

Dear Sir/ Madam,

**A Response to the Social and Economic Impact of Rural Wind Farms**

Please accept my submission to the Senate Inquiry into the Social and Economic Impact of Rural Wind Farms.

We can no longer ignore climate change. It is a fact, and the ever increasing storm activity and bush fires and extreme droughts only just reinforce the truth. The evidence is there and we, as a nation need to stop procrastinating and take action. Even if we choose to ignore climate change, it seems obvious that we need to reduce our dependence on non-renewable energy because these sources will eventually run out. Renewable energy is the solution, and the good news is that we already have the technology. Solar Power (collectors and photovoltaic), Tidal Power, geothermal, and specifically Wind Power are all legitimate energy generators.

Wind is currently the most advanced and cheapest option for us to begin the transition away from non-renewables. There are many well planned wind energy projects in Australia being constructed and waiting for approval, this process would be a much smoother process if the public accepted change and stop adopting the “not in my backyard” philosophy. When Climate Change begins to impede people’s lives it will be too late for a quick fix.

Wind energy would be and is of great benefit to communities in regional Australia. It brings wealth to a community which is struggling with drought, pests, weeds and the ever fluctuating market. The wind industry is of huge economic importance to the nation, through the creation of jobs during the development, construction and ongoing operation of the wind farm. When the wind farm industry takes off, turbine manufacturers will require suppliers of products and services to the industry; steel and blade manufacturing would bring thousands of jobs to Australia. Currently this is done overseas because there is not support here. There are also the jobs which the wind farm developers create; engineers, project managers, scientists, noise analysts and environmental consultants.

*“This inquiry will look into the social and economic impacts of rural wind farms, and in particular:*

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

Current research has found that there are no adverse health effects for people living in close proximity to wind farms.

The National Health and Medical Research Council (NHMRC) recently found that “there is currently no published scientific evidence to positively link wind turbines with adverse health effects”. The review concluded: “It has been suggested that if people are worried about their health they may become anxious, causing stress related illnesses. These are genuine health effects arising from their worry, which arises from the wind turbine, even though the turbine may not objectively be a risk to health” (Chapman, 2010).

In addition the World Health Organisation states that “There is no reliable evidence that sounds below the hearing threshold produce physiological or psychological effect”.

The Victorian Department of Health (WorkSafe, 2010) concluded that “the weight of evidence indicated that there are no direct health effects from noise (audible or inaudible) at the levels generated by modern wind turbines.”

A large cause for all the noise and health problems is the large volumes of negative media coverage, which only serve to create fear in some people that they will experience adverse effects from wind turbines. Often once the farms are actually operating, the resulting intrusion is far less than anticipated.

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

Research conducted on modern wind turbines has shown that the levels of low frequency noise and infrasound are within accepted limits. Wind turbines have been developed since the 1970's, and 30 years of development have allowed for advances in technology. Wind turbine noise is at a minimal, and the primary noise that can be heard is the aerodynamic noise from the blades. Extensive investigation involving noise experts in the development stage of a project ensures that wind farms stay within the expectable noise limits.

There has been research carried out locally about possible impacts of infrasound. Infrasound was measured at two wind farms – Clements Gap in South Australia and Cape Bridgewater in Victoria. As a comparison, measurements were also taken in the Adelaide CBD and suburbs, at the beach and at a gas-fired power station. Infrasound was recorded at higher levels on the beach and in the Adelaide CBD than it was near a wind turbine. The report verifies that infrasound is not unique to wind farms and provided further confirmation that infrasound emissions from operational wind farms are significantly below human perception limits.

With 30 years of successful wind turbine operation, no credible scientific research has identified any negative effects of wind farm noise and infrasound.

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

An evaluation of 45 property sales located within 10 kilometres from 8 wind farms sites was made by the NSW Valuer General. No reductions in sale price were evident for rural properties located in nearby townships with views of the wind farm.

These findings were consistent with studies in the USA and UK. In 2009 U.S. Department of Energy realised the following investigation: "The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis". This report examined 7,500 single-family home sales in areas where wind farms have been developed. The study did not statistically find a difference in prices for homes located close to wind farms than those located further away, or noticed a difference in selling price of house when sold after a wind farm proposal than those sold before the proposal.

The employment benefits from Wind Farms are significant. Besides the obvious job creation in the construction phase of the project they also provide a reliable and on-going income for landowners and flow-on employment for local businesses through provision of products and services to the project and its employees.

A comprehensive study prepared by consultants Sinclair Knight Merz, "Economic Impact Assessment of the Hallett Wind Farms", outlines the positive effect of wind farms on communities. The main findings of the report were: out of the \$800 million spent on the project, \$88 million was spend in the region, regional expenditure is expected to be \$15 million a year on operational activities, 98 construction workers have been employed between 2005 and 2010, 15 locals have

been employed to operate and maintain the wind farms and is expected to increase to 42 upon competition, and over \$110 000 has been donated to local clubs and events. There is as an obvious economic boost for towns and communities which helps to diversify and strengthen opportunities in these communities.

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

I believe that wind farms need thorough planning processes to ensure wind farms are placed in appropriate locations. Equally, the wind industry accepts the need for effective standards for wind projects. Wind farms should not be required to meet unnecessary higher standards than what is faced by other developments such as coal mines, conventional power stations or other major industrial operations.

Wind energy developers already apply rigorous processes to their projects in planning to ensure they are appropriately managed and mitigate potential impacts on the environment or the amenity of local communities. This is done prior to submitting a development application to determine whether a wind farm is viable on a specific site and as to whether there are any potential environmental or social issues that will impact upon the feasibility of a proposal.

Wind Farm Developers frequently consult not only the local community, the landowners, local council, but also the State and Federal Governments, government agencies, Network Service Providers, electricity retailers, indigenous groups and other specific interest groups including groups advocating in relation to local fauna or flora.

The final proposal of a wind farm is often substantially different from the original plan, because of issues that have arisen during the planning and approvals phase.

National guidelines do have the potential to encourage greater consistency between State planning regimes and remove impediments to further development. However the Draft National Wind Farm Development Guidelines as currently proposed only add substantial impediments to wind farm development beyond those imposed on other infrastructure investments, reducing certainty for the planning assessment process by introducing additional and often conflicting guidelines. This would add additional costs and delays to wind farm developers without delivering improved outcomes.

*(e) Any other relevant matters.*

People often comment about the aesthetics of wind farms. All my friends and fellow colleagues think positively towards wind farms and their appearance. However I know that there are people out there that find them offensive to native landscapes. However I often get baffled on how someone can dislike the appearance of a wind farm, but on the other hand have no qualms with the appearance of roads and transmission lines. These people accept roads and transmission lines because they know that they are necessary to their way of life. However this is contradicting because electricity is essential to the way of life and when coal and oil run out or become too expensive, wind farms will become absolutely necessary.

Another common misconception is that Wind Farms kill birds. This is absolutely not the case. I have talked to many farmers with wind turbines on their property and they have never come across dead birds. The National Wind Coordinating Committee estimates the following annual bird deaths from various causes in the United States: 98 million to 980 million fatal collisions with building and windows, 60 million to 80

million caused by vehicles, 4 million to 50 million with communication towers, house hold cats kill millions of birds, and 7000 are killed by wind farms. So comparatively wind farms make little impact. These estimates were determined in 2006, and since then more vigorous studies are conducted during the development phase ensuring that bird strikes are kept to a minimum.

Wind Farms are an efficient relatively inexpensive renewable energy source. It is imprudent to hamper the development of this technology as it will help loosen the strangle hold that coal has on our nation.  
Thank you for letting my voice heard.

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