



## RES Australia

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Wind Farm Noise Project Team  
Department of Environment, Land, Water and Planning  
8 Nicholson St  
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By email: windfarmnoise@delwp.vic.gov.au

## EPA wind farm noise Regulatory Impact Statement

Dear sir/madam,

RES welcomes the opportunity to comment on the Regulatory Impact Statement (RIS) relating to wind farm noise and the duties under the *Environment Protection Amendment Regulations 2021*.

### About RES

In Australia, RES employs over 70 people and has offices in Sydney and Melbourne and multiple regional locations. RES is engaged in all renewable technologies: wind, solar and storage and offers development plus construction and asset management services across Australia. To date, RES has managed a portfolio of 1.3 GW of wind and solar assets in Australia.

In Victoria, RES has developed the 240 MW Ararat Wind Farm and both stages of the 429 MW Murra Warra Wind Farm, creating over 610 direct and indirect jobs in construction and many more in the local supply chain. We also have a further pipeline of projects in Victoria including solar farms at Murra Warra and Baringhup, both of which have planning approvals in place.

RES is also a leader at the global level. At the forefront of the industry for over 38 years, RES has delivered more than 19 GW of renewable energy projects across the globe and supports an operational asset portfolio exceeding 7 GW worldwide for a large client base. Understanding the unique needs of corporate clients, RES has secured over 1.5 GW of corporate power purchase agreements (PPAs) enabling access to energy at the lowest cost. RES employs more than 3,000 people and is active in 10 countries.

### Introductory comments on the RIS

Firstly, we are supportive of the move to consolidate wind farm noise regulation under the *Environment Protection Act* and exclude them from legal action taken under the *Public Health and Wellbeing Act*.

We support the transfer of responsibility for regulation of wind farm noise to the Victorian Environment Protection Agency (EPA). We also welcome the government's objective to increase community confidence and industry certainty.

With regards to the options presented in the RIS, RES supports option 1 (direct regulation) as the best way to achieve these objectives. We believe this option is the best approach to achieving these objectives as it provides a very clear regulatory framework to be followed. RES does not support option 2 (the permit scheme) as we consider it will decrease certainty for the industry and could deter future investment in Victorian wind farms as changes to future permits would be seen as a risk.

RES also considers that the base case (relying on primary legislation only) would provide even less certainty for current owners, operators and future investors and we do not think this alone would improve community confidence as this is likely to lead to years of costly and wasteful court proceedings.

### **Specific comments on the draft regulations**

RES is supportive of post-construction noise assessments conducted soon after commencement of operations and we note this has been a standard requirement of all wind farm planning permits issued in Victoria for many years. On this topic, “commencement of operation” should be clearly defined as wind farms can come into operation in sections (as opposed to stages) and due to grid or other constraints they can be running at less than full operational capacity for some time. We would suggest that the wind industry’s definition of terms such as operations, stages, and commissioning may be different to DELWP or the EPA’s understanding of these terms.

We support the continued use of NZS6808 (1998 or 2010 as appropriate) as the standard for noise assessments and for setting noise limits (i.e. 40dB(A) or 5dB(A) above background). Furthermore, we also support the appointment of an independent environmental auditor to verify that the assessments have been carried out in accordance with the Standard, and we note this has been a requirement of permits issued in Victoria for several years.

We are broadly supportive of the requirement for a noise management plan and an annual statement. However we would also comment that it is essential that these provisions are supported by a clear Code of Practice or Official Guidelines to provide clarity and consistency on best practice in achieving the outcomes mandated by the regulations. For example, provision of maintenance logs and SCADA logs to demonstrate compliance with curtailment regimes present practical challenges as there are tens of thousands of maintenance tasks carried out on a large wind farm few of which have any impact on noise emissions. Clarity is needed on maintaining complaints logs, the assessment of complaints and how evidence of compliance can be provided on an annual basis in the absence of annual testing.

It is also essential that there is no conflict with existing planning permits, given that in Victoria there is often divergence of permit condition wording between individual wind farms projects, especially in relation to older projects. Could an order of precedence be included so if there is a clear conflict then the existing planning permit would take precedence?

RES is not supportive of the requirement to conduct further regular noise testing throughout the life of the wind farm beyond the initial compliance testing conducted post-construction. Firstly we believe this to be wholly unnecessary, and secondly we believe it be practically and technically challenging.

Once a wind farm is built, the turbines do not change either in number or in their operational specification and therefore the noise output will also remain consistent with the initial compliance test. From time to time individual turbines do occasionally develop defects which increase noise levels from those individual turbines. At the point where nearby residents become aware of any elevated noise from such defects, they are clearly audible and remedied quickly by the operator to prevent more serious and costly damage and loss of production. Clearly a 5-year test would not be the most appropriate way to deal with such cases, which would demand immediate action. It should also be noted that most turbines have accelerometers fitted to drive train components

which constantly monitor for defects timely intervention to replace defective components in situ can usually be done in one to two days where as catastrophic failures can lead to many months of downtime and there will be long lead-times for manufacturing new complete units such as gearboxes as well as specialist crane hire and transportation costs. Similarly, blades are regularly inspected for defects such as cracks and leading-edge wear and timely interventions can similarly save extensive and costly major component replacements.

RES has over 38 years of experience in developing constructing and operating wind farms with over 246 wind farm projects built and 148 wind farms currently under our operational management portfolio, some of which are close to the end of their operational life. We employ our own in-house acoustics team who have considerable experience in assessing wind farm noise. In our experience we do not find that wind turbine components deteriorate over time to such an extent that noise levels increase to the point of non-compliance. It is not our experience that noise complaints increase at older wind farms. We would also make the comment that mandatory regular testing is not a requirement in any other jurisdiction that RES operates in elsewhere around the world.

We are also concerned that testing during the life of the wind farm will present serious technical challenges, especially in determining the influence of background noise. Generally, wind turbine noise is often below or slightly above the level of background noise and hence accurate measurement of background noise is of paramount importance. In practice, background noise measurements are taken before construction commences and noise compliance testing a short time after the commencement of operations and hence there is a short duration between the two, however over time background measurements at any particular location may change, for example due to an increase in the amount and density of trees and other vegetation. Without accurate and up to date background measurements compliance assessment becomes more problematic particularly when a test initially shows a noncompliance. This raises the prospect of on/off testing, which would have significant economic impact on the wind farm and as we have mentioned above for little benefit. It also may not be possible to gain access to the original noise test locations at future dates. These locations would have been chosen because of their proximity to the wind farm so that if compliance has been demonstrated at these dwellings then it can be safely deduced that other nearby dwellings will also comply and therefore suitable alternative locations would need to be carefully selected.

We believe a risk-based approach to testing should be adopted which takes into account the risk factors which apply at each wind farm. Clearly the impost of a one-size-fits-all 5 year testing regime is not risk-based and could lead to significant and unwarranted costs to wind farm owners through lost production and the costs of testing with no evidence to support either necessity or effectiveness. A risk-based approach would take into account factors such as the margin between measured or predicted noise levels and the limits, poor history of compliance, evidence of lack of maintenance and complaints history, local environmental factors. Such an approach would be more targeted at wind farms where genuine risk exists and targeted testing at specific dwellings and under specific meteorological conditions where it is considered risk of noncompliance is greatest rather than a mandatory whole wind farm test. We also consider that given the technical challenges detailed, acoustic advice should be sought from suitably experienced acousticians to devise testing guidelines.

Thank you again for the opportunity to respond to this RIS. If you have any questions regarding this submission, please do not hesitate to contact me.

Your sincerely,



Matt Rebbeck



CEO RES Australia