

27 April 2011

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Dr T Kendall
A/g Committee Secretary
Senate Community Affairs Committee
Parliament House
Canberra ACT 2600

Dear Dr Kendall,

Re: Senate Inquiry into the Social and Economic Impacts of Rural Wind Farms

Following the Senate Hearing in Melbourne on 29 March 2011, Pacific Hydro committed to providing clarification to the Secretariat regarding evidence at the Hearing and follow up responses to material submitted to the Inquiry as appropriate.

Clarification

Clarifications regarding the evidence provided at the Melbourne Hearing have been provided to the Committee Secretariat as a confidential attachment.

Follow up to other evidence and submissions

Pacific Hydro is aware of a number of general claims made during Public Hearings held as part of the Senate Inquiry. To ensure that the Senate Committee is able to balance its assessment of those claims, we have provided additional documents and responses to particular claims and mis-information regarding wind generation and Pacific Hydro's projects that have been raised by witnesses or in submissions.

1. Pacific Hydro's Portland Wind Energy Project

We note that one submission in particular has criticised our development at Portland in relation to jobs and local investment. We are committed to ensuring that where possible we use local contractors and suppliers in all of our projects and each of our six operating wind farms have driven at least 40 per cent local content (by capital value) incorporated into the project. The three completed stages of the (four-stage) Portland Wind Energy Project directly created more than 760 jobs and many more indirect jobs by using local suppliers and facilities during construction. We will see this again with the construction of the final stage of the PWEF facility.

The PWEF developments have provided a strong stimulus for many local companies including Keppel Prince whose workforce has increased to around 200 people, which has been maintained for a number of years, to meet demands for ongoing projects. Vestas was also able to manufacture turbines blades locally for close to three years, but moved their operations offshore due to a lack of federal government support and uncertainty surrounding the RET in 2007.

2. Decommissioning

Some submissions and witnesses suggested that decommissioning is not managed by current practice of developers, nor covered by the Planning Guidelines. This is not correct. The industry guidelines, state planning

ENCLOSURE : 1: Confidential 2: Dr Mark Diesendorf, Wind Farm Fallacies (extract from Submission #204)

provisions and our own standards ensure that decommissioning is addressed in the initial development of the wind farm and in negotiations with land-holders.

3. The Wind Farm Scam

At the Ballarat Hearing, the Senators were provided a copy of the book, *The Wind Farm Scam*, written by UK ecologist, Dr Etherington. A critique of the content of this book should also be considered by the Committee as part of its balanced approach to evidence. The critique, from Professor John Twidell was published in *Wind Engineering*, vol 34, issue 3 in May 2010ⁱ and was submitted by email to the Secretariat on 18 April 2011.

4. Wind Generation Works

In addition to the comments below, we have also attached the section on wind farm fallacies submitted to the Inquiry by Dr Mark Diesendorf.

Grid management and variability

An erroneous perception, outlined numerous times to this Inquiry, suggests that wind intermittency is a major problem and is not able to be managed by grid operators. This is plainly wrong.

The east-coast grid (linking Queensland, NSW, Victoria, Tasmania, and South Australia) is managed by the Australian Energy Market Operator (AEMO). AEMO's highest priority as power system operator is the management of system security and reliability. Reliability is maintained by managing the energy market's supply to continually satisfy (fluctuating) customer demand.

As noted in our earlier submission to this inquiry (#654 – pages 15-17), the AEMO and wind industry have worked together to develop the Australian Wind Energy Forecasting System. AWEFS provides accurate predictions of wind generation and match these to despatch requirements. Further information is publicly available here:

<http://www.aemo.com.au/electricityops/awefs.html>

The Renewable Energy Target

Utility-scale wind generation driven by the RET has added a small amount to the retail cost of power, and is delivering carbon abatement at the most efficient (lowest) cost compared to other government programs.

As identified in a recent report from the Grattan Institute, out of 300 emissions reduction policies and programs tried by Federal and State Governments since 1997, market mechanisms have delivered the greatest emissions reductions and have met targets ahead of time. The report notes that these mechanisms work because they “minimise the need for government to predict the future; provide certainty, enabling business to invest with greater confidence; provide flexibility by devolving decision making to businesses and individuals, allowing them freedom to choose how to reduce emissions, without government involvement. The mechanisms also work best “where they include the broadest range of abatement options and stay administratively simple.”

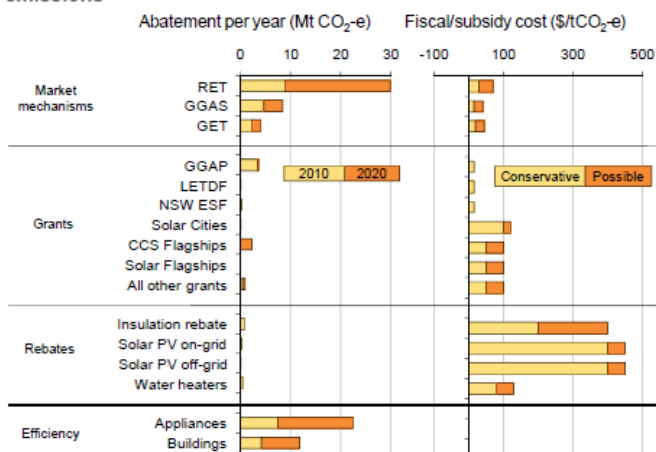
As shown in the first table below, the fiscal subsidy versus the abatement outcomes in 2010 and by 2020 is clearly cost effective under the Renewable Energy Target.

The RET is attainable and will be delivered through expansion of wind, biomass, gas, solar, geothermal. Onshore wind is expected to take up a large portion of this investment and is – by necessity – located in areas where there is access to grid infrastructure.

The RET was intended to drive large deployment of renewable technologies to deliver a total generation target – it has demonstrably been very effective and does not ‘pick winners’.

The RET enables the energy market to deliver the most efficient, deployable, financially viable form of power. This is mostly wind power, but will increasingly include solar thermal and geothermal as those technologies move down the cost-curve.

Figure 3.1 Performance of government programs to reduce carbon emissions



Source: Grattan Institute

Recent analysis for IPART from Frontier Economics on the impact of renewable energy policies on the cost of electricity in NSW show, very clearly, that the long-run marginal cost of meeting the large-scale renewable energy target does not rise above \$30/tonne. The IPART report also clearly shows that the incremental cost of complying with LRET is marginal.

Table 2: LRM of LRET (\$2010/11)

Financial Year	LRMC of RET (\$/certificate)	LRMC of LRET (\$/certificate)
2010/11	\$30.48	\$26.83
2011/12	\$31.70	\$27.89
2012/13	\$32.97	\$29.02

Source: Frontier Economics

Table 11: Incremental efficient costs for 2010/11 (\$2010/11)

	Incremental cost of complying with LRET (\$/MWh)	Incremental cost of complying with SRES (\$/MWh)	Total incremental cost of regulatory change (\$/MWh)
Country Energy	-\$0.18	\$4.43	\$4.25
EnergyAustralia	-\$0.19	\$4.79	\$4.60
Integral Energy	-\$0.18	\$4.67	\$4.49

Source: Frontier Economics

5. Community support is evident

Community support

As shown in existing polling research, there is broad support across the Australian community for renewable energy investment in general and for wind farms in particular.

Submissions to the Senate Inquiry from Australians show overwhelming community support exists in regional and metropolitan areas. Two out of three submissions were in favour of wind farms. We expect that once all Australian submissions are recorded, this proportion will remain the same or higher.

Community consultation

Community consultation and engagement is taken seriously and done with care and attention to all stakeholders including landholders, neighbours, Councils, community groups and local townships. As outlined in our evidence, we begin consulting (informally) as early as possible and begin discussing potential layouts early on with land-holders, those with visual proximity to the wind farm, other neighbours, community groups and members of council.

Guidelines around renewable energy technologies and planning provisions include technical specifications for grid connection, noise, shadow flicker and other environmental concerns. All of these combine with community engagement to guide our consultation process, layout and design of the wind farm.

We take genuine concerns seriously and have – on occasion – changed the layout of wind farm proposals, and removed turbines from the layout in response to a small number of concerned individuals.

6. Fire Risk and Wind Farms


Fire risk (ignition) from a wind turbine itself is extremely low and is managed through consultation and collaboration as appropriate with the relevant CFA for each wind farm site.

Victoria's CFA has developed Emergency Management Guidelines for Windfarms to assist local CFAs to understand and manage issues relating to bushfires near wind farms. We will continue to work with CFAs collaboratively and refer to work from both the Bushfire CRC and the Australasian Fire and Emergency Service Authorities Council to guide future practice needs for emergency management as climate change increases both the likelihood of bushfire events and their intensity.

Suggestions (in one submission) that Black Saturday bushfires near Kilmore were somehow sparked by wind turbine fires is plainly incorrect. The fires themselves were sparked by lightning strike and were exacerbated by the extreme heat, wind and tragically via the impact of fire on 'live' distribution lines which existed in the area. The Bushfire Commission made a number of recommendations regarding improving technology and management for distribution lines but made *no specific reference to wind farms* in the 67 recommendations.

7. Critical analysis of health claims is crucial

We point the Committee to the evidence presented in testimony and via submissions from Professor Peter Seligman, Dr Simon Chapman, Dr Susie Burke, Professor Gary Wittert and Dr George Crisp. All provided careful and critical evidence that showed that anti-wind activists are causing anxiety by their lobbying efforts opposed to wind farm developments anywhere in Australia.



We urge the Committee to note in its final report that the increased media attention and community concerns are being lead by a concerted campaign manipulated and managed by the Waubra Foundation and other anti wind farm groups. Their practices include coercing community members to link existing health issues to wind farms, hijacking community meetings with hysteria and hype and continued bombardment of local radio with misleading and mal-informed opinions dressed up as 'expert' advice.

Evidence from Australian health experts, noted above, who are experienced in the fields specifically related to epidemiology, psychology, cochlear development (research on the human ear), public health and long-term community general practice (in clear contrast to the limited CVs of Dr Laurie and Dr Pierpont), pointed to the need for science and evidence to exist before calling something a health impact. Many of these experts pointed out that the health effects from coal and climate change exist in great number, whereas the "evidence" for wind farm caused health effects is at best anecdotal and as such not scientifically demonstrated.

Yours sincerely



Lane Crockett
General Manager, Australia

ⁱ Twidell, J. (2010). Critique of the book 'The Wind Farm Scam - an ecologist's evaluation', (2009), John Etherington, Stacey International, London. *Wind Engineering*. Volume 34, Number 3 / May 2010. Pp. 335-350