

## **DARTMOUTH WIND TURBINE PROJECT: FACTS OVER FEARS**

The 3.3 megawatt Dartmouth Wind Turbine Project for the DPW facilities in South Dartmouth is moving ahead. We hope to see clean renewable electricity flowing into the grid and revenues flowing into the town treasury within the next year. This article will try to explain the facts of the project to allay fears that have been expressed by some.

**HISTORY** – The Alternative Energy Committee (AEC) was established over five years ago. Since then, two wind bylaws were drafted, publicly debated, and passed unanimously at Town Meetings. A DVD was produced on wind power and placed in town libraries. Three articles on wind power were written and published in the *Standard-Times*. Wind assessment results and preliminary feasibility studies have been presented at public meetings, all televised. A web site was created -- <http://www.town.dartmouth.ma.us/altenergy.htm> -- linked to the Dartmouth home page, where important project documents can be found. I, as AEC chairman, and other AEC members have spoken to residents who live near the project. Thus, the AEC has done everything it can to bring this project to the attention of all town residents and anyone else with an interest in alternative energy.

Here are the facts as determined by the Atlantic Design Engineers (ADE), the engineering firm hired by the town as authorized at the June 2009 Town Meeting.

**NOISE** – The additional sound above normal ambient noise at the boundary of the DPW property attributable to the two 1.65 megawatt turbines is less than the human ear is capable of detecting. The absolute increase in sound level is about 1 decibel on the A-scale. Since residences are all located farther away than the property boundary, the increase in sound at the closest residences will be even less.

**SHADOW-FLICKER** – The shadow-flicker effect is theoretically possible for a number of residences within a limited area. There is one residence where the flicker effect might occur roughly 20 hours per year; all other residences within the limited area would be less affected. There are a number of other residences in the Pembroke, Longmeadow, Gulf Road West and Meadowood neighborhoods that might get between 1 and 19 hours of flicker per year. However, these estimates do not account for trees, shrubs or other buildings that will screen a residence from the turbine. There are many trees in these areas that will drastically reduce the impact and in most cases eliminate it completely. Also flicker can only occur either very early in the morning (if the residence is west of the turbines), or just before sunset (if the residence lies to the east). At a given location, it lasts for only a few minutes a day for a limited period of the year. Although there is no definitive determination on record regarding an allowable level of flicker exposure, one court case in Germany found that more than 30 hours per year was unacceptable; the Dartmouth project is well below that value. Finally, if there is a place where flicker is shown to be particularly bothersome, the turbine can be programmed to shut down for the short duration of flicker.

**SLEEP DISTURBANCE** – Given the imperceptible noise generation from the turbines, it is hard to imagine how anyone's sleep could be disturbed by the turbines.

**PROPERTY VALUES** – The value of one’s property is determined by recent sales of similar homes in the area. It is impossible to say whether or not someone’s property value will be adversely affected by the presence of the wind turbines until home sales demonstrate an impact. If an adverse impact can be proven, a home owner may seek a reassessment and might end up paying lower taxes. By law, the town is required to periodically reassess property values.

**WETLANDS** – The town has taken extraordinary care in siting the turbines to avoid infringing on wetlands. Preliminary site plans were modified following a more detailed site survey. The town engaged one of New England’s foremost wetlands experts to assist in this work. All project work will conform to the Town of Dartmouth Wetland Bylaw and the Massachusetts Department of Environmental Protection standards.

In summary, the AEC was asked by the town to study alternative, renewable means of generating electricity that could save money for the town. We have been thorough, professional and open throughout the research and development process. This clean, green energy project will begin saving the town money immediately once it goes into operation -- some \$880,000 in the first year -- under full net metering. It could save the town up to \$32 million over its 20-year life, it will have minimal impact on the environment and neighbors, and it will be a source of pride for all residents of Dartmouth.

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