

Willogeleche 2 Wind Farm



Noise Factsheet

Noise is sound that travels through the air in waves. We measure sound levels using units called decibels (dB). How we hear sound depends on how loud it is and its pitch (how high or low it sounds). Sound from wind turbines is usually measured in A-weighted decibels (dBA), which reflects the range of sounds that the human ear is most sensitive to.

WHY A NOISE ASSESSMENT WAS COMPLETED

A noise assessment is a requirement under the *Hydrogen and Renewable Energy Act 2023* (SA) to ensure:

- Protection of community amenity
- Protection of health and wellbeing
- Management of environmental impacts

Noise is a key consideration for nearby residents and therefore assessed in detail.

HOW NOISE WAS ASSESSED

WIND TURBINES:

Key Standards Applied

SA EPA *Wind Farms Environmental Noise Guidelines* (2021)

Noise Limits for Wind Farms



NON ASSOCIATED HOMES:

MAX **40** dB(A)
or background +5 dB



ASSOCIATED HOMES:

MAX **45** dB(A)
or background +5 dB

BATTERY ENERGY STORAGE SYSTEM (BESS):

Key Standards Applied

SA *Commercial & Industrial Noise Policy* (2023)

Noise Limits for BESS



DAY
(7am–10pm):

57 dB(A)



NIGHT
(10pm–7am):

50 dB(A)



NOISE ASSESSMENT FOR THE PROJECT

The *Wind Farms Environmental Noise Guidelines (2021)* have been developed by the SA EPA to provide a framework for measurement, prediction and assessment of noise from wind farms in South Australia.

In accordance with these guidelines the predicted wind farm noise level should not exceed 35 dB(A) in rural living areas, 40 dB(A) in localities or background noise + 5 dB(A).

Any additional infrastructure such as a Battery or substation is assessed cumulatively with the wind turbines to ensure compliance with the guidelines. The noise assessment completed considers the cumulative impact from the existing Willogoleche wind farm in operation.

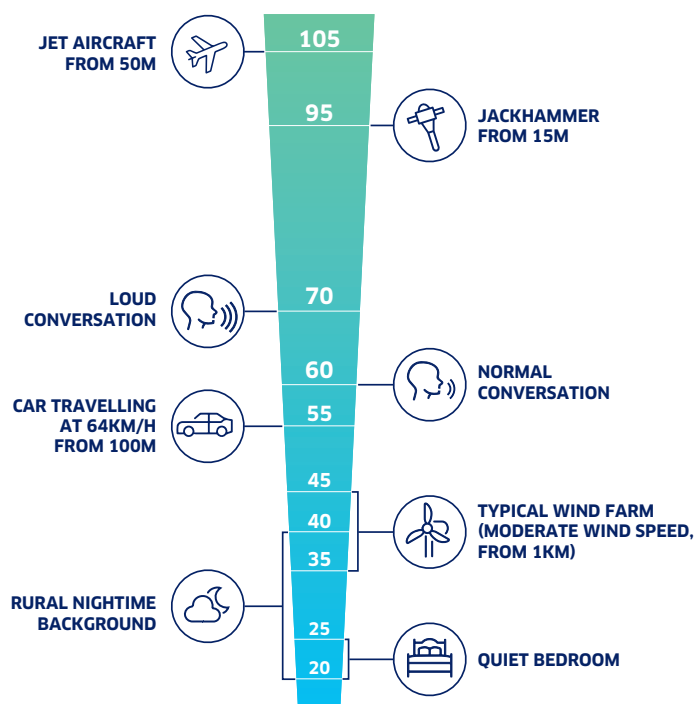
The assessment used background noise monitoring from four representative locations, gathered between March and April 2025, to understand the existing rural sound environment.

The modelling was deliberately conservative:

- all wind turbines operating simultaneously at high sound power;
- the model considered downwind propagation from each turbine to each receiver (This is the worst case);
- terrain, ground absorption and meteorological effects were included in the assessment;
- The BESS was modelled at 200 MW / 800 MWh using maximum fan speed (a worst case which would only occur for short durations).

ENVIRONMENT SOUNDS AND THEIR TYPICAL SOUND LEVELS (DBA)

The sound level of a typical wind farm (operating at moderate wind speed) from 500m to 1km away is around 35 to 45 decibels.



ASSESSMENT OUTCOME

According to independent acoustic modelling, the Project (including supporting infrastructure) achieves the baseline noise criteria at all non-associated and associated receiver locations.

Based on the above, noise from the BESS is predicted to achieve the 50 dB(A) Policy criterion applicable during the “night” period at all nearby noise sensitive receivers. By extension, noise from the BESS will also achieve the less stringent 57 dB(A) criterion applicable during the “day” period.

WHAT DOES THIS MEAN FOR NEARBY RESIDENTS?

- The project has been designed and assessed to operate within the required noise requirements.
- The assessment accounts for existing rural background sound levels and nearby residences.
- A final noise assessment will be prepared once turbine and BESS equipment selections are confirmed.
- The Project may be required to conduct noise monitoring of the Wind Turbines and the BESS once they are constructed and operating to confirm that the Project is compliant with the same EPA SA standards.

Fact sheet source: Appendix D – Willogoleche Stage 2 Wind Farm Noise Impact Assessment, Sonus Pty Ltd, S7711C5, May 2026. This fact sheet summarises the assessment for community information and should be read with the EIR/SEO submission material.

