



ENS Acoustics
consulting

ACOUSTIC CONSULTING

Environmental Noise Solutions (ENS) is an independent acoustic consultancy specialising in noise in the built environment.

We undertake projects that encompass small, local development projects and new school developments through to major developments including large residential developments and hotels.

Our consultants all have a broad range of experience, both in the public and private sector, and who all work to our high standards of delivering the best possible service to our clients in a proactive and responsive manner required by the modern, commercial environment we all work in.



ENS Acoustics
consulting

DBIC
Ten Pound Walk
Doncaster
DN4 5HX

T: 00 44 (0)1302 644 001
F: 00 44 (0)1302 644 002
W: www.environmental-noise-solutions.co.uk



Wind Turbines and Planning

DELIVERING THE SOLUTIONS YOU NEED

For the smaller and in many cases, single wind turbine developments it is not always necessary to show that noise from the single wind turbine will lead to any loss of noise amenity as such turbines can be in very rural locations. Given the current popularity of microgeneration projects involving wind turbines many of these developments are being pushed to more populous areas and as such the impacts of noise do need to be considered as part of the planning process.

flexible solutions for turbine developments

Noise and the LPA

For most, if not all, local planning authorities (LPA), a wind turbine development is very likely to be a unique development from a noise perspective and many environmental health officers can be unsure on what the most appropriate assessment criteria is to use with regards to noise and its potential variation with wind speeds.

When commissioned to assess the noise impact of a wind turbine ENS take a very proactive approach to propose a suitable means of assessing wind turbine noise. The recommended standard is ETSU-R-97 *The Assessment and Rating of Noise from Wind Farms*. However, as the name suggests, this is very much focussed on wind farms rather than the small, less than 1MW, microgeneration single wind turbine development.

In many cases, the need to survey noise levels and wind speeds over (sometimes) protracted periods can be negated by a simple desk top assessment of the proposed site location and the sound power data of the selected wind turbine at various wind speeds. In most cases this low cost assessment can prove invaluable with regards to addressing LPA concerns over noise.



THE 330KW 50M HUB HEIGHT WIND TURBINE

This development was proposed in semi-rural Lincolnshire near the market town of Grantham. The planning application had been withdrawn for a number of reasons one of which was noise. The applicant decided to resubmit and sought our advice one week before the planning committee meeting at which the resubmission was to be considered.

Having considered the available noise data for the proposed wind turbine and the locations of the nearest noise sensitive receptors it was determined to combine and assessment against the ETSU-R-97 '35dB(A), L90, 10-minute' rule in combination with a number of actual background noise measurements. Using this straightforward and cost effective assessment criteria we were able to show that this 'ETSU rule' was satisfied at all wind speeds but also the actual site specific background noise levels were not significantly impacted.

This straightforward approach and cost effective assessment was subsequently analyzed by the local authority environmental team and the application for the wind turbine was approved at the next planning committee meeting. This work was completed in seven days.

For further details about how ENS Acoustics can help you with any noise related planning issues associated with wind turbines or renewable energy sources please contact our environmental acoustics team.

Rohan Kalra
Renewable Energy Acoustic Consultant
Environmental Acoustics Team

Tel. 01302 644001
FAX. 01302 644002
Email energy@environmental-noise-solutions.co.uk