

May 14, 2021

VIA ELECTRONIC MAIL

Jonathan A. Evans
Presiding Officer
New Hampshire Site Evaluation Subcommittee
21 South Fruit Street, Suite 10
Concord, NH 03301

**RE: DOCKET NO. 2021-02 INVESTIGATION OF COMPLAINTS REGARDING
ANTRIM WIND ENERGY FACILITY**

Dear Subcommittee Chair Evans:

We respectfully submit the attached Sound Monitoring Report prepared by Rand Acoustics, LLC ('Rand') of Brunswick Maine (Exhibit A). The report summarizes the results of a sound survey conducted by Rand at the Antrim Wind Energy facility. The survey period was from March 18, 2021 to April 9, 2021 and involved the installation of an outdoor noise monitor at the Berwick property situated at 72 Reed Carr Road in Antrim. The three nearest turbines to the Berwick property, T1, T2, and T3 are line-of-sight and respectively approximately 3670, 3800, and 5000 feet from the Berwick home.

Rand's findings from the attached report are as follows:

Survey: An outdoor noise monitor was installed near the Berwick home in Antrim, NH from March 18 to April 9, 2021. During the survey the Berwicks reported a number of intrusive wind turbine noise events to Rand Acoustics. For the purposes of this report, two complaints were investigated with dates/times at 3/24/21 12:16 AM and 3/31/21 3:14 AM.

*Findings: Post-survey analysis with audio recordings and data review confirmed that intrusive noise present during the two complaints was from Antrim Wind turbines. Antrim Wind noise levels at the Berwick home **exceeded the NH SEC [nighttime] 40-dBA noise limit by 13 dBA, and exceeded Epsilon's predicted "Worst Case Sound Level" of 35.7 dBA by 17 dBA.***

Rand followed the sound monitoring method detailed in NH Site 301.18 and the applicable standards. Graphs shown on pages 8, 9 and 10 of Rand's report clearly show noise exceedances well above the NH nighttime limit of 40-dBA (*and reaching over 50 dBA*). At the time of the exceedances, Rand verified through high-quality audio recordings that the turbines were dominating the acoustic environment with pronounced whooshing typical of wind turbine amplitude modulation¹. Rand recorded repetitive amplitude modulation ranging between 4 and 11 decibels (dB).

¹ Amplitude modulation is a well-documented characteristic of wind turbine noise. It is defined as periodic changes in amplitude or loudness of a signal and is associated with the rate of blade-pass frequency.

This is the second survey by Rand at the Berwick property.² The first survey, which was conducted from February 19 to February 23, 2020, also found pronounced noise exceedances at the Berwick property.

We hope the attached report proves a useful addition to the record. If you have any questions regarding this report, please contact Lisa Linowes by phone at 603-838-6588 or by email at llinowes@windaction.org.

Respectfully,

/s/ Barbara Berwick

/s/ Bruce Berwick

/s/ Janice Longgood

/s/ Karen Lukeman

/s/ Dr. Fred Ward

/s/ Lori Lerner

/s/ Larry Goodman

/s/ Richard Block

/s/ Ivan Quinchia

/s/ Carole Binder

/s/ William Everett

/s/ Richard B. James

/s/ Nancy Watson

/s/ Lisa Linowes

/s/ Joe Wilkas

cc: Service List, Docket 2021-02
Executive Councilor Joseph Kenney
Senator Jeb Bradley
Senator Bob Giuda
Senator Ruth Ward
Representative Michael Vose

² *Antrim Wind Sound Monitoring Report by Rand Acoustics, LLC*, (September 23, 2020).
https://www.nhsec.nh.gov/projects/2015-02/post-certificate-filings/2015-02_2020-09-23_sound_monitoring_rpt.pdf