

WINDSPIRE 1.2kW Sound Levels

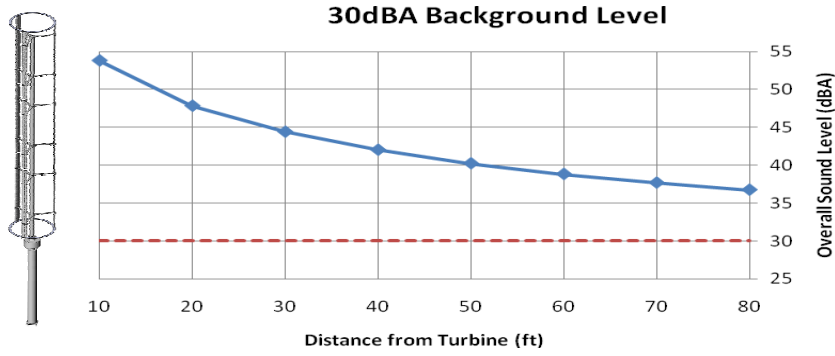


Figure 1

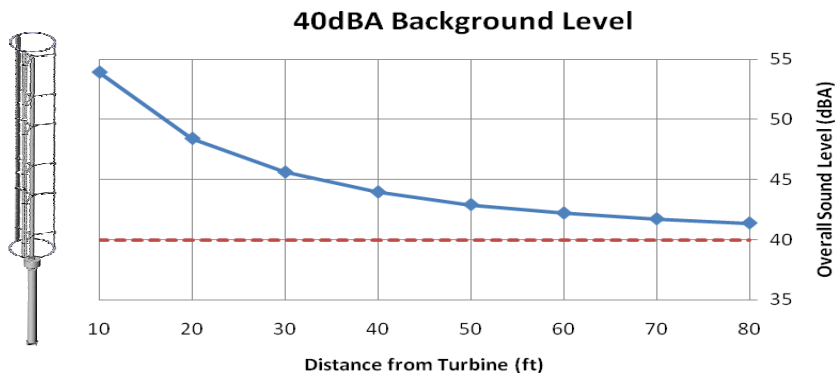


Figure 2

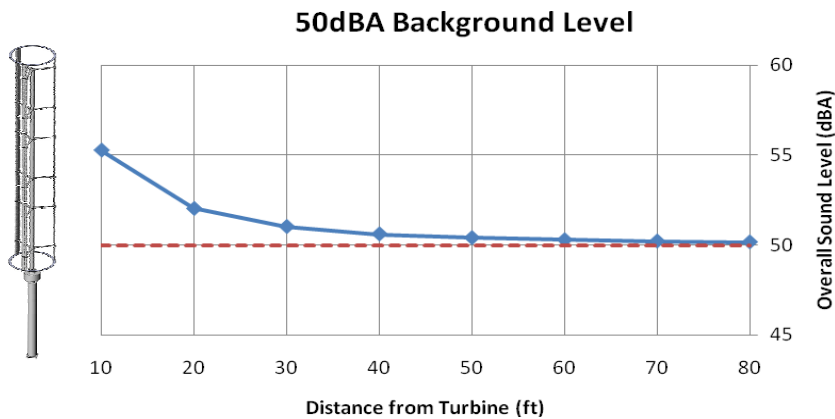


Figure 3

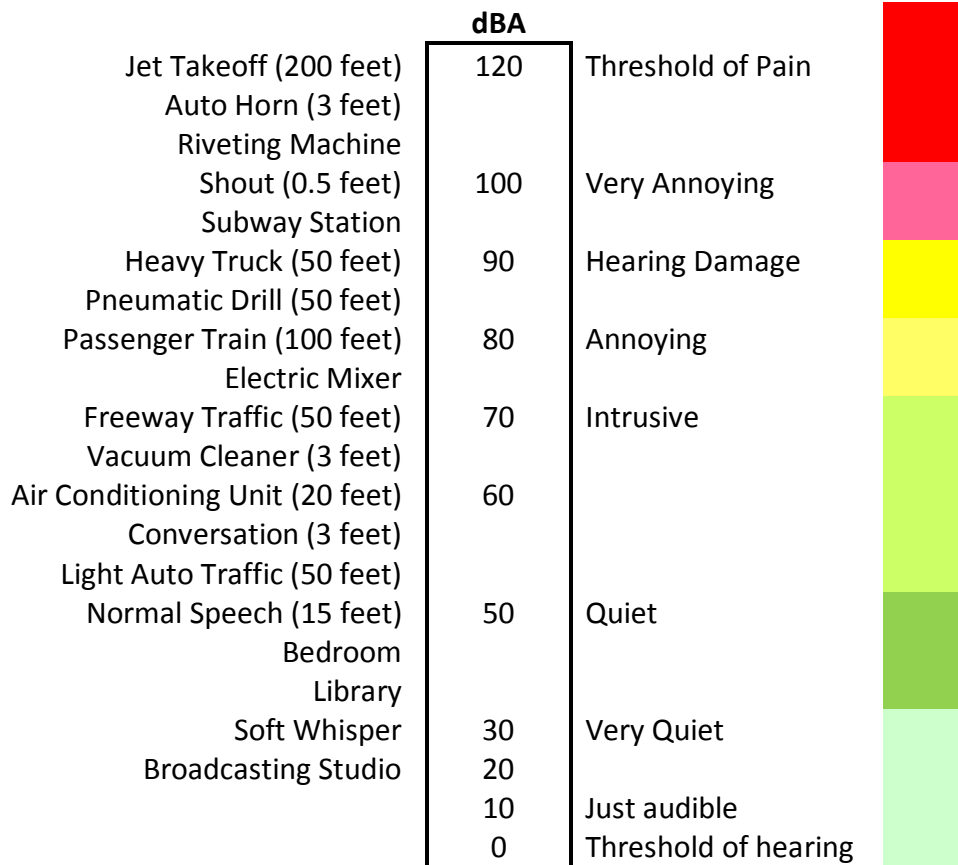


Figure 4

Sound pressure levels are based upon the September 9, 2009, EDF testing report and acoustics data for the 1.2kW Windspire wind turbine. EDF acoustic measurements were completed in wind speeds ranging from 4.8 m/s to 6.8 m/s; with an average of 5.7 m/s.

Overall sound levels were calculated based upon equations 1 and 2, Appendix A, of the AWEA Standard 9.1.

Equation 1: $Turbine\ Sound\ Level\ (TSL) = L_{rated} + 10\log(4\pi R_{rated}^2) - 10\log(4\pi R^2)$

L_{rated} is the rated sound level (dBA) at a distance R_{rated}

R is the observer distance from the turbine rotor center

Equation 2: $Overall\ Sound\ Level = 10\log(10^{TSL/10} + 10^{BL/10})$

BL is the background noise level – See Figure 4.