

30 March 2011

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Committee Secretary  
Senate Community Affairs Committee

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**Inquiry into The Social and Economic Impact of Rural Wind Farms  
Supplementary information – Perth hearing, 31 March 2011**

The sustainable Energy Association provides this additional written information in support of oral evidence at the 31 March 2011 hearing:

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

This is a difficult area to objectively assess, not only because of the emotive nature of health issues in the community, but also because, unlike atmospheric and environmental pollution from other energy sources such as coal and nuclear power, sound and amenity can be far more difficult to quantify.

To summarize SEA’s position:

- The NHMRC (2010) meta-review of health effects of wind farms concludes that there is no direct evidence of systemic health effects from wind farms. While this study is not authoritative, it reviews a number of studies on the matter. Further research must be encouraged in this area to ascertain if there are tangible direct or indirect negative health effects.
- Many of the claims of purported health impact relate to that of sound, in particular low frequency and infrasound emission and shadow flicker. In both these cases SEA contends that the scientific and medical information put forward in submissions offers no credible evidence for direct, pathological health impacts from wind farms.
- Furthermore, SEA’s assessment is that the popularized term “wind farm syndrome” (WTS) is not supported by rigorous and peer-reviewed clinical evidence in appropriately designed studies. We would refer to Professor Simon Chapman’s (University of Sydney) research, highlighted in his article on

SEA Corporate members



Platinum Members: HYUNDAI, Jackson McDonald lawyers, UNLTD Energy

Corporate Members: Alinta, Carnegie wave energy, ENHANCE, MITSUBISHI MOTORS, RioTinto, SUNPOWER, THE UNIVERSITY OF WESTERN AUSTRALIA, AUSTECH SOLAR, COLLGAR WIND FARM, Fronius, SMA, Swan Energy, Wesfarmers, BGC, Curtin University of Technology, GULL pure energy, PacificHydro, screentech LED technology, synergy, westernpower, bhpbilliton, EDWARDS solar hot water, LCP LANDFILL GAS & POWER, Rheem, TOYOTA WA, SUNGRID, WorleyParsons resources & energy

ABC's The Drum on his views on the quality of the science involves in identifying "WTS". SEA accepts his conclusion on the current quality of the WTS proposition.

- On the issue of the current lack of evidence of direct and documented, pathological health effects SEA accepts such claims should be thoroughly and rigorously investigated. Sustainability also involves the societal impacts of our energy generation, and individual cases where health effects have been reported should be investigated to see how and why these have occurred and whether the wind farms may have played a role. SEA contends there is no evidence to suggest wind farms are solely to blame, as has been portrayed in the media, but accepts as a medical premise that this possibility must be explored.
- Some groups who oppose wind power generation do not have clear option for alternative low polluting sources of energy. Internationally, some of these groups have been shown to have strong ties, and in fact been founded by, the pro-nuclear lobby; this group has had a long-standing opposition to commercial wind enterprises.
- Finally, on all existing data, the overall health impacts of wind energy is clearly much more benign than other forms of energy generation. Globally, the health and environmental impacts of electricity generation technologies such as coal and nuclear have far greater human health and environmental impacts than the installation of wind farms.

Ultimately, the wind industry must act responsibly in addressing concerns from the local community, and in return community assessments must pay due regard for the conclusion of rigorous science. Health effects should be investigated and their root causes and effects understood.

The greatest risk to creating a sustainable business investment environment is to enact restrictions or to undertake actions based on a lack of reliable and sound information. This would be the antithesis of the concept of sound, evidence based policy.

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

The general nature of this issue means that we can only reply in generalities and must make a number of assumptions as to what this actually means. Any closeness of proximity, of course, would be dependent on the size and number of wind turbines at the wind farm. All of the following comments should be taken in this context.

- Based on the reviews and reports submitted to the Inquiry and cited within the NHMRC report, we do not believe that other than transient and irregular occasions, there is unlikely to be a significant impact arising from excessive audible noise and vibrations generated by wind farms at distances under the current regulations which are deemed acceptable.
- One should compare the impact of a wind farm to say living close to a train line, under the flight path of an airport, or to living in a busy nightlife precinct. On existing scale, these are far more likely to have an impact on auditory amenity than are wind farms. While rural communities are unlikely to face such noise loads, much of the significance of this issue we have seen appears to arise from a change in the noise environment and this change had had some amenity impact.
- Such concerns regarding noise levels are able to be dealt with under existing guidelines and regulatory regimes. The wind industry, here in Australia, and globally, is well aware of the issues and is not of the opinion that these constitute a significant issue.

**The impact of rural wind farms on property values, employment opportunities and farm income.** SEA's assessment is that there are benefits to be derived by local communities from the existence of wind farms in regional and rural Australia. These benefits include:

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SEA promotes the development and adoption of sustainable energy technologies and services that minimise the use of energy through sustainable energy practices and maximise the use of energy from sustainable sources.

- Temporary and permanent employment, including indirect positions supporting new workers in the area.
- Increased income to the area from land leases and improving the value of certain properties, which will have a trickle-down effect in the local economy;
- Support of local community institutions such as sporting clubs from wind farm owners and operators. A number of companies have such policies in place to support the local community.

### ***Community wind farm business models***

- Community based ownership
- Cooperative energy company
- Municipality owned

### ***Community wind farm examples***

Denmark (EU) - by 2001 over 100,000 families belonged to wind turbine cooperatives, which had installed 86% of all the wind turbines in Denmark, a world leader in wind power.

Germany (EU) -Thousands of small and medium sized enterprises are running successful businesses in a new sector that in 2008 employed 90,000 people and generated 8 per cent of Germany's electricity.

UK (EU) – There are a number of community owned wind farms in the UK, and this number is increasing but has not yet reached the higher levels seen in other parts of the EU.

The interface between Commonwealth, state and local planning laws as they pertain to wind farms. SEA asserts that there needs to be better processes across the planning spectrum and recognises that its members support best practice in the planning and development of wind farm assets for sustainable energy generation.

Yours sincerely

for

Prof Ray Wills  
Chief Executive Officer  
Sustainable Energy Association of Australia Inc. (SEA)

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