

Government statement regarding the findings of the Salford University report into Aerodynamic Modulation of Wind Turbine Noise

In 2006 DTI published a study by Hayes McKenzie¹ which investigated claims that infrasound or low frequency noise emitted by wind turbine generators was causing health effects. The report concluded that there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines. The report went on to note that a phenomenon known as Aerodynamic Modulation (AM) was in some isolated circumstances occurring in ways not anticipated by ETSU-R-97².

Having taken the view that more work was required to determine whether or not AM is an issue which may require attention in the context of the assessment and rating advice in ETSU, the Government commissioned Salford University to conduct a further work.

The objectives of this study were to:

- To establish the levels and nature of the reported noise complaints received across the UK relating to noise issues from wind farms, both historic and current, and determine whether AM is a significant effect;
- To review and understand the level of knowledge/understanding that exists throughout the world on AM, and whether AM can be predicted;

The Salford University study has now been published³. The study concluded that although AM cannot be fully predicted, the incidence of AM resulting from wind farms in the UK is low. Out of the 133 wind farms in operation at the time of the study, there were four cases where AM appeared to be a factor. Complaints have subsided for three out of these four sites, in one case as a result of remedial treatment in the form of a wind turbine control system. In the remaining case, which is a recent installation, investigations are ongoing.

Based on these findings, Government does not consider there to be a compelling case for further work into AM and will not carry out any further research at this time; however it will continue to keep the issue under review.

Government continues to support the approach set out in Planning Policy Statement (PPS) 22 – Renewable Energy. This approach is for local planning authorities to “ensure that renewable energy developments have been located and designed in such a way to minimise increases in ambient noise levels”, through the use of the 1997 report by ETSU to assess and rate noise from wind energy developments.

1. www.dti.gov.uk/energy/sources/renewables/publications/page31267.html
2. The method of assessing the impact of the wind farm locally is described in '[The assessment and rating of noise from wind farms](#)', ETSU-R-97, by the Working Group on Noise from Wind Turbines (Final Report, September 1996). Since its publication, this report has been used to evaluate the noise from wind farms in the UK.
3. www.berr.gov.uk/files/file40570.pdf