

Department of the Senate  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

8<sup>th</sup> February 2011

Dear Community Affairs References Committee,

**Ref: The Social and Economic Impact of Rural Wind Farms.**

Our self-built, low impact home of 36 years lies a little over 1km downwind of the proposed Den Brook industrial wind turbine development. Renewable Energy Systems (RES, Sir Robert McAlpine Ltd.) plans to construct 9 wind turbines, each 120m high, on this rural, sequestered site.

RES initially claimed the wind farm would not create a noise nuisance, a claim it later moderated to creating no '*statutory*' noise nuisance. The insertion of this single word, '*statutory*', not only provides the developer with a defence of 'best practicable means', but also provides RES a loophole, which will leave neighbours with little possibility for any abatement in event of the likely acoustic intrusion from health-threatening noise pollution.

In January 2006, the local Planning Authority refused permission to build the wind turbines on grounds that omitted any reference to noise impacts other than a misconceived submission claiming the developer's proposed levels of predicted noise immissions permitted more noise at night than during day times. The Council's observation, albeit commonsense, was subsequently dismissed as a rather alarming misunderstanding of government recommended NIA guidelines. ETSU-R-97, the document relied upon by the Planning Inspectorate, was uniquely devised specifically to allow wind farm development [more noise] much closer to human habitation than any conventional industrial noise impact assessment procedure could permit.

As neighbours of the proposed site, our concerns also focused on an acoustic phenomenon known as amplitude modulation [AM], a wind turbine noise that RES (Sir Robert McAlpine Ltd) and, indeed, the wind industry in general, either deny as a possibility or minimise its impact on residents living near operating wind farms that emit AM. Consequently, the occurrence of AM continues to lack empirical field research, despite ever increasing reports testifying to and demonstrating its occurrence and its adverse impact on people's well-being.

Thus, the addition of the word '*statutory*' by RES created more alarm. Wind turbine heights

now far exceed those described in ETSU-R-97 (published in 1997), approaching and even exceeding 125m high. Thus, the rotation and breadth of the blades reach further into the varying characteristics of atmospheric layering not considered in 1997, though the wind turbine height and extent of the blade sweep are now widely thought to be a defining factor leading to the impact of AM noise.

Amplitude Modulation of the aerodynamic noise from wind turbines (AM) is similarly repetitive but marginally out of step with human heart rhythms; a deeply irritating low frequency noise is radiated, often compared to the dripping tap torture techniques sometimes utilised by wartime interrogators. These taller industrial wind turbines create AM that fails to attenuate in the same way as the limited spectrum of wind turbine noise considered within the ETSU-R-97 guidelines. AM can therefore affect much larger ground areas surrounding wind farms than the government and wind industry currently acknowledge.

Independent acoustic experts, such as MAS Environmental <http://www.masenv.co.uk/noise> have placed reports on the public record that detail alarming measured levels of AM more than 1km from numerous modern wind turbine arrays. And yet, separation distances of less than 500 meters between the nearest wind turbine to a family home continue to be proposed by wind turbine developers, and, perhaps more worryingly, appear acceptable to decision makers. As more wind turbines are constructed near people's homes, the AM phenomenon is increasingly devastating many people's lives, with numerous reports of disruption from around the world; distressingly, many families are forced to vacate their homes in order to recover their well-being and their dignity, even though they may endure serious financial sacrifices.

For my part, I have spearheaded a lengthy campaign with the Den Brook Judicial Review Group (DBJRG) aimed at addressing the AM problem through challenging shortfalls within the developer's NIA, and errors within unlawful decisions by those seemingly struggling with the confusion and misunderstandings created by the difficult complexities and technical nature of the problem.

In line with the views of Rt. Hon. Judge Mitting ( *Hulme v Secretary of State*, CO/2449/2007 S.7; <http://www.richardbuxton.co.uk/v3.0/node/350> ), my efforts have encountered, amongst others, unwarranted withholding of vital evidence by the wind farm developer. RES (Sir Robert McAlpine Ltd), refused for more than two years to provide the data for independent analysis of the raw noise and wind speed data collected by them at my property. At huge personal expense, and with donations from the many concerned families both local and throughout the UK, we have fought through two Public Inquiries, where noise was examined for only half an hour at the first and then four days during the latter; and two High Court Judicial Reviews, followed by two corresponding appeals through the Court of Appeal.

Our search for the basic protection of our dignity and for my family being able to sleep at night rolls on. DBJRG needed to raise in the region of £60,000 from private donations, and my own personal loss in income must now be well in excess of £70,000. These figures, although huge amounts for individuals and community groups, represent not only the will of a community to protect itself from inappropriate industrial development, it is also a mere pittance compared to the 'Goliath' resources expended by wind farm developers in pursuit of planning approval; the irony being that costs to the developers are subsequently paid by us through the unspecified subsidies imposed on all our electricity bills.

We have been compelled to re-mortgage our home which was to have been relied upon for our pension. Moreover, my time devoted to income generating business activities has been severely curtailed. The all consuming hard work and research are essential requirements for seeking justice, which appears ever more elusive.

Vested interests thwart our efforts every step of the way. An unprecedented but, alas, imprecisely worded Excess Amplitude Modulation (EAM) noise condition won from the last Public Inquiry was described by the developer's advocate as likely to devastate the UK's wind farm industry. RES (Sir Robert McAlpine Ltd) is currently engaged in attempts to scale back the parameters set out for EAM within the imposed noise condition. RES is thus trying to gain consent for inflicting greater noise impacts on neighbouring families than was clearly intended by the Inspector.

As the Planning Inspector for the Den Brook case concluded, although AM is somewhat unpredictable, it is a distinct possibility. Even if that is not entirely the case, the current acoustical methodology for assessing and predicting wind turbine noise that may damage one's health remains, at best, overly generalized and inaccurate; at worst, it is deeply flawed. In this context, DBJRG seeks only that the 'Precautionary Principle' be properly invoked and applied, so that ordinary families are duly protected when onshore wind turbine developments are promoted by an industry well-versed in the art of smoke and mirrors.

Please ensure the committee have sight of this submission and acknowledge receipt of the same. Please also send a copy of the Committee's findings – thank you.

Yours sincerely,

Basia and Mike Hulme