



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

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Town of Falmouth Wind 1 Sound Study Update July 8, 2010

Introduction

The Town of Falmouth's Wind 1 turbine began operation on April 6, 2010 at the Wastewater Treatment Plant off Blacksmith Shop Road. Wind 1 is one of two turbines that will generate electricity to power the treatment plant, reducing operating costs and the Town's carbon footprint. Any excess electricity will be used within the Town to keep the benefits local and reduce reliance on non-renewable fossil fuels.

Since Wind 1 began operation, there have been sporadic times at which some nearby property owners have reported noticeable sound from the turbine. The Town takes residents' concerns very seriously and, in collaboration with several property owners, commissioned a study to investigate the magnitude and duration of sound levels from the wind turbine. We are pleased to provide you with the following update. Results of the study will be shared with the community when there is a completed report.

Recent Progress on the Study

Continuous sound measurement (CM) devices (microphones) were set at two locations within a half-mile of the turbine. Measurements were taken from June 18 – 28, 2010. The locations were agreed upon by the Town and abutters, in consultation with their respective consultants. One CM was set at 211 Blacksmith Shop Road and one at 124 Ambleside Drive. Short-term measurements were also made periodically within the same radius during this 10-day period at various locations, including: 161 Blacksmith Shop Rd, 27 Ridgeview Dr, the intersection at Research Rd and Thomas B. Landers Dr, and the cul-de-sac at the end of Durham Rd. In addition, the following data was collected to correlate sound measurements:

- 10-meter wind monitoring station for near surface wind speed and direction
- 80-meter wind speed and direction from the hub of the wind turbine
- Power output data log
- Alarm condition and logs

The operation of the wind turbine was also monitored during the measurement period. During this measurement period, the manufacturer's representatives performed routine maintenance on the turbine. The planned shut-down of the turbine during this time period

was to perform maintenance such as checking fluid levels and lubrication, and to evaluate various systems and components of the turbine. Any problems identified during the evaluation are to be corrected.

The turbine operated through a range of wind conditions from below the cut-in wind speed of 3.5 meters per second (7.8 miles per hour) to the rated capacity of +12 meters per second (26.8 miles per hour), which allowed the team to capture a variety of wind speed conditions. The operation of the turbine was also intentionally suspended for three nights during the study period to capture normal background nighttime sound conditions without the turbine.

Reminder: Please send in your sound logs

In mid-June, we distributed log sheets to approximately 300 property owners within a half-mile radius of Wind 1 and Wind 2. The purpose of the log sheets is to record and collect neighbors' perceptions of sound they may hear from the turbine. Please remember to return your log sheet by July 16, 2010 by fax, email or US Mail to:

Callie Reis
Noise Control Engineering, Inc.
799 Middlesex Turnpike
Billerica, MA 01821
Fax: 978-667-7047
Email: callier@noise-control.com

Stay Informed

If you would like to receive future updates by email, please send an email to falmouthwind@gmail.com with *subscribe* in the subject line. You may also visit the Town's wind website at <http://www.falmouthmass.us> for more information. The Town will continue to provide updates and information as they become available. This will include the results of the sound study.