

Notes of Meeting

Noise Working Group (NWG)

DTI, 1 Victoria Street
2 August 2006

Present: Alan Smith (DTI)
Jonathan Perks (FES)
Mark Dorrington (FES)
Helen Matthews (DEFRA)
Richard Perkins (DEFRA)
Andy McKenzie (Hayes McKenzie Partnership Ltd)
Bob Davies (RD Associates)
Dick Bowdler (New Acoustics)
Geoff Leventhall (Consultant)
Marcus Trinick (Bond Pearce)
Mark Jiggins (Hoare Lea Acoustics)
Andrew Bullmore (Hoare Lea Acoustics)
Mike Anderson (RES)

Apologies: Alan Purdue (Castle Morpeth LA)
Bernard Berry (Consultant)
David Spode (Shrewsbury LA)
Huw Thomas (Anglesey LA)
Jeremy Bass (RES)
John Warren (nPower)
Malcolm Hayes (Hayes McKenzie Partnership Ltd)
Mark Legerton (nPower)
Mike Raw (Scottish Borders LA)
Philip King (RES)

Introduction by Chair

Alan Smith welcomed those present. Alan briefed the Noise Working Group (NWG) on the background for calling the meeting and highlighted DTI's objectives for the NWG which is to provide clear expert advice and guidance on the issue surrounding Amplitude Modulation of Aerodynamic Noise (AM) raised in the Hayes McKenzie report on Low Frequency Noise (The Measurement of Low Frequency Noise at Three UK Wind Farms, W/45/00656/00/00, URN No. 06/1412). The role of the NWG is not to review ETSU-R-97.

Comment [A1]: insert web link to the report here

Terms of Reference

The NWG will address issues specifically relating to the Hayes McKenzie report:

- Consider and agree, if thought appropriate, the main conclusions of the report
- Consider the report's findings relating to AM

- If appropriate, provide a means to assess and apply a correction where AM is predicted to be a clearly audible feature
- Make clear recommendations, which will assist planning authorities. These recommendations will provide clarity and minimise any confusion when assessing applications

It is intended to complete this review and publish its recommendations in Autumn 2006.

Review of the Hayes McKenzie Report

In line with the 'Terms of Reference' the main conclusions of the report were discussed. The report concluded that significant levels of AM were not found, however, the presence of AM during night hours could result in levels which are audible leading to potential problems. Therefore it was agreed that a greater understanding of the effects and causes relating to AM were required to ensure that this phenomenon can be managed, if a problem exists, in a clear and impartial manner and that mitigation solutions can be developed.

It was agreed that the NWG should commission a study to gather empirical data from existing sites to better understand the source and extent of the AM issues. This should be undertaken as soon as possible, but it was recognised that funding had to be secured. The study would incorporate the following tasks:

1a	Literature study to review the current knowledge of AM
1b	Identify up to 10 potential sites which could be used to carry out objective noise measurements (including 5 where there had been complaints). This would include: <ul style="list-style-type: none"> • Asking LPAs for information on which sites they had received complaints concerning noise • Identifying control sites (where there had been no complaints) • Assess the potential for developing a methodology for carrying out noise measurements
1c	Contact <ul style="list-style-type: none"> • turbine manufacturers to find out what their understanding of AM is and what work they are doing to address this issue • windfarm developers to see whether they have any historical data which would help determine the circumstance when AM occurs Report findings back to DTI / DEFRA / NWG – 1 month after start of study.

Comment [A2]: To be agreed by NWG

If the NWG agreed having reviewed the empirical data that further work is required the following should be carried out:

2	Carry out objective noise tests as defined in 1b It was agreed that it would be sufficient to perform these measurements
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	outside of buildings; this would considerably reduce the difficulties of obtaining permissions and access
3	Analyse results This will include the quantification of AM as well as the frequency and length of time AM is found to occur at each site
4	Make recommendations if required Report findings back to DTI / DEFRA / NWG by xxxx

Comment [A3]: To be agreed by the NWG

A very rough estimation was that the second stage of the report would take up to 12 months to complete - mainly due to weather conditions. DTI and DEFRA agreed to investigate how this study could be supported and report back at the next meeting. In the meantime FES to investigate potential costs.

Recommendations / Review of Actions

It was agreed that there is currently insufficient evidence on AM available to recommend any change to ETSU-R-97. The work recommended above will provide a foundation for clearly identifying and understanding the extent of any AM noise issue, particularly during night hours. Once the research had been carried out any amendment to ETSU-R-97 would be considered.

In the meantime it was agreed that the following advice should be given to all stakeholders involved in windfarm development including LPAs regarding future developments:

- In a few isolated cases, and on relatively few occasions low levels of noise arising from AM have been the source of complaints. However, the cause (which may be a result of one or more site specific features) is currently not understood and therefore when and where it occurs cannot be predicted
- For future windfarm developments, developers may wish to allow some margin to allow for noise created during night time periods, or consider measures to mitigate such a noise should it be found to occur. The recommended limit (stated in ETSU-R-97) for night-time is 43dB(A).
- Research will be commissioned to understand the issues surrounding AM which should report by Autumn 2007.
- Existing developments (which have or are seeking consent) must be unaffected by this advice.

Comment [A4]: To be agreed by the NWG

DTI will prepare a statement, based on the recommendations described above, to send to appropriate organisations and individuals following consultation with DCLG.

Any Other Business

There was no other business.

Date of Next Meeting

To be agreed.

Future Energy Solutions
3 August 2006