Turning Offshore Power On

Perspective

THAT NEW ENGLAND IS POISED TO lead the nation in producing clean electricity using offshore wind turbines shouldn't come as a surprise. The region's steady offshore winds and shallow waters create a unique and ideal environment for wind power.

Deborah Donovan

Several offshore wind projects have been proposed, which combined could serve four percent of the state's electricity needs without producing air pollutants or any of the other negative impacts of burning fossil fuels. All are sited from four to 20 miles offshore.

However, as with any new development—particularly one that is the first of its kind in the United States—offshore wind power is facing predictable opposition. There are local concerns—about noise, visual impacts, declining property values, and negative effects on tourism—as well as broader apprehensions over the projects' impacts on birds, fisheries, and navigation. All have been expressed at public hearings regarding the Cape Wind Project, which would situate 170 wind turbines in the waters of Horseshoe Shoals in Nantucket Sound.

The arguments echo those sounded in Denmark a decade ago, when the Tuno Knob project was proposed for siting less than two miles from coastal vacation homes. Residents of the affected coastal communities lodged 1,900 complaints, but soon after the turbines were installed in 1995, their resistance had turned to appreciation. The sounds of the turbines proved to be inaudible from shore, property values remained high, and tourism actually increased. Residents now embrace the graceful turbines, and offshore wind projects, which should provide more than 3,100 MW of power in Europe, are planned for development by 2005.

The completion of any the projects proposed for Cape Cod will help to meet the demand for renewable energy in New England and beyond. The Massachusetts Renewable Portfolio Standard has a target of four percent renewable energy by 2009; if the national renewable energy standard passed by the U.S. Senate becomes law, the development of cost-effective facilities like those proposed for New England's waters will be needed even more.

It's human nature to resist change and to fear the unknown, but it is our hope that the residents of Massachusetts and the state and federal decisionmakers responsible for approving these projects will give these opportunities a fair and rigorous review. They cannot do so without accurate information. Wind speeds need to be measured for one full year, and a detailed environmental impact statement developed, but it will be possible to do so only if short-sighted efforts to block the permit for a data-measurement tower are unsuccessful. Even under the best scenario, the permits will not be issued until September 2003, which means there is time to carefully evaluate the risks and benefits.

What if we miss this opportunity to reduce our fossil fuel use? Climate models, which are proving accurate at predicting the effects of continued fossil fuel combustion, offer a glimpse of the future: Hurricanes along the U.S. east coast will continue to grow more frequent; sea levels are expected to rise as glaciers retreat and ocean temperatures increase. Residents of our vulnerable coastlines will be some of those hardest hit by these and other effects of a changing climate.

As a society, we must accept that there is no energy source available to us today that has zero impact. When weighed against the very real threats of climate change to coastal property, the benefits of well-sited offshore wind power are starkly apparent. It is essential that we pursue every environmentally responsible opportunity to move our energy system to more sustainable sources—offshore wind-power included. ■

—Deborah Donovan, Energy Research Coordinator, Clean Energy Program

Photo: Middelgrunden Wind Farm in Denmark