

Construction equipment and wind turbines have the potential to generate noise not typically experienced in the region. We understand the concerns raised by the community and subsequently arranged for acoustic specialists, Sonus, to conduct a Noise and Vibration Assessment which was undertaken in October 2020. Sonus is a member of the Association of Australian Acoustical Consultants (AAAC), a not-for-profit peak body representing professionals with acoustic expertise that offer unbiased and practical advice and assessments.

## What mitigation measures have been implemented?

In accordance with the New South Wales Department of Environment and Conservation Assessing Vibration: a technical guideline (2006), the Secretary's Environmental Assessment Requirements (SEARS) and the EPA's Environmental Assessment Requirements (EARs), Sonus evaluated the tonality and low frequency noise as a result of:

- Construction
- Traffic
- Vibration
- Blasting

Sonus found that noise generated from the indicative wind turbines is predicted to fall within the operational noise criteria at all dwellings in the vicinity of the project, with the exception of four dwellings which were outside the specified guidelines during weather and wind conditions that assist with the propagation of noise. By adjusting the modes of the relevant turbines, all dwellings will achieve the required criteria.

Mitigation measures to reduce noise around construction works include adjustments to scheduling, construction methods, locations and equipment. Construction works, including heavy vehicle movements into and out of the site, will be restricted to the hours between 7am and 6pm Monday to Friday, and between 8am and 1pm on Saturdays.

Vibration levels under wind turbines have been measured and are considered acceptable for highly sensitive uses such as a hospital operating theatre. The level of ground vibration from a wind turbine is often less than below a large tree which moves with the wind. This is because the turbines are designed to transfer energy into electrical power, rather than transferring it into the ground. Based on the separation distances between the construction activities and the nearest dwellings being well in excess of 100m, vibration levels are predicted to fall well within acceptable levels.

## **Contact us**



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