The goal of the Wind Committee is to explore the feasibility of installing a wind turbine in Northborough to offset the cost of municipal electricity. Such a turbine would be connected to National Grid (electric utility) and would use "net metering". The power generated by the turbine would be measured and then the energy generated applied against the town's bill. If extra power is produced it would be sold to the Grid and that money would accrue to the town.

Over the next year, using funds granted to the town by the Massachusetts Clean Energy Center, we will be gathering wind parameter data from the "met" (meteorological) tower. Analysis of these data will tell us if this project is feasible and what size turbine is appropriate.

#### LINKS

http://www.masscec.com/

http://www.youtube.com/watch#!v=9N8m BPZ2IQ8&feature=related

www.awea.org

www.awea.org/pubs/factsheets. html

www.northboronews.org

http://www.town.northborough.ma.us/Pag es/NorthboroughMA\_Engineering/index

## HOW CAN WE HELP?

Encouraging energy conservation at home, at school and at work will all help to reduce the costs and the need for new energy generating plants. Here in Northborough, the Wind Turbine Committee will continue our efforts. We post a newsletter at the "Northborough News" website and will shortly be starting another, more technical description of our activities on the Engineer's Town website. We encourage your questions. We will also shortly have a "Friends of Renewable Energy" fund raising group, which will help with this project and beyond. Contributions are welcome!

# Northborough Wind Turbine Committee



Met Tower Ribbon Cutting Ceremony August 5, 2010

# NORTHBOROUGH WIND TURBINE COMMITTEE

# WHO ARE WE?

We are a group of area residents who are interested in moving Northborough forward into a cleaner. more self-sufficient. energy future. The town has also recognized this as a potentially valuable, cost saving endeavor. formed Selectmen The а committee, composed of skilled professionals, including engineers, business executives and a medical doctor who will bring a practical, no-nonsense approach to the project.

## FREQUENTLY ASKED QUESTIONS

# WHERE WILL THIS WIND TURBINE BE LOCATED?

With the help of the Massachusetts Clean Energy Center we have identified three promising sites in town. Two of these are on farmland and one is town owned. Fortunately, the data obtained from the recently installed meteorological tower will apply to all three sites.

#### WHO WILL PAY FOR THIS WIND TURBINE?

The initial project work has been funded by grants. If the feasibility study determines the required wind energy is available, and the project is viable, we will first seek additional grant monies from the state and federal government. In the event further funds are needed we will present the project to the Selectmen and Town Meeting for voter review and acceptance.

## WHY SHOULD THE TOWN OF NORTHBOROUGH SUPPORT THIS PROJECT?

The Wind Turbine will directly benefit Northborough by off-setting our municipal energy costs and help decrease our dependence on foreign oil and other fossil based energy resources. If the wind turbine is constructed, approximately 2,000 tons of Carbon Dioxide, ten tons of Sulfur Oxides and six tons of Nitrogen Oxides will also not be released into the atmosphere annually.

### I'VE HEARD THAT THESE TURBINES ARE NOISY. IS THAT TRUE?

Today's generation of Wind Turbines are aerodynamically designed and use composite materials in such a way as to minimize noise. Comparative measurements have shown that at 350 meters the turbine sound is equivalent to distant traffic noise levels.

### WHAT ABOUT BIRD AND BAT INJURIES DUE TO TURBINES?

Turbines sited on ridge lines and/or on migratory paths have been a concern. The proposed Northborough Wind Turbine sites are in neither location. Existing Massachusetts Wind Turbine sites have not reported any significant or directly observed bird or bat kills. A single turbine also presents less avian exposure risk than multiple machine wind farm installations.

# WE'VE HEARD THAT YOU HIRED A "CONSULTANT". WHY IS THIS NECESSARY IF YOU

# HAVE EXPERTISE WITHIN YOUR GROUP?

In order to receive the \$85,000 Commonwealth Feasibility Study a recognized Consultant was required: one who has experience in wind energy analysis, environmental impacts, site and zoning requirements, equipment selection and other necessary skills.



#### WHY US?

Because wind is a part of the future energy "GREEN SOLUTION". Even if you question the reality of man-made global warming, alternatives to fossil fuels must be included in the "mix of answers". If the Northborough Wind Turbine is economically viable, it will be a way to run a portion of our town on renewable energy, while providing us and our children a cleaner future.

## WHY HERE?

Because based on preliminary UMASS Amherst, Wind Energy Center studies and now actual wind measurements from the "met" tower, there may be sufficient wind energy to justify a wind turbine installation.

#### WHY NOW?

With the continuous increases in municipal energy costs for fire, police, administration, public works and the schools; this project may offer an attractive alternative to help offset these expenses and provide the Selectmen with more alternatives administering Town programs and finances.

