

## Wind Farm

A private for profit development on essentially a public body of water, Nantucket Sound, encompassing 25 square miles deserves very close scrutiny by the citizens of Cape Cod. Cape Wind Associates propose to build 170 wind towers approximately 426 feet tall that would supply 420 MW of electricity at peak and 170 MW on average. The output depends on whether the wind blows at 20 M.P.H. or 40 M.P.H.

The Cape Cod Chamber of Commerce opposes this project even at the risk of being labeled NIMBYS. We oppose it precisely because we are very concerned about the region's back yard. Nantucket Sound is inextricably wound about our economy and our quality of life. Tourists in general and fishermen, pleasure boaters, private aircraft, and coastal residents all would be affected by this massive project.

The developers and their supporters counter that it is basically unpatriotic to oppose this venture because their arguments ring out with encomiums for the public good as a result of the installation of 170 wind turbines. They say that Cape Codders will be assured of cheaper abundant power, that jobs will be created, that tourists will want to view these graceful wind mills, that most importantly, the project will make a significant dent in lessening the demand for Middle Eastern oil and finally, our coastal property owners can breath a sigh of relief because this project will help to forestall the disastrous effects of global warming.

The Chamber believes that these arguments are at best overblown and are at least a stretch, from people who basically are interested in the pursuit of profits. We have nothing against profits, in fact we applaud our capitalistic system and its ability to generate new ideas and create jobs. However, we wish the region's capitalists would expend energy and capital on the real issues that Cape Cod faces. Electricity generation is far down on our list of priorities when considering regional infrastructure issues. Residential sprawl, waste water treatment, water supply protection, public transportation, affordable housing and village rehabilitation are regional issues that come to mind before we expend quantities of regulatory capital on this Nantucket Sound Wind Farm.

To understand why the Chamber has trouble with Wind Associates arguments, residents of Cape Cod would do well to understand at least minimally the de-regulated electrical industry in the North Eastern part of the U.S. Federal and State regulators and legislators beginning in the early 90's allowed for open access to interstate transmission lines and ordered vertically structured electric utilities to sell off generation and concentrate on transmission and distribution of power, effectively splitting up the retail and the wholesale aspects of generating and selling

electric power. The transitional results of these rulings are the addition of many new power plants being constructed in New England. Twelve new plants have been constructed since 1999 with another sixteen permitted and on the drawing boards (some of these may not be built depending on demand). All of these plants will use natural gas from North American sources. These new plants are modern efficient combined cycle units and they have had a significantly positive impact on air quality. A not for profit corporation, Independent System Operator, I.S.O. of New England was created to essentially operate as a commodity market manager for a demand supply pricing mechanism responsible for monitoring hourly daily pricing contracts designed to give consumers competitive prices.

There are two ways for Wind Farm Associates to sell their power, a bilateral contract with a retailer or to the New England spot market. Under the law in 2003 distribution companies like N-Star will be required to purchase a small percent of their demand from renewable sources; wind, solar, hydro, bio mass or fuel cell. Selling to the spot market would be trickier since a generator actually contracts in real time for a specific amount of power sold on an economic merit scheme, where price and demand come into play when New England reaches near supply demand equilibrium. But, betting on the wind is difficult since if Wind Associates contracts for 100 MW and because the wind disappears they only deliver 50 MW, then they presumably would have to go out and buy the other 50 MW at a considerably higher price.

The capital costs alone for this project are considerably higher than gas fired plants. Cape Wind Associates say the project will cost from \$500,000,000 to \$700,000,000. At this investment the capital cost of \$2,900 per KW is basically five times the cost of natural gas at about \$600 per KW.

We believe the result to consumers would actually be higher prices for renewable wind energy. So called green power has historically always had higher prices.

Residential consumers have been shielded from volatile fuel prices by something called the standard offer pricing in this transition phase. By 2004 this mechanism will be gone and through competition and choice the consumer will be able to find their own suppliers if they so choose.

In New England electricity consumption has more than doubled since 1970. I.S.O. New England forecasts peak summer demand to increase to 27,171 MW in 2010 from 23,150 MW in 2000 – an overall increase of 17 percent. Again, since 1999, 12 new power plants totaling 3,600 MW have been built in New England and 16 more are in the works that will add another

7,600 MW in the next three to four years. At present the installed generation capacity in New England is 26,239 MW. From this you can deduce that we do not have a shortage of power in New England even though we do have transmission access problems in two areas, primarily, inside Route 128 in the Boston area and in South Western Connecticut.

When we consider this wind farm on our Nantucket Sound back yard, imagine a July summer day with the wind blowing at 20 M.P.H. , 170 MW of power are sent to the New England transmission grid. This power represents .0086 percent of the supply on that day. The proponents would have us believe that this miniscule amount of power will somehow be responsible for lower prices on Cape Cod even when peak summer demand on Cape Cod approaches 450 MW. Please understand that power generated from this project would enter the New England power grid and it would not be used solely on Cape Cod.

Additionally, the power from this wind farm would have a minimal effect on weaning the area off Middle Eastern oil for two reasons, older oil fired coal and oil plants are presently being retired and are being replaced with modern combined cycle natural gas plants and this fuel comes from North American sources. The wind farm, in order to save oil, would have to replace an oil fired unit somewhere in New England in order for the proponents claim to be valid. Further, only 2% generated electricity in the United States comes from oil fired plants.

Finally, the developers say that 30 to 36 full time year round jobs will be created because of this project. I will leave it to the reader to judge whether the use of 25 square miles of our precious natural resource, our back yard, is worth the economic gain of a few jobs and the dubious assertion that tourists will clamor to see these implanted structures on Nantucket Sound.

Furthermore, the developers say that the towers have a useful life of 20 years. When questioned about mitigation or a bond that would clear the structures if they become obsolete or unusable for either structural or economic reasons, the answers are less than encouraging.

This is a difficult industry to understand and the need for renewable energy is clearly evident. Industry sources say that the clear need is for reliable peaking plants that can be turned on almost instantaneously to deliver small amounts of power regionally. These plants would compliment larger base load plants when we get particularly high usage on hot summer windless days.

A wind farm could never be used as a peaking plant because they cannot reliably deliver a specific amount when needed.

This project has so many negatives associated with it that the few pluses are simply overwhelmed by the impact on our regional economy and way of life.