

# Wind Power

## S U M M A R Y

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Although wind is a plentiful resource, wind power is one of the most unpredictable sources of alternative energy. Despite this, once installation is complete wind turbines have relatively low maintenance costs and long anticipated lives, which can result in comparatively low cost energy (among renewables). Turbines can be located on land, or off-shore, and, according to some analysts, could generate up to 900,000 MW of energy for the US (Seelye, 2010, p. 1; Clarke et al., 2009). Despite technological improvements, significant government subsidies continue to be required for wind power to be economically competitive. Both on- and offshore potential wind farm sites are situated in complex regulatory and political environments, which often render technologically and economically viable sites politically infeasible. Even when otherwise possible, wind, like many other green energy sources, often faces stiff opposition from environmental groups.

The Cape Wind project illustrates many of the conflicts and potential benefits of wind power. Since 2001, Cape Wind LLC has been attempting to build one hundred and thirty wind turbines off the coast of Cape Cod. This project began with an anticipated capacity of 454 MW, enough to power 160,000 homes, but has met stiff opposition from both local citizen and environmental groups, despite support by national environmental groups. This local opposition was, to a great degree, driven by aesthetic concerns and the regard with which some Native American groups hold the area (Clarke et al., 2009). Coupled with these sources of opposition, compliance with federal legislation resulted in a standstill for the project, despite the support of some national organizations, including the Sierra Club and Greenpeace.

The Cape Wind project site was chosen to minimize the likelihood of conflicts with other uses of the area, aesthetic concerns, and difficulties with federal legislation

(such as The Endangered Species Act), while providing a technically feasible location. Despite this, a political and legal firestorm surrounded the project from its inception. By 2011 the project had been reviewed by seventeen different government agencies, and been the subject of seven federal and four state lawsuits (Maroney, 2011). In 2009 a petition by the Mashpee Wampanoag Tribe ultimately placed the entirety of Nantucket Sound on the National Historic Register. Ultimately, approval for the project came through a decision by the Secretary of the Interior, Kenneth Salazar, to reject recommendations by the National Historic Advisory Council that would have denied the project's approval. In the case of the Cape Wind project, approval took more than a decade.

The Cape Wind project illustrates several of the obstacles to increased utilization of wind energy. While proponents of wind cite the green and renewable nature of wind power, opponents for aesthetic reasons and complex government land-use regulations and numerous legislations frequently delay, or completely derail, otherwise feasible and economically sound projects. From a financial perspective, these delays and millions of dollars in regulatory compliance and legal battles is often enough to prevent development of this alternative energy source.

Perhaps more significant, however, is the conflict between a green energy project (Cape Wind) and the environmental groups opposed to the project. Opposing groups used environmental legislation and arguments to attempt to stop a green energy project; this is the fundamental stumbling block for many green energy projects: green groups and environmental legislation. Most would expect green groups to support green energy projects, instead those groups use environmental and other regulation against the projects. The Cape Wind project is one example which highlights this conflict between green energy and green groups.

**Policy recommendations:**

- Streamline regulatory compliance procedures and align state and federal policies to reduce development timeframe
- Align local and national environmental interests and green energy projects through cooperative siting of pre-approved areas as “wind development zones” to reduce time and legal battles regarding land use

## References:

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