

**Submission to Senate Enquiry:
The social and economic impacts of rural wind farms**

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First, the terms of reference are inherently biased in that they consider wind farms in isolation and do not consider the impacts of alternatives such as coal-fired power plants fed by open-cut mines. The land degradation and air pollution from the coal alternative is extreme and any demerits of wind farms have to be weighed up against this alternative.

In terms of specific questions:

Any adverse health effects for people living in close proximity to wind farms

The relevant issue here is not absolute effects but comparison with alternatives. I draw the Senate's attention to the European Commission's findings in this regard: wind farms have the lowest health impacts of any power source under consideration including not only fossil fuels but also nuclear and other renewables [1].

Concerns over the excessive noise and vibrations emitted by wind farms, which are in close proximity to people's homes

This issue can be addressed by appropriate standards. There has been considerable progress in wind turbine design and noise is not the issue it used to be. The UK government published an extensive report on wind turbine noise in 1996 [2] and it is dishonest to claim that this is a new or unresolved issue.

The impact of rural wind farms on property values, employment opportunities and farm income

The US National Association of Realtors has surveyed the literature, and found no evidence of reduced property values, only perceptions of such reduction [3]. This relates more to urban than rural properties, and issues in rural properties are more likely to revolve around productive value of land, which will be enhanced if wind farms are sited on unproductive land. Given no measurable effect on residential amenity even urban areas, the argument that wind farms will reduce rural property values is tenuous to say the least. Contrast the potential for loss of agricultural output by massive open cut coal mines with the potential for wind farms to generate an income off farmers' otherwise unproductive land.

The interface between Commonwealth, state and local planning laws as they pertain to wind farms

The biggest issue here is incentivising clean energy. State and federal government have altered incentives at whim, and it is almost impossible for small business to operate in this environment. In Denmark, wind has been a successful add-on to agricultural income and in general community-based wind power schemes have had the most success in overcoming community resistance [4]. This is not too surprising because such schemes can be set up to fill gaps in agricultural cash flow, add to rural work opportunities and generally tap into the considerable skill base of rural communities. We need a policy framework that facilitates such community-based schemes, rather than the current atmosphere of chopping and changing that makes the commercial environment unattractive for all but the biggest players.

Any other relevant matters

There is a strong anti-wind lobby, to the extent that most arguments against wind are more emotional than rational. A well-designed policy framework should mitigate against any negatives, such as noise or bird fatalities. However, these negatives should not be seen out of the context that wind is one of the cleanest lowest impact energy technologies available. If we can only accept technologies with zero environmental impact we will have to live in caves and eat rocks. Let us be sensible and rate the negatives of any option against the competition, as well as its own positives.

References

- [1] Research results on socio-environmental damages due to electricity and transport, European Commission, 2003.
- [2] The Assessment and Rating of Noise from Wind Farms, Working Group on Noise From Wind Turbines, Energy Technology Support Unit, September 1996.
- [3] Field Guide to Wind Farms and their Effect on Property Values, October 2010 <http://www.realtor.org/library/library/fg509>
- [4] David Toke, Sylvia Breukers, Maarten Wolsink, Wind power deployment outcomes: How can we account for the differences?, *Renewable and Sustainable Energy Reviews*, Volume 12, Issue 4, May 2008, Pages 1129-1147