

History

A. [Interviews with key players]

Players and Their Interests

B. List of Players involved in the MTC Stakeholder meetings:

Alliance to Protect Nantucket Sound	Center For Coastal Studies
Association to Preserve Cape Cod	Conservation Law Foundation
Barnstable Land Trust	Hyannis Marina
Barnstable Town Council	League of Women Voters
Cape and Islands Renewable Energy Collaborative	Martha's Vineyard Planning Commission
Cape and Islands Self Reliance Corp	Massachusetts Audubon Society
Cape Clean Air	Massachusetts Commercial Fishing Association
Cape Cod and Islands Association of Realtors, Inc	Massachusetts Public Interest Research Group
Cape Cod Chamber of Commerce	Sierra Club of Cape Cod
Cape Cod Technology Council	Town of Yarmouth
Cape Wind	

❖ Alliance to Protect Nantucket Sound:

List of groups that are part of the alliance:

<http://www.saveoursound.org/allies.html>

Statements from the Save Our Sound website:

Boston power plant developer James Gordon wants to build the world's largest offshore wind power plant on Horseshoe Shoal in Nantucket Sound, a public resource known worldwide for its unique wildlife, commercial and recreational fishing and boating and unparalleled natural beauty.

130 enormous turbines. These experimental turbines the largest in the world and are not yet in production use.

Covering 24 square miles, the plant will consist of 130, 417' wind turbines and a 100'x100x150' service platform with a helicopter pad and crew quarters. Each turbine blade will be 164 feet long with a total diameter of 328' (a rotating football field). Each 417' turbine will have a base diameter of 16 feet and an above-water profile taller than the Statue of Liberty (305'), the Pilgrim Monument (252') or the canal bridges (275').

Each turbine will have about 150 gallons of hydraulic oil (19,500 gallons total), and the substation will have at least 30,000 gallons of dielectric oil and diesel fuel.

The plant will be less than 5 miles from land at its closest point and present miles of variably rotating turbines to the shores of Cape Cod, Martha's Vineyard and Nantucket. As the National Air Traffic Controllers Association

[noted](#), the power plant will be within the flight paths of thousands of small planes. Commercial [ferry](#) lines have also said it will pose serious navigation hazards. The southern edge of the turbine field will be next to the main shipping channel to Nantucket.

The power plant will be visible well over 20 miles.

Developers will build a permanent power facility that will occupy 24 square miles of a beautiful and public natural resource - land and ocean that belongs to all of us. They will pay no royalties or usage fees for this unprecedented privilege. They will build a permanent industrial complex, for private profit, in the heart of an area that has been used by the public for generations.

- Unlike the fishing boats that ply the waters of the shoals, this permanent installation will forever alter usage patterns and public access to Nantucket Sound.

- Unlike all other forms of power generation, there is **no** bidding process and no regulation in place to prevent this land grab by a wind power company. Developers have found a loophole and are exploiting it to produce power that will not benefit the Cape.

The Corps is the lead agency in the permitting process, although it clearly does not have the regulatory framework in place to deal with this, or any other, large offshore wind project in federal waters. Currently the Corps permits thousands of projects per year and there is much concern that this massive project is not getting the scrutiny it demands. With the Corps' dire environmental record and the heavy involvement by developers in the regulatory process, there is widespread fear that the Corps is not up to the job. And the speed with which this particular project is progressing is atypical for the Corps, leading many people to believe that developers are operating behind the scenes.

These statements and others like them can be found on this website, where the Alliance makes it clear that it opposes all aspects of the Cape Wind project.

<http://www.saveoursound.org/faq.html>

❖ **Association to Preserve Cape Cod**

The mission of the Association for the Preservation of Cape Cod is to promote policies and programs that foster the preservation of the natural resources of Cape Cod. APCC's goals are to:

- Protect Cape Cod's groundwater, inland surface water, and coastal water resources.
- Preserve Cape Cod's open space.
- Promote responsible, planned growth for Cape Cod's communities.
- Strive for the achievement of an environmental ethic.

Founded in 1968, APCC endeavors to achieve its objectives through advocacy, public education, publications, and scientific research. Support comes from 5,000 memberships, and from gifts and grants from individuals, businesses and foundations.

Statement regarding the Cape Wind Project: <http://www.apcc.org/dri/capewind.html>

On behalf of the The Association to Preserve Cape Cod (APCC), a 5,500-member organization whose mission is to protect the resources of Cape Cod, I am pleased to submit the following comments to assist in the development of the scope for the environmental review for the wind farm proposed for Horseshoe Shoals in Nantucket Sound, Massachusetts.

APCC is pleased that the Army Corps of Engineers intends to make use of guidance documents developed by European countries for the siting of offshore wind farm installations. We believe the European documents will provide a good starting point for development of guidelines for our use in the United States.

APCC suggests that a thorough review of existing information about offshore wind farms be part of the development of the guidance documents and that these review materials be made available to the public as the regulatory process moves forward.

The proposal to site a wind farm in Nantucket Sound poses numerous environmental, aesthetic and economic questions, all of which require detailed evaluation. APCC recommends that the Corps of Engineers consider the use of ecological risk assessment techniques to bring together the disparate elements that will require evaluation for this and other offshore wind farm proposals. Ecological risk assessment provides a comprehensive, integrated process to rank risks and benefits and place them in a decision framework. The U.S. Environmental Protection Agency has developed guidelines for conducting ecological risk assessments.

A study should be made of different kinds of wind farm layouts, arrays and designs in order to determine the optimal design to safeguard the environment, provide safe navigation, and provide the most visually acceptable footprints for offshore wind farms. Due to the scarcity of available data and the large size of this proposal, both basic and site-specific research must be undertaken in order to develop reasonable and responsible guidelines to use in the evaluation of this proposal, as well as for use in future wind farm proposals. APCC believes this comprehensive review process must incorporate the elements described in the following paragraphs.

Environmental impacts on marine and avian species

The environmental effects of construction, operation, maintenance and decommissioning of the installation on organisms (birds, fish, invertebrates and sea mammals) must be evaluated. Effects must be evaluated at different times during life history cycles (larvae, juvenile adult, where applicable), during different activities (feeding, resting, spawning, and migrating) and under different weather conditions. The possible sources of environmental effects include:

- noise and vibration (above and below water),
- sediment resuspension and redistribution,
- navigational lights on the turbines,
- artificial electric and magnetic fields,
- height of the turbines,
- footprint of wind farm installation and
- wind blade rotation.

Due to the variability in physical factors, such as weather, and biological factors, such as normal variations in the distributions and abundances of populations of different species, APCC believes a minimum of 2 years of monitoring data must be gathered and evaluated.

Impacts on the physical environment

In need of analysis are the effects the proposal would have on sediment transport and wave climate both in the near and far field. As the proponents may alter the number and configuration of the turbines as they continue to develop their proposal, additional information is needed about how a change in the siting of individual turbines and/or the overall footprint of the wind farm may affect the above variables.

Impacts on aesthetics

Numerous concerns have been voiced about the visibility of the wind farm from our shores as well as from the water. An agreed upon method to simulate the appearance of the wind farm should be developed and used.

Impacts on safe navigation

The potential hazards of the wind farm on navigation by aircraft and boats must be evaluated, in particular during inclement weather. As changes to the placement of individual turbines and the overall footprint of the wind farm may affect navigation, potential alterations to the design also should be evaluated.

Effects on fishing

An analysis of fish and shellfish species inhabiting the area or migrating through the area, and current recreational and commercial fishing practices must be undertaken.

Economic and electrical generation considerations

APCC encourages the Army Corps to undertake an independent review of the costs associated with different aspects of the proposed wind farm, including:

- Economic viability of different overall sizes of an installation (number of turbines),
- Economic aspects related to the type of turbine and monopole selected, including electrical generation and height of monopoles,
- Siting considerations, including costs associated with distance from shore.

Mitigation for the use of a public resource for private profit APCC also believes that part of the review should be an analysis of possible mitigation to Cape communities to offset the loss of pristine Horseshoe Shoals to a private for-profit development.

The above paragraphs have concentrated on possible deleterious impacts of the Horseshoe Shoals Wind Farm proposal. A relative cost benefit analysis should be undertaken to weigh the potential negative impacts against positive effects of this proposal, including the generation of clean energy with its positive effects on the environment and human health; the possible creation of fish habitat from the installation of monopoles, and effects on fish stocks if no fishing were allowed within the footprint of the wind farm.

❖ **Barnstable Land Trust:**

Barnstable land Trust (BLT) is a member-supported, not-for-profit organization whose mission is the preservation of land in its natural state in the seven villages of Barnstable, Massachusetts. Our primary activity is the preservation of land in its natural state. BLT believes that as the Town steadily grows, a sustainable natural balance is reached only when open space continues to be protected.

Incorporated in the Commonwealth of Massachusetts in 1983, BLT maintains an office in Hyannis, MA. BLT is administered by a 16-member Board of Directors. The Directors, all local citizens, serve over-lapping three-year terms, set policy and the annual budget, and oversee the work of a salaried executive director and staff.

BLT is a member of the Compact of Cape Cod Conservation Trusts, upon whom we rely for technical assistance related to land acquisition. BLT is also a member of the Land Trust Alliance and Massachusetts Land Trust Coalition. BLT is not affiliated with any government agency.

What We Protect

BLT protects wetlands, sensitive watershed parcels, forest, wildlife habitat, and other valuable open space. BLT properties are held in a natural state in perpetuity for the benefit of the community and future generations.

Statement by Jaco Barton, executive director of Barnstable Land Trust:

It should surprise no one that the environmental community supports the increased use of alternative energy to reduce our reliance on fossil fuels. What has surprised many observers - particularly those off **Cape** Cod - is that the environmental and wildlife protection community is not falling into line to support the massive **Cape Wind** project being proposed for Nantucket Sound.

Wildlife protection advocates need to be taken seriously. Concerns that the turbines will turn a migratory path for a half-million birds into a potential killing field are very real. Nantucket Sound, designated as an essential fish habitat, has evolved into the open sandy shoal that we know today. Disturbance by construction and conversion to a habitat dominated by structures could wreak havoc on fish, marine animals, and the organisms they feed upon.

The environmental issues that have been raised about the project need to be dealt with up front, not after the fact. The impact on the fishery is not a casual concern. The private use of public **land** is not an inconsequential issue. And the central question - How much energy are we really going to harness, and at what price? - needs to be fully explored before we start drilling into the seabed.

Land use advocates are concerned that while we have been protecting the **land** from development, 170 40-story structures are being proposed for the sea around us. And unlike developments on **land** where zoning, building codes, and **land** use policy are designed to protect our fragile resources, in Nantucket Sound there are no such controls.

What has gotten lost in the promotion of this energy project is the need for a state and national policy about **wind** power development - particularly offshore, industrial-sized energy plants.

Even as the Army Corps of Engineers seems to be fast-tracking the **Cape Wind** project, it admits that it doesn't know whether Horseshoe Shoal is the best location for these turbines. Making that determination is really not the corps' mission, but surely it is an issue that the public has a right to address before **Cape Wind** gets carte blanche to occupy 28 square miles of a public resource.

Some in the environmental community support the project because they believe it would reduce the use of fossil fuels. But where is it written that the "green" energy generated here will replace the "dirty" energy currently being generated? **Wind** turbines don't work where the **wind** is unreliable and intermittent, so oil, gas, and nuclear facilities will need to remain on standby, not replaced.

Many in the environmental community have labored long and hard on protecting our ocean preserves. Will the power these turbines generate in the middle of Nantucket Sound really offset the cost to our ocean habitat? Is the dedication to alternative energy so intense that it effectively discounts all the other environmental values that would be sacrificed if Nantucket Sound and other fragile areas are industrialized? Can we be indifferent to the fact that such offshore **wind** proposals are proliferating around our coast without any program or set of standards to guide their development? Aren't we concerned that there is no authority for the federal government to grant the property interest in a manner that would protect the public **trust**? Should the **Cape Wind** project be allowed to set the precedent?

What we don't know about the **Cape Wind** project outweighs what we know a hundredfold. There is a growing view among people who could be backers that this project is too big, too rushed, and located in the wrong place.

Proponents of the **Cape Wind** project don't have the support of the environmental and wildlife coalitions or the vast majority of **Cape** Cod residents and visitors.

Sadly, the result of this controversy may well be that the alternative energy movement will be set back because of its disregard for other environmental issues and for an open public process.

❖ **Barnstable Town Council**

Statement made by town council on Jan 31, 2002:

http://www.town.barnstable.ma.us/tob02/Depts/TownCouncil/agendas_local/02Agenda/013102ag2.htm

That the Barnstable Town Council makes clear its opposition to, and urges permitting authorities not to grant license(s) for, any entity or organization proposing a wind farm in Nantucket Sound including the current proposal of Cape Wind Associates to build a wind farm in Horseshoe Shoals in Nantucket Sound. This proposal to build some 170 wind turbines with the hub standing 263 feet above the mean sea level datum, which results in a total height of 426 feet from sea level to the highest point of the rotors would have a significant negative impact on: (a) recreation fishing (b) recreational boating (c) tourism and (d) local businesses.

In addition, the visibility from a distance of some 20 miles of the proposed 170 towers spread out over some 28 square miles will be devastating to the incredible beauty of Nantucket Sound – for beachgoers, boaters, visitors to Cape Cod and shoreline residents.

Finally, the Barnstable Town Council does memorialize the Congress of the United States to designate Horseshoe Shoals specifically and Nantucket Sound generally, as a National Marine Sanctuary and defer any action with respect to any wind farm in Nantucket Sound until after a final determination by the Congress of the United States.

Is alternative energy so important that all of these other considerations are purely secondary?

❖ **Cape and Islands Renewable Energy Collaborative (CIREC)**

The Cape & Islands Renewable Energy Collaborative is dedicated to promoting a sustainable energy future through advocacy, education, and innovation in renewable energy and energy efficiency, seeking to achieve global impact through support for local projects.

The 12 CIREC member organizations can be:

Association for the Preservation of Cape Cod, Cape Cod Chamber of Commerce, Cape Cod Community College, Cape and Islands Self-Reliance Corp, Conservation Consortium Foundation, TJ Design, US Coast Guard Air Station Cape Cod, US Dept of Energy Cape Cod, US Dept of Energy Region One, Waquoit Bay National Estuarine Research Reserve, Water Energy and Ecology Information Services, Wind Management, LLC, and Woods Hole Research Center.

Six CIREC participants issue joint statement opposing moratorium on offshore energy development (the statement reflects the opinions of the signatories, not of CIREC as an organization or of other CIREC participants).

The signatories were: The Conservation Consortium, Cape and Islands Self-Reliance Corp, Wind Management, LLC, Woods Hole Research Center, TJ Design, Water Energy and Ecology Information Services.

Full text of statement here: <http://www.cirenew.org/pdf/CIRECmoratorium.pdf>

❖ **Cape and Islands Self-Reliance Corp**

Cape & Islands Self-Reliance is a non-profit 501(c)(3) corporation, whose mission is to promote environmentally sound technologies and sustainable practices through education, advocacy and collective membership that provides tangible benefits.

Cape & Islands Self-Reliance is a non-profit 501(c)(3) corporation, founded in 1980 to identify, facilitate and educate the public about sound environmental practices that help protect our ecosystem. By educating and empowering the consumer, Self-Reliance acts as a catalyst in implementing cost-saving, pollution-reducing opportunities for homeowners, businesses and municipalities. Self-Reliance's community supported buying cooperative was established over 20 years ago to place the purchasing power in the hands of the consumer by enabling citizens of Cape Cod and Southeastern Massachusetts to buy necessary services at affordable group rates.

Self-Reliance's Oil Coop: Self-Reliance has operated its home heating oil cooperative program since 1981. Our members save an average of between \$30 and \$60 each month on heating oil.

There are no income guidelines for this program. Our oil cooperative works with full-service oil dealers. Please contact to enroll today.

Renewable Energy: Self-Reliance's Green Citizen's Energy Project was founded in 1999. This project includes our Photovoltaic Program which offers installation subsidy funding for anyone interested in having a one-kilowatt grid tied solar electric system installed on their roof. Please call us for more information or to sign up!

Self-Reliance is also promoting Biodiesel for use in diesel engines and in oil burners. This renewable fuel is typically produced from soybeans and used as an alternative to petroleum fuel. It burns cleaner and provides increased lubricity in your engine.

Wind is the most abundant renewable energy source on Cape Cod. Wind power is economical, quiet and clean. Many towns on Cape Cod are looking to land-based wind turbines to help offset a portion of their power consumption.

Education: Self-Reliance offers teacher training workshops, in-class education and a variety of educational tools and activities in our Renewable Energy Lending Kit.

Note: The Cape and Islands Self-Reliance Corp was one of the signatories in the statement given by the 6 members of CIREC that opposed the moratorium.

❖ Cape Clean Air

Cape Clean Air is a grassroots organization dedicated to cleaning up and reducing harmful emissions from the Canal Electric Plant in Sandwich, Massachusetts.

Statement issued by Conservation Law Foundation, Union of Concerned Scientists, Cape Clean Air, Greenpeace USA, and Healthlink:

http://www.capewind.org/reporting/clf_pressrel_110702.pdf

The Conservation Law Foundation (CLF), a New England environmental advocacy organization and the Union of Concerned Scientists (UCS), an alliance of 50,000 concerned citizens and scientists, in a joint letter with Greenpeace USA, HealthLink, and Cape Clean Air, urged federal lawmakers today NOT to place review of offshore wind proposals on hold. The groups agree that ample public scrutiny of offshore wind proposals such as the Cape Wind project is essential and that Congress ultimately should provide a comprehensive statutory framework for renewable energy development on the outer continental shelf. They disagree, however, with Massachusetts Attorney General Thomas F. Reilly's recent call for a moratorium on offshore wind power development. The public, as well as state and federal agencies – including the Massachusetts Executive Office of Environmental Affairs (EOEA), Coastal Zone Management Agency, Cape Cod Commission, and various resource and wildlife agencies – are participating extensively in the environmental review and permitting proceedings for the proposed Cape Wind project.

“There is essentially no risk that the public and its elected representatives will not have an adequate opportunity to consider any aspect of the Cape Wind,” said Stephen Burrington, Vice President and General Counsel of the Conservation Law Foundation. “The review process is working,” he added, “thanks to the vigilance and aggressive use of National Environmental Policy Act and other environmental protection laws by the New England public. That is what is happening with Cape Wind now and what will always need to happen in any future scenario.”

Wind is a critical renewable energy resource for New England, where air pollution, primarily from coal-fired power plants, causes thousands of premature deaths every year. Substantial reductions in emissions of greenhouse gases, nitrogen oxides, sulfur dioxide, and particulate matter from the regional power system must be achieved soon to halt global warming and protect New England's air and water.

According to Deborah Donovan, Energy Research Coordinator for the Union of Concerned Scientists, "New England and the United States need to start working now to develop wind energy projects that pass the rigorous scrutiny of the current review process. We can't afford to delay the consideration of solutions to climate change like renewable energy that is within our reach today."

- ❖ **Cape Cod and Islands Association of Realtors, Inc:**
<http://www.cciaor.com/visitor.htm>
- ❖ **Cape Cod Chamber of Commerce:** member of CIREC
- ❖ **Center For Coastal Studies:**

Executive Summary:

On October 22, 2002, the Center for Coastal Studies (CCS) was contacted by U.S. Representative William Delahunt (MA-10 th District) to provide a review of the existing literature pertaining to the biological resources and environmental protection of the waters of Nantucket Sound. In response to this request, CCS has prepared the following document, detailing the biological significance of the species contained therein, as well as a review of pertinent existing and proposed state and federal protection of these waters. The purpose of this review is to gather existing facts regarding the biodiversity and ecological significance of the region and to highlight areas where additional study may be necessary.

Nantucket Sound contains significant ecological, commercial and recreational resources that have been at the heart of several past nominations for enhanced environmental protection and conservation policies within the region. The biological diversity and unique habitat areas of Nantucket Sound led the Commonwealth of Massachusetts to nominate the area for National Marine Sanctuary status in a 1980. The resources of Nantucket Sound were again deemed worthy of consideration for National Marine Sanctuary status by the resource evaluation committee appointed by the National Marine Sanctuary Program in 1983. These resources are equally significant today. Nantucket Sound is a recognized habitat for many state and federally protected species, including roseate terns, piping plovers, leatherback sea turtles, loggerhead sea turtles, Kemp's Ridley sea turtles, and gray seals.

Our review uncovered several localized studies and species-specific biological surveys throughout published literature, unpublished reports and on-going data collection. While of intrinsic value, these studies have not addressed management mechanisms for integrating and coordinating environmental management for resident or migratory species

that rely on the Sound. As a result, much of the available information considers only pieces of an ecological whole, resulting in fragmented understanding of dynamic ecosystem processes and species interactions.

Current management focuses upon ecologically arbitrary divisions of a contiguous coastal resource resulting from overlapping state and federal jurisdiction of these waters. Past state and federal nominations to protect these waters as a national marine sanctuary suggest the inherent ecological, commercial, and recreational values of Nantucket Sound. CCS recommends a multi-disciplinary taskforce study of the Nantucket Sound biogeographical region to assess the existing habitat, species utilizations, and commercial and recreational values of the area in order to facilitate consistent environmental management and conservation of protected marine resources. The existing data collected by state, federal, and private agencies will greatly facilitate such a study by providing a base for designing a broad study of the entire system. Development of comprehensive ecosystem management begins with thorough, scientific evaluation of the resources and processes of the entire system designed to support a unified environmental policy for the continued use, study and protection of this valuable coastal resource.

For full report look here: http://www.coastalstudies.org/coastalsolution/CCS_Report_1-28-03.pdf

❖ **Conservation Law Foundation**

The Conservation Law Foundation is the oldest and largest regional environmental advocacy organization in the United States. We're based in New England, where our attorneys, scientists, economists, and policy experts work on the most significant threats to the natural environment of the region and its residents. We've been around since 1966, and maintain advocacy centers in Boston, Massachusetts; Concord, New Hampshire; Montpelier, Vermont; Providence, Rhode Island; and Rockland, Maine.

Conservation Law Foundation is against the moratorium as issued this statement with Cape Clean Air and others.

Statement issued by Conservation Law Foundation, Union of Concerned Scientists, Cape Clean Air, Greenpeace USA, and Healthlink:
http://www.capewind.org/reporting/clf_pressrel_110702.pdf

❖ **Hyannis Marina: is an ally of the Alliance to Protect Nantucket Sound** ❖ **Massachusetts Audubon Society**

Massachusetts Audubon Society is the largest conservation organization in New England, concentrating its efforts on protecting the nature of Massachusetts for people and wildlife. Mass Audubon protects more than 29,000 acres of conservation land, conducts educational programs for 250,000 children and adults annually, and advocates for sound environmental policies at the local, state, and federal levels. Established in 1896 and supported by 68,000 member households, Mass Audubon maintains 41 wildlife

sanctuaries that are open to the public and serve as the base for its conservation, education, and advocacy work across the state.

Mass Audubon (along with US fish and wildlife) would like to see a three-year study done to assess bird migratory routes, more details on what Mass Audubon thinks can be found at the following site:

<http://www.saveoursound.org/environmental.html>

❖ **Massachusetts Public Interest Research Group:**

Seems to be for Cape Wind based on the following site:

<http://masspirg.org/MA.asp?id2=7581&id3=MA&id4=MAHP&>

❖ **Sierra Club of Cape Cod:**

❖ **Town of Yarmouth: an ally of the Alliance to Protect Nantucket Sound**

Current Status and Future Prospects

I What People Want to See Happen

- A. A coalition of 6 wildlife and environmental organizations has asked the corps to establish a working group to assist to assist in evaluating the wind farm proposal.
- B. Senator Robert O’Leary called for a bill to study the feasibility of wind farms off of the MA coast, and in response to this Governor Mitt Romney created a task force to do this.
 - i. This task force is also looking for ways to strengthen the state’s control over state owned water.
- C. US Senator Edward Kennedy calls to \$500,000 in federal funds for the analysis of the potential impact of the Cape Wind Project.

II. Timeline for Approval and Development

- A. In November of 2001 Cape Wind filed “environmental notification forms” with the USACE and the Massachusetts Executive Office of Environmental Affairs. Since then the project has been undergoing environmental review under the National Environmental Policy Act (NEPA) and the Massachusetts Environmental Policy Act.
- B. Cooperating Federal and State Agencies are participating in the permitting and review process, in an effort led by the United States Army Corps of Engineers (USACE).
- C. A draft environmental impact statement compiled by the USACE is expected sometime this month and the permitting process is expected to be complete by the end of this year.
- D. Once the project has been approved Cape Wind needs two years to make the wind farm operational.

- i. One year is required to build the turbines
- ii. Another year is required for construction of the wind farm.

III. Steps Opponents Could Take to Stop Development

- A. The timeframe of the project (expected date of completion is by the end of 2005) could change if steps are taken to stop or postpone the project.
- B. Massachusetts Attorney General, Thomas Reilly, would like to see a moratorium put on the project until a regulatory scheme is made for the development of offshore wind farms.
- C. Reilly is pushing MA Governor Mitt Romney to take a more active stance against the issue.
 - i. Romney currently opposes the building of a wind farm in Nantucket Sound, but has not been doing much, besides writing letter to the USACE, as a way of opposing it.
 - ii. Eight Cape Code towns and four Martha's Vineyard towns have signed a resolution asking Romney and Reilly to do whatever they can to establish state jurisdiction over Nantucket Sound.
- D. If a moratorium does take effect, it could mean the end of the Cape Wind Project, since it will be harder to gather money from investors.
- E. Dennis Duffy, Cape Wind's Vice President for regulatory affairs, says he expects to have a legal challenge because of all the opposition.
- F. Representative William Delahunt (D-Mass) is proposing to introduce a bill that would declare Nantucket Sound a marine sanctuary, which would prevent any construction in this area.

Key Articles for current information on Cape Wind can be found at:

<http://www.capecodonline.com/special/windfarm/>

Information on other offshore wind farms:

- Table of Existing Offshore wind farms:
<http://home.planet.nl/~windsh/offshore.html>

Site- Picture/ Country	Start	# turbines rotor / kW Total Capacity, lay- out	Distance to shore	Water Depth m.	Hub height m.	Foundation	kWh/m ² /y kWh / y
Nogersund / Sweden	1990	1 * Wind World 25 / 220	350 m.	6	37,5	Tripod	Out of operation
Vindeby / * Lolland - Denmark	1991	11 * Bonus 35 / 450 5 MW / two rows	1,5 – 3 km.	2,5 – 5	37,5	Concrete caisson	1.130 11.200.000

Lely IJsselmeer / Netherlands	1994	4 * NedWind 40 / 500 2 MW / single line	800 m.	4 - 5	39	Driven monopile	800 4.000.000
Tuna Knob / Denmark	1995	10 * Vestas V 39 / 500 5 MW / two rows	6 km.	3 - 5	40,5	Concrete caisson	1.046 12.500.000
Dronten / Netherlands	1996	28 * Nordtank 43 / 600 14 MW / single line	30 m.	1 - 2	50	Driven monopile	900 36.700.000
Bockstigen / Gotland - Sweden	March 1998	5 * Wind World 37 / 550 2,8 MW / cluster	4 km.	6		Drilled monopile	1.544 8.300.000
Utgrunden / Oland / Sweden	Dec. 2000	7 * Enron Wind 70 / 1500 10,5 MW / cluster	12 km.	7 - 10		Driven monopile	1.370 36.900.000
Blyth / * United Kingdom	2000	2 * Vestas V 66 / 2.000 4 MW	1 km.	6 m. 5 m. tide	58	Drilled monopile	1.754 12.000.000
Middelgrunden ** Denmark	March 2001	20 * Bonus 76 / 2.000 40 MW, curved line	2 - 3	2 - 6	60	Concrete caisson	1.100 99.000.000
Yttre Stengrund / Oland - Sweden	July 2001	5 * NEG-Micon 72 / 2 000 10 MW / line	5 km	8	60	Drilled monopile	1.475 30.000.000
Horns Rev *** Esbjerg - Denmark	Dec. 2002	80 * Vestas V 80 / 2.000 160 MW, cluster	14 - 20 km.	6 - 14 m.	70	Drilled monopile	1.493 600.000.000
Frederikshaven Denmark	Dec 2002	1 * Vestas V 90 - 3.000	500 m.	1	80	Bucket	1200 ? 7.600.000
Samso , Denmark	Febr. 2003	10 * 82,4 / 2.300 Bonus 23 MW, line	3,5 km	11 - 18	61	Monopile	78.000.000
Frederikshaven Denmark	May 2003	1 * Nordex 90 / 2.300	500 m.	1			1200 ? 7.600.000

- Table of Planned Offshore wind farms (last updated June 5, 2003):
<http://home.planet.nl/~windsh/offshore.html>

Site , Country	On-line	Turbines / Hubh. / Capacity	Water depth m.	Distance to shore	kWh / Y
Frederikshavn Denmark	2003	1*Vestas V 90 - 3.000 1*Bonus 2,3 MW	1	0 - 800 m.	
Nysted , Lolland, Denmark	Okt. 2003	72 * Bonus 2.2 MW Hubh. 70, 158 MW	6 - 9,5	Ca. 9 km.	500 million
Klasarden Gotland, Sweden	2004	NEG-Micon, 16 * 2,75 MW / 90 m. 44 MW	7 - 11	1,5 km	120 million

Rostock, Breitling River Germany	2003	1 * Nordex N 90 / 2.300			
Wilhelmshaven , Germany	2003	1 * Enercon E 112 4,5 MW		500 m.	
Arklow Bank Irish Sea, Ireland	2003 - 2005	7 * GEW 3.6 MW hubh. 73 m. / 25 - 520 MW	5 +	7 - 12 km	
Scroby Sands , Norfolk, UK	August 2004	38 * Vestas V 80/2.000		3 km	
North Hoyle, Wales	Summer 2003	30 * Vestas V 80/2.000	12 m. ; 8 m. tide	6 km	
Rhyl Flats, Wales	2004	30 turbines, 100 MW		8 km.	
Barrow, UK Irish Sea	Autumn 2004	30 turbines , 108 MW		10 km.	
Kentish flats, UK Thames Estuary	2005	30 MW NEG-Micon		8 km.	
Utgrunden-2 , Oland , Sweden	2004	24 turbines		7 km.	
Borkum-West , Germany	2004 -2010	60 - 1000 MW	± 30	45 km. North of Borkum	200 - 3500 million
Long Island New York, USA	2004	33 turbines, 100 MW			
“Vlakte vd Raan”, Knokke, Belgium	2004 ?	40 * Vestas V 80-2.000	10	15 km.	300 million
Oresund, Sweden	2004 ?	48 turbines		10 km from Malmo	400 million
North-See Q7- WP, Netherlands	2004	60 * Vestas V 66 120 MW	19 - 24	23 km.	350 million
NSWP , North Sea, Netherlands **	2005	36 * NEG-Micon 92 / 2.750 99 MW	15 - 20	8 - 12 km.	300 million
Solway Firth South West Scotland	2004	60 turbines, 199 MW		9 km.	
Cape Cod , Boston, Mass. USA *	2005	130 * 3.6 GEW 468 MW		9 km.	
Butendiek , Germany North Sea	2006	240 MW	16 - 20	34 km West from Sylt	800 million
Queen Charlotte Isl., Canada (Br. Col.)	2005 ?	700 MW			
Pommersche Bucht Baltic Sea, Germany	2005 -	350 - 1000 MW	12 - 20	42 km from Rugen	

Nordsee-Ost North Sea, Germany	2006 -	1000 - 1250 MW		30 km North of Helgoland	
Cape Trafalgar, Gibraltar Spain	?	200 & 250 MW			

- The largest offshore wind farm is located in Denmark (though larger wind farms are in the planning stages) in a place called Horns Rev. It consists of 80 turbines which have a total maximum output of 160MW. Elsam is the company that constructed this wind farm (http://www.hornsrev.dk/Engelsk/default_ie.htm) and Eltra built the transformer platform and established the cable connection (<http://www.eltra.dk/show.asp?id=13170>).
- The Dutch Energy 21 plan requires that 50% of the energy will come from renewable energy. The plan is also phasing out of the subsidy system, and is changing to a green certificate system instead since the government believes wind to be competitive with other sources of energy. The following is an article by the Danish Wind Industry Association that highlights their concern with the new green certificate system: <http://www.windpower.dk/articles/busiview.htm>
- A list of the proposed offshore wind farms in the UK can be found here: <http://www.offshorewindfarms.co.uk/sites.html>
- The UK's plans for offshore wind farms: <http://www.planetark.org/dailynewsstory.cfm/newsid/18754/newsDate/25-Nov-2002/story.htm>
- The Irish Government has approved plans for the world's largest offshore electricity-generating wind farm, to be built on a sandbank in the Irish Sea south of Dublin (<http://news.bbc.co.uk/1/hi/sci/tech/1755413.stm>)

When completed, the 200 turbines will produce 10% of the country's electricity needs.

The Marine Minister, Frank Fahey, said the 700-million euro (\$630m) development would have three times the generating capacity of all current offshore wind farms worldwide. Mr Fahey said the wind farm would do much to help Ireland achieve its targets under the Kyoto Protocol on limiting global warming, cutting greenhouse gas emissions by 13 million tonnes per year.

He said the 80-metre- (260-feet-) tall turbines would be visible from the shore in clear weather but would not detract from the area's scenic beauty.

The plant on the 27-kilometre- (16-mile-) long Arklow sandbank will be built by a private Irish company called Eirtricity. It will be about seven kilometres from the shore at its nearest point.

No objections

"Today heralds the dawning of a new age of clean, green energy, harvested from two plentiful renewable sources, the sea and the wind," said Mr Fahey at a Foreshore Lease signing ceremony in Dublin. Eirtricity hopes to begin construction work in the Spring, with the first phase of the project, generating 60 megawatts, going into operation in the autumn.

One megawatt of wind-generating capacity typically will satisfy the electricity needs of 350 households in an industrial society, or roughly 1,000 people.

The plant's capacity will ultimately reach 520 megawatts.

The state will receive up to 1.9 million euros (\$1.7m) a year from Eirtricity in rentals and royalties.

Mr Fahey said there had been wide public consultation on the plan and no objections. Eight submissions had been received, all of them in favour.

Arklow Bank runs north-south along the coast, with water depths of between five and 25 metres (16-82 feet).

Wind replacing coal

A report published this week said that wind-generated electricity production jumped by 31% last year, making it the most rapidly growing branch of the power industry. The US-based Earth Policy Institute issued figures showing global capacity rising from 17,800 to 23,300 megawatts - enough to satisfy the needs of 23 million people.

Since 1985 the use of coal for power generation has dropped by 9%, while the use of wind has increased by 487%.

US experience shows it is now also one of the cheapest methods of generating electricity, the report says.

In wind electric-generating capacity, Germany leads the world, followed by the US, Spain and Denmark.

The European Wind Energy Association has recently revised its 2010 wind capacity projections for Europe from 40,000 megawatts to 60,000 megawatts.

- Winery, LLC has submitted proposals for several wind farms along the Eastern coast of the US. The following page lists the proposed projects and the statistics associated with each: <http://www.winergyllc.com/news.asp>
- Article from December 7, 2002 in the Cape Cod Times.
<http://www.capecodonline.com/special/windfarm/winergyet7.htm>
- Controversy dealing with offshore wind farms in the US:
<http://www.cbsnews.com/stories/2003/01/07/tech/main535607.shtml>