

CASE STUDY – PRE-PLANNING NOISE ASSESSMENT



BACKGROUND NOISE ASSESSMENT

Green Cat Renewables was contracted by the developer of an East Ayrshire wind turbine project to carry out a background noise assessment according to the principals of the ETSU-R-97 to establish noise related planning constraints for the project, should it be consented.



NOISE MEASUREMENT

A Class 1 sound level meter housed in an environmental case was used to carry out an unattended measurement of background LA90,10min data for a period of two weeks. A met mast measured 10 minute wind speed, rainfall and direction onsite concurrent with the noise measurement.



From this, a relationship between background noise levels and wind speed could be established for the property, allowing noise constraints to be developed.

NOISE CONSTRAINTS DEVELOPMENT

The turbine noise levels were then modelled using the ISO 9613:2 method at each wind speed of interest, which demonstrated that the project would comfortably meet the derived noise limits.

This process allowed East Ayrshire Environmental Health to approve the project for noise and to be able to develop noise constraints should the project be consented.

