



**EnergyAustralia**

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Senate Standing Committees on Economics  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

Dear Sir/Madam

**EnergyAustralia's response to the Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012**

**Overview**

EnergyAustralia welcomes the opportunity to make a submission on the *Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012 (Excessive Noise Bill)*.

EnergyAustralia is one of Australia's largest integrated energy companies, providing gas and electricity to over 2.8 million household and business customers throughout the country. EnergyAustralia's portfolio includes 5628MW of generation capacity. A further 1626MW of EnergyAustralia's projects are under development, including substantial investments in renewable energy.

EnergyAustralia, as a long term participant in the Australian energy market, is committed to working with governments, the community, and other key stakeholders to develop the most effective, technically sound and practical planning framework for delivering a measured approach to ongoing investment in wind energy.

**Summary of EnergyAustralia's position**

Energy Australia does not support the adoption of the Excessive Noise Bill.

EnergyAustralia supports a planning framework that is predictable, transparent and based on scientific analysis which takes into account the individual merits of each project. The noise requirements set out in the Excessive Noise Bill are arbitrary and unscientific. Noise guidelines in use in Australia are some of the strictest in the world and are more than adequate to protect the amenity of rural communities.

In addition, the Excessive Noise Bill confers the risk of non-compliance by wind farm operators with noise standards on electricity retailers which will increase the cost of electricity for consumers. The imposition of additional, more onerous, noise regulations for existing assets is a serious concern and something that will have

significant ramifications in relation to the existing commercial and financing arrangements which underpin these large infrastructure projects.

EnergyAustralia is a strong supporter of the Commonwealth's Renewable Energy Target (**RET**) and under the RET policy framework has made significant investments in renewable energy. The RET is currently being reviewed by the Climate Change Authority and EnergyAustralia has engaged in this process in support of reforms to make the RET sustainable.

As we argued in the RET review process, in light of recent significant increases in energy prices, a key policy challenge is how to minimise the cost to energy customers of Australia achieving its renewable energy objectives. We are similarly concerned that the Excessive Noise Bill will increase the cost of delivering renewable energy and, in doing so, increase the price of electricity for customers.

However, if the Bill is passed, EnergyAustralia considers that a number of amendments are required to minimize the impact on consumers and the investment environment.

A more detailed description of our views is set out in the remainder of this submission.

### **The Excessive Noise Bill confers additional risk to retailers which may increase the cost to consumers**

The Excessive Noise Bill provides that the Clean Energy Regulator must, by written notice, suspend the accreditation of an accredited power station that is a wind farm if the Regulator believes on reasonable grounds that the wind farm is creating excessive noise. Under the RET, liable retailers of electricity are statutorily required to acquit a certain number of Large Scale Generation Certificates (**LGCs**) to the Clean Energy Regulator each year. The Excessive Noise Bill significantly exposes electricity retailers who are statutorily required to acquire LGCs under the RET, where the retailer is sourcing LGCs from a wind farm subject to suspension of accreditation.

One way in which electricity retailers may source LGCs is to enter into Power Purchase Agreements (**PPAs**) with third party RET accredited wind farm operators. Under a PPA a retailer contracts for the purchase of LGCs over a period of time (~5 – 15 years) and at a particular price, on terms and conditions negotiated between the parties.

The majority of existing PPAs in the market have common 'change in law' provisions, which provide that where an accredited wind farm loses its accreditation under the RET the contract will not be regarded as frustrated and the seller nor the buyer will have any right to terminate the PPA or adjust the price paid by the retailer.

If an operational wind farm loses accreditation, and that wind farm is subject to a PPA containing restrictive change in law provisions, the retailer will be contractually required to continue to pay for LGCs even though the wind farm is not creating any certificates. Impacted retailers will then be forced to purchase LGCs in the spot market (or elsewhere) in order to meet their statutory requirement under the RET. Therefore, the retailer will be exposed to both the cost of acquisition of LGCs under the PPA and also the cost of sourcing LGCs elsewhere.

As this is a legitimate pass through cost, this will in most instances at least double the retailer's cost of complying with the RET and costs to electricity consumers will rise above levels they otherwise should be.

Imposing additional, more onerous, noise regulations in relation to existing assets is a serious concern and something that will have significant ramifications in relation to the existing commercial and financing arrangements which underpin these large infrastructure projects.

If the Excessive Noise Bill is approved:

- it should not apply to existing or approved wind farm projects, or those projects for which a planning application has been lodged; and
- we recommend that the legislation contain provisions that exempt retailers from their RET obligations where a wind farm's accreditation is suspended and the wind farm is contractually bound under long term contract containing restrictive change in law provisions.

### **New wind farms will find it harder to gain approval, resulting in additional costs to consumers**

The Excessive Noise Bill will likely put further upward pressure on electricity prices by making the RET more difficult to achieve. For instance, new PPAs will price-in regulatory uncertainty resulting in higher LGC costs and an increase in costs to consumers. Further, should the Excessive Noise Bill result in sites only being permitted in more remote locations or areas with lower wind resources, costs to electricity consumers will also increase as poorer quality, more costly renewable projects will be deployed.

### **Current planning laws are some of the strictest in the world**

Current standards governing noise limits in Australia are amongst the strictest in the world. The noise limit from non-domestic noise sources including wind farms is typically set at 35 decibels, equivalent to a very quiet radio or a quiet library.

The assessment of noise plays a significant role in determining the viability of and the size of wind farms. Prior to building a wind farm, EnergyAustralia must predict the likely levels of noise that will occur at different locations around the site, including nearby residents' homes. We also measure typical ambient noise levels to ensure noise from our wind farm won't substantially add to the level of noise local residents are accustomed to hearing.

All of these checks and balances, in addition to the post construction noise compliance assessment by the relevant environmental authority, ensure that our wind farms are built to comply with strict state government noise standards which are designed to ensure that the impact on nearby residents is negligible. Obtaining planning approval to build a wind farm is not possible until local and state authorities are satisfied the wind farm will meet strict government noise standards.

Currently, the relevant jurisdictional Environmental Protection Agency is the only body that regulates noise compliance of wind farms. The Excessive Noise Bill implicitly

proposes that that Clean Energy Regulator (as the regulatory agency in relation to the RET) will also have a role to play in regulating compliance of noise arising from wind farms. Two bodies adopting differing methodologies and approaches will result in duplication and additional cost for the government, as well as causing significant risks for investors and wind developers.

Therefore, EnergyAustralia considers that the Excessive Noise Bill does not provide regulatory and objective certainty for wind farm proponents to conduct a clear objective assessment that can be confirmed both during the development and operational phases of a wind farm project. We believe the regulations and guidelines currently in use in Australia are adequate to protect amenity of rural communities to this end.

### **Noise requirements are arbitrary and have no scientific basis**

The Excessive Noise Bill requires that wind farms do not exceed background noise levels at residences by more than 10 dB. EnergyAustralia considers that the noise requirements set forth in the Excessive Noise Bill are arbitrary and have no scientific basis. The measurement distance from dwellings or workplaces of 30 m is similarly arbitrary and without scientific basis.

Existing noise guidelines for wind farms typically set a baseline permissible noise level (measured at a dwelling) of around 35 dB, and then for cases where the background noise level is higher than the permissible level, the wind farm may emit up to background + 5 dB. This allows the wind farm to operate when the background noise is extremely low.

In its operation, the Excessive Noise Bill would 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, workplace or congregation area. The proposed 30m perimeter is also at odds with the EPA recommendation that monitoring locations should be at 5m from a house nearest to the wind farm. Further, the broader selection of dwelling, workplace or congregation area for monitoring noise could extend to a local road network or other location with little bearing on possible community concerns. The proposed standards are overly onerous given that the World Health Organisation recommends noise levels in sleeping areas are kept to less than 30 dB for healthy sleeping conditions.

Further, the Excessive Noise Bill is also silent on compliance measures such as amplitude modulation, tonality and low frequency noise. The length of time for which the wind farm must exceed the noise limit for it to be considered in breach of the requirements is not specified and nor is a description for how long the wind farm must be compliant before accreditation is reinstated.

EnergyAustralia considers that impacts on nearby communities are more appropriately assessed using empirical criteria which considers site-specific features and relates to a performance measure with some scientific basis, such as what is currently required under the existing planning regime. The existing planning laws and guidelines already in use in Australia are more than adequate to protect the amenity of rural communities.

Given the highly technical nature of noise and in particular wind farm noise and the limited technical or scientific justification for the new requirements, it is recommended that further input is provided by expert acoustic specialists who have worked with wind energy before.

### **Wind farms and other infrastructure**

The application of regulations and standards should apply equally to wind farms and other new infrastructure, for example, roads, fossil fuelled power stations, ports, or mines. The planning regime should manage impacts and relevant concerns on the merits of the individual project while at the same time balancing broader state policy objectives. Imposing onerous noise requirements on wind farms, as distinct from other infrastructure, will disadvantage the wind industry and make it more difficult for wind proponents to access financing.

The onerous noise requirements set out in the Excessive Noise Bill may also result in it being more difficult to deploy wind technology as a means of meeting the RET, leading to a forced deployment of the next best commercially viable renewable energy technology, large-scale solar (which is currently 50 – 100% more expensive than wind technology). Uptake of non-least cost technology to meet the RET will result in unnecessary costs to consumers.

### **Provision of generation output data**

The requirement under the Excessive Noise Bill to make available individual turbine generation data is inconsistent with the stated objective of the Bill, being to ensure wind farms do not create excessive noise. In addition, it is unclear what the rationale behind the provision of this data is.

The power output of individual wind turbines is proprietary information and is protected vigorously by a 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.

### **Health and wind farms**

EnergyAustralia takes health and safety very seriously. We acknowledge that changes to the local environment through the introduction of a new wind farm facility may cause some people stress or annoyance. However, there is no bona fide, peer reviewed medical or scientific evidence to show that wind farms have a direct adverse effect on human health.

Medical and scientific groups such as NMHRC and the World Health Organisation have looked specifically at wind farms and noise and found no evidence that wind farms have a physiological impact on people living nearby.

### **Economic Impact of wind farms**

Wind energy provides a new 'cash crop' to farmers, supplying them with a complementary, guaranteed source of income that has minimal impact on existing agricultural operations.

In addition to providing a much needed commodity, wind farms provide new sources of income for regional and rural communities. Operating wind farms inject a steady stream of income into their local community through the consumption of goods and services provided by local businesses.

It is important that policy outcomes continue to foster investment in renewable energy in Australia.

### **Summary**

EnergyAustralia supports a planning framework that is predictable, transparent, grounded in science and that mitigates costs to consumers. We do not consider that the Excessive Noise Bill meets any of these objectives. Guidelines currently in use in Australia are some of the strictest in the world and are more than adequate to protect the amenity of rural communities.

Should you wish to discuss or clarify any of the issues raised in the submission then please feel free to contact me.

If you have

Regards

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EnergyAustralia