conventional, increasingly scarce, energy sources and help stabilize energy prices in the long term.[28]

C. *Potential Risks to the OCS Environment*

Some environmental and animal welfare groups oppose offshore wind power facilities, arguing that turbines would in fact pose a significant risk to the public resources of the OCS.[29] Opponents of the Cape Wind project are primarily concerned about the environmental impacts of turbine placement, construction, and operation.[30] The Cape Wind proposal would place tower-mounted turbines approximately one-third to one-half mile apart in a grid-like pattern.[31] Cape Wind plans to mount the turbines on sixteen to twenty-one foot diameter monopole foundations driven approximately eighty feet into the seabed.[32] The maximum height of each structure would be 417 feet above

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(last visited Dec. 9, 2003). On average, a single large-scale wind turbine can displace over 2,000 tons of carbon dioxide, 14 tons of sulfur dioxide, and 8 tons of nitrogen oxides. *Outer Continental Shelf Lands, Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.), 2003 WL 11715983.

[28] *Outer Continental Shelf Lands, Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President AWS Scientific, Inc.), 2003 WL 11715983; CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ENERGY SAVINGS, *at* http://www.capewind.org (last visited Dec. 9, 2003).

[29] INTERNATIONAL WILDLIFE COALITION, NANTUCKET SOUND WIND FARM RAISES CONTROVERSY (2002), *at* http://www.iwc.org/IWC_at_work/windfarm/nantucket.pdf (last visited Feb. 27, 2004). A number of groups including the Humane Society of the United States, the International Fund for Animal Welfare, the International Wildlife Coalition, and the Ocean Conservancy seek to block the Cape Wind proposal because they believe it poses significant risks for fish and wildlife on Nantucket Sound. *Id.*; HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 1, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Feb. 27, 2004).

[30] *See* HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 1, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Feb. 27, 2004).

[31] Plaintiff's Brief in Support of Plaintiff's Motion for Summary Judgment at 2, Alliance to Protect Nantucket Sound v. U.S. Dep't of the Army, 288 F. Supp. 2d 64 (D. Mass. 2003) (No. 02-117499 JLT) [hereinafter Plaintiff's Brief].

[32] Plaintiff's Brief, *supra* note 31, at 2.

mean sea level, measured to the tip of the turbine's blade.[33] The proposal also provides for a platform that would gather the generated electricity, and two underwater cables anchored to the seabed that would transmit the power to the mainland.[34]

Nantucket Sound is a biologically rich and productive area, with an abundance of birds, fish, sea turtles, and marine mammals.[35] The Sound is also located along an important avian migration route known as the Atlantic Flyway, which attracts millions of birds per year.[36] Up to 500,000 birds spend half the year in the area, representing one of the largest concentrations of water birds on the Atlantic Seaboard.[37] Many of these birds, including a number of endangered species, depend on the area for nesting and foraging.[38] Opponents predict that a large number of towers concentrated on Horseshoe Shoal risk collisions, habitat dislocation, and navigational disorientation due to tower illumination that could dramatically reduce bird populations.[39]

Endangered and threatened sea turtles travel through Nantucket Sound as do several species of whales, dolphins, porpoises, and seals.[40] Some believe that the magnetic fields created by the electric cables running from the turbines, as well as underwater noises and vibrations,

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[33] Brief of Amici Curiae Humane Society of the U.S. at 9, Alliance to Protect Nantucket Sound v. U.S. Dep't of the Army, 288 F. Supp. 2d 64 (D. Mass. 2003) (No. 02-117499 JLT) [hereinafter Humane Society Brief]

[34] Humane Society Brief, *supra* note 33, at 9.

[35] *See* HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 1, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Feb. 27, 2004).

[36] *Id.* at 2.

[37] *Id.*

[38] Humane Society Brief, *supra* note 33, at 9; HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 1, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Feb. 27, 2004).

[39] HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 2, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Feb. 27, 2004).

> Turbine operation may be a significant hazard to migratory birds ranging from large hawks to small song birds. For example, large numbers of raptors died as a result of collisions with turbine blades at a wind farm in California. Lights, which are required for security reasons, may disorient birds that use a form of celestial navigation for flying at night.

Id.

[40] *Id.* at 1.

could interfere with the ability of these species to navigate.[41] The turbines' grid pattern may also prove difficult for these species to maneuver through.[42]

Opponents further contend that the underwater support pilings and anchoring devices supporting the turbines would alter the naturally open, sandy shoal environment, creating artificial reefs inhospitable to indigenous species, including commercially valuable squid, flounder, scup, mackerel, black sea bass, and bluefish.[43] The continued disturbance of the area during construction, operation, servicing, and repair of the facilities may eventually lead to habitat abandonment.[44]

II. OCS Development: Background and Policy

A. *Background*

The OCS consists of all submerged lands that lie seaward of the three-mile United States territorial sea,[45] and measures approximately 1.7 billion acres.[46] The continental shelf is part of a geological feature known as the continental margin, which begins at the shore as the continental shelf, later becomes the continental slope, and finally ends as the continental rise extending seaward towards the actual ocean floor, or abyssal plain.[47] The seaward reach of the continental shelf itself may extend from 1 mile up to 800 miles.[48]

1. The Roots of Federal Interest in the OCS

The discovery of oil on the OCS sparked a conflict between coastal states and the federal government over ownership of the OCS

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[41] *Id.* at 2.

[42] Humane Society Brief, *supra* note 33, at 12.

[43] *Id.* at 11 (stating that proposed wind farm would be located in an area designed as "essential fish habitat" under the Magnuson Stevens Conservation Management Act).

[44] *Id.* at 12.

[45] Under the Submerged Lands Act (SLA), the submerged land between the shores of coastal states and a three-mile boundary are reserved for the states. 43 U.S.C. § 1301(a)(2) (2000).

[46] Barry Hart Dubner, *Problem on the United States Continental Shelf—Measuring the Environmental "Effectiveness" of the Outer Continental Shelf Act (OCSA)*, 34 Nat. Resources J. 519, 520 (1994).

[47] *Id.*

[48] *Id.* The continental shelf of the fifty states measures about 760,000 square nautical miles, but when the South Pacific islands under the jurisdiction of the United States are included, the United States claims the largest continental shelf in the world with 2.3 million square nautical miles. *Id.* "The United States' land mass nearly doubles when the United States extends jurisdiction over this submerged land." *Id.*

and jurisdiction over its development, primarily focusing on which entity should derive a propriety interest in revenue from private developers.[49] Historically, the federal government had not questioned the coastal states' ownership of offshore submerged lands up to the three-mile boundary[50] demarcating the "territorial sea."[51] From 1842 to 1935 the United States Supreme Court also upheld coastal states' ownership of the submerged lands beneath the territorial sea.[52]

The build up to World War II awakened the federal government to the importance of offshore petroleum deposits, but the war itself delayed federal action to ensure the U.S. jurisdiction and control over the resources of offshore submerged lands.[53] On September 28, 1945, however, President Harry S. Truman issued a Proclamation asserting this position.[54] The Truman Proclamation states in part:

> Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the Unites States as appertaining to the United States, subject to its jurisdiction and control.[55]

Then, in 1947, the Supreme Court held in three separate cases that the federal government exercises "paramount rights in and power over" all offshore lands including the OCS and the three-mile territorial sea.[56]

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[49] United States v. California, 332 U.S. 19, 38 (1947) ("The question of who owned the bed of the sea only became of great potential importance at the beginning of this century when oil was discovered there."); Milner S. Ball, *Good Old American Permits: Madisonian Federalism on the Territorial Sea and Continental Shelf*, 12 ENVTL. L. 623, 627 (1982). This conflict became popularly known as "the Seaweed Rebellion." Edward A. Fitzgerald, *The Seaweed Rebellion: Federal-State/Provincial Conflicts Over Offshore Energy Development in the United States, Canada, and Australia*, 7 CONN. J. INT'L L. 255, 255 (1992).

[50] Fitzgerald, *supra* note 49, at 257.

[51] Ball, *supra* note 49, at 624. Congress admitted coastal states to the Union specifying the three-mile offshore boundary, and before the 1930s, the executive branch's Department of the Interior (DOI) declined to issue oil and gas leases in this area. Fitzgerald, *supra* note 49, at 257.

[52] Fitzgerald, *supra* note 49, at 257.

[53] *Id.*

[54] *Id.* (citing Proclamation No. 2667, 10 Fed. Reg. 12,303 (Sept. 28, 1945)).

[55] Proclamation No. 2667, 10 Fed. Reg. 12,303 (Sept. 28, 1945).

[56] United States v. California, 332 U.S. 19, at 38–39 (1947) (referring to the territorial sea as the marginal belt); *see also* United States v. Louisiana, 339 U.S. 699, 704 (1950) (reaffirming *United States v. California*); United States v. Texas, 339 U.S. 707, 717–18 (1950) (same).

2. The Submerged Lands Acts and the Outer Continental Shelf Lands Act of 1953

The Outer Continental Shelf Lands Act of 1953 (OCSLA),[57] and its companion statute, the Submerged Lands Act of 1953 (SLA)[58] codified U.S. control over the OCS. The SLA officially settled the jurisdictional conflict by establishing coastal states' boundaries at the historical three-mile limit and recognizing their exclusive interest in the resources within that boundary.[59] The OCSLA followed one month later, granting the federal government jurisdiction over all submerged lands lying seaward of state coastal waters as defined by the SLA.[60] Section 1332 of the OCSLA states that "the subsoil and seabed of the outer Continental Shelf appertain to the United States and are subject to its jurisdiction, control, and power of disposition."[61] This is interpreted to include all submerged lands lying outside the three-mile limit and extending outward approximately 200 miles.[62]

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[57] Outer Continental Shelf Lands Act of 1953, Pub. L. 67-212, 67 Stat. 462 (1953) (codified at 43 U.S.C. §§ 1331–1343 (2000)).

[58] Submerged Lands Act of 1953, ch. 56, 67 Stat. 29 (1953) (codified at 43 U.S.C. §§ 1301–1303, 1311–1315 (2000)).

[59] *See* United States v. Maine, 420 U.S. 515, 524 (1975) (stating that in the SLA "Congress transferred to the states the rights to the seabed underlying the marginal sea; however, this transfer was in no wise inconsistent with the paramount national power [established by United States v. California] but was merely an exercise of that authority").

[60] OCSLA defines the OCS as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters." 43 U.S.C. § 1331(a). "Navigable waters" is understood for the purposes of the Act as defined by the SLA 43 U.S.C. § 1301, which states that "land beneath navigable waters" means "all lands permanently or periodically covered by tidal waters ... seaward to a line three geographical miles distant from the coast line of each such State." 43 U.S.C. § 1301(2); 43 U.S.C. § 1331(a). Although the territorial sea was expanded by presidential proclamation to 12 miles by President Ronald Reagan and then 24 miles by President William Clinton, these proclamations explicitly state that they do not amend OCSLA or SLA. Proclamation No. 5928, 54 Fed. Reg. 777 (Dec. 27, 1988) ("Nothing in this Proclamation: (a) extends or otherwise alters existing Federal or State law or any jurisdiction, rights, legal interests, or obligations derived therefrom ...."); Proclamation No. 7219, 64 Fed. Reg. 48701 (Aug. 2, 1999) ("Nothing in this Proclamation: (a) amends existing Federal or State law ....").

[61] 43 U.S.C. § 1332(1).

[62] Carolyn Elefant, *Ocean Energy Development in the 1990s*, 14 ENERGY L.J. 335, 343 (1993); U.S. DEPARTMENT OF THE INTERIOR, MINERALS MANAGEMENT SERVICE, OUTER CONTINENTAL SHELF DEFINITION, *at* http://www.mms.gov/aboutmms/ocsdef.htm (last visited Feb. 29, 2004) (explaining that the seaward limit of federal jurisdiction is "defined under accepted principles of international law ... as the farthest of 200 nautical miles seaward of the baseline from which the breadth of the territorial sea is measured or, if the continental shelf can be shown to exceed 200 nautical miles, a distance not greater than a line 100 nautical miles from the 2,500-meter isobath or a line 350 nautical miles from the baseline").

The OCSLA also addressed the federal government's granting of leases for oil and gas development on the OCS.[63] The Act gave the Secretary of the Interior broad discretion to promulgate regulations for leasing and developing the OCS according to a four-phase regulatory process: (1) pre-leasing; (2) sale of leases; (3) exploration by lessees; and (4) development and production of mineral resources including oil and gas.[64] Congress, however, later criticized the OCSLA because it did not provide the Secretary specific mandates for carrying out these responsibilities.[65]

B. *Federal Policy of Accelerated Oil and Gas Development Under OCSLA*

The seabed of the OCS, as well as the overlying water and surrounding fish and wildlife populations, are public resources.[66] The most profitable offshore resource, however, is petroleum, which was first discovered off Santa Barbara, California in 1894.[67] After 1953, the federal government increasingly viewed these reserves as sources of wealth and national independence with the OCSLA as a means to facilitate exploitation and allocation.[68]

1. Codifying the Federal Policy: The 1978 OCSLA Amendments

Under the OCSLA of 1953, the federal government leased portions of the OCS under a closed system that was in effect controlled by oil companies and the Secretary of the Interior.[69] Nevertheless, little OCS development actually occurred from 1953 to 1969, mostly due to the lack of technology necessary to extract oil and gas from deeper waters.[70] The Secretary also operated a "tract selection" system, which limited the amount of land on the OCS available for lease.[71]

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[63] 43 U.S.C. § 1337.

[64] Dubner, *supra* note 46, at 522.

[65] H.R. REP. No. 95-590, at 57 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1464.

[66] Shively v. Bowlby, 152 U.S. 1, 14–15 (1894); Martin v. Waddell, 41 U.S. 367, 411 (1842); *see* discussion *infra* Part III.

[67] Fitzgerald, *supra* note 49, at 256.

[68] Ball, *supra* note 49, at 649, 677.

[69] H.R. REP. No. 95-590, at 103 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1509; Ball, *supra* note 49, at 652.

[70] Edward A. Fitzgerald, *The Seaweed Rebellion: The Battle Over Section 8(g) Revenues*, 8 J. ENERGY L. & POL'Y 253 (1988).

[71] G. Kevin Jones, *Understanding the Debate Over Congressionally Imposed Moratoria on Outer Continental Shelf Oil and Gas Leasing*, 9 TEMP. ENVTL. L. & TECH. J. 117, 118 (1990).

The 1970s, however, brought a domestic energy shortage and a dramatic expansion of the OCS leasing program.[72] The catalyst for this expansion came in 1973 when the Arab oil embargo highlighted America's dependence on foreign oil.[73] This crisis prompted President Richard M. Nixon to announce "Project Independence," which called for accelerated petroleum development on the OCS.[74] Coastal states and communities, as well as environmental and fishing groups, opposed this acceleration and sued on a number of occasions to enjoin the granting of certain leases.[75] Congress responded to this public outcry by amending the OCSLA in 1978 to address environmental concerns.[76]

Congress found that the country's demand for energy was growing, and would continue to grow for the foreseeable future,[77] and that this "increasing reliance on imported oil [would be] . . . subject to significant reduction by increasing the development of domestic sources of energy supply."[78] President Jimmy Carter and others, however, emphasized the need for "balanced resource development and the implementation of sound environmental safeguards."[79]

In response to these conflicting priorities, Congress stated that the *primary* purpose of the amendments was to expedite and facilitate OCS development "in order to achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments in world trade."[80] Congress found that "there presently exists a variety of technological, economic, environmental, administrative, and legal prob-

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[72] Fitzgerald, *supra* note 49, at 262.

[73] H.R. REP. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1460. (stating that by 1977 the United States obtained 50% of its oil from foreign sources, making it vulnerable to another embargo).

[74] Ball, *supra* note 49, at 663 (citing 9 WEEKLY COMP. PRES. DOC. 1312, 1317 (Nov. 10, 1973); 10 WEEKLY COMP. PRES. DOC. 72, 83–84 (Jan. 26, 1974)).

[75] *See, e.g.*, Sierra Club v. Morton, 510 F.2d 813, 817 (5th Cir. 1975); NRDC v. Morton, 458 F.2d 827, 830 (D.C. Cir. 1972); California v. Morton, 404 F. Supp. 26, 28–29 (C.D. Cal. 1975).

[76] Outer Continental Shelf Lands Act Amendments of 1978, Pub. L. No. 95-372, 92 Stat. 629 (codified as amended in scattered sections of 16, 30, & 43 U.S.C.); Fitzgerald, *supra* note 49, at 263.

[77] 43 U.S.C. § 1801(1) (2000).

[78] *Id.* § 1801(4).

[79] H.R. REP. No. 95-590, at 112 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1518.

[80] 43 U.S.C. § 1802(1). During the 1970s, U.S. offshore oil production had declined while oil prices rapidly increased worldwide. Jones, *supra* note 71, at 117–118. Some, including the Republican Party, believed that the restrictive leasing policy under the OCSLA stifled domestic petroleum development, which in turn worsened the trade deficit and jeopardized national security by increasing dependence on OPEC. *See id.* at 127.

lems which tend to retard the development of the oil and natural gas reserves of the Outer Continental Shelf."[81] Congress, however, also identified the OCS as "a vital national resource reserve which must be carefully managed . . . to reflect the public interest,"[82] and emphasized that the newly adopted statutory regime would protect the marine and coastal environments while "expedit[ing] the systematic development of the OCS."[83]

The 1978 Amendments added section 18, which Congress believed increased the Secretary's responsibility for undertaking the "rational management of the oil and gas resources of the outer Continental Shelf."[84] They instructed the Secretary to determine the size, timing, and location of leases for five-year periods and allowed the Secretary to "weigh environmental and other risks against energy potential and other benefits in determining how, when, and where oil and gas should be made available from the various outer continental shelf areas to meet national energy needs."[85] At the same time, however, Congress believed that the public's interest was primarily in the increased production of petroleum, and allowed the Secretary to suspend or cancel leases only "when it [was] clear that the environmental risks or damages of continued operations [would] place inequitable burdens . . . that are not outweighed by the national benefits of producing the oil and gas."[86]

2. Implementing the Policy

The 1978 OCSLA Amendments facilitated a policy of accelerated development on the OCS by revising the federal leasing system.[87] Most importantly, the 1978 Amendments expanded section 8 of the

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[81] 43 U.S.C. § 1801(8).

[82] *Id.* § 1801(7).

[83] H.R. REP. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1460.

[84] H.R. REP. No. 95-590, at 46 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1453. Congress found that "lessees and permittees will face more and stricter regulations and enforcement as a result of this legislation. However, they will also enjoy less red tape, fewer delays, and greater certainty about the political environment in which they are operating." H.R. REP. No. 95–590, at 48 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1455.

[85] H.R. REP. No. 95-590, at 52 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1459 ("The whole OCS process, from preparation of a leasing program, selection of tracts for leasing, promulgation, and enforcement of regulations, and review of activities must consider environmental consequences—to the waters, to the air, to adjacent coast areas, and to the living resources.").

[86] H.R. REP. No. 95-590, at 113 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1519–1520.

[87] Outer Continental Shelf Lands Act Amendments of 1978, Pub. L. No. 95-372, § 205(a), (b), 92 Stat. 640, 644 (codified at 43 U.S.C. § 1337).

OCSLA, which outlines the procedures for granting oil, gas, sulfur, and other mineral leases and collecting royalties.[88] As with the original version of the OCSLA, the amended statute also grants the Secretary broad discretion.[89]

a. *Areawide Leasing*

In the years immediately following the enactment of the 1978 Amendments, the Secretary concluded that accelerated development necessitated a significant increase in the amount of OCS acreage offered for lease.[90] This led the Secretary to implement an "areawide" program to lease OCS lands for oil and gas exploration and production.[91] Unlike the limited amounts of land offered under the tract system that had been used since 1954, the areawide system offered large planning areas for lease.[92] The rationale behind the system was to provide the petroleum industry with larger amounts of land, which would give increased flexibility to locate and develop areas with the best potential for oil and gas production.[93]

Areawide leasing was judicially approved in California v. Watt.[94] The petitioners in that case argued that the 1982 to 1987 areawide leasing program developed by Secretary James Watt lacked the specificity required by section 18(a).[95] This section requires the Secretary to develop "a schedule of proposed lease sales indicating as precisely as possible the size, timing, and location of leasing activity."[96] The petitioners' claims voiced concerns that the size and diversity of areawide lease sales hindered the ability of coastal states and local governments to evaluate and plan for potential impacts from oil and gas development.[97] The court, however, rejected these arguments, finding that the plain words of the statute required only as much specificity "as possible," and that nothing

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[88] 43 U.S.C. § 1337 (2000).

[89] "The Secretary is authorized to grant to the highest responsible qualified bidder or bidders by competitive bidding, under regulations promulgated in advance, any oil and gas lease on submerged lands of the outer Continental Shelf . . . ." *Id.* § 1337(a)(1).

[90] Jones, *supra* note 71, at 118.

[91] *Id.*

[92] *Id.* (stating that planning areas could include up to 50 million acres of OCS land).

[93] *Id.* at 128–29.

[94] California v. Watt, 712 F.2d 584, 611 (D.C. Cir. 1983) [*Watt II*].

[95] *Id.* at 592.

[96] 43 U.S.C. § 1344 (2000).

[97] *Watt II*, 712 F.2d at 592.

in the OCSLA limited the size of lease offerings as long as the Secretary identified the size of the offering to the best of his knowledge.[98]

b. *Revenue*

Section 1337, as enacted in 1978, originally authorized the Secretary to grant leases that stipulated various forms of cash bonuses, royalties, and profit shares for the federal government.[99] From 1954 to 1986, the federal government leased forty-one million acres of the OCS for oil and gas production.[100] These leases proved to be very lucrative for the federal government; as of 1992, revenue from the leasing and production of more than 20,000 oil and gas wells topped $87 billion.[101] These funds were primarily deposited into the federal treasury,[102] limiting the financial benefits of leases on the OCS to the federal government and private oil companies.[103]

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[98] *Id.*

[99] 43 U.S.C. § 1337(a)(1); *see, e.g., id.* § 1337(a)(1)(C) ("[C]ash bonus bid, or work commitment bid based on a dollar amount for exploration with a fixed cash bonus, and a diminishing or sliding royalty based on such formulae as the secretary shall determine as equitable to encourage continued production from the lease area as resources diminish, but not less than 12 ½ per centum at the beginning of the lease period in amount or value of the production saved, removed, or sold . . . ."); *Id.* § 1337(a)(1)(D) ("[C]ash bonus bid with a fixed share of the net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area . . . ."); *Id.* § 1337(a)(1)(F) ("[C]ash bonus bid with a royalty at not less than 12 ½ per centum fixed by the Secretary in amount or value of the production saved, removed, or sold and a fixed per centum share of net profits of no less than 30 per centum to be derived from the production of oil and gas from the lease area . . . .").

[100] Dubner, *supra* note 46, at 523–24.

[101] Robert B. Wiygul, *The Structure of Environmental Regulation on the Outer Continental Shelf: Sources, Problems, and the Opportunity for Change*, 12 J. ENERGY NAT. RESOURCES & ENVTL. L. 75 (1992) (citing MIN. MGMT. SERV., DEP'T OF INTERIOR, FEDERAL OFFSHORE STATISTICS: 1987, LEASING, EXPLORATION, PRODUCTION, & REVENUES 69 (1989)).

[102] 43 U.S.C. § 1337(m) ("All moneys paid to the Secretary for or under leases granted pursuant to this section shall be deposited in the Treasury in accordance with section 1338 of this title."); Ball, *supra* note 49, at 643 ("This practice is at odds with the allocation of revenue derived from mineral leases on federal lands within the state boundaries; half of the receipts from these leases are paid to the states.") (citing 43 U.S.C. § 191 (1976)).

[103] Dubner, *supra* note 46, at 530. Dubner also points out that "[s]tates make a lot of income from related continental shelf support services. While states are interested in the environment, they have financial interests at stake from exploiting their shelves." *Id.* at 534. Congress amended the OCSLA in 1985 to provide for the distribution of a portion of an OCS lease's revenue to a coastal state when the lease contains tracts, "wholly or partially within three nautical miles of [its] seaward boundary." Outer Continental Shelf Lands Act Amendments of 1985, sec. 1803, § 8(g), 100 Stat. 82 (codified as amended at 43 U.S.C. § 1337(g)). The Secretary is required to provide states with "all information from all sources concerning the geographical, geological, and ecological characteristics of such tracts," which was intended to help coastal states negotiate with the DOI over oil and gas

Additionally, Congress later amended section 8 to allow lease revenue payments under the OCSLA to be altered based on production.[104] The Secretary may "reduce or eliminate any royalty or net profit share set forth" in a lease, "in order to promote increased production on the lease area."[105] The section specifically allows royalty and net-profit-share reductions and eliminations "[i]n the Western and Central Planning Areas of the Gulf of Mexico and [in a] portion of the Eastern Planning Area of the Gulf of Mexico," in order to: "(i) promote development or increased production on producing or non-producing leases; or (ii) encourage production of marginal resources on producing or non-producing leases."[106]

C. *Backlash Against Development*

The environmental risks of offshore petroleum development were brought to the nation's attention in 1969 when a drilling facility on the OCS off the coast of Santa Barbara, California caused an oil spill that severely damaged the ecology of the Santa Barbara Channel.[107] As a result, environmental organizations and other concerned groups, like those representing commercial and recreational fishing interests, began to express stronger concern about the accelerated development policy called for by Nixon's Project Independence.[108] In 1975, thirteen Atlantic coastal states filed suit against the United States in *United States v. Maine*, claiming ownership of the entire OCS off their shores, as well as its resources.[109] While the Supreme Court rejected this claim,[110] the suit framed the debate over the federal government's new policy of ac-

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lease revenue. 43 U.S.C. § 1337(g)(1) (2000). Under section 1337, the Secretary must then make an offer to the state prior to the lease sale, and if the state does not accept within ninety days, the lease sale would go forward, with all revenue deposited in the federal treasury until an agreement is reached, or until a federal court determines the disposition of the revenue. 43 U.S.C. § 1337(g).

[104] Outer Continental Shelf Lands Act Amendments of 1978, sec. 205, § 8, 92 Stat. 629 (codified as amended at 43 U.S.C. § 1337 (2000)).

[105] 43 U.S.C. § 1337(a)(3)(A).

[106] *Id.* § 1337(a)(3)(B); *see also id.* § 1337(C)(i).

[107] H.R. REP. No. 95-590, at 74 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1481. The issue came to the forefront again over a four-month period in 1976 and 1977 when 45 men were killed and 22 million gallons of oil were spilled in U.S. waters. H.R. REP. No. 95-590, at 107 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1514.

[108] H.R. REP. No. 95-590, at 89 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1496.

[109] United States v. Maine, 420 U.S. 515, 516–17 (1975).

[110] *Id.* at 522.

celerated development.[111] States and communities also filed a number of lawsuits in direct response to proposed leases under the Secretary's accelerated schedule.[112]

Congress found that the 1978 Amendments provided an approach that would successfully balance accelerated development and environmental protection.[113] Some environmental groups and coastal states, however, believe that the federal government's policy has consistently been to allow the oil industry to develop the OCS regardless of state and environmental concerns.[114] Instead, the federal government has prioritized its aggressive pro-development policy on the OCS for financial and national security reasons, making real environmental concerns play "second fiddle."[115] Despite the Secretary's explicit responsibility under the OCSLA,[116] the manner in which the Secretary balances economic versus environmental concerns is virtually unassailable because under section 19(d) of the Act,[117] his decisions are subject only to arbitrary and capricious review.[118]

The Reagan administration continued the accelerated development program described above, despite extensive criticism from environmental groups and coastal states, alleging that such policy constituted "nothing more than a 'fire sale' and giveaway of the nation's resources."[119] A large number of lease sales were challenged, resulting in a wave of litigation that questioned the Secretary's ability to adequately assess environmental risks for areawide leases and asserted that the government was not receiving a fair market value for public resources.[120] These pressures ultimately led Congress to impose leas-

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[111] H.R. REP. No. 95-590, at 89–90 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1496–97.

[112] *See, e.g.*, Sierra Club v. Morton, 510 F.2d 813, 817 (5th Cir. 1975); NRDC v. Morton, 458 F.2d 827, 830 (D.C. Cir. 1972); California v. Morton, 404 F. Supp. 26, 28–29 (C.D. Cal. 1975).

[113] H.R. REP. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1460.

[114] Jones, *supra* note 71, at 144.

[115] Dubner, *supra* note 46, at 527 (stating that "the environment is playing second fiddle to the revenue concerns of the state and federal governments").

[116] 43 U.S.C. § 1345(c) (2000).

[117] *Id.* § 1345(d).

[118] *Id.*

[119] Jones, *supra* note 71, at 129.

[120] *See id.*

> The Reagan administration's continued support for the areawide leasing concept and its refusal to delete areas of environmental sensitivity and economic importance from lease sales was perceived by coastal states and environmental groups as a resource program weighted heavily towards energy production, irrespective of legitimate state concerns for balanced OCS development. The

ing moratoria on certain areas of the OCS.[121] The Bush administration later withdrew 610 million acres, a majority of the OCS, from development.[122] The Clinton administration followed, extending the moratoria until 2012.[123]

III. The Wind Power Legislative Gap and the Proposed Amendment to the OCSLA

A. *The Wind Power Legislative Gap*

Like oil and gas development on the OCS, Cape Wind Associates's proposal has met with opposition from a variety of groups.[124] While these groups are ultimately concerned about the potential environmental, economic, and aesthetic impacts[125] that the project could pose for the region, the legal debate centers on the absence of legislation authorizing the federal government to lease portions of the OCS to private parties for wind power development.[126]

On August 19, 2002, the U.S. Army Corps of Engineers (Corps) authorized Cape Wind to build a data collection tower on the site of their proposed wind farm.[127] The Corps claims authority to issue the permit under section 10 of the River and Harbor Appropriations Act of 1899 (RHA), which authorizes the Corps to issue permits for the instal-

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administration's opposition to continued funding for state coastal management programs, OCS revenue sharing, and consistency requirement lead states and local citizens to conclude that they were taking all the risks of OCS activity but receiving none of the benefits in return.

Id. at 144.

[121] *Id.*

[122] Statement on Outer Continental Shelf Oil and Gas Development, 26 WEEKLY COMP. PRES. DOC. 1006 (June 26, 1990); H. Josef Herbert, *National Adviser: Rethink Offshore Drilling*, SUN-SENTINEL (Ft. Lauderdale, Fla.), May 23, 2001, at 15A.

[123] Memorandum on Withdrawal of Certain Areas of the United States Outer Continental Shelf from Leasing Disposition, 25 WEEKLY COMP. PRES. DOC. 1111 (June 22, 1998).

[124] A number of groups including the Humane Society of the United States, the International Fund for Animal Welfare, the International Wildlife Coalition, and the Ocean Conservancy have sought to block the Cape Wind proposal because they believe it poses significant risks for fish and wildlife on Nantucket Sound. *See* HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 1, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Mar. 7, 2004).

[125] *See* discussion *supra* Part I.C.

[126] Plaintiff's Brief, *supra* note 31, at 1.

[127] Alliance to Protect Nantucket Sound v. U.S. Dep't of the Army, 288 F. Supp. 2d 64, 69 (D. Mass. 2003).

lation of structures in or over navigable waters,[128] and subsections 1333(a) and 1333(e) of the OCSLA which extend Corps jurisdiction under the RHA to "all installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for, developing or producing resources therefrom, or any such installation or other device (other than a ship or vessel) for the purpose of transporting such resources."[129] Corps regulations governing the section 10 permitting process require that the applicant confirm that property rights have been, or will be, obtained from the federal government.[130]

The OCLSA explicitly grants the Secretary authority to issue leases to private parties only for the "exploration,"[131] "development,"[132] and "production"[133] of "minerals"[134] on the OCS.[135] There is no provision for the development of alternative energy resources.[136] In fact, no legislation explicitly governs the use of land on the OCS for many alternative energy projects.[137]

A strict reading of subsections 1333(a) and 1333(e) of the OCSLA suggests that the Corps is not authorized to issue permits for wind farm development on the OCS, because such projects do not develop or produce the resources of the OCS within the meaning of

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[128] Rivers and Harbors Appropriation Act of 1899, 33 U.S.C. § 403 (2000). Under section 10 of the Act, the building of any structure within waters of the United States is prohibited without congressional approval, and excavation or fill within navigable waters of the United States requires the approval of the Chief of Engineers. *Id.*

[129] 43 U.S.C. § 1333(a)(1), (e) ("The authority of the Secretary of the Army to prevent obstruction to navigation in the navigable waters of the United States is extended to the artificial islands, installations, and other devices referred to in subsection (a) of this section."). Corps regulations require that an oil or gas structure must obtain a permit before it may be placed on the OCS. Navigation and Navigable Waters, 33 C.F.R. § 322.1 (2002).

[130] 33 C.F.R. § 325.1 (d)(7) (stating that the signature of an applicant for an RHA permit affirms that the applicant possesses or will possess the requisite property interest).

[131] 43 U.S.C. § 1331(k) ("The term 'exploration' means the process of searching for minerals . . . .").

[132] *Id.* § 1331(*l*) ("The term 'development' means those activities which take place following discovery of minerals in paying quantities, including geophysical activity, drilling, platform construction, and operation of all onshore support facilities, and which are for the purpose of ultimately producing the minerals discovered.").

[133] *Id.* § 1331(m) ("The term 'production' means those activities which take place after the successful completion of any means for the removal of minerals . . . .").

[134] *Id.* § 1331(q) ("The term 'minerals' includes oil, gas, sulphur, geopressured-geothermal and associated resources, and all other minerals which are authorized by an Act of Congress to be produced from 'public lands' . . . .").

[135] *Id.* §§ 1331(c), 1332(3).

[136] *Id.* §§ 1331–1343.

[137] *See* Elefant, *supra* note 62, at 343.

the statute.[138] Wind farm opponents argue that, even though wind turbines would constitute installations permanently attached to the seabed, they would not explore, develop, remove, or transport subsoil and seabed resources within even a broad reading of the OCSLA.[139] In *Guess v. Read*, the court supported this interpretation, stating that "[t]he Continental Shelf Act was enacted for the purpose primarily of asserting ownership of, and jurisdiction over minerals in and under the Continental Shelf."[140]

Some claim that because the OCSLA does not clarify the meaning of the term "resource," the definition of "natural resources" found in its companion statute, the SLA, should be used to extend the permitting authority of the Corps to development of additional OCS resources.[141] The SLA defines "natural resources" as, "including without limiting the generality thereof, oil, gas, and all other minerals and fish, ... and other marine animal and plant life" [142] In the OCSLA, however, the term "resource" is used independently only in asserting that the OCS is a "vital national resource reserve held by the Federal Government for the public."[143]Arguably then, the OCSLA should not apply, and the Corps does not have jurisdiction to permit a wind power generation facility on the OCS.[144] Nevertheless, in the District Court of Massachusetts disagreed, finding that Congress intended subsections 1333(e) to apply to all artificial islands and fixed structures on the OCS regardless of their purpose and therefore giving the Corps broad jurisdiction.[145] The court also read subsection 1333(a) as applying to "all artificial islands, and all installations. . ., which may be erected. . .for the purpose of exploring for, developing, or producing resources therefrom."[146]

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[138] *Id.*

[139] *See* Plaintiff's Brief, *supra* note 31, at 11.

[140] Guess v. Read, 290 F.2d 622, 625 (5th Cir. 1961).

[141] *See* Elefant, *supra* note 62, at 343–44.

[142] 43 U.S.C. § 1301(e) (2000).

[143] 43 U.S.C. § 1332(3).

[144] *See* Kent M. Keith, *Laws Affecting the Development of Ocean Thermal Energy Conversion in the United States*, 43 U. PITT. L. REV. 1, 27–28 (1981).

[145] Alliance to Protect Nantucket Sound v. U.S. Dep't of the Army, 288 F. Supp. 2d 64, 72–74 (D. Mass. 2003) ("It is not the purpose of the conferees to limit the authority of the Corps of Engineers as to structures used for the exploration, development, removal, and transportation of resources.") (quoting H.R. CONF. REP. No. 95-1474, at 82 (1978), *reprinted in* 1978 U.S.C.C.A.N. 1674, 1681).

[146] *Id.* at 75 (quoting 43 U.S.C. § 1331(a)(1)(emphasis added)).

The court therefore found the Corps issuance of the Cape Wind permit reasonable.[147]

B. *Proposed Legislation*

Regardless of the District Court of Massachusetts's ruling in *Alliance to Protect Nantucket Sound v. U.S. Dep't of the Army*, some federal legislators recognize that current legislation is insufficient to authorize proposed wind power facilities.[148] These legislators seek to amend the OCSLA further in order to explicitly authorize the conveyance of easements and rights-of-way on the OCS for renewable energy development.[149] On February 13, 2002, congressional Representative Barbara Cubin (R. Wyoming), introduced H.R. 793, a bill that would amend the OCSLA in order to expand the Secretary's jurisdiction to include offshore renewable energy projects.[150]

Foremost among the purposes of the bill is to "protect the economic and land use interests of the Federal Government" in the management of OCS lands for non-oil and gas related energy projects.[151] Other purposes include "expedit[ing] projects to increase the production, transmission, or conservation of energy on the Outer Continental Shelf,"[152] and ensuring that the federal government receives a "fair return" for easements or rights-of-way.[153]

The Amendment broadly authorizes the Secretary to "grant an easement or right-of-way on the outer Continental Shelf for activities not other wise authorized in this Act."[154] The Secretary "shall [also] prescribe any necessary regulations to assure safety, protection of the

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[147] *Id.* at 76–77 ("[T]his court finds that the Corps is entitled to *Chevron* deference in its interpretation of the scope of section 10 authority on the OCS.").

[148] *Id.* at 77; *see* Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. (2003).

[149] Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. (2003).

[150] *Id.* § 1(b).

[151] *Id.* § 1(a)(1).

[152] *Id.* § 1(a)(3).

[153] *Id.* § 1(a)(7).

[154] *See id.*

> In determining whether such easement or right-of-way shall be granted competitively or noncompetitively, the Secretary shall consider such factors as prevention of waste and conservation of natural resources, the economic viability of an energy project, protection of the environment, the national interest, national security, human safety, protection of correlative rights, and the potential return for the easement or right-of-way.

Id.

environment, prevention of waste, and conservation of natural resources of the outer Continental Shelf, protection of national security interests, and the protection of correlative rights therein."[155] To accomplish this, the Secretary is directed to consult with "relevant departments and agencies of the Federal Government and affected states."[156]

In order to ensure a "fair return" for the federal government, the proposed amendment directs the Secretary to "[e]stablish reasonable forms of annual or one-time payments for any easement or right-of-way."[157] Nevertheless, the "payments shall not be assessed on the basis of throughput or production."[158] The Secretary "may establish fees, rental, bonus, or other payments by rule or by agreement with the party to whom the easement or right-of-way is granted."[159]

IV. The OCS and the Public Trust's Environmental Ethic

Since Joseph L. Sax published his landmark article, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention* in 1970, the public trust doctrine and its philosophy of environmental stewardship has been gaining influence in American law.[160] The public trust doctrine, as applied to modern environmental problems, is best understood as a fundamental duty on the part of government to maintain a regenerative natural environment for the benefit of present and future generations.[161] This duty is founded on the philosophy that present generations have a responsibility "to preserve the envi-

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[155] Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. (2003).

[156] *Id.*

[157] *Id.*

[158] *Id.*

[159] *Id.*

[160] *See generally,* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention,* 68 Mich. L. Rev. 473 (1970). The origins of the public trust doctrine in American common law actually occurred in the nineteenth century. *See* Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212, 222–23 (1845); Martin v. Wadell, 41 U.S. (16 Pet.) 367, 4100–11 (1842).

[161] Peter Manus, *To a Candidate in Search of an Environmental Theme: Promote the Public Trust,* 19 Stan. Envtl. L.J. 315, 321, 333 (2000) ("[T]oday's public trust still faces the challenge of infusing the law with a sense of the government's overarching sovereign duty to protect the environmental rights of citizen beneficiaries from the exploitive tendencies of the beneficiaries themselves.").

ronment and its inhabitants" and to thereby "provide future generations with a clean and healthy environment."[162]

In *Marks v. Whitney*, the California Supreme Court held that the public trust does not just protect public uses of the land, but also encompasses the preservation of "lands in their natural states, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area."[163] One author identifies this philosophy as "duty based environmentalism," which has also been labeled as the "stewardship ethic."[164]

A. *The Federal Government's Public Trust Responsibility Regarding the Public Lands of the OCS*

The federal government's public trust responsibility stems from its authority to manage federal public lands.[165] This authority is granted by the Property Clause of the United States Constitution, which provides that "[t]he Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."[166]

The public trust doctrine developed primarily as state law.[167] Although the issue remains undecided by the United States Supreme Court, the majority of federal courts of appeals have held that the

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[162] Don Frost, Amoco Production Co. v. Village of Gambell *and* Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co.: *Authority Warranting Reconsideration of the Substantive Goals of the National Environmental Policy Act*, 5 ALASKA L. REV. 15, 42, 45 (1988).

[163] 491 P.2d 374, 380 (Cal. 1971).

[164] Timothy Patrick Brady, Note, *"But Most of It Belongs to Those Yet to Be Born:" The Public Trust Doctrine, NEPA, and the Stewardship Ethic*, 17 B.C. ENVTL. AFF. L. REV. 621, 642 (1990) (arguing that the National Environmental Policy Act of 1969 (NEPA) incorporates the public trust doctrine into federal law and therefore should serve as a vehicle to bring the stewardship ethic into law); Frost, *supra* note 162, at 45.

[165] The U.S. Constitution gives Congress "Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." U.S. CONST. art. IV, § 3, cl. 2; *see* United States v. California, 332 U.S. 19, 27 (1947); *In re* Steuart Transp. Co., 495 F. Supp. 38, 40 (E.D. Va. 1980).

[166] U.S. CONST. art. IV, § 3, cl. 2.

[167] *See, e.g.*, Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 452 (1892) ("[T]he state holds title to the lands under the navigable waters of Lake Michigan. . . . It is a title held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties.").

public trust doctrine also applies to the United States.[168] Accordingly, the federal government may be called upon to implement the public trust as "the guardian of the people of the United States over the public lands."[169] Under this theory, the federal government has a public trust obligation to manage private use of federal public lands.[170]

B. *Incorporating Public Trust Principles into Public Land Legislation*

Congress delegates its responsibility for administering public lands to a number of federal agencies by statute.[171] Expanding this responsibility, Congress began to enact statutes in the 1970s that gave these agencies the power to protect federal public lands and resources as public trust property.[172] The philosophy of the public trust (the protection and preservation of natural resources for present and future generations) has been used at the federal level as the policy underlying the statutory protection of public lands and resources.[173] Because it is within Congress's authority to determine whether the public trust should be modified or extinguished,[174] it is argued that some federal statutes protecting public resources actually codify the basic tenets of the public trust.[175]

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[168] United States v. 1.58 Acres of Land, 523 F. Supp. 120, 124–25 (D. Mass. 1981), (holding that when the federal government takes title to tidelands it does so subject to public trust duty to retain control over the property to protect the public interest); *Steuart Transp. Co.*, 495 F. Supp. at 40 ("Under the public trust doctrine, . . . the United States [has] the right and duty to protect and preserve the public's interest in natural wildlife resources.").

[169] Knight v. United Land Ass'n, 142 U.S. 161, 181 (1891).

[170] Susan D. Baer, Comment, *The Public Trust Doctrine—A Tool to Make Federal Administrative Agencies Increase Protection of Public Land and Its Resources*, 15 B.C. ENVTL. AFF. L. REV. 385, 394 (1988).

[171] *Id.* at 385. "For example, the Multiple-Use Sustained-Yield Act directs the Forest Service to administer national forests for as many uses as will achieve maximum public benefit . . . . [T]he Forest Service frequently favors high revenue use over other uses." *Id.* at 386 (citing 16 U.S.C. §§ 529–531 (1982)).

[172] *Id.* (citing Wild Free-Roaming Horses and Burros Act of 1971, 16 U.S.C. §§ 1331–1340 (1982); National Park Service Act, 43 U.S.C. § 1460 (1982 & Supp. 1985) Federal Land Policy Management Act of 1976, 43 U.S.C. §§ 1701–1784 (1982 & Supp. 1986)).

[173] *Id.* at 394.

[174] Ivanhoe Irrigation Dist. v. McCracken, 357 U.S. 275, 294–95 (1958); Marks v. Whitney, 491 P.2d 347, 380–81 (Cal. 1971) "[T]his power over the public land thus entrusted to Congress is without limitations. And it is not for the courts to say how that trust shall be administered. That is for Congress to determine." *Ivanhoe Irrigation District*, 357 U.S. at 294–95 (internal quotes omitted).

[175] *See* Baer, *supra* note 170, at 394–95.

Some believe that the public trust needs to take a more important role in environmental legislation and policy decisions.[176] They posit that the public trust should

> [infuse] the law with a sense of the government's overarching sovereign duty to protect the environmental rights of citizen beneficiaries from the exploitative tendencies of the beneficiaries themselves. Access rights must be secondary. The duty of this generation to future generations must be the key ingredient of an effective modern public trust.[177]

According to one commentator, two different philosophies provide the basis for statutes that seek to balance development and environmental protection.[178] One is "environmentally conscious utilitarianism," which treats the environment as "an entity that must be managed in order to maximize its productivity."[179] The other is "duty based environmentalism," which mirrors the public trust philosophy that the present generation owes future generations a duty "to preserve the environment and its inhabitants."[180]

V. Analysis

A. *The Conflicting Goals of OCS Wind Power Development*

The conflicting goals of the 1978 OCSLA amendments still ring true today. In 1978, environmental concerns stemming from incidents like the Santa Barbara oil spill competed with growing fears about U.S. dependence on foreign energy supplies.[181] Today, meeting the United States's ever-increasing energy needs while reducing dependence on foreign energy sources and protecting national security remain top priorities.[182] Concerns about global warming and dwindling

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[176] Manus, *supra* note 161, at 321 ("[T]he present juncture in American law and politics may be a particularly opportune time for the public trust to emerge as a benchmark against which environmental regulation goals and values may be measured.").

[177] *Id.* at 333.

[178] *See* Frost, *supra* note 162, at 33.

[179] *Id.* at 34. Frost argues that, "with NEPA Congress clearly intended to enact an environmental policy founded on duty-based environmentalism." *Id.* at 50.

[180] *Id.* at 42.

[181] H.R. Rep. No. 95-590, at 89 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1496; *see* discussion *supra* Part II.C.

[182] Wolfe, *supra* note 4.

natural resources, however, have now shifted national attention away from oil and gas, and towards renewable energy sources.[183]

Offshore wind power development could comprise part of the solution to these problems. One of the most important benefits of wind power development is its potential to minimize pollution.[184] Furthermore, unlike finite oil and gas reserves, wind is an unlimited resource.[185] Therefore, the effect of wind farms on U.S. energy generation could be revolutionary.

Unfortunately, no known means of energy production is without externalities.[186] The revolutionary prospects of wind power development on the OCS are paired with environmental risks, even if these risks are significantly less dramatic than those created by oil and gas extraction.[187] The submerged lands of the OCS, as well as the water and the sky above, are home to many species.[188] Portions of these areas also function like highways for migrating species, including birds.[189] The construction, operation, and maintenance of thousands of turbines the size of office buildings will affect these environments.[190]

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[183] *Id.*; Real de Azua, *supra* note 4, at 486.

[184] CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ABOUT THE CAPE WIND PROJECT, *at* http://www.capewind.org/ (last visited, Dec. 9, 2003).

[185] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.), 2003 WL 11715983; CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ENERGY SAVINGS, *at* http://www.capewind.org/ (last visited Mar. 10, 2004).

[186] Beth Daley, *N.E. Eyed as Natural Locale for Wind Power*, BOSTON GLOBE, July 30, 2002, at A1 ("The alternative is to accept global warming and all of the environmental [problems] and aesthetics that come with it. We're just not going to have impact-free energy development. It doesn't exist yet." (quoting Steve Burrington, General Counsel, Conservation Law Foundation)).

[187] *See* discussion *supra* Part I.B.

[188] *See* HUMANE SOCIETY ET AL., STATEMENT OF CONCERNS, CAPE WIND ASSOCIATES' PROPOSED WINDMILL FARM: POSSIBLE IMPACTS ON WILDLIFE IN NANTUCKET SOUND 2, *at* http://www.iwc.org/IWC_at_work/windfarm/statement_of_concerns.pdf (last visited Jan. 14, 2004) (describing Nantucket Sound).

[189] *See id.* (describing Nantucket Sound).

[190] Over twenty projects by private developers, including Cape Wind Associates, LLC and Winergy, are currently proposed along the Eastern Seaboard. *See, e.g.*, CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, *at* http://www.capewind.org (last visited Dec. 9, 2003); WINERGY, WINERGY, *at* http://www.winergyllc.com/ (last visited Dec. 9, 2003). Steven Zwolinski, president of General Electric Wind Energy has stated that even "[t]he smaller [turbines] are like a football field turning on top of a 100-meter-tall tower." Jeff Johnson, *Blowing Green*, CHEMICAL & ENGINEERING NEWS, Feb. 24, 2003, at 29.

Wind power developers like Cape Wind claim that these externalities can be mitigated, but the process is costly and time-consuming.[191] Developers emphasize that the United States need for energy independence and the world's need for clean, renewable energy means that projects like Cape Wind's should be expedited.[192] They believe that the overall benefits of renewable energy production outweigh what they see as minimal potential environmental costs.[193] In contrast, some, including Massachusetts Attorney General Tom Reilly, have asserted that the environmental risks to the OCS cannot be ignored simply because the broader environmental and economic benefits of renewable energy are so great in comparison.[194] Reilly has recommended that a moratorium be placed on wind farm development until regulations are promulgated setting safeguards in place to ensure that the fragile ocean environment will be protected with comprehensive legislation.[195]

B. *The Need for New Legislation and a New National Policy on Wind Power Development*

There is a strong case that the OCSLA, in its present form, does not authorize the use of the OCS for private wind power generation projects.[196] Assuming that the OCSLA does not apply, no mechanisms currently exist by which a private party can gain the right from the federal government to use the OCS for wind power development.[197]

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[191] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. On Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.), 2003 WL 11715983. Cape Wind claims that newly designed turbines, which are much quieter than older models, will be installed using technologies that will minimize seabed disruption. CAPE WIND ASSOCS., FREQUENTLY ASKED QUESTIONS: QUESTIONS ABOUT WIND TURBINES AND WIND ENERGY: ARE THE WIND TURBINES NOISY?, *at* http://www.capewind.org/ (last visited Dec. 9, 2003); CAPE WIND ASSOCS., FREQUENTLY ASKED QUESTIONS: QUESTIONS ABOUT ENVIRONMENTAL AND TOURISM IMPACT: WHAT ARE THE IMPACTS OF CAPE WIND ON FISH AND FISHING?, *at* http://www.capewind.org/ (last visited Dec. 9, 2003). The turbines will also minimize harm to birds because they will not have supporting wires and the blades will rotate slowly. CAPE WIND ASSOCS., FREQUENTLY ASKED QUESTIONS: QUESTIONS ABOUT ENVIRONMENTAL AND TOURISM IMPACT: WHAT IMPACT WILL CAPE WIND HAVE ON BIRDS?, *at* http://www.capewind.org/ (last visited Apr. 18, 2003).

[192] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.) 2003 WL 11715983.

[193] *Id.*

[194] *Id.* (statement of Massachusetts Attorney General Thomas F. Reilly).

[195] *See* David Arnold, *Reilly Urges More Review on Cape Wind Mills*, BOSTON GLOBE, Oct. 18, 2002, at B4.

[196] *See* discussion *supra* Part III.A.

[197] Plaintiff's Brief, *supra* note 31, at 1.

Additionally, there is no federal agency that has been delegated the duty to protect the public interest in the OCS as related to wind power generation and to manage such activities to ensure that that they are safe and environmentally sound.[198] If wind farm development proceeds, this regulatory gap leaves the OCS unprotected, and wind power opponents fear "an Oklahoma land grab."[199]

Congress has recognized that "the outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public."[200] This vital national resource should not be given away without a reevaluation of public policy that takes into consideration the failure of the OCSLA to balance development with environmental protection.

1. Problems with the National Policy Under the OCSLA

The history surrounding legislative authorization of oil and gas development on the OCS suggests that the federal government has prioritized expedited development over environmental protection in the face of energy crisis.[201] During these periods, the federal government was motivated by national security concerns and the promise of substantial revenue.[202]

The Truman Proclamation first set the tone for what may be seen as the federal government's unabashedly pro-development policy for the OCS.[203] Truman's words emphasize that from the time the federal government first realized the value of the OCS, its priority has consistently been to exploit its resources.[204] The proclamation states in part that the federal government has "concern for the *urgency* of conserving and prudently *utilizing* its natural resources."[205] Later, Congress officially adopted a legislative policy of "swift, orderly, and efficient exploitation"[206] of oil and gas reserves on the OCS by enacting, and later amending, the OCSLA.[207]

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[198] *Id.*

[199] Ferdinand, *supra* note 8, at A3.

[200] 43 U.S.C. § 1332(3) (2000).

[201] *See* discussion *supra* Part II.B.

[202] 43 U.S.C. § 1801(7).

[203] Proclamation No. 2667, 10 Fed. Reg. 12,303 (Sep. 28 1945).

[204] *See id.*

[205] *Id.*(emphasis added).

[206] *See* H.R. REP. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1460.

[207] Outer Continental Shelf Lands Act Amendments of 1978, Pub. L. 95-372, 92 Stat. 629 (codified as amended in scattered sections of 16, 30, & 43 U.S.C.).

The 1978 Amendments were supposed to balance expedited development with environmental safeguards.[208] Congress hoped that the newly adopted OCS leasing process would facilitate and expedite development while also protecting the marine and coastal environments.[209] The Amendments, however, did not make meaningful balancing possible because environmental risks are assigned less weight in the balancing process, and Congress made the Secretary's responsibility to protect the OCS environment secondary to the furtherance of its development. The Amendments state that "expeditious and orderly development" should be "subject to environmental safeguards."[210] If, however, the Secretary finds that there are "inequitable" environmental risks, the development process should be halted only when they are so severe that they "are not outweighed by the national benefits of producing the oil and gas."[211]

This pro-development balancing process was bolstered by the OCSLA leasing process itself.[212] The controversial areawide leasing scheme hindered effective environmental analysis because the lease areas were so large.[213] Coastal states and local governments found that identifying impacts was impossible without knowledge of the specific development sites.[214] Congress also used revenue reduction as a tool to encourage exploration and development in what it considered to be under utilized areas,[215] but this too was criticized as a virtual give away of public resources to private companies.[216] Coastal states, local governments, and other groups were not willing to allow such a process to continue and legal battles raged.[217] In the end, the failure of federal policy to effectively balance these competing priorities ultimately led Congress to halt lease sales in most areas of the OCS.[218]

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[208] H.R. REP. No. 95-590, at 53 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1460.

[209] *Id.*

[210] 43 U.S.C. § 1332(3) (2000). "Operations in the outer Continental Shelf should be conducted in a safe manner by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of . . . occurrences which may cause damage to the environment or to property, or endanger life or health." *Id.* § 1332(6).

[211] H.R. REP. No. 95-590, at 113 (1977), *reprinted in* 1978 U.S.C.C.A.N. 1453, 1519–1520.

[212] *See* discussion *supra* Part II.B.2.

[213] Jones, *supra* note 71, at 118, 130.

[214] *Id.* at 130.

[215] *See, e.g.*, 43 U.S.C. § 1337(a)(3)(A), (a)(3)(C)(i).

[216] *See* Jones, *supra* note 71, at 144.

[217] *Id.* at 129.

[218] *Id.* at 144.

2. Problems with Proposed Legislation to Amend the OCSLA

In 2003, congressional Representative Barbara Cubin (R. Wyoming) introduced legislation in the House of Representatives that would amend section 8 of the OCSLA to include wind power development.[219] The bill presents some positive steps toward remedying the problems encountered with oil and gas leasing procedure under the OCSLA, but it fails to adequately shift national policy away from the strict environmental utilitarianism that ultimately led to leasing moratoria.[220]

The proposed amendment does not go far enough in making any real change to federal policy for the OCS. It maintains expedited development as its primary goal.[221] The bill also delegates too much discretion to the Secretary in balancing the benefits of development with the environmental risks.[222] In fact, while the Secretary has discretion in granting easements and rights-of-way, the bill does not mandate the Secretary to undergo environmental balancing at all.[223] The Secretary must prescribe "*necessary* regulations to assure safety, protection of the environment, prevention of waste, and conservation of the natural resources of the outer Continental Shelf, protection of national security interests, and the protection of correlative rights therein."[224] An actual consideration of environmental factors, however, is only mandated when the Secretary determines whether the property right shall be granted competitively or noncompetitively.[225]

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[219] Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. (2003).

[220] *See* discussion *supra* Part II.C.

[221] One of the stated purposes of the bill is to "expedite projects to increase the production, transmission, or conservation of energy on the Outer Continental Shelf." Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. § 1(a) (2003).

[222] The Secretary is granted the authority to determine what environmental protections are necessary. *See* Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. § 1(b) (2003) (The Secretary "shall prescribe any *necessary* regulations to assure . . . protection of the environment") (emphasis added).

[223] *Id.*

[224] *Id.* (emphasis added).

[225] *Id.*

> In determining whether such easement or right-of-way shall be granted competitively or noncompetitively, the Secretary shall consider such factors as prevention of waste and conservation of natural resources, the economic viability of an energy project, protection of the environment, the national interest, national security, human safety, protection of correlative rights, and the potential return for the easement or right-of-way.

Further, Representative Cubin's bill allows the Secretary discretion as to the amount of OCS land that can be granted at one time, and as to the method of determining payment amounts.[226] The bill does not address the amount issue at all, presumably leaving the question open to the discretion of the Secretary, whose decision would probably be supported under *California v. Watt* (*Watt II*).[227] It does establish, however, that "payments shall not be assessed on the basis of throughput or production."[228] This provision contrasts with section 8 of the OCSLA, which permits the reduction or elimination of payments on oil and gas leases in order to promote increased development or production.[229]

C. *How Should the OCSLA Be Amended?*

It is clear that wind power facilities do not pose the same catastrophic risks to the OCS environment as oil and gas development.[230] Nevertheless, the environmental impact should not be ignored. If the more than twenty proposed wind farms succeed in placing 3000 or more turbines in what was open seabed, water, and air, an adverse environmental impact of some degree is certain.[231] The extent of the opposition surrounding the Cape Wind proposal demonstrates that despite the revolutionary importance of large scale renewable energy developments, public opinion demands that environmental risks not be ignored in the rush to capitalize on a promising new energy source.[232] Therefore, the substantive goals and the procedures of new legislation authorizing and guiding wind farm development on the OCS should encourage development and keep wind farms profitable—but not at the expense of the environment.

Id.

[226] *See Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc., arguing that this is appropriate), 2003 WL 11715983.

[227] *See Watt II*, 712 F.2d 584, 611 (D.C. Cir. 1983).

[228] Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. § 1(b) (2003).

[229] 43 U.S.C. § 1337(a)(3)(B) (2000).

[230] *See* discussion *supra* Part I.B.

[231] *See* discussion *supra* Part I.C.

[232] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Massachusetts Attorney General Thomas F. Reilly), 2003 WL 11715981.

Massachusetts Attorney General Thomas Reilly has suggested that new legislation needs:

> [A] mechanism for identifying—in advance—appropriate sites for developing offshore wind power facilities that provide the greatest source of energy with the least damage to the environment and do not pillage our most treasured natural resources; a process for soliciting competing proposals for renewable energy facilities in the same locations; compensation to the government for the value of the license; and meaningful state input throughout the process.[233]

This Note expands upon these recommendations and suggests that the requirements for new legislation should include the following: (1) a stronger statement of the public trust philosophy; (2) specific limits on the discretion of the Secretary regarding the amount of OCS land that can be granted at one time; and (3) the use of revenue requirements as an incentive for mitigating environmental risks.

1. Role of Public Trust Philosophy

One author has stated that "environmental long-range problems could be discovered and resolved if our populations develop an interest or ethic in correcting this situation."[234] Law is often considered to be the means by which society establishes and communicates its own values.[235] In this way, "[l]aw sometimes may actually leap ahead of society, anticipating and setting new values and new standards of conduct."[236]

Opposition to development on the OCS, whether oil, gas, or wind, is partially rooted in the public trust philosophy, described in Part IV as the duty of present generations to protect and preserve natural resources for present and future generations.[237] This ethic

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[233] *Id.*

[234] Dubner, *supra* note 46, at 527.

[235] Brady, *supra* note 164, at 630.

[236] *Id.* (citing Lynton Keith Caldwell, *Land and the Law: Problems in Legal Philosophy*, 1986 U. ILL. L. REV. 319, 332).

[237] Some residents of Cape Cod have also expressed concern over the aesthetic impacts of the Cape Wind development. Jeffrey Krasner, *Offshore Windfarm Blows into Cape View*, BOSTON GLOBE, July 28, 2001, at A1 ("I think they're out of their minds, ... This is one of the premier yachting areas in the world and we're going to turn it into an obstacle course? That's leaving aside the aesthetics of having these poles sticking up out of the water for miles.") (quoting state Representative Eric T. Turkington, Democrat of Falmouth, MA). In response to aesthetic worries about offshore wind turbines, Seth Kaplan, a lawyer with the Conservation Law Foundation, pointed out that people should consider how the landscape will look in

recognizes that our world is made up of many ecosystems with varying degrees of fragility and vulnerability, which are equally worthy of protection.[238] This philosophy takes a duty-based approach to environmental management.[239] Legislation authorizing wind power generation facilities on the OCS should codify this aspect of the public trust by weighing environmental impacts equally against broader environmental benefits, energy demand, and national security. While OCS wind power development should, and probably would, continue under such a standard, it is important to the future success of this energy source that legislative environmental priorities not be questioned as they were for oil and gas leases under the OCSLA.[240]

2. Role of Siting and Revenue in Implementing New Policy

The OCS wind power development process should be structured as a means of ensuring greater environmental protection from private developers. A key component of development on the OCS is the process by which the property interest is granted—in this case, an easement or right-of-way.[241] The process is important because it would regulate where and when development can take place, and provide compensation for the use of public lands by private parties.[242]

a. *Limiting Easements and Right-of-way Areas*

The siting process is as crucial to the success of a wind power generation facility as to an oil and gas development. While the existence of a finite resource reserve is not relevant, wind farms cannot be successful without sustainable winds.[243] Further, large-scale wind

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a century or less after factoring in climate change from global warming. Arnold, *supra* note 25, at B1. Spurred by the carbon emissions from fossil fuel power plants, warmer temperatures are expected to give New England the climate of the Carolinas. *Id.*

[238] *See* Brady, *supra* note 164, at 633.

[239] *See* discussion *supra* Part IV.B.

[240] *See* discussion *supra* Part II.C.

[241] Alternative Energy-Related Uses on the Outer Continental Shelf, H.R. 793, 108th Cong. § 1(b) (2003).

[242] *See, e.g.*, 43 U.S.C. § 1337 (2000).

[243] York & Settle, *supra* note 15, at 388.

> Maintenance of an adequate wind flow is critically important to a wind energy developer. Since the power in wind increases by a factor of eight as wind speed doubles, variation in wind speed of just a few miles per hour can be the difference between success and failure of a [wind farm].

Id.

farms, like the one proposed by Cape Wind, call for the installation of hundreds of turbines, covering many square miles of open ocean.[244]

Prior to offering easements and rights-of-way to private developers, the federal government should identify a limited number of specific sites on the OCS, which are well suited for wind power development. This process would be similar to the tract system originally used for oil and gas development under the OCSLA.[245] By limiting potential easements, the "too much too fast" problem encountered with areawide leasing under the OCSLA could be avoided, allowing for meaningful environmental review. [246] Because *Watt II* found areawide leasing within the scope of the Secretary's designated responsibilities under the OCSLA,[247] it is important to explicitly exclude the practice in OCS wind power legislation.

b. *Maintaining Profitability*

As Bruce Bailey, President AWS Scientific, Inc., pointed out in a congressional hearing on Representative Cubin's bill, we are currently in the "early and entrepreneurial stage of the offshore wind industry."[248] Due to the amount of time and money required for private corporations to determine the commercial viability of specific OCS sites for wind power development, private corporations need financial incentive to propose wind projects.[249] Cape Wind and other developers have already added significant cost to their development projects by studying the environment of Nantucket Sound in order to achieve maximum potential energy generation and avoid environmental conflicts in their siting decision.[250]

Developers like Cape Wind also hope to develop quickly before government regulations require federal compensation for the use of

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[244] CAPE WIND ASSOCS., PROJECT OVERVIEW: PROJECT AT A GLANCE, ABOUT THE CAPE WIND PROJECT, *at* http://www.capewind.org/ (last visited Dec. 9, 2003).

[245] Jones, *supra* note 71, at 118.

[246] *Id.* at 130.

[247] *Watt II*, 712 F.2d 584, 611 (D.C. Cir. 1983).

[248] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.), 2003 WL 11715983.

[249] *Id.*

[250] Arnold, *supra* note 25, at B1. "[T]oday's wind power entrepreneurs may tout environmental motives, but their eye is on the bottom line. Increasingly efficient turbines are making wind a serious competitor with fossil fuels, leading wind developers to spend tens of millions of dollars on proposals alone." *Id.* (stating that in the last two decades, the cost of generating a kilowatt of electricity from wind has dropped by more than eighty percent).

the public land and resources of the OCS. Some argue that any payment for property rights and royalties should be minimal because, "unlike oil or natural gas facilities, offshore wind plants will not extract any finite fuel source from the Outer Continental Shelf where the wind is naturally replenished."[251] The few pioneer corporations proposing projects at this time, however, know that as the demand for alternative energy grows and the advent of new efficient technology lessens the cost of wind power generation, the profitability of such projects will increase.[252] Increased profitability will attract private developers and support the growth of the industry.[253]

While federal policy should not stifle the entrepreneurial momentum of the wind industry, the OCSLA legislative history demonstrates that encouraging development by denying the federal government a fair return for public resources may not survive public criticism, especially when the resulting development places increased environmental burdens on coastal states.[254] Instead of setting low fees for property rights, and eliminating future royalties to create an incentive for companies to develop, the Secretary should be allowed to partially refund fees or eliminate royalty requirements only when companies successfully mitigate potential conflicts with the OCS environment. This policy would support the growth of the industry by enhancing profitability. It appropriately conditions development on reducing environmental risks, which, unlike oil and gas development under the OCSLA, may actually encourage the wind industry to innovate, making development less controversial and more sustainable.

CONCLUSION

Offshore wind power development on the OCS could be a crucial part of the solution to growing concerns about global warming and dependence on foreign energy sources. These developments should be encouraged. As Congress has recognized, however, the OCS environment is a valuable public resource.[255] Wind power poses significantly fewer risks to this environment than oil and gas devel-

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[251] *Outer Continental Shelf Lands; Federal Coal Resources: Hearing on H.R. 793 Before the House Res. Comm. Subcomm. on Energy and Mineral Res.*, 108th Cong. (2003) (statement of Bruce Bailey, President, AWS Scientific, Inc.), 2003 WL 11715983.

[252] *See* Arnold, *supra* note 25, at B1.

[253] *See id.*

[254] *See* discussion *supra* Part II.C.

[255] 43 U.S.C. § 1801(7) (2000).

opment,[256] but these risks should not be ignored in an effort to expedite wind power production.

The OCSLA Amendments of 1978 attempted to balance environmental factors with an overarching policy of expedited development, but failed to sustain development when it became clear that environmental concerns were being ignored to promote this policy.[257] In order to achieve the benefits of wind's clean, renewable energy, legislation authorizing wind power generation facilities must equally balance environmental risks against other factors.[258] It should also include a stronger statement of the public trust philosophy, specific limits on the amount of OCS land granted, and the use of revenue requirements as an incentive for mitigating environmental risks.[259]

Unless new legislation accomplishes these goals, wind power development on the OCS faces similar opposition to that which eventually led to a moratorium on OCS oil and gas leases.[260] The future of wind power as a viable energy source is, therefore, dependant on not repeating the failures of the OCSLA in wind power legislation.

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[256] *See* discussion *supra* Part I.B.

[257] *See* discussion *supra* Part V.B.1.

[258] *See* discussion *supra* Part V.C.

[259] *Id.*

[260] *See* Jones, *supra* note 71, at 144.