

Letter to ClimateXChange on the report Health Effects of Wind Turbine:

I refer to Salford University's *Health Effects of Wind Turbines*, the conclusions of which I largely agree with. However, I feel I must respond to Appendix III which specifically remarks on my article a year ago in the Acoustics Bulletin.

First of all the authors have misunderstood my concern regarding ETSU-R-97. It is not that it is complicated as they suggest in paragraph 2 but that it does not fulfil the requirements of an environmental assessment in that it does not describe the impact of noise on people. The process of using ETSU-R-97 is therefore not transparent. It is already a balance between the impact of and need for the development – as ETSU-R-97 itself clearly states in paragraph 1 of the Executive Summary. Accordingly, whilst it may produce the “right answer” for some applications it clearly does not for others. How can it possibly be right in applying the planning balance to permit the same noise levels from a single 15kW turbine as those from a 100MW wind farm – which is what is happening all over Scotland right now. My method is no simpler and no more complex than ETSU-R-97.

At the top of page 52 of the paper it suggests that it would be difficult to monitor noise levels if my methodology were accepted. If we are to take the view that we are not going to properly protect peoples amenity because “it is very difficult to monitor” then we might as well not have a planning system. There are ways round this.

As regards the four bullet points describing “drawbacks” on page 52 I respond to the four in sequence:

- It says there is no scientific basis for my proposals. At least it has some basis – the likelihood of complaints in BS4142. ETSU-R-97 (pp62 and 63) on the other hand sets a day time lower limit up to 40dB on the basis that *There is no evidence for or against the assertion that wind farm noise with no audible tones is acceptable up to and including LA90,10min levels of 40dB(A) even when background noise levels are 30dB or less.* There is no scientific basis to this at all.
- Yes, the problem of establishing background noise is the same as using ETSU-R-97, so this is not a drawback in comparison with ETSU-R-97.
- This bullet point ends with a criticism that I take no account of “established thresholds of acceptability”. I refer you to my answer to bullet point 1. The ETSU-R-97 lower limits are only established thresholds because they have been used for 17 years – they are not based on any scientific evidence.
- The last four lines are a very broad statement without any scientific justification as far as I am aware.

I would ask why, if the authors consider that fixed lower limits better describe impact on people, all other renewable energy projects – hydro or biomass for example – as well as nearly all industrial projects do not have such lower limits but rely on margin above background. If fixed lower limits were to describe impact of turbine noise better that would suggest turbine noise was less annoying than other noise – whilst all the evidence suggests that the reverse is true.

They have not answered my concern that using ETSU-R-97 is not transparent and therefore not in accordance with the principle of environmental assessment.

And finally, they have not justified my point that night time noise levels can be permitted to be up to 8dB higher than day time levels while our colleagues all over the rest of the world bemoan the fact that they have to reduce turbine noise levels at night.

I have copied this to Sabine as lead author. More debate on the subject welcome!

Kind regards,
Dick

Dick Bowdler
www.dickbowdler.co.uk