Inquiry: The Social and Economic Impact of Rural Wind Farms.

I submit the following comments in relation to the Senate Inquiry on 'The Social and Economic Impact of Rural Wind Farms'.

As a preface to these comments:

1. Wind has the least environmental impact of all energy generation technologies
2. Australia has a significant wind resource, more than enough to meet our entire electricity demand, and could easily supply 40% of our electricity demand
3. It is well recognised that we urgently need to significantly reduce our consumption of fossil fuels for, among other things, the generation of electricity

These facts alone assert that Australia should be pursuing rapid deployment of wind power and Government at all levels need to implement policies that encourage and facilitate this deployment.

Looking at the four matters raised by the inquiry.

(a) Any adverse health effects for people living in close proximity to wind farms;

The National Medical Research Foundation of Australia issued a public statement in July 2010 which stated “there is no published scientific evidence to support adverse effects of wind turbines on health” (NHMRC, 2010). Colby, etal (2009), as referenced in the NHMRC publication, state the power of suggestion, as conveyed by news media coverage of perceived 'wind-turbine sickness', might have triggered "anticipatory fear" in those close to turbine installations.

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

NHMRC (op.cit.) assess noise levels from wind turbines as “negligible, that is, they appear to be no different to that found in other everyday situations” (referencing Macintosh and Downie, 2006). NHMRC also further state “... a survey of all known published results of infrasound from wind turbines found that wind turbines of contemporary design, where rotor blades are in front of the tower, produce very low levels of infrasound” (referencing Jakobsen, 2005).

(c) The impact of rural wind farms on property values, employment opportunities and farm income;

In the main wind farms have no negative impact on property values (Henderson & Horning, 2006; AusWEAa, ?).

There may be employment opportunities during the construction phase with minor ongoing opportunities. However, wind farms often lead to increased tourism which can contribute positively to the local rural economy (AusWEA, ?; Tourism WA, 2011; Young, 2007; Zhou and Wang, 2007).

Once established, wind farms are likely to increase farm income. They do not have any noticeable effect on livestock but there may be minor impact to cropping, due to access roads, and some limitations on future land use, for example, tree cropping. Wind farms generate an ongoing income stream, usually per turbine, for lease of the land occupied by the turbines – the land area occupied is not significant (AusWEAa; AusWEA).

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

There is a need to simplify and standardise the planning laws for wind farms (Clean Energy Council, 2011; EHPC, 2008). However, these laws should not be excessively bureaucratic or place unnecessary constraints on deployment of the technology.

(e) Any other relevant matters.

The most pressing 'other relevant matter' is the impact of energy generation on the environment. Recent significant weather events across the world highlight the effects of climate change and anthropogenic contributions to such change. IPCC (2007), Garnaut (2008) and others increasingly highlight the need to dramatically reduce our greenhouse gas emissions to minimise these adverse impacts, not to mention other negative impacts of continued use

of fossil fuels (acid rain, sulphur and other pollutants, etc.). We also need to acknowledge the significant role that energy plays in modern society. The combination of these two facts – climate change and energy use – highlight the need to generate the majority, ideally all, of our energy using environmentally responsible renewable technologies. The European Union (2010) reports wind to have the lowest external costs (human health impacts, building and crop damage, global warming, loss of amenities and ecological impact) of all currently proven technologies, including coal (with and without carbon capture and storage), oil, gas, biomass, nuclear, hydro and photovoltaic electricity generation.

Australia has a significant wind resource, more than enough to meet our entire electricity demand (Blakers, 2000) and could account for at least 40% of Australia's stationary energy demand (Wright and Hearps; 2010). The Australian Government should immediately implement policies to support and encourage rapid deployment of this technology.

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7th February 2011

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