



Health concerns

There are nearly 250,000 wind turbines globally, many located near residential areas. Leading health and research organisations, including Health Canada, the Australian Medical Association, and Australia's National Health and Medical Research Council (NHMRC), have found no direct link between wind farms and adverse health effects.

Wind Farms and Health, CEC

Questions from: Andrew Borthwick, Erin Hutton, Lindsay Epworth, Luke Mead, Maureen Borthwick

Wind turbines and human health



The available scientific evidence suggests that EMF, shadow flicker, low-frequency noise, and infrasound from wind turbines are not likely to affect human health; some studies have found that audible noise from wind turbines can be annoying to some. Annoyance may be associated with some self-reported health effects (e.g., sleep disturbance) especially at sound pressure levels >40 dB(A). Because environmental noise above certain levels is a recognized factor in a number of health issues, siting restrictions have been implemented in many jurisdictions to limit noise exposure. These setbacks should help alleviate annoyance from noise.



Wind turbines and human health

Subjective variables (attitudes and expectations) are also linked to annoyance and have the potential to facilitate other health complaints via the nocebo effect. Therefore, it is possible that a segment of the population may remain annoyed (or report other health impacts) even when noise limits are enforced. **Based on the findings and scientific merit of the available studies, the weight of evidence suggests that when sited properly, wind turbines are not related to adverse health.**

Knopper et al, 2014. *Frontiers in Public Health*

Questions from: Andrew Borthwick, Erin Hutton, Lindsay Epworth, Luke Mead, Maureen Borthwick

Infrasound (ultrasound) and health

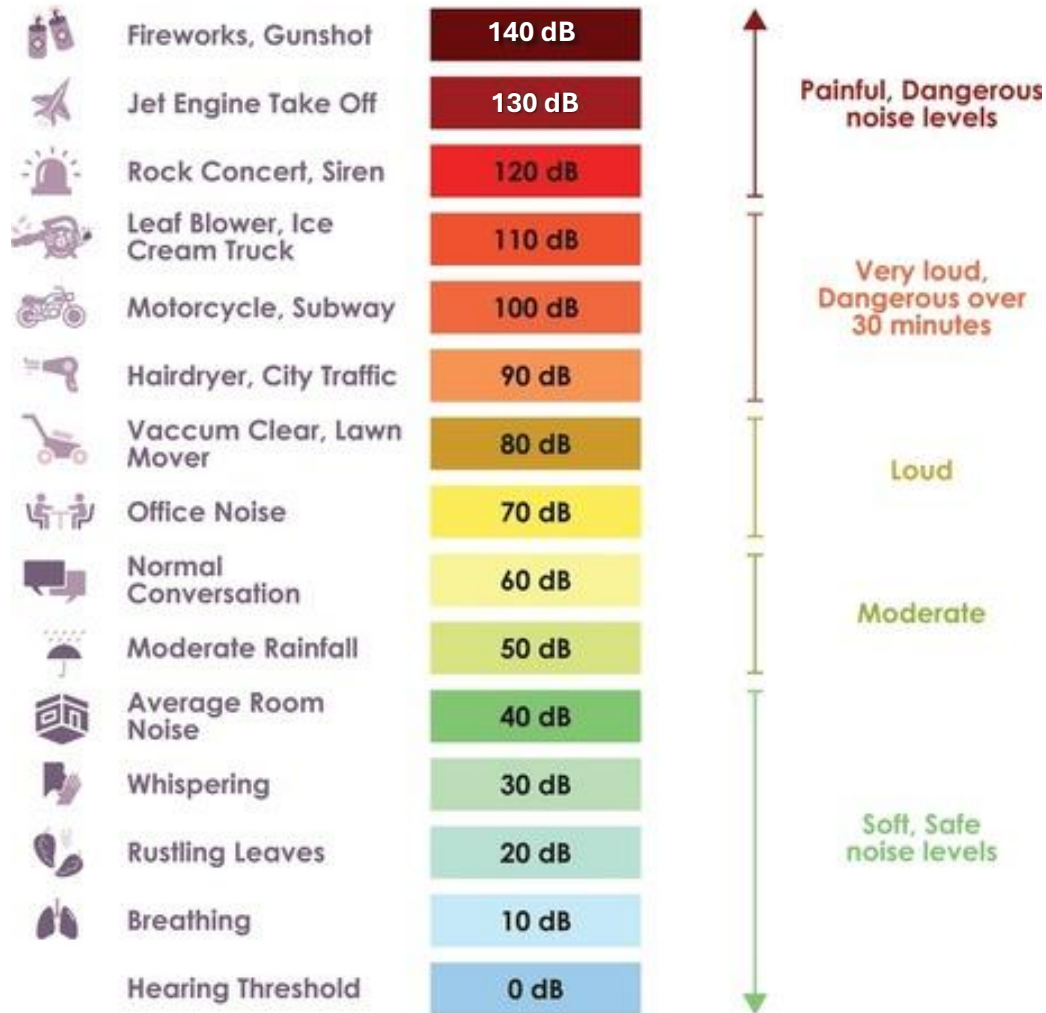


There is no direct evidence that exposure to wind farm noise affects physical or mental health... there are unlikely to be any significant effects on physical or mental health at distances greater than 1,500 m from wind farms.

**National Health and Medical Research Council (NHMRC),
2015**

Questions from: Andrew Borthwick, Erin Hutton, Lindsay Epworth, Luke Mead, Maureen Borthwick

Noise Level Decible Chart





What is 'shadow flicker'?

Shadow flicker is the effect of the sun (low on the horizon) shining through the rotating blades of a wind turbine, casting a moving shadow. This phenomenon becomes a concern for nearby communities when the flashing shadow from a rotating wind turbine casts across a building or home because it can cause the perception of a repeating flicker of alternating light and dark periods through windows.

US Department of Energy (n.d.)

Shadow flicker in Narrogin



Shadow flicker above a moderate level of intensity is not predicted to impact any sensitive receptors outside the Project boundary. However, four dwellings that are considered to be involved with the Project are expected to experience shadow flicker above a moderate level of intensity, which is expected to occur up to a distance of around 10 rotor diameters from the wind turbines. DNV understands that agreements are in place between the Customer [*Neoen*] and the owners of these four dwellings with regards to the anticipated shadow flicker.

Narrogin Windfarm Environmental Protection Authority Submission, DNV Energy Systems, 2023

Questions from: Maureen Bothwick, SW



Aerial firefighting

While there cannot be any guarantee that an installation involved in electricity generation can never malfunction and cause a fire, the potential for fire of wind turbines is inherently low... Aircraft operators undertake a dynamic risk assessment of all risks to aircraft safety during an incident. The presence of wind turbines, high towers and voltage transmission lines, on or near a fire ground would be considered in the incident action plan.

South Australian Country Fire Service (CFS), 2016

Questions from: Austin Piesse, Natasha Pettit, Alicen, SW



Specific risk to cockatoos

Providing a minimum turbine tip height of 49 m above ground level minimises risk of turbine strike for black-cockatoo species which typically fly at canopy height and along areas of remnant vegetation in areas of lower topographic relief.

Narrogin Windfarm Environmental Protection Authority

Submission, Umwelt Environmental and Social Consultants, 2024

Questions from: Natasha Pettit and SW



General risk to birds and wildlife

Within Australia, the greatest threats to birds are now from climate change and extreme weather such as drought, fire and heatwaves. Further threats include invasive species such as cats and foxes, habitat destruction and degradation. The small impact of wind turbines in specific locations needs to be balanced against how renewable energy mitigates and reduces the worst impacts of climate change.

Clean Energy Council, 2025

Questions from: Natasha Pettit and SW



Climate change

- In the south-west of Australia there has been a **decrease of around 16% in April to October rainfall** since 1970. Across the same region, **May to July rainfall** has seen the largest reduction, by around **20%** since 1970.
- Heavy short-term rainfall events are becoming **more intense**.
- There has been an **increase in extreme fire weather**, and a **longer fire season**, across large parts of the country since the 1950s.

State of the Climate, CSIRO, 2024

Questions from: Natasha Pettit, Andrew Borthwick, Lindsay Epworth, Marion Price, Alicen

Cost of development



Levelised Cost of Electricity (LCOE) is the total unit costs a generator must recover over its economic life to meet all its costs including a return on investment... The LCOE cost range for variable renewables (solar PV and wind) with integration costs is the lowest of all new-build technologies in 2024 and 2030.

Gen Cost, CSIRO, 2025

Questions from: Maureen Borthwick, Natsha Pettit, Barry Price



Use of farmland

Wind turbines take up only around 3% of leased land allowing farmers to derive additional income as they continue their core business of producing food and fibre. In many cases, farmers have been able to accommodate wind turbines on less productive hill country, increasing the overall productivity of their land.

Farmers for Climate Action, 2022

Questions from: SW, Marion Price, Andrew Borthwick

Property values



Large-scale projects can actually boost local economies, through increased jobs, improved infrastructure and community facilities. This in turn impacts local property and land values, with many regional and rural areas experiencing increased demand for local properties... A 2022 market report found that median property prices in six New South Wales and Victorian local government areas with major renewable projects actually rose significantly – between 35-51% over five years.

Clean Energy Council, 2025

Questions from: Maureen Borthwick, Natasha Pettit, Barry Price, SW

Decommissioning



The expected operational life of the wind farm will be up to 25 to 30 years. At the end of the operational life the wind farm will be decommissioned and removed from service in accordance with this plan. The decommissioning and rehabilitation of the wind farm project site at the end of its commercial life is at the proponent's [*Neoen*] obligation and cost... Any land disturbed during the construction, operation or decommissioning of the wind farm will be rehabilitated. This includes some areas containing native vegetation and cropping areas.

Narrogin Windfarm Environmental Protection Authority Submission, Neoen, 2024

Question from Marion Price

Resources for landholders



Australian Energy
Infrastructure
Commissioner
resource page



Opportunities for
farmers and
regional
communities from
renewable energy
(Farmers for
Climate Action)



Guide to benefit
sharing options
for renewable
energy projects
(Clean Energy
Council)



What happens
when
renewables
approach end of
life?
(RE-Alliance)



“Every component of my life was attacked:”
How wind farm misinformation tore community apart

