

Onshore wind turbine noise guidance

Dear Editor

Mounting evidence that the current means of controlling wind turbine noise, known as ETSU-R-97, is failing to protect public health and well-being, points to the need to replace ETSU-R-97 with BS4142. This would afford wind turbine neighbours the same degree of protection from noise, as neighbours of a majority of other industrial and commercial noise sources.

In 2022, DBEIS (the then UK Government Department for Business, Energy & Industrial Strategy) commissioned consultants WSP to assess whether the ETSU-R-97 noise guidance from 1996, and its associated 2013 Good Practice Guide, are fit-for-purpose. WSP's subsequent report recommended that the guidance would benefit from further review and updating, with roughly half of the consulted stakeholders of the view that it requires a substantial revision.

The INWG conducted a detailed analysis of the 400-page WSP report and prepared a covering report of their analysis, **'INWG Analysis of WSP report'** which was submitted, 17th April 2023, to DESNZ (Department of Energy Security and Net Zero) with the recommendation to replace ETSU-R-97 with BS4142.

Following WSP's subsequent two-part article in the Acoustics Bulletin (Autumn 2023 editions), summarising their report, the INWG submitted their own Briefing Paper, **'Onshore wind turbine noise guidance'** to DESNZ which summarised the WSP report analysis, commented on the WSP Acoustic Bulletin articles, and updated the argument for the adoption of BS4142.

The criticisms of the ETSU-R-97 guidance identified in the WSP report, especially from the stakeholder survey, suggests faults with the fundamental methodology underlying ETSU-R-97. These critical stakeholder responses go to the heart of ETSU-R-97 and its underlying assessment methodology centred on derived noise limit curves. The INWG believes that these are faults that cannot be fixed by more revisions or studies and call for the replacement of ETSU with BS4142.

The INWG tested BS4142 with wind turbine noise data and recommended that ETSU-R-97 be replaced with the BS4142 noise assessment standard during 2015, see INWG AM **work package 5**. Additionally, the paper presented at the 2015 INCE conference at Glasgow **'Cotton Farm Wind Farm – Long term community noise monitoring'** by Stigwood, Large & Stigwood, (available at www.masenv.co.uk) provides a powerful argument for adopting BS4142.

BS4142 has since been updated during 2019 and the INWG report **'INWG Analysis of WSP report'** and Briefing Paper **'Onshore wind turbine noise guidance'** include a detailed argument for the use of BS4142 with comparisons of BS4142:2014+A1:2019 versus ETSU-R-97. Government MID guidance issued by the Environment Agency during March 2023 further strengthens the argument for the use of BS4142. See Acoustics Bulletin Nov / Dec 2024 page 63.

The INWG believes there is no technical reason why BS4142 should not be used. Its use would protect the health and wellbeing of local populations bringing onshore wind in line with similar noise polluting industries in rural areas.

You can access the referenced INWG documents at www.inwg.org.uk
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