

**Noise Assesment Blue House Reston**

1 message

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To: James Cromarty <james@yeomanarchitecture.co.uk>

James,

From the data sent yesterday we can conclude that if a 6kw SD Wind machine was installed the noise at 60m from the nacelle (hub) would be 44 db at a slant distance 60m in an 8m/s

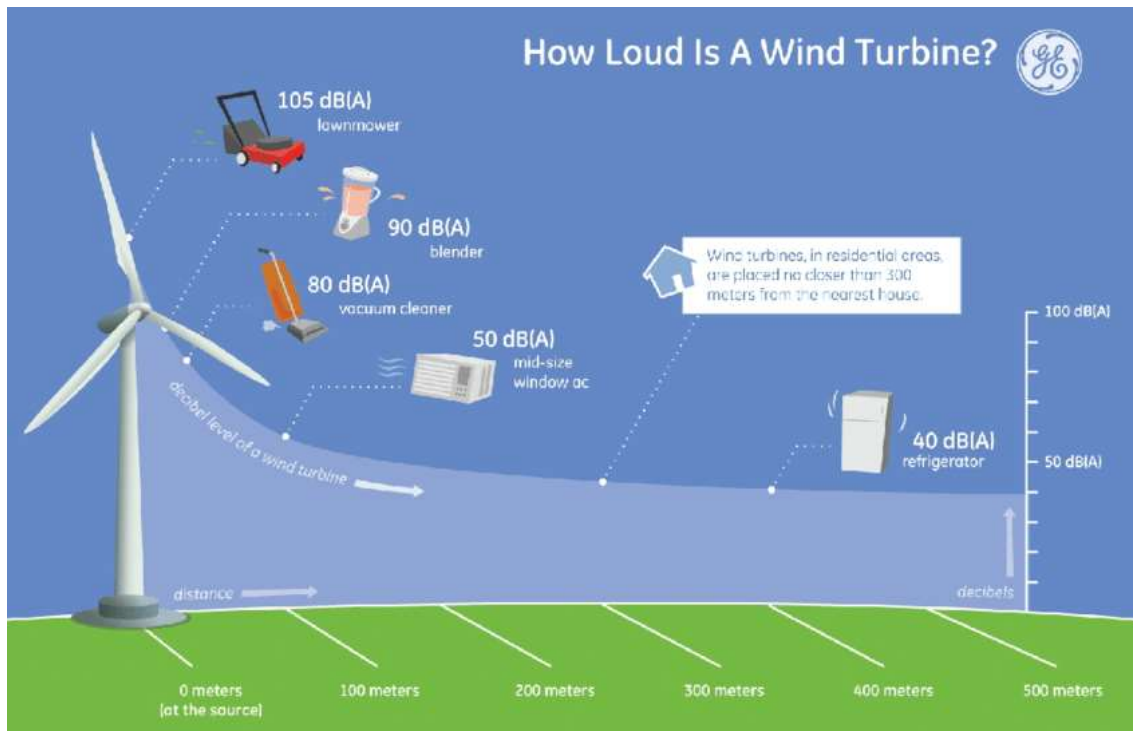
The immission sound pressure levels at 25m and 60m slant distance were calculated in accordance to BWEA Small Wind Turbine Performance and Safety Standard (Ref 1). The results are shown in Table 8.

Immission Sound Pressure Level at 60m $L_{p, 60m}$	44.8 dB(A)
Immission Sound Pressure Level at 25m $L_{p, 25m}$	52.4 dB(A)
Slant Distance Required for 45dB(A)	58.5 m
Slant Distance Required for 40dB(A)	104 m

A noise label was determined according to BWEA Small Wind Turbine Performance and Safety Standard (Ref 1) and is shown in Appendix H.

**9 CONCLUSIONS**

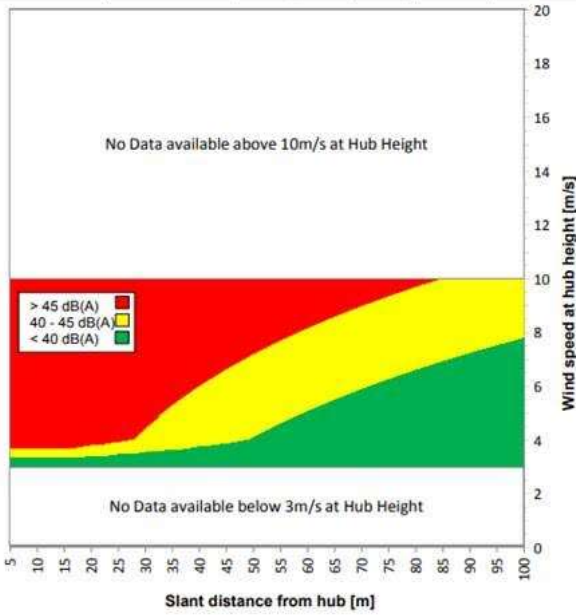
- 9.1 A wind turbine noise performance test was performed according to BWEA Small Wind Turbine Performance and Safety Standard (Ref 1) on a Kingspan KW6 WTG installed at Prince Bank Barn in Lumb on 16 June 2011.
- 9.2 The WTG has been calculated to have an apparent sound power level of 85.2 dB(A) ±1.87 dB(A) at 8 m/s hub height wind speed.
- 9.3 The declared apparent sound power level was calculated to be 88.3 dB(A) at 8 m/s hub height wind speed.
- 9.4 Tonality of the Kingspan KW6 has been assessed according to the BWEA Small Wind Turbine Performance and Safety Standard (Ref 1). The WTG was found not to be tonal.



Above image puts it into context if we read the noise label of the 6kw machine below which is much quieter than the one in this image

**APPENDIX H: NOISE LABEL**

Acoustic Noise Levels				
Turbine Make:	Kingspan Renewables Ltd	Model:	KW6	
Noise Emission Level			Noise Penalty	
Sound Power $L_{Wd, 8m/s}$	88.3 dB(A)	Noise Slope $S_{dB}$ [dB/ms <sup>1</sup> ]	1.62	NO



The full report that was attached yesterday, you may get away with just submitting that report and use the guidance that as there are no objectionable receptors within any audible distar the proposed property.

Hope this helps, if they want specific site modelling report that would be to the likes of Browns or Neo Environmental consultants.

Regards

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