Ben Courtice
Feb 1, 2011

Department of the Senate
PO Box 6100
Parliament House
Canberra ACT 2600
Australia

By email: community.affairs.sen@aph.gov.au

Attention: Senate Community Affairs Committee

Dear Sir/ Madam,

Included in this Word document is my submission to the Senate Enquiry into The Social and Economic Impact of Rural Wind Farms.

Yours sincerely

Ben Courtice

# The Social and Economic Impact of Rural Wind Farms

Submission to Senate Inquiry
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I note that the matters set out for the enquiry begin with the following three points:

> (a) Any adverse health effects for people living in close proximity to wind farms;
> (b) Concerns over the excessive noise and vibrations emitted by wind farms, which are in close proximity to people's homes;
> (c) The impact of rural wind farms on property values, employment opportunities and farm income;

Other submissions will I expect focus on these issues. I am not aware of any strong evidence that supports these three concerns.

However, the enquiry also invites submission on "any other relevant matters" under which heading I would like to address two issues: employment and climate change.

## *1. The Wind industry and employment*

### 1a. General considerations of employment in the wind industry

Wind industry employment can generally be expected to be higher than in the existing fossil-fuel power generation industry. According to Greenpeace(1) the average person-years of work for operation and maintenance of (onshore) wind energy is 0.4 per megawatt of energy generated. The equivalent figure for coal is 0.1 and for gas, 0.05. This becomes particularly important considering issues of climate change and how we source our energy in future, as outlined in point 2 (below).

As a new industry, wind power faces numerous hurdles to break into an energy market dominated by very large players based in fossil fuels. This was illustrated by problems in the Federal Government's Renewable Energy Certificate scheme in 2008-9, which caused serious problems for financing large scale renewable energy generation. Because so many certificates were being taken up by small-scale domestic solar installations, Portland company Keppel Prince Engineering was at the time reluctantly looking at shedding up to 200 jobs(2). This would have a very obvious and large negative social and economic impact on the whole region were it to happen.

Conversely, we can see that the existence of the wind industry is also providing many jobs already. This important contribution, including in regional areas where quality jobs are often scarce, must be recognised.

### 1b. Maintaining a skilled workforce

The importance of sustaining the engineering industry and the associated skilled workforce in Australia is something very important to me, personally, for reasons that also impact on large numbers of Australian workers. The wind industry, which has great potential for growth, could play an important role in this regard.

Common problems for engineering trades include de-skilling of much work (and the decline in the manufacturing industry overall) and an environment of competition and outsourcing which encourages employers to work as cheaply as possible, hence cutting out much meaningful training for employees. There has been an enormous decline in the number (and, from my experience, the quality) of apprenticeships offered. Yet the ability to learn and progress at work is one of the fundamental conditions for job satisfaction.

Promoting new growth areas such as wind holds hope for people working in the engineering industry to have the opportunity to find more satisfying, skilled work and training. While I am not claiming that the wind industry alone can fix all the problems, the illustration of Keppel Prince Engineering's well publicised problems in 2008-9 does illustrate (in the negative) what is at stake.

Additionally, Australia unfortunately has little in the way of wind turbine manufacturing. If we were to have an industry in large wind turbine manufacturing, it would significantly further increase skilled employment from this industry here.

**1c. Conclusion**
The growth of the wind energy industry has important social/economic benefits in the provision of quality, skilled employment including particularly for regional Australia.

## *2. Climate change*

**2a. Social impacts of climate change**
As I write Australia is witnessing a long list of climate related disasters and problems. Just to take headlines of articles on negative impacts of extreme weather events from today's ABC online news feed (Feb 1 2011)[(3)]:

- Residents urged to flee monster cyclone
- Ross River cases keep rising in SA
- Wet weather deals another blow to grape growers
- Service to farewell toddler flash flood victim
- Levees holding up as flood waters rise
- Flood recovery sparks mine boom skills shortage fears.
- Crews battle blazes as Hunter temperatures soar
- North Qld industry shuts ahead of cyclone
- Sydney braces for hot week as mercury rises
- Crews battle blazes in Victoria

The advice from climate scientists internationally is that anthropogenic climate change is real and a serious threat. It would be reckless and irresponsible for the Australian government to not act on their expert advice.

Just today's news headlines bear out the threats of climate change. These sorts of events cannot be scientifically proven as directly caused by climate change, but in terms of risk management, it is responsible to act as though they are partly caused or exacerbated by anthropogenic global warming. Every one of the above news headlines relates to serious and measurable threats to health, community and economy.

Currently the world has experienced less than 1°C of warming since 1900[4], and international targets (such as they are) are aiming for 2°C as an upper limit.[5] Even this aim is excessively optimistic given the lack of binding international agreements for serious action.

Clearly, if the world continues to warm, we must expect weather-related disasters such as those above to become worse and worse.

**2b. Australia's national responsibility for climate change**

Australia's per capita emissions of greenhouse gases became the highest in the world in 2009.[6] While Australia cannot singlehandedly or unilaterally prevent climate change, it is in our own interests, and it is morally incumbent on us as a developed country, to set an example of how to mitigate dangerous anthropogenic climate change.

**2c. Conclusion: Wind's role in mitigating climate change**

There exist many detailed proposals for how to move away from fossil fuel use to clean energy sources. It is inconceivable that this could be done without extensive use of wind power. For example, the most ambitious plan currently in circulation, Zero Carbon Australia[7] uses a combination of 40% wind power and 60% large-scale solar thermal power plants.

While direct benefits of a given wind farm to a particular local community may not be readily identifiable, the benefits of avoiding dangerous climate change should be obvious by now to all communities. Wind has a vital part to play and this ought to be recognised as a part of the wind industry's positive social and economic impact.

## *References*


1. *Working for the climate.* Greenpeace International and European Renewable Energy Council, August 2009
2. *Wind / Solar industries stall* The 7:30 Report, broadcast 08/12/2008 http://www.abc.net.au/7.30/content/2008/s2440907.htm
3. Transcript available at http://www.abc.net.au/news/archive/2011/02/01/
4. See UK Government Office for Science http://www.bis.gov.uk/go-science/climatescience/world-is-warming
5. See http://en.wikipedia.org/wiki/2010_United_Nations_Climate_Change_Conference
6. Reported by ABC news, see http://www.abc.net.au/news/stories/2009/09/11/2683439.htm
7. *Zero Carbon Australia Stationary Energy Plan.* University of Melbourne Energy Research Institute and Beyond Zero Emissions, 2010