

Wind turbines and health

Sound, health and wind farms

Reviews conducted by leading health and research organisations from all over the world, including the Australian Medical Association and Australia's National Health and Medical Research Council, have found no direct link between wind farms and health effects.

What is a wind farm?

Wind power involves generating electricity from the naturally occurring power of the wind. Wind turbines capture wind energy with their blades. The spinning blades drive an electrical generator that produces electricity for export to the electricity grid.

Will I hear wind turbines?

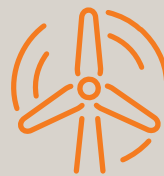
Wind turbines do create sound, like the ocean, cars, tractors, even the wind itself. The sound they make can be described as a cyclic whooshing or swishing sound. Usually, it is possible to carry on a conversation at the base of a wind turbine without having to raise your voice. At times the turbine may rotate to face the direction of the wind. Like any mechanical movement, this creates sound.

What steps are taken to ensure wind farms are not too loud?

During the development of a wind farm, detailed noise studies are undertaken by specialist consultants who apply the environmental noise guidelines and standards to predict noise levels for a proposed project.

Are wind farms monitored for noise?

Wind farms are required to meet strict noise requirements which are put in place through the approval process. The final layout and turbine selected for a project must meet the applicable noise limits set by relevant legislation and guidelines. Monitoring of noise is undertaken once a wind farm is operational to ensure noise requirements are being met.



Wind farms are considered not only a clean source of energy but **safe to human health**.

Do wind farms cause health concerns?

There have been multiple scientific, peer-reviewed studies on wind farm noise that have found that infrasound from wind farms is not a problem and does not cause negative health effects. Wind farms are considered a safe and clean source of renewable energy.

Do wind turbines in Australia produce harmful low-frequency noise?

Wind turbines in Australia do not produce harmful low-frequency noise. Studies have shown that the levels of low-frequency noise from wind turbines are well below the threshold for human perception and health effects¹.

Can infrasound from wind turbines cause health problems?

The Australian National Health and Medical Research Council (NHMRC) provides advice to the community and government on the issue. The NHMRC concluded that there is currently no consistent evidence that wind farms cause adverse health effects in humans.²

Levels of low-frequency noise from wind turbines are well below the threshold for human perception and health effects

¹ Select committee on wind farms: <https://www.aph.gov.au/DocumentStore.ashx?id=b7b8b83f-a7dc-451f-861d-cc5ba849ab2d&subId=304631>

² NHMRC report: <https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/how-we-source-energy/coopers-gap-wind-farm/20100701-agl-nhmrc-wind-turbines-and-health.pdf>

Studies From Government Health & Environment Authorities

National Health And Medical Research Council (NHMRC)

The NHMRC is the Australian Government's primary health and medical research funding agency and have stated there is no direct evidence that exposure to wind farm noise affects physical or mental health. While exposure to environmental noise is associated with health effects, these effects occur at much higher levels of noise than are likely to be perceived by people living in close proximity to wind farms in Australia. The parallel evidence assessed suggests that there are unlikely to be any significant effects on physical or mental health at distances greater than 1,500 m from wind farms.³

Victorian Department Of Health

The Victorian Department of Health released information on wind farms, sound and health in May 2013, concluding "evidence indicates that sound can only affect health at sound levels that are loud enough to be easily audible. This means that if you cannot hear a sound, there is no known way that it can affect health. This is true regardless of the frequency of the sound."

Massachusetts Institute Of Technology (MIT)

MIT released a critical review of scientific literature in December 2014. The review took into consideration health effects including stress, annoyance and sleep disturbance, as well as other effects that have been raised in association with living close to wind turbines. The study found: "No clear or consistent association is seen between noise from wind turbines and any reported disease or other indicator of harm to human health." The report concluded that living near wind farms does not result in the worsening of and might even improve, the quality of life.⁵

There is no reliable or consistent evidence that wind farms directly cause adverse health effects in humans.

³ NHMRC report: <https://www.nhmrc.gov.au/file/19045/download?token=0IAI7MHu>

⁴ <https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/how-we-source-energy/coopers-gap-wind-farm/20130401-agl-dep-health-wind-farms-sound-and-health-community-info.pdf>

⁵ <http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php>



Level 20, 180 Lonsdale Street
Melbourne VIC Australia 3000
+61 3 9929 4100
info@cleanenergycouncil.org.au

cleanenergycouncil.org.au

Scan here
for more clean
energy fact sheets

