



Palmer Wind Farm

Visual and noise impacts

This factsheet summarises the Visual, Shadow Flicker and Noise assessments for the Palmer Wind Farm.

The Palmer Wind Farm (the Project) received final approval in February 2025. As part of this approval all visual and noise impacts were assessed and found to be within acceptable guidelines.

The elements of the wind farm that can be seen outside the project area include:

- 40 turbines
- Two electrical sub-stations
- An overhead Transmission line within the project site

The wind turbines for the Palmer Wind Farm are the Vestas 172-7.2 MW turbines with a height of up to 220 meters (pictured on the right).



Visual

Many locations within 5kms from the site will be able to see turbines. Some locations will be able to see turbines up to 20kms away. The number of turbines visible will depend on factors such as topography and vegetation.

The below map provides a broad indication of where the wind turbines might be visible and the number of wind turbines.

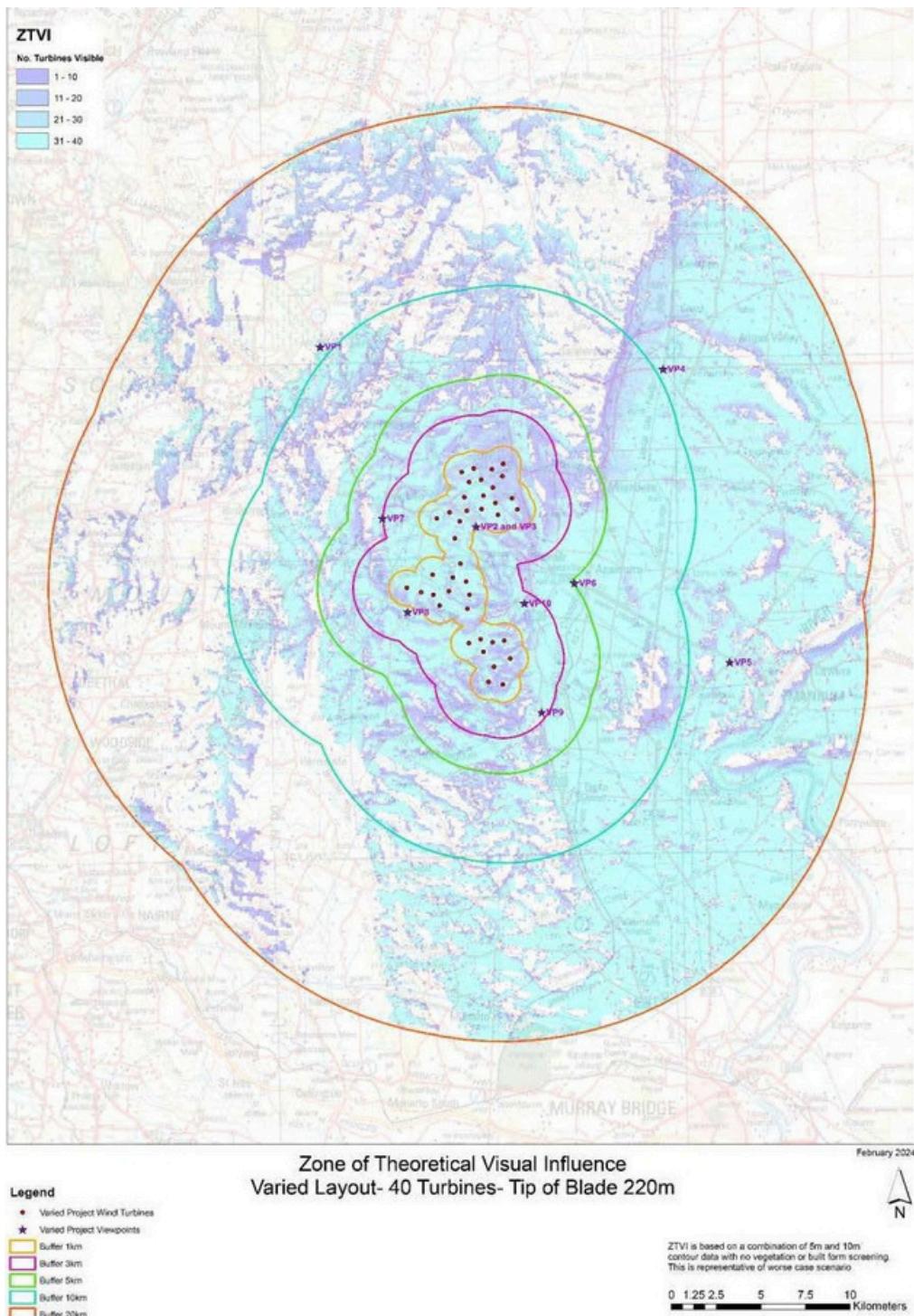


Figure 1: Zone of Theoretical Visual Influence Varied Layout - 40 Turbines - Tip of Blade 220m

Tilt Renewables has prepared photomontages of the Project from select viewpoint locations. Photomontages show what the wind farm will look like once constructed.

See below some examples of what the photomontages look like. To see all the photomontages prepared please visit www.palmerwindfarm.com.au.



Figure 2 (top): Looking northwest from the Palmer lookout.
(middle): Looking west from Randall Road.
(bottom): Looking south from Brinkworth Road and Hentshke Road.

Will there be aviation lighting?

Tilt Renewables is aware of the nearby International Dark Sky Reserve and has worked with authorities to assess the aviation risk of the project. The Aviation Impact Assessment for the Project concluded that the project will not require obstacle lighting on the turbines. This conclusion was approved by the State Planning Assessment Panel, meaning aviation lighting will not be installed on the wind farm.

What is Shadow Flicker?

Shadow Flicker results from the fluctuating light levels caused by intermittent (moving or changing) shadows. It occurs when the sun passes behind the rotating blades of a wind turbine. This casts an intermittent shadow on the area surrounding the wind turbine. Shadow flicker can cause annoyance when it affects a dwelling over an extended period of time. For all our projects we are required to complete shadow flicker assessments and meet state requirements around shadow flicker impacts for nearby dwellings.

The shadow flicker assessment for the Project found no non-associated residences would experience shadow flicker.

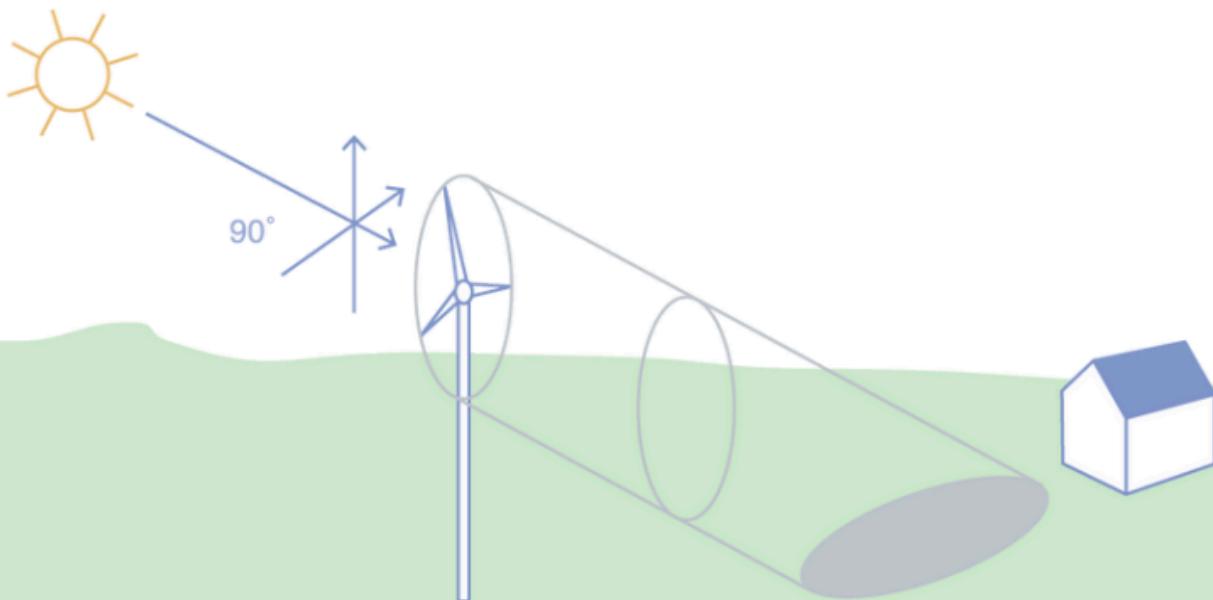


Figure 3: How Shadow Flicker can impact dwellings

Noise

Operational Noise

Wind turbines create a relatively weak but characteristic noise. The noise is mainly generated by the movement of the blades through the air, producing a swishing sound. The mechanical components within the turbine can also create noise.

Noise Regulation

Noise regulations are in place to protect the wellbeing and amenity of the community. Noise regulations consider two types of dwellings:

- Associated dwellings: host landholders and landholders who provide access during construction or operation of the Project.
- Non-associated dwellings: owners or occupiers who are not located within the project boundary and who do not have an agreement with the Project.

South Australia assesses noise from wind farms against the Wind Farms Environmental Noise Guidelines (November 2021).

Under the Guidelines, associated dwellings have a higher noise limit of 45 dB(A).

Noise at a non-associated dwelling can not exceed the higher of:

- 35 dB(A) in Rural Living Zones, or
- 40 dB(A) in other areas, including Rural Zones or
- the background noise (LA90,10) by more than 5 dB(A).

These noise levels apply for both day and night.

The Project has been designed to not exceed the allowable noise at any dwelling that is not associated with the project.

Locals may be able to hear the wind farm but the level of noise will be kept below the relevant noise limits.

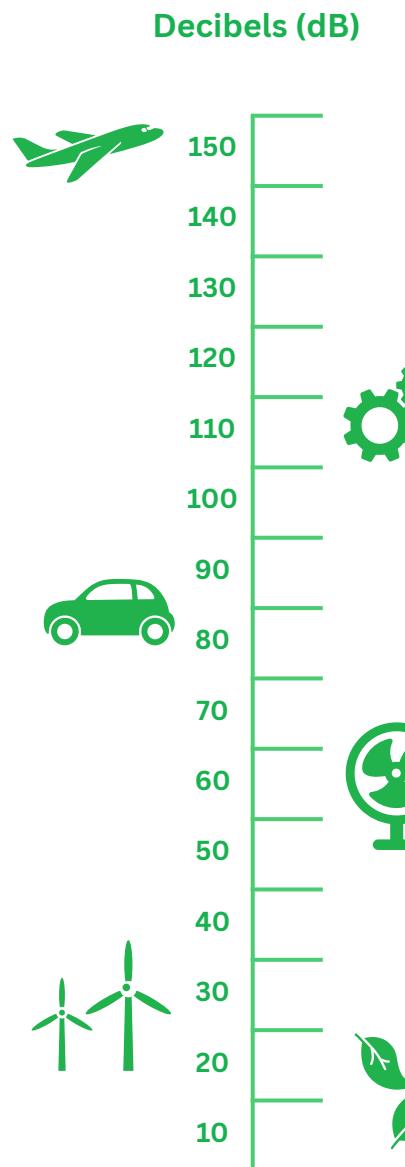
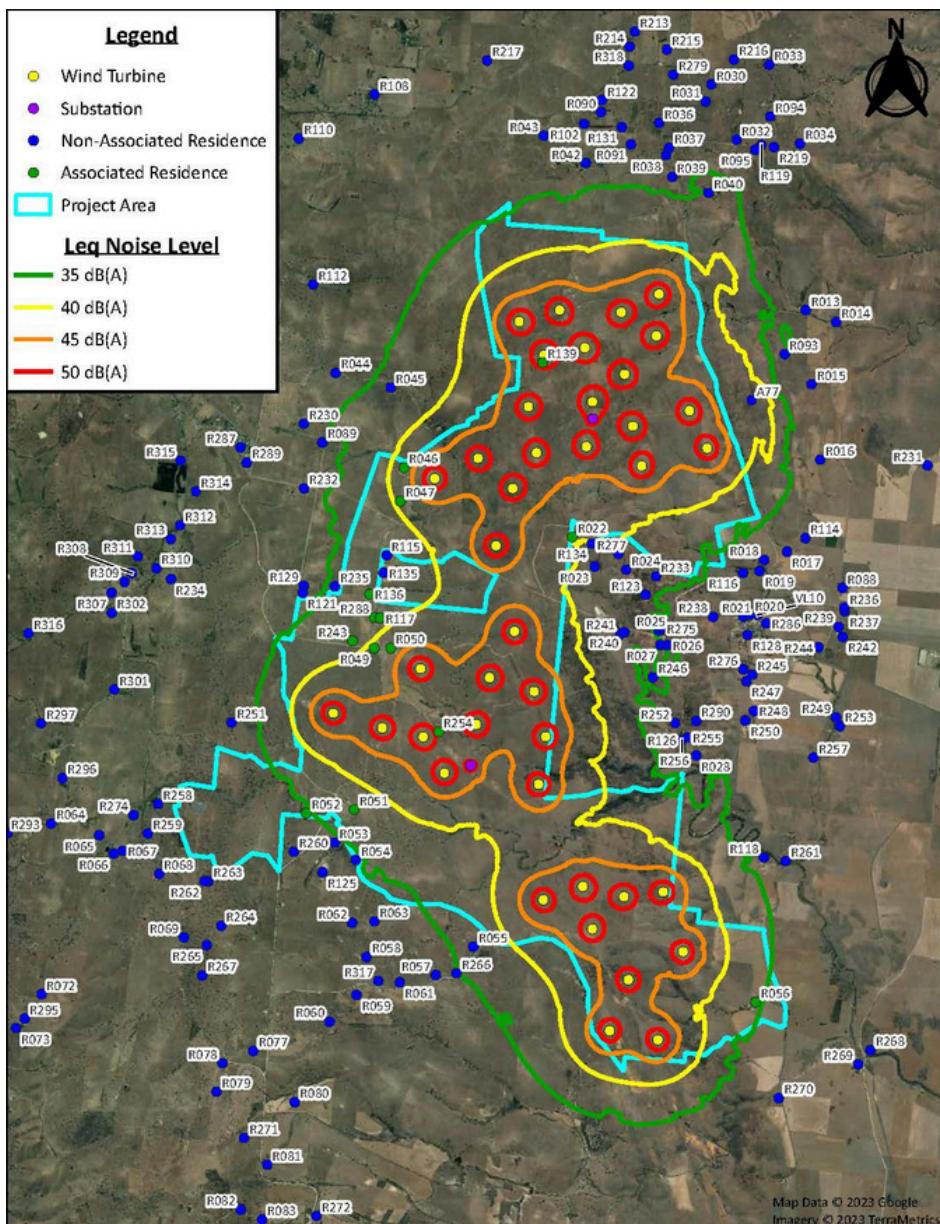


Figure 4: Decibel scale comparing the sound of wind farm at 1km distance to other sounds

Monitoring operational noise

Prior to construction of the Project, Tilt Renewables measured the background noise at several locations near the wind farm to establish a noise level baseline. Once the Project is constructed, these same locations will be tested again to ensure the operational noise from the wind farm does not exceed the limits in the Guidelines.

During operations, we will also monitor operational noise and respond to any noise related concerns or enquiries. Any noise complaints will be handled in accordance with Tilt Renewables' Complaints Handling Procedure.



Questions?

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