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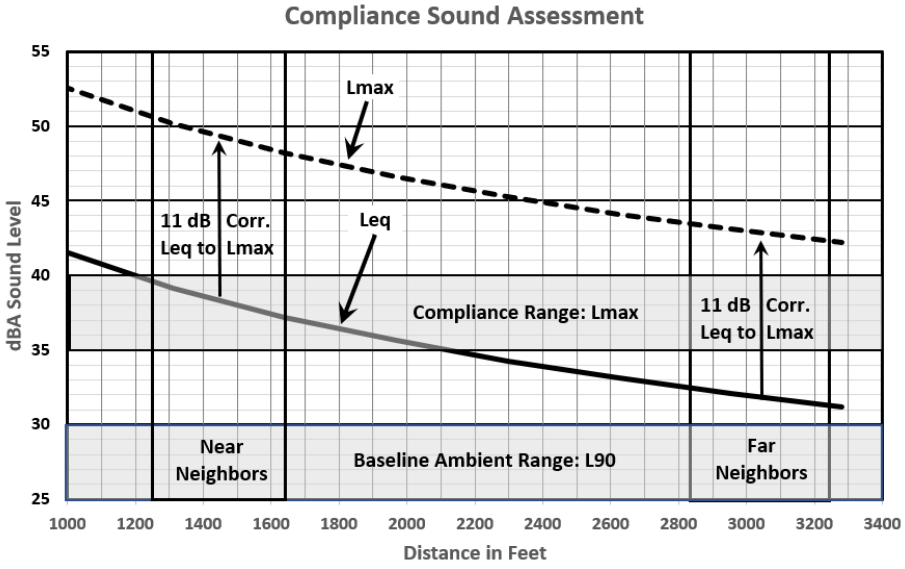
Ref: *Future Generation Wind Turbines Compliance Monitoring Sound Study*

I support MaDEP investigating the FGW Sound Study. Something is awry when the Executive Summary affirms wind turbine compliance without support from the Study. Sound assessment protocol is overly complex and ineffective due to inherent defects for measurements and predictions. Conflicts of interest should be avoided for closely aligned consultants and clients [1,2]. Study relied on unattended sound measurements and unable to hear in-situ a loud wind turbine(s) operating during quiet nighttime hours.

Skepticism is warranted for omitting critical information: 1) wind turbine SCADA files with noise measurements. 2) turbine specifications for electric power output and sound power levels with and w/o NRO. 3) noise model predictions with input parameters and results. 4) noise level vs time history plots showing wind turbine fluctuations. 5) name, title and qualifications for author, reviewer, and approver.

Compliance sound assessments should be easy for communities to understand. Wind turbine noise levels at neighbor homes are typically dominated by the nearest turbine. Single-source noise levels are easy to predict without the need for complex noise models prone to underpredict worst-case. Sound levels decrease following the inverse-square law: -6 dB for each distance-doubling. MaDEP Noise Policy uses Lmax that can be determined by adding 11 dB to measured or predicted Leq. [3] Charts show the connections between noise levels, distances to neighbors, and ranges for ambient background L90 and Lmax compliance. Chart assessments would benefit Scituate, Kingston, Fairhaven, Monroe Florida, …

- Chart is for 1-Gamesa G97 2.0 MW rated at Lw = 108 dBA (est.).
- Predicted wind turbine Lmax exceeds MaDEP quiet nighttime noise limits at near and far neighbors.
- Caution: Lmax not for determining baseline ambient L90.



Respectfully,

Stephen E. Ambrose, ASA, *INCE, Board Certified Emeritus*

[1] MassCEC hired Tech Environmental to develop a wind turbine noise "Protocol" to facilitate permitting projects.
[2] Tech Environmental provides consulting noise service to 28 Massachusetts wind turbine projects.
[3] Lmax=Leq+11: http://files.masscec.com/research/wind/MassCECWindTurbinesAcousticsStudy.pdf.