S.E. Ambrose & Associates

15 Great Falls Road, Windham, ME 04062

Acoustics, Environmental Sound & Industrial

June 4, 2015

Mr. Douglas Fine, Assistant Commissioner Department of Environmental Protection One Winter Street, Boston, MA 02108

Reference: Kingston Wind Independence Turbine Acoustical Monitoring Study

Technical Report, HMMH Report No. 305270.001, April 16, 2015, Draft for Public Comment

Response: Part 2 (of 10); Electric Power Output vs Sound Power Level

Dear Assistant Commissioner Fine,

The KWI Technical Report (KWI-TR) established KWI exceeds the MassDEP noise policy. Part 1 showed that there is no need for hub-height wind speed. HMMH's Figure 1 for electric power output and Figure 2 for sound power level were plotted on one graph.

Sound power level (log y-axis)

Electric power output (log x-axis)

A "line of best fit" was drawn through all data points with a straight line.

KWI sound power level is determined from electric power output.

| <u>data point ♦</u> | <u>equation</u> |
|---------------------|-----------------|
| 0.3 MW = 99 dBA | 99.3 dBA |
| 0.5 MW = 101 dBA | 100.9 dBA |
| 0.8 MW = 103 dBA | 102.3 dBA |
| 2.0 MW = 105 dBA | 105.1 dBA |

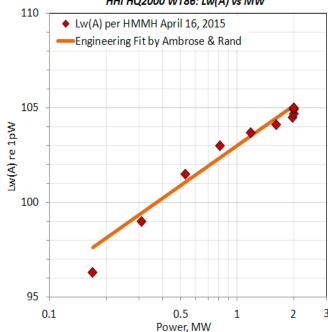
The chart and equation simplifies predicting KWI sound power levels. The assessment methodology used by HMMH, MassCEC and MassDEP is unreasonably complex, confusing and convoluted.

Respectfully submitted,

Stephen E. Ambrose, *ASA, INCE, Brd.Cert.* Principal Consultant

John & Ambrose





Good Engineering Fit: Lw(A) = 7log(MW) + 103, dB(A) re 1pW Accuracy: +/- 0.6 dB, 300 to 2000 KW

Robert Rand, ASA, INCE

Provided technical support and graphic contributions.

Cc: Thomas Bott, Kingston Planning Director, tbott@kingstonmass.org
Martin Suuberg, Commissioner, MassDEP, Martin.Suuberg@State.MA.US
Nils Bolgen, Program Director, Wind, MassCEC, NBolgen@MassCEC.com
Christopher Menge, Vice President, HMMH, cmenge@hmmh.com