

REF

RENEWABLE ENERGY FOUNDATION

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10 June 2013

Dear Mr Urquhart:

Thank you for your letter of the 30th of May.

The following text in response has been published on the REF website alongside your letter:

1. On the 26th of April 2013 the Renewable Energy Foundation wrote to the Scottish Government to request details of the evidence relied upon as the basis for Parliamentary Answers to questions about the performance of wind farms submitted to the Cabinet Secretary for Enterprise (19.04.13, S4W-13869).
2. The Foundation has received a reply from the Scottish Government dated 30th of May 2013.
3. The points made in the Scottish Government's response may be summarised as follows:
 - a. The technology of wind turbines installed before 2002 was "immature". Since these are the only turbines whose performance at age 10 or greater can be observed, the Scottish Government's view is that it is not appropriate to draw conclusions about the performance of current turbines from the actual performance of an older, immature generation of machines.
 - b. The performance of wind turbines as measured by their load factor is affected by the availability of wind in any month or year. The Scottish Government's view is that allowing for this is difficult and thus the results reported in Professor Hughes's study published by the Foundation – referred to as the REF study – cannot be relied upon. Instead, they prefer to rely upon unnormalised load factors which do not, they claim, support the results reported in the REF study.
4. It is striking that at no point in the Parliamentary Answers and their response to the Foundation's inquiry do the Scottish Government refer to the full evidence reported in the REF study. Among other matters this includes a demonstration that onshore wind farms in Denmark have performed much better as they age than equivalent turbines in the UK, when performance is assessed using identical methods. If turbines installed between 1995 and

2000 in the UK were an “immature” technology, why have the same turbines installed in Denmark done so much better as they have aged?

5. Similarly, the Scottish Government’s response fails to acknowledge that the REF study considered and reports a variety of different ways of normalising for differences in wind availability. The results show a consistent pattern of declining performance with age across alternative methods of normalisation. To claim that it is appropriate to discount differences in wind availability in assessing performance is on a par with claiming that it is reasonable to ignore the influence of age when assessing the incidence of heart disease.
6. In fact, as explained fully in the REF study, the method used to normalise for wind availability relies upon an approach that is widely used in statistical studies that have played an important role in the formulation of policy. For example, it is no more complicated than studies of the impact of smoking, alcohol use, etc on health, studies which the Scottish Government relies upon when formulating its policies.
7. The fundamental question that is raised by the correspondence is whether the Scottish Government is committed to the development of policies that rely upon the best evidence available or whether it is more interested in creating policy-based evidence.
8. The Renewable Energy Foundation has consistently argued that the work carried out by Professor Hughes raises important issues about whether the UK’s current policies to promote wind power are efficient and appropriate. The discrepancy between the performance of similar onshore turbines in Denmark and the UK is particularly worrying because it suggests that operators in the UK may have an incentive to pursue short term returns at the expense of longer term performance. This is reinforced by evidence suggesting that newer wind farms are less well located and operated than older ones.
9. The Foundation’s position is that Professor Hughes’ study establishes an a priori case that there is an issue of concern about the performance of wind farms as they age. When the results up to now have been patently unsatisfactory, it is unconvincing for the Scottish Government to argue, in effect, that everything is going to be different in future.
10. Rather than dismiss the study on grounds that do not stand up to serious examination, the Foundation believes that the Scottish Government should provide support for additional independent research into the performance and economics of wind farms in Scotland.
11. Professor Hughes has expressed his willingness to discuss the methodology and results of his work in both private and public meetings. I am sure that he would be happy to extend that offer to the Scottish Government. The Renewable Energy Foundation would be happy to facilitate such a meeting.

Yours sincerely,



John Constable
Director