



THE WOODS HOLE RESEARCH CENTER

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Plans Proceeding for Wind Turbine on the Gilman Ordway Campus of the Woods Hole Research Center

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The Woods Hole Research Center is committed to creating a high performance building that produces more energy than it consumes, and operates without the combustion of fossil fuels, the primary contributor to global warming. As part of the Center's goal of realizing a net zero energy building, plans for the installation of a wind turbine are proceeding. The Center is pursuing the installation of a Northwind 100, a 100 kW wind turbine designed and produced by Northern Power, on a 40 meter monopole tower located to the southeast of the building.

The Center's building, completed in 2003, was constructed with energy conservation as a leading priority. It employs a number of renewable energy technologies that allows the institution to operate using only 23 percent of the energy required to maintain a similarly sized structure. Such efficiency is possible due to a well-constructed facility with a tight building envelope. Currently on-site, a photovoltaic array supplies approximately 30 percent of our annual electricity needs, and a ground source heat pump heats and cools the building. With the addition of the wind turbine, the Center will make more energy than it uses, all from renewable, carbon-free sources.



Aerial view of the Ordway Building, showing 2-part array of 88 photovoltaic panels.
Photo courtesy **Charles C. Benton.**

According to Director John P. Holdren, "The Woods Hole Research Center is a world leader in studying the impacts of deforestation and fossil-fuel burning on the global climate, and a leader in designing and advocating remedies. It is important that we practice what we preach about reducing fossil-fuel dependence, and installing a wind turbine at our Center is the best next step for us in doing so."

Holdren adds, "The environmental impacts of photovoltaic cells and wind turbines are smaller than those of all other ways to generate electricity, renewable or nonrenewable, on-site or off-site. After commissioning an external environmental impact analysis and further internal analysis, we believe the sound of a wind turbine at the Center would not be perceptible outside our property (and

barely perceptible on it), that the impact on birds would be tiny compared to the everyday dangers posed to birds by the buildings and cats in the neighborhood, and that the visual impact of the turbine would be modest at most (and seen as attractive by many)."

The Center will file for appropriate permits with the Town of Falmouth in December. Following successful conclusion of the town's permitting process, the Center hopes to begin construction in Summer 2007.