



## Submission into the Social and Economic Impact of Rural Wind Farms

### Rising Tide Newcastle

This submission from residents of the Hunter Valley in NSW draws our experience of living with coal fired power generation. We encourage Senate Inquires and community participation in energy decisions, including coal-fired generation, and encourage wind farm creation in regions where communities are supportive, ascertained through participatory community meetings.

We put forward the following points to the attention to the Senate Commission:

- There are many examples of significant community benefits from wind farms,
- There is an urgent need to expand renewable energy technologies including wind power if Australia is going to respond adequately to Climate Change,
- The negative impacts of traditional coal fired power stations are causing significant and negative health, economic, environmental, and social impacts in regional Australia. Additional impacts of coal power include risks to global communities and ecosystems through the impacts of rising greenhouse gases in our atmosphere,
- The impacts on wildlife of wind turbines are significantly less than those caused by fossil-fuel power generation,
- Any Senate Inquiry must also consider the full impacts and costs of fossil-fuel power generation and its associated mining.

#### **Economic and community benefits of wind turbines**

Currently, community wind projects are growing slowly across Australia, where local communities are actively building wind turbines, generating locally sourced, 100% clean renewable energy. The employment benefits are substantial and widely spread across regions, and provide considerable opportunities for individuals and communities where they are located, including the land owners who host turbines.

**Financial support should be given to support community co-operatives who want to create their own energy systems.** Respecting the autonomy of communities should be prioritised when considering costs and productivity.

Similar wind projects are expanding across Europe, where residents are feeling the positive benefits of local wind turbines, increasing productivity, local employment and additional community income. Italy is moving forward as a world leader in community wind production. "Using renewable energy sources, we manage not only to preserve the environment but also to produce more energy than we need, therefore freeing up earnings and funds which become available for our administrative activities and services" said mayor Riziero Zaccagnini. Read the full article here: <http://www.reuters.com/article/2010/10/19/us-italy-wind-idUSTRE69I25620101019>.

**Negative health affects have not been experienced** by these Italian communities, who actively celebrate their turbines. This is in line with current Australian research and scientific investigations, which have found that there are no adverse health effects for people living in close proximity to wind farms. Research conducted on modern wind turbines has shown that



the levels of low frequency noise and infrasound are within accepted thresholds, and studies have found no statistical evidence that wind farms reduce property values.

However, we encourage further research into the health affects of wind generation, alongside further studies into the down-wind health impacts of coal fired power stations and the associated mining in coal affected regions.

### **Energy Prices**

Evidence from overseas is now showing that the installation of wind is actually dropping wholesale power prices. This is significant, as rising power prices are currently a concern for in Australia. Community run projects could lead to thousands of people not only creating free electricity from the wind (a safe source of power that will never run out), but also generating excess energy to sell as a community income earner.

### **Wildlife is safer with turbines**

Concerns for wildlife are also cited as a key reason wind turbine development should be stifled. Extensive studies of wildlife impacts from the USA estimates that wind farms are responsible for between 0.3 and 0.4 fatalities per gigawatt-hour (GWh) of electricity, while fossil-fueled power stations are responsible for about 5.2 fatalities per GWh (Sovacool 2009). Fossil-fuel power stations pose a much greater threat to avian wildlife than wind power.

Australian based research into wildlife impacts of all electricity generation is welcomed.

### **The negative impacts of fossil-fuel power**

As residents of the Hunter Valley, living in the port of Newcastle, it is exasperating to see this level of investigation into the impacts of wind turbines, while the health impacts of coal-fired power generation is largely ignored. There are known health impacts of coal fired power stations, yet the expansion of coal-fired infrastructure, and proposals for new coal fired power stations are increasing.

The impacts of power generation are felt most alarmingly across the Hunter. Many friends and acquaintances need to be on asthma puffers while they live here in Newcastle, but the need for the puffer disappears on holidays away or when travelling for work. Hundreds of uncovered coal carriages travel past every hour of the day and night, allowing coal dust particles to float and settle across the region.

In the Upper Hunter the problem is worse still. Here, residents struggle with the highest incidence of asthma attacks in children anywhere in Australia, and cancer clusters are reported. A thick orange haze sits over the town of Muswellbrook, and horror stories of orange toxic clouds at mine blasting sites are heard in town.

Governments must also consider the significant water extraction and water pollution, toxic discharge, mine blasting, soil contamination, dangerous air emissions and lung function inhibiting particles. For the thousands of people living down wind of a coal fired power station, these are everyday realities. Where is their Federal Senate inquiry?

When considering the impacts of power generation, it seems clear that coal fired electricity is posing far greater health risks than wind farms. Coal fired power stations, (normally left up to state governments to administer) are deserving of a Federal Senate Inquiry.



### **Australians desire an adequate response to Climate Change**

The Australian response to Climate Change and clean energy investment is low when compared to other countries, despite the fact we are already feeling the social, environmental and economic impacts of the more severe and life threatening extreme weather events, and despite the fact Australians are among the world's most polluting.

Australian people do not want to be the world's largest per capita emitters of greenhouse gases. Polling consistently shows Australians are enthusiastic about repowering Australia with renewable energy. In late November 2010, Galaxy research conducted a series of polls on Oxfam's behalf, the results showed overwhelming support from the Australian population for our government to step it up on climate action. 97% of those surveyed were in favour of government investing more in clean, renewable energy sources both at home and abroad.

Renewables are an essential part of our response to climate change, and the Senate Committee should not propose provisions that would make the development of this industry more difficult or onerous. In addition to wind power, Australia should begin constructing new solar thermal baseload energy power stations, replacing coal generation. Solar thermal technologies are commercially viable now, and I encourage the Senate Committee to read the Beyond Zero Emissions (BZE), Zero Carbon Australia Stationary Energy Plan, finding Australia could be powered with 100 percent renewable energy by 2020.

Download the BZE report or synopsis here: <http://beyondzeroemissions.org/zero-carbon-australia-2020>

### **Conclusion and recommendations**

Rising Tide welcomes a Federal Senate Commission Inquiry into **all power generating sources and options** in Australia. **A further inquiry must include extensive research into the full impacts and costs of coal fired power stations and the coal mining required to fuel them.** Coal fired power is Australia's most significant contribution to Climate Change, creating additional impacts and threats to Australian communities that should also be considered within the scope of further Senate Commission Inquiry.

Yours respectfully,

Naomi Hogan, on behalf of Rising Tide Newcastle

### References

Sovacool B., 2009, Contextualizing avian mortality: A preliminary appraisal of bird and bat fatalities from wind, fossil-fuel, and nuclear electricity, Energy Policy, Volume 37, Issue 6, June 2009, Pages 2241-2248

