

Submission
No 21

INQUIRY INTO RURAL WIND FARMS

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Submission to the Rural Wind Farm Inquiry

I wish to respond to Terms of Reference 2, 3, and 6. I can provide supporting evidence to validate the claims made in this submission.

Term of Reference 2: Locating wind farms to optimize wind resource use and minimize residential and environmental impacts.

The NSW State Government has now approved four wind farms in the Upper Lachlan Shire and wind farm representatives are preparing applications for more in this area of the State. All these approvals were given without any apparent reference to the Upper Lachlan Council's DA for wind farms, which states, among other controls, that no turbine should be nearer than 2 kms from any unassociated residence.

There is hard scientific evidence that wind turbines create disturbance to nearby unassociated residents. G P van den Berg (Journal of Sound and Vibration, 277, 4-5, 955-970, 2004) found that residents up to 1900 metres from turbines were disturbed at night by a 'thumping', impulsive sound, and that this noise is underestimated when measurement data are used assuming a wind profile valid in daytime.

This and other similar scientific data validates a personal study I made of the effects on residents near the South Gippsland 'Toora' wind farm site. Residents actually vacated their house because they could not live with these sounds, and a nearby dairy farmer had to medicate his 9 year old son to enable him to sleep. Even the Victorian Government's Ministerially selected Panel formed to advise on the Bald Hills wind farm application reported from a night time visit to the Toora wind farm "*surprise at the noise emissions observed at Toora. It could understand that nearby residents would be annoyed*" The panel was 1.5 kms distant from the wind farm, and there was "*considerable topographical intervention*" between them and the turbines.

Recommendation: Require turbines to be at least 2 kms from an unassociated residence.

Term of Reference 3: The impact of rural wind farms on property values

While it would seem self evident that someone in the market for a rural property would not choose to live next to forty storey noisy wind turbines which cause shadow flicker for much of the day, the wind turbine industry and even the Victorian Government claim that it is a myth that wind farms reduce property values (Wind Energy. Myths and Facts. Sustainability Victoria, May 2007).

I conducted a short phone inquiry into the effect of the Toora wind farm on property values and within half a day had found hard evidence, on rate notices, of depressed property values near the wind farm, covering a period when prices were otherwise rising. If the wind farm industry or the Victorian Government were serious they would certainly find abundant evidence of loss of property value.

Recommendation: Refuse approval for wind farms in closely populated rural areas, or require wind farm companies to buy out affected properties at pre wind farm market prices.

Term of Reference 6: Any other relevant matter.

While I have been unable to locate any Australian study which compares the various types of renewable energies for their practicability, cost and efficiency an exhaustive and objective study has just been published in the UK (Sustainable Energy-without the hot air, by David JC Mackay, 2009 UIT Cambridge).

Two points from this study which are relevant to the terms of reference are as follows:

- David Mackay shows that if a massive 10% of all the UK was covered with wind turbines (the absolute maximum conceivable) the power provided per person would be as little as half of that used by driving an average fossil fuel car 50 km each day. He goes on to show that, while the UK wind turbine industry claims that many wind farms smooth out wind variations across the country, the variation in power generation is still too great to rely on for base power supply without somehow storing power.
- Whenever I have seen a wind farm approval announcement it has been accompanied by a statement that 'this will provide power to x thousand houses'. This statement is, to the best of my knowledge, supplied to the Minister making the announcement by the wind farm company concerned, and, again to the best of my knowledge, is based on the 'peak' capacity of that wind farm, whereas a typical output for a wind farm on a good windy site is 30% or less of this figure. Hence the Minister may unwittingly be misguiding the public if these figures are used.

Recommendation: Ensure objective studies (such as shown above) are done to determine the real advantages/disadvantages of wind turbines in Australia before more are approved.

Ian McCausland
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