

Rt Hon Ed Davey MP  
Secretary of State  
Department for Energy and Climate Change  
3 Whitehall Place  
London  
SW1A 2AW

7 August 2014

Dear Sir,

RE: Institute of Acoustics Good Practice Guide to the Application of ETSU-R-97 for  
'The Assessment and Rating of Noise from Wind Farms'

In 2011, the Department of Energy and Climate Change invited the Institute of Acoustics (IOA) to set up a working group to take forward the relevant recommendations of the Hayes McKenzie report 'Analysis of How Noise Impacts are considered in the Determination of Wind Farm Planning Applications' Ref HM: 2293/R1 dated 6th April 2011. The aim of the group was to review the available evidence and to produce good practice guidance on wind turbine noise assessment. A 'Terms of Reference' for the work was agreed with representatives of various Government departments and the Devolved Authorities who, as an 'Oversight Group', met regularly with the working group Chairman to discuss progress.

The Good Practice Guidance was published in May 2013 and endorsed by your department shortly after. However, this is not the end of the story and I would bring to your attention two matters for which the IOA requests your further consideration.

*Supplementary Guidance Notes to the Good Practice Guide*

The first matter we would like you to consider is a set of six Supplementary Guidance Notes which will be published by 15<sup>th</sup> September 2014 (four are already published). These notes have been produced to supplement the Good Practice Guide. They are also intended to form part of current good practice guidance as noted in the 'National Policy Statement for Renewable Energy Infrastructure - EN3':

*"2.7.56 The applicant's assessment of noise from the operation of the wind turbines should use ETSU-R-97, taking account of the latest industry good practice. This should include any guidance on best practice that the Government may from time to time publish."*

On behalf of the IOA, I therefore invite you to accept and confirm our Supplementary Guidance Notes which sit alongside the Good Practice Guide as representing the latest industry good practice.

New IOA Working Group to consider Amplitude Modulation

The other matter that the IOA would like to draw to your attention is the subject of Amplitude Modulation (AM). The 2011 Hayes McKenzie report highlighted that current assessment methods do not consider the AM in turbine noise, and recommended that the Good Practice Guidance clarifies the position. The IOA working group did consider AM as part of their deliberations, but concluded that there was insufficient evidence to make any statements at that time.

Since then, a number of papers have been published reporting the results of research undertaken in the UK and abroad, and the understanding of the causal mechanisms of AM has significantly advanced. The IOA has now formed a working group whose remit is to review the latest research and progress a preferred metric and methodology to quantify and assess AM where it is found.

Whilst this exercise will deliver a single metric and methodology, there is still the matter of how to set the penalty scheme, and at what level of AM it should be applied. Reactions to noise vary from person to person, and the same applies when the noise has a degree of AM in it. There are no definitive thresholds that are universally accepted to define the level of acceptability for AM and no amount of research will likely arrive at that point either. It is common practice with the setting of noise limits in other areas to look at dose-response relationships, and the setting of the 'threshold' becomes a political decision which accords with current Government Policy based on the number of people affected. A similar approach was taken recently by your department in setting the noise limit for micro-generation technologies, and the same approach was used in the setting of wind farm noise limits in ETSU-R-97 itself.

The IOA would therefore strongly urge DECC to consider the matter of the penalty scheme and an acceptable level of AM to work alongside the IOA's efforts to define the metric and methodology. This might be achieved through an independent research project looking at all the available evidence, and putting the issue of AM into a policy context to enable a decision to be made.

The incidence of AM is reported to be increasing the number of complaints from on-shore wind farms, and a number of nuisance cases are understood to be currently being progressed through the courts. Without a Government steer on the matter of AM, it is likely that Judges may accept a lower threshold of acceptance than current Government support for on-shore may suggest, which could restrict the roll-out of on-shore wind in the UK.

The IOA would be happy to work closely with your Department and any appointed researchers to enable a joined up approach to this task.

Yours sincerely,



William Egan  
President, Institute of Acoustics