

2 November 2012

Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

By email: ec.sen@aph.gov.au

Dear Committee Secretary

Re: Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012

Pacific Hydro is pleased to provide comment on the proposed Renewable Energy (Electricity) Amendment – “Excessive Noise from Wind Farms” Bill.

Pacific Hydro is a leading Australian renewable energy company with over 20 years’ experience in project finance, development, construction and operation of hydro, wind, solar and geothermal power projects in Australia, Brazil and Chile. Building on these existing interests, this year we launched a retail electricity business for the Australian commercial and industrial retail market.

We are a wholly owned subsidiary of the Industry Funds Management (IFM) Australian Infrastructure Fund through which Pacific Hydro provides sustainable infrastructure investment opportunities for around 5 million Australian superannuants. We are proud to continue to provide strong returns for the environment, local communities and investors.

Proposed Bill

Pacific Hydro supports the development of appropriate, balanced and merit based frameworks for planning because merit and science based approaches can be clearly applied using rigorous and broadly accepted methodologies. These approaches provide strong foundations to enable the development of legally binding regulations.

In our view, the proposed bill fails on both science and merit and would be unworkable from a regulatory and practical perspective. As such, we strongly oppose the suggestion that such a clause is needed and that it should be placed in the Federal Renewable Energy Act.

The proposed clauses define and set requirements for “excessive noise” specifically from wind turbines. The “noise” in the bill is clearly *audible* noise, and appears to be founded on concerns about the impacts of audible noise from wind farms affecting near-neighbours, even though there is no robust evidence to support claims that modern wind turbines are the direct cause.

Science and evidence

Globally, 17 independent studies have resoundingly concluded that wind farms do not cause health impacts. While some individuals are annoyed and do not like wind farms there is not a direct link. Peak medical and scientific bodies in Australia along with peer-reviewed research

from around the world, have consistently found there is no *bona fide*, scientific or medical evidence that wind farms cause adverse health impacts.

We are aware, though, of a number of unethically researched and collated “reports” available online which have not gone through the rigorous process required of accepted medical and scientific research. In this context are highly concerned at the precedent that would be set for other legislation *in the absence* of evidence.

The National Health and Medical Research Council previously concluded that “[t]he review of available evidence including journal articles, surveys, literature reviews and government reports supports the statement that: *There are no pathological effects from wind farms and that any potential impact on humans can be minimised by following **existing planning guidelines***”.

(Note: emphasis added)

Following on from the 2011 Senate Inquiry into Economic and Social Impacts of Wind Farms, the Government recommended that the National Health and Medical Research Council undertake an in-depth review of available evidence regarding wind farms and human health impacts. This process is underway through the NHMRC’s wind farms and human health review and is expected to conclude in 2013. This action further underscores our concern that this bill is being proposed *without* a sound basis and in legislation in which it is not appropriate.

Noise¹ and planning regulations

To put audible noise limits such as that being suggested through this legislation in context, we note that noisy things, like a pneumatic chipper or a hand-held circular saw at 1 metre away typically emit noise at around 115 dB(A). A lot less noisy is a passenger car travelling at 60km/h at 20 metres away which typically emits noise of around 65 dB(A). Less noisy again, a normal conversation is typically carried out at around 55-60 dB(A). A quiet library is around 35-40 dB(A).

In relation to wind turbine noise compliance requirements, we note that:

- The World Health Organisation adopts a guideline value of 40 dB(A) for general sleep disturbance effects;
- South Australia adopts a guideline of 35 dB(A) in rural living zones or 40 dB(A) in other zones or the background noise +5dB(A), whichever is the greater; and
- Victoria applies NZS 6808:2010 which specifies a guideline of the greater of 40 dB(A) or background +5dB(A) or in special circumstances a ‘high amenity noise limit’ of 35 dB(A).

There are strong ramifications for not meeting State guidelines through *existing state planning regulations* which can include financial penalties and shutdowns.

In any case, processes already exist to model noise prior to construction and to manage audible noise concerns and complaints if and when they occur after commissioning and into operation.

Complaints handling

Pacific Hydro has a formalised complaints process in place and we investigate every complaint that is made to us about noise or other issues.

¹ For information on noise levels, see for example: <http://www.industrialnoisecontrol.com/comparative-noise-examples.htm>

In the event that the facilities operating normally and not the result of an unusual or upset operating condition and a resident is experiencing annoyance, we work with them in identifying a suitable solution.

These processes are required through the existing state planning and through our own policies and procedures.

The Renewable Energy (Electricity) Act

The Renewable Energy (Electricity) Act is technology neutral and its objectives are to encourage the additional generation of electricity from renewable sources (of at least 45,000 GWh by 2020); to reduce emissions of greenhouse gases in the electricity sector; and to ensure that renewable energy sources are ecologically sustainable.

The Act encourages the most cost effective forms of clean energy generation to be deployed and ensures that this comes *at least cost*. In relation to large scale generation, this cost is low and is further offset by downward pressure on wholesale prices through new entrant generation.

Thus, to propose a technology specific clause be embedded in technology neutral legislation is inappropriate and would also be counter to the objects of the Act that otherwise encourage least-cost technology.

Precedent-setting

Pacific Hydro is very concerned that this legislation would set a worrying precedent in terms of Commonwealth involvement in state planning issues. Planning laws are, with the sole exception of the EPBC Act, administered by State Governments.

Clearly, in the absence of bona fide evidence that there is a problem that would be addressed by the proposed approach, there is no case for intervention by the Federal Parliament in state planning laws.

Unworkable and administratively onerous provisions

The Excessive Noise Bill demands that wind farms do not exceed background noise levels by more than 10 dB(A) within 30 metres of a premises or place, but provides no rationale or similar provisions on which to base these settings.

We also draw your attention to noise compliance criteria for other forms of 'industrial and other non-domestic noise' covered, for example, under the SA EPA's general environmental noise guidelines. These guidelines include the following table noting that noise limits apply to many activities other than wind farm operation. As shown below, noise levels applying to rural living and rural industry are equal to (for night time rural living) or above that applying to wind farm operation.

Land use category	Noise levels not to exceed in dB(A)*	
	7 am–10 pm	10 pm–7 am
Rural Living	47	40
Residential	52	45
Rural Industry	57	50
Light Industry	57	50
Commercial	62	55
General Industrial	65	55
Special Industry	70	60



Further, we are of the view that the proposed legal limit cannot be measured continuously. To do so would require turning the wind farm on and off to establish the actual impact above the background noise level at the time. This is an entirely unworkable proposition.

Pacific Hydro opposes the adoption of this bill

As outlined above, we are strongly opposed to the excessive noise bill for several reasons:

- The bill seeks to add a layer of regulatory burden to the Renewable Energy Electricity Act for an issue (noise) which is most appropriately addressed by state planning and environmental regulations; not the federal Renewable Electricity Act.
- The bill seeks to apply an arbitrary and unscientifically based noise limit to wind farms in particular despite existing guidelines being in place for industrial noise sources and wind farms.
- The proposed noise limit cannot be measured on a real-time basis and hence would impose an unworkable requirement on generators.
- If adopted, this bill would set a precedent for all forms of infrastructure which will have significant impacts for ongoing investment in Australia, potentially for any noise generating source – be it a quarry, road, mine, processing plant, factory, or other electricity infrastructure.

In our view, noise guidelines as a part of planning guidelines, should be determined by individual state governments, to be considered and defined alongside other aspects of infrastructure planning.

Yours sincerely

Lane Crockett
General Manager, Australia
Pacific Hydro Australia