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Clean Energy Council

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 Sir/ Madam,

Clean Energy Council response to the *Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012*

The Clean Energy Council is the peak body representing Australia's renewable energy and energy efficiency industries and has around 600 members. Its priorities are to:

- create the optimal conditions in Australia to stimulate investment in the development and deployment of world's best clean energy technologies;
- develop effective legislation and regulation to reduce energy demand and improve its efficient use; and
- work to reduce costs and remove all other barriers to accessing clean energy.

The Clean Energy Council advocates the development of policies on behalf of its members at federal, state and local government levels and promotes understanding of the industry and its potential through channels such as industry events, forums, conferences, newsletters and publications. The clean energy industry includes generation of electricity using wind, hydro, solar, biomass, geothermal and ocean energy as well as the emerging technologies and service providers in the energy efficiency sector, which includes solar hot water and cogeneration.

The Clean Energy Council welcomes the opportunity to provide a response to the *Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012* (the excessive noise bill). The views expressed in this submission cannot be taken to represent the views of all the member companies of the Clean Energy Council; however they do reflect a general consensus.

The Clean Energy Council supports effective policies being implemented which promote the deployment of renewable energy projects and the attraction of clean energy investment and creation of jobs throughout rural and regional Australia. Wind power as the lowest cost form of large scale renewable energy is an integral part of the renewable energy mix that will be required to meet Australia's legislated target of 41,000 gigawatt hours by 2020.

Summary

The Clean Energy Council does not support the adoption of the excessive noise bill. The bill seeks to apply an arbitrary and unscientific noise limit to wind farms, when existing guidelines are adequate for ensuring the amenity of the community.

Noise guidelines form a part of an overall planning scheme and should be determined by individual state governments, to be considered and defined alongside other aspects of infrastructure planning. Setting a national rule sitting above existing state-based planning regimes will create inconsistency and confusion for planners, industry and the community.

The excessive noise bill sets a precedent for all forms of infrastructure which will have significant impacts for ongoing investment in Australia, potentially for any noise generating projects such as roads and mines.

Wind power will play a crucial role in Australia meeting its renewable energy target and reducing carbon emissions from the electricity sector. Effective policies are required to support the development of all forms of renewable energy and Australia stands to gain significant economic benefits from wind.

Wind farms in Australia currently face among the toughest guidelines in the world in relation to their permissible noise levels

Independent noise consultants Sonus reported in a technical paper commissioned by the Clean Energy Council in 2010[1], "The Standards and Guidelines used in Australia and New Zealand are stringent in comparison to other International approaches". This paper is attached to this submission as Appendix A.

Noise is often the most important factor in determining the separation distance between wind turbines and sensitive receivers like houses. The assessment of noise therefore plays a significant role in determining the viability of and the size of wind farms. Regulatory certainty allows clear, objective assessment that can be confirmed both during the development and operational phases of a wind farm project. The guidelines currently in use in Australia are more than adequate to protect amenity of rural communities.

The noise monitoring methodology proposed is unclear and unscientific

The excessive noise bill, at its core, demands that wind farms do not exceed background noise levels at residences by more than 10 dB. However it does not describe the rationale behind the selection of this noise level. The excessive noise bill also neglects to describe the methodology of this measurement. For example, the measurement distance from dwellings or workplaces of 30 m is totally arbitrary and unscientific.

Existing noise guidelines for wind farms typically set a baseline permissible noise level (measured at a dwelling) of around 35 or 40 dBA, depending on the region in which the wind

[1] Available at: cleanenergycouncil.org.au/resourcecentre/reports.html

farm is located. For cases where the background noise level is higher than that, the wind farm may emit up to background + 5 dB.

The excessive noise bill will allow wind farms to be louder than existing noise guidelines at times of high background noise, and will restrict wind farms to unreasonable noise levels when background noise is very low. If background noise levels were around 5 dB then a wind farm would be allowed to emit only 15 dB, 30 m from a dwelling or workplace. The World Health Organisation recommends noise levels in sleeping areas are kept to less than 30 dB for healthy sleeping conditions[2].

The excessive noise bill does not describe the frequency or methodology for noise measurement, or the length of time for which the wind farm must exceed the noise limit for it to be considered in breach of the requirements. Importantly, it also does not describe for how long the wind farm must be compliant before accreditation is reinstated.

The excessive noise bill requires ongoing monitoring of noise at numerous locations, as well as wind speed, direction, and undisclosed other "weather conditions". Such monitoring, done properly, would come at significant cost.

The guidelines already in use in Australia are more than adequate to protect amenity of rural communities.

Planning guidelines should be defined by state governments

Every Australian state government has planning guidelines that are best suited to the unique requirements of their community, industry, and land use configurations. Planning rules for wind farms (and for any other major project) must simultaneously consider various technical issues and social issues. Noise guidelines sit among these other guidelines as a part of a complete planning regime. To single out one factor for consideration and legislate it at a federal level is not a sensible approach.

State governments should be left to design their noise requirements as a part of their broader planning regime. This is already achieved with regard to wind farm noise by state based noise guidelines.

Wind farms should be treated the same as other infrastructure

Appropriate regulations and community consultation should apply to any wind farm, as they do to any new infrastructure – be it a conventional fossil fuelled power station, a tourist development, a road, a dam or a mine. Where appropriate, on the basis of merit, the planning scheme should manage impacts and relevant concerns. However, that must be balanced within broader state policy objectives.

Treating wind farms differently from other forms of infrastructure could create a precedent that stifles investment in other projects essential to Australia. Applying the excessive noise

[2] World Health Organisation Night Noise Guidelines for Europe. Available online at: http://www.euro.who.int/__data/assets/pdf_file/0017/43316/E92845.pdf

bill's noise limit to a highway, for example, could have catastrophic effects for investment and the Australian economy.

Generation data from individual turbines is irrelevant to wind farm noise

The Clean Energy Council believes that the requirement to publish generation data is unrelated to the desired outcome of the excessive noise bill, which is presumably to protect the community from excessive noise. The power output of individual wind turbines is commercial in confidence; intellectual property protected by the project owner as well as the turbine manufacturer. Other power stations are not required to publish operational data and applying this precedent across all energy generation technologies would be complex and expensive.

It is unrealistic to expect any industry to adhere to unwritten laws

Regulating adherence to unwritten laws is unhelpful for the wind industry, the regulator, and the community. It will introduce uncertainty into the process for all concerned and obstructs the core intent of the excessive noise bill.

Retrospective application of the excessive noise bill is unreasonable

The Clean Energy Council is concerned that the excessive noise bill will be retrospectively applicable. Existing wind farms have been designed and constructed to adhere to existing noise guidelines and changing the noise limits for those wind farms it totally unreasonable.

If the excessive noise bill is approved it should apply to new wind farm projects seeking approval. It should not apply to existing or approved wind farm projects.

Wind power brings significant economic benefits to Australia

Australia has a vast resource potential for wind energy and currently has 59 wind farms, consisting of 1,345 wind turbines with 2,480 megawatts of capacity. In addition to over $7 billion of direct investment, a recent independent report by consultants SKM[3] indicates that wind farms generate significant extra funds for local suppliers, contractors, shopkeepers, community facilities and more, with up to 12 extra ongoing jobs created as a flow-on effect of having a 50 MW wind farm locally. Wind farm companies reinforce these effects by making every effort to locally source materials like crushed rock, cement, sand and gravel, as well as transport and plant hire.

The same report found that a typical 50 megawatt wind farm pays host farmers some $250,000 per year, is constructed by workers who spend up to $1.2 million locally, and contributes up to $80,000 annually to community projects.

This significant economic benefit comes at a low cost. Research shows that the main policy driver for wind energy development, the Federal Government's Renewable Energy Target (RET), has only a small impact on power prices. Currently, wind energy is the most cost-

[3] Available at: www.cleanenergycouncil.org.au/cec/misc/gwd

efficient renewable energy source available. Upgrading old infrastructure like poles and wires is responsible for 40 per cent of power price increases. In contrast, large-scale renewable energy projects like wind farms and hydro-electricity contribute only about 2 per cent to household power bills.

If the most economical wind farms are ruled out due to restrictive planning regulations, then more expensive wind farms or more expensive technologies must be built instead. Bloomberg identified that the Victorian Government's wind farm planning guidelines could increase Victoria's electricity bills by up to $2b in the next decade[4].

The Clean Energy Council questions the value that would be gained for Australian communities by adopting a more restrictive planning regime when the impact on electricity bills will directly impact consumers.

Wind farms are popular

In January 2012 CSIRO released a report called "Exploring community acceptance of rural wind farms in Australia: a snapshot"[5]. The CSIRO found that "There is strong community support for the development of wind farms, including support from rural residents who do not seek media attention or political engagement to express their views."

A recent independent survey carried out for the Clean Energy Council by QDos found that 77 per cent of people surveyed across Victoria, New South Wales and South Australia (including regional areas containing wind farms) saying they supported the development of wind farms.

Wind farms bring additional income to farmers

Wind farming can help farmers generate vital extra income, make better use of marginal farming land, and insure against market downturns. Hosting five wind turbines for the Capital Wind Farm near Lake George in New South Wales has made it possible for Peter and Bev Keatley to stay on their property and make it viable to pass on to their son. Peter is proud of his role in providing clean energy, and calls the wind farm income – $10,000 per turbine per year – 'my super'[6].

A recent independent study completed for the Clean Energy Council found that 80 per cent of respondents thought wind farms could provide important income for farmers and other land owners. The same survey found that 67 per cent of respondents rated a farmer's right to generate income from his/her land more important than a resident's right to a view clear of wind turbines[7].

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[4] See [http://www.abc.net.au/news/2012-02-17/wind-farm-rules-may-lead-to-higher-power-prices/3835458]

[5] Available at: http://www.csiro.au/Organisation-Structure/Flagships/Energy-Transformed-Flagship/Exploring-community-acceptance-of-rural-wind-farms-in-Australia.aspx

[6] Country Style magazine, January 2012

[7] QDos Wind Energy Community Research in Victoria, New South Wales and South Australia, April 2012

Wind power will play a crucial role in Australia meeting its renewable energy target and reducing carbon emissions from the electricity sector. Effective policies are required to support the development of all forms of renewable energy and Australia stands to gain significant economic benefits from wind.

If you have any further questions please contact me via telephone on 03 9929 4118 or by email at alicia@cleanenergycouncil.org.au

Yours sincerely,

Alicia Webb
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Clean Energy Council