

7 February 2011

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

Dear Sir/Madam,

I am writing this submission in response to the Senate Enquiry into the Social and Economic Impact of Rural Wind Farms in Australia, being undertaken by the Senate Community Affairs Committee.

The basis for my submission is my involvement in the wind energy industry for the past eight years and my belief in the immense importance in the continued support of the renewable energy industry in Australia.

Economic effects

The company I work for started in 2000 as a direct response to the implementation of the Mandatory Renewable Energy Target by the Federal Government, which created a market for renewable energy projects and reflected the Australian community's emerging awareness of the need for renewable, non-fossil fuel electricity generation.

My Managing Director moved back from the UK to Australia to start up a subsidiary company of ours in Adelaide, developing wind farm projects. The company has since grown to now employ 32 staff in 3 offices around Australia. Our employment will be ongoing as long as there are wind (and other renewable) energy development opportunities in Australia. Personally, this industry has kept me in a job for the past 8 years.

Through my time within the wind industry I have witnessed the significant economic benefits provided to:

Wind farm landowners, who receive lease payments for hosting the turbines

Local communities, who benefit from community funds which are established as part of our projects

Local and regional services providers, who are contracted during project construction to provide engineering and civil services

Local labour, which is sourced during project construction and operation

Expert consultants, who are commissioned to undertake project assessments during development

Local councils that may benefit from increases in rates

Wind farm owners and their many public shareholders who benefit from wind farm income

All direct employees of wind farm owners, developers and turbine suppliers in Australia

A detailed analysis of the potential economic benefits of wind farms in a region can be found in a study undertaken by Sinclair Knight Mertz, into the economic benefits of the

## Hallett Wind Farms in the Mid-North of South Australia:

### Health Effects

The wind industry has seen many issues being raised by communities and addressed by industry, not just here but around the world. With a wind farm development (as with most developments) posing potential environmental and social effects, it is paramount that development and assessment activities are carried out in light of the most rigorous studies, data and reports available at the time. The use of such studies, data and reports ensures the most rigorous assessment and the most appropriate mitigation actions result.

The issue of potential health effects has been raised in recent years, predominantly (it seems) out of claims from neighbouring residents of wind farms in the US and brought to popular awareness by a medical practitioner in the US, Dr Nina Pierpoint. The claims centre around health effects from the infrasound emitted from wind turbines.

Unfortunately such claims have not been based on rigorous scientific studies, yet the claims have grown legs. The claims have also been reviewed by medical and acoustic experts, with the conclusions being that Dr Pierpoint is not able to draw the conclusions she draws from the data she uses (see Colby et al, 2009):

Despite the lack of credible science behind these claims, the issue has taken root in Australia and has no doubt caused a huge amount of unnecessary and unjustified community concern, worry and fear, not to mention being damaging to the wind industry and its wind farm development opportunities.

The conclusions of a detailed, expert review of the issue by medical and acoustic experts from the UK, US, Canada and Denmark sums it up (Colby, et al, 2009):

“Following review, analysis, and discussion of current knowledge, the panel reached consensus on the following conclusions:

There is no evidence that the audible or sub-audible sounds emitted by wind turbines have any direct adverse physiological effects.

The ground-borne vibrations from wind turbines are too weak to be detected by, or to affect, humans.

The sounds emitted by wind turbines are not unique. There is no reason to believe, based on the levels and frequencies of the sounds and the panel’s experience with sound exposures in occupational settings, that the sounds from wind turbines could plausibly have direct adverse health consequences.” (pp ES-1)

What can happen, however, is stress and worry from the proposal of a wind farm development in a region. It is the responsibility of the developers to ensure community members are informed about the proposal, potential effects (based on scientific evidence and environmental impact assessments) and proposed impact mitigation measures. It is then up to community members to respond as they will. It does, however, become increasingly difficult, frustrating and worrying as a wind farm developer when we are faced with non-credible claims to contend with that is causing undue fear and distrust in

local communities.

This Enquiry should include a very rigorous review of the basis of the claims into health effects to ensure the Senate is fully informed of the matter.

Further, such claims need also be put into the context of the known health effects of the alternative energy generation means in Australia – coal.

#### Social effects

The main social effect I see, and the reason why I work in this industry, is the carbon dioxide emission savings that wind farms and other renewable energy generation provide.

The nature of wind energy means electricity generated by wind farms is normally bid into the National Electricity Market at very low cost. This results in it being fully dispatched ahead of other forms of generation, including fossil fuel generation. As a result, wind energy displaces generation which would otherwise have been generated from fossil fuel sources, meaning direct CO2 emissions savings.

Emissions savings means steps closer to the successful slowing down of climate change, to the benefit of all Australians, and indeed the entire global community.

Wind energy is also green energy. No mining for the resource, no emissions, no water use (save for construction purposes) and infrastructure can be removed at the end of its generation life. Fossil fuel or nuclear generation cannot boast such benefits.

The wind industry as part of the larger renewable energy industry remains a vital part of Australia's energy future, and cannot be underestimated or undermined by un-founded claims and rhetoric – it's too important.

Thank you.

Doreen Marchesan  
Findon, SA