



Sustainable Living Armidale, P.O. Box 85, Armidale NSW 2350

## **To the Federal Senate Inquiry into the Social and Economic Impacts of Rural Wind Farms**

**Background:** Australian households, businesses and government expect to have secure access to electricity. In considering the social and economic impacts of rural wind farms, we need to do so in the context of alternative technologies because a decision not to employ wind inevitably means an increase in other forms of power generation.

**1. 'Any adverse health effects of people living close to wind farms':** while there have been testimonials from a few people living near wind farms about ill health, as far as we know there has been no scientifically documented instances of ill health resulting from proximity to wind turbines. This is certainly in contrast to reports from areas like the Hunter where people's health has been severely affected by pollution both from strip mining and from coal-fired power stations. We are not suggesting that some people have not experienced ill health but that there is no physiological evidence that this is a result of proximity to a wind farm. (Re: health, noise and vibration, one good source is the American and Canadian Wind Farm Association Report , December 2009)

**2 'Concerns over the excessive noise and vibrations emitted by wind farms, which are in close proximity to people's homes':** first of all we need to distinguish between modern turbines and earlier turbines. The industry has been able to substantially decrease the noise of turbines, which has the added advantage of increasing their efficiency. New South Wales has the most rigorous turbine noise standards in the world, set at 35 dBA, at their base, quieter than a suburban street and about half the level of a noisy office or lower than the sounds of a freeway three km away. Apparently one can hold a normal conversation beneath a turbine. In contrast, coal mines are noisy places, as are the trains and trucks that carry the coal. All the reports we have read say ground-borne vibrations from wind turbines are too weak to be detected by or to affect humans. Furthermore, the turbine industry has continued to lower vibrations and to monitor turbines to improve their long-term efficiency.

**3. 'The impact of rural wind farms on property values, employment opportunities and farm income':** the biggest advantage to a farmer of wind turbines is a large, guaranteed annual income. A second advantage is that wind farms only use about 5% of the land for the base of the turbine and access roads so farmers can continue to use the land for grazing or other types of agriculture. The lack of pollution means there is no danger to the soil, the surface water or the aquifer, unlike the mines requirements to provide fuel for a coal-fired power station. Certainly the impact on property values is far lower, if at all, compared to property near a strip mine, or a coal-fired power station, or especially a gas-seam mine, Installation requires labour, but the running of a wind farm requires minimal labour, as do other types of power generation/ mWh. Manufacture of turbines and/or their components would create many valuable jobs

**4 'The interface between Commonwealth, state and local planning laws as they pertain**

**to wind farms'** clearly this needs to be made more streamlined, particularly with respect to small community wind farms.

**5. 'Other relevant matters':** rarely have we seen an inquiry so geared to encouraging negativity. That said, we need to ask ourselves how does wind stack up in terms of alternatives. While solar installations are also run from a free, inexhaustible source and are non-polluting, at present they are far more expensive than wind per kWh generated. Coal is currently cheaper for a variety of reasons, not just government subsidies and investments over decades but also because they do not factor-in externalities; eg. they generate more greenhouse gas emissions, including sulphur and mercury of other power generators; the mining of coal threatens the purity of our river systems and our aquifers and the health of near-by residents (particularly children). One of the major criticisms of wind has been lack of base load power but new technologies, such as electrolyzing water, are providing ways to store energy until it is needed. And wind has another advantage: a distributive system, with energy provided locally by wind, solar, hydro or wave power will help to make the system more efficient in rural areas far from the coal fired power stations and will help to lower our emissions.

We need a senate inquiry into how and why to promote renewable energy rather than how to scare our citizens.

8 February 2011

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