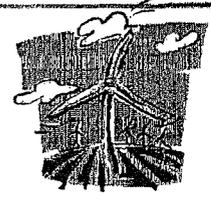




Submission No: ..... 49

# Wind Farm Developments



15 June 2007

Committee Secretary  
Standing Committee on Industry and Resources  
House of Representatives  
PO Box 6021  
Parliament House  
CANBERRA ACT 2600  
AUSTRALIA

Via email to: [ir.reps@aph.gov.au](mailto:ir.reps@aph.gov.au)

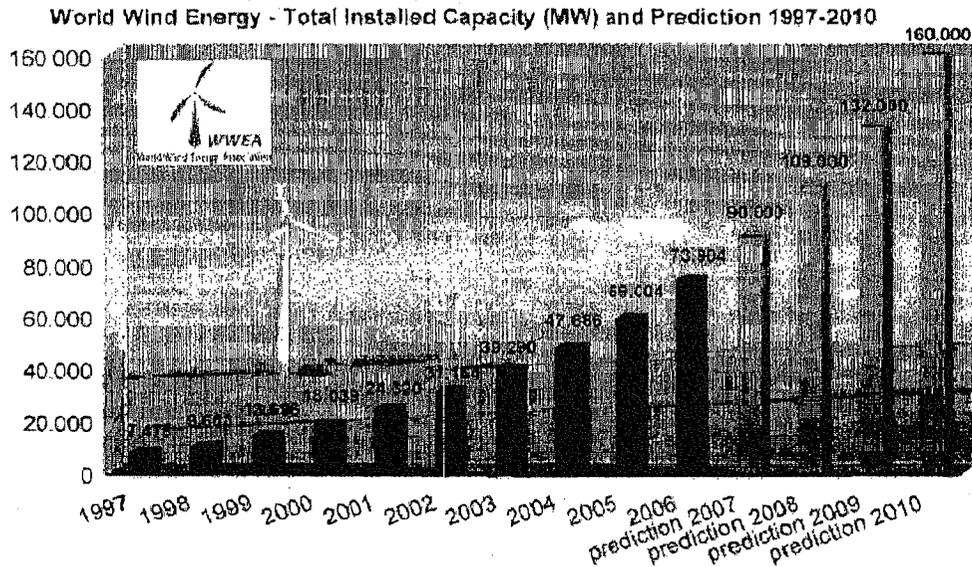
Dear Secretary:

On behalf of Wind Farm Developments, we are pleased to have the opportunity to make submission to the *Inquiry into the development of the non-fossil fuel energy industry in Australia: Case study into selected renewable energy sectors*.

Wind Farm Developments (Australia) Ltd is one of the most experienced wind farm developers in Australasia having developed and project managed construction and commissioning of stage one of the Tararua wind farm (31MW) in NZ in 1999, and obtained all development approvals for the 91MW Wattle Point wind farm in South Australia in 2003. Both of these projects were the largest wind farms in the Southern Hemisphere at the time of their commissioning.

Wind power allows for the generation of pollution free energy, which offsets the emission of greenhouse gases from fossil fuel power stations. The advantage of wind energy is that the technology is mature and proven, and therefore, it is available to be implemented today, thereby offering a significant and immediate reduction in greenhouse gas emissions from the stationary energy sector which is responsible for the largest proportion of Australia's greenhouse gas emissions.

Wind energy has been, and is forecast to remain, one of the fastest growing new generation technologies worldwide as the graph below clearly demonstrates.



Source: WWEA Press Release January 29, 2007 -  
New World Record in Wind Power Capacity

As Australia currently has less than 1000MW of wind energy installed nationally, it is clear that Australia is being left virtually at the starting blocks, as the rest of the world takes advantage of this very cost effective and pollution free source of electricity. While investments in R&D to reduce carbon emissions from fossil fuel generation plants are worthwhile, it is critical for Australia to join the rest of the world in reducing Australia's emissions from electricity generation now while these other technologies are potentially developed.

#### Some Key Benefits of Wind Energy are:

- Helping meet Australia's emission reduction targets
- Providing power during times of peak demand in the electricity market
- Lowering the pool price of electricity
- Reducing electricity transmission losses in the grid
- Most often the cheapest means of producing greenhouse gas free energy
- Wind energy is safe and abundant
- Job creation- wind has created 2-3 times more jobs per kw/hr than coal; this amount would double with more manufacturing in Australia
- Occupies less than 1% of the land it is situated on, making it compatible with existing agricultural practices

The large scale deployment of wind power in Australia is not constrained by economic or technical factors, but rather a lack of government policy directives. Policies which would enable for a transition to a clean, renewable powered Australia include:

- (a) A higher renewable energy target (MRET). 10% by 2020 is well within the means of the renewable energy industry (the 2010 target less than 2% target was met by 2006), and would provide for many new jobs, some in the development of Australia's wind turbine manufacturing industry;
- (b) An emissions trading scheme ideally cap and trade. In order for such a scheme to be effective in reducing greenhouse gas emissions, this must involve a price on carbon which is sufficiently high enough to facilitate renewable energy (or a separate renewable energy target scheme as mentioned above);
- (c) Becoming a signatory to the Kyoto Protocol. Australia is currently missing out on the significant economic opportunities available to other countries which have signed the Kyoto Protocol. Australia has some of the best wind and solar resources in the world, and as such Australia should be profiting from this natural advantage in an international market.

### **Wind Energy's Variable Nature**

Much is often made of wind (and solar) energy's inherently variable nature. While this seems like an intuitive argument, it actually not important, or relevant, in the operation of Australia's National Electricity Market (NEM).

Numerous international and domestic technical studies have shown that wind and/or solar energy can be reliably accommodated within the electricity grid without the need for significant grid "back-up", augmentation or so-called "back-up" generation until at least 20% market penetration is achieved. As Australia generates less than 1% of its electricity from wind today, the need for grid augmentation or additional "back-up" is a long ways away.

Once wind farms currently under construction are completed, South Australia will have 15% of its electricity generated from wind energy. The "variable" nature of wind energy has not caused any significant issues or blackouts yet, and is very unlikely to do so. There is no reason why Victoria, NSW and other states can not from a system security perspective confidently increase electricity generation from wind to at least 10% and beyond from < 1% today.

In Denmark, 20% of their annual electricity is generated from wind energy. At times, on windy evenings, 100% of Denmark's electricity has been generated from wind energy. The limitation to increasing wind energy in Australia is not technical and has nothing to do with system security issues. The Danish target is to have 75% of their annual electricity generated by wind power.

### **Economics of Renewable Energy**

With regards to the cost of increasing renewable electricity generation, two points are very clear. First, action taken early will be much cheaper than delaying action in combating global warming. Second, the cost of increasing renewable energy generation will be very slight and unnoticeable to most people as several studies have shown. One of the more recent studies has shown that increased energy efficiency and increasing renewable energy to 25% of Australia's electricity

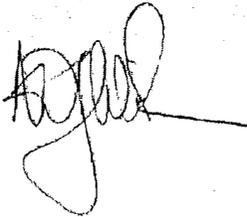
generation would only cost the average household \$1.25 per week.<sup>1</sup> The effect on our worldwide competitiveness is that we would just move ahead of Mexico with regards to electricity prices. Surely, this does not represent a serious threat to Australia's competitiveness and rests on the unlikely assumption that other countries, like Mexico, do not take similar measures to reduce their greenhouse emissions.

### Conclusion

There are no technical reasons for Australia being left behind the rest of the world in the adoption of wind energy and new forms of renewable energy generation. The economics of increasing wind (and other renewable) energy are not significant and are justified as they are just (partly) level the electricity generation playing field to address subsidies currently enjoyed by the incumbent coal generators.

We respectfully submit that the government give consideration of the policy actions recommended previously, particularly the extension of the MRET scheme past 2010.

Yours sincerely,



Alistair Wilson  
Director

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<sup>1</sup> *A Bright Future – 25% Renewable Energy by 2020* April 2007, ACF and others  
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