

Letter from Vestas: Low-frequency noise and wind turbines

December 16, 2011 by Engel, Ditlev

Summary:

This important letter written by the CEO of Vestas Wind complains that proposed regulations in Denmark to address low-frequency noise will force larger setback distances. In his letter he admits: "Why it is that Vestas does not just make changes to the wind turbines so that they produce less noise? The simple answer is that at the moment it is not technically possible to do so ..."

Dear Karen Ellemann,*

Following previous correspondence, I am writing this letter to express my concern regarding the limits for low frequency noise from wind turbines now being proposed.

Back in January 2011 we applauded your announcement of the new regulations regarding low frequency noise and the fact that you also then emphasised that those regulations would not be tightened and that it was a question of improving the security in connection with the installation of wind turbines. Accordingly, the reaction from the industry branch back in January 2011 was positive, although as an industry we were uneasy about having heavier demands imposed on us than other industries.

When the new regulations were then published on 26.05.2011, we were of course convinced of your initial point of view. As a result, we were extremely surprised to find that the proposed new regulations do in fact include a significant and severe tightening of the previous noise regulations.

In fact, according to our analyses, the most economical turbines, the 3 MW category, are the ones that will be strongly affected by the new rules. This applies to open terrain in particular, where in future low frequency noise will dictate and increase the distance requirements to neighbours for close to half of the projects that we are already aware of over the next 2 to 3 years.

In a small country such as Denmark this means that a significant number of projects will not be viable as the increased distance requirements cannot be met whilst maintaining a satisfactory business outcome for the investor.

The Danish market for wind turbines is of minor importance for Vestas in terms of sales, typically less than 1% of our sales per year. However, the Danish market provides a number of other functions for Vestas which are of considerable value from a business point of view. By means of its high wind penetration, 24% in 2010 - still a world record - Denmark has a role as a forerunner country and a full scale laboratory for conversion to renewable energy.

This means that other countries often look to Denmark when adjusting their legislation regarding wind energy. We are therefore concerned - justifiably so as history shows - that the proposed Danish regulations for low frequency noise from wind turbines will spread to a large number of other markets with much higher commercial impact for Vestas and consequently for employment in the business.

The Danish wind turbine industry employs approx. 25,000 people in Denmark and boasts an export which is about 8.5% of total Danish exports. Such "over-proportional" presence has become possible because Denmark has been able to create the conditions for good correlation between demonstration, education and industry research and development. In reality we fear that the demonstration element will suffer irreparable damage as a result of the new regulations regarding low frequency noise. When

combined with the imminent danger that important markets will copy the new Danish regulations, I consider the new regulations to be extremely damaging to the prospects of further popularisation of land-based wind energy.

At this point you may have asked yourself why it is that Vestas does not just make changes to the wind turbines so that they produce less noise? The simple answer is that at the moment it is not technically possible to do so, and it requires time and resources because presently we are at the forefront of what is technically possible for our large wind turbines, and they are the most efficient of all.

In the light of this it seems strange that the wind turbine industry is being discriminated against compared to other industries. All other industries are subject to differential noise requirements regarding low frequency noise for night and day (20, respectively 25 dB), whereas the wind turbine industry are subject to requirements of 20 dB 24 hours a day.

The proposed low frequency limit values may hinder the development of onshore wind in Denmark, including meeting our commitments in relation to the EEC. Ultimately, we consider there is a danger that the regulations will be copied by other countries and accordingly this will provide an obstacle to the popularisation of wind energy at a global level. Both issues will damage Vestas as a business, including affecting Danish activities.

Yours sincerely,
Vestas Wind Systems A/S
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A copy of this letter was sent to Lykke Friis, Minister for Climate and Energy

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Translated from Danish by Bente H. Sorensen, Translationz.com.au