Public Health Association of Australia:  
Policy-at-a-glance – Health Effects of Wind Turbines Policy

Key message: PHAA will –

Provide the public and governments with reliable evidence about health effects of wind energy

Summary: Wind energy is an important part of the renewable energy spectrum for replacing fossil fuels to improve human health and protect the environment now and in the long term. Some people report adverse effects from wind turbine noise, despite a paucity of peer-reviewed evidence to support some of these claims. On the balance, the evidence suggests that at on a population level, the adverse impacts of fossil fuels outweigh the adverse effects of wind technology.

Audience: Federal, State and Territory Governments, health professionals, energy regulators, general public.

Responsibility: PHAA’s Ecology and Environment Special Interest Group (SIG).

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HEALTH EFFECTS OF WIND TURBINES POLICY

The Public Health Association of Australia notes that:

1. Health impacts of wind turbines, including “Wind Turbine Syndrome” and “Vibroacoustic Disease” have been raised as concerns in the media and some of the literature, but these collections of symptoms are not recognised medical conditions.

2. Despite some limitations to the availability of relevant studies, many reviews of the literature have failed to identify evidence that infrasound (that is low frequency sound, in the range less than 200Hz,) has adverse effects on health at the levels produced by modern wind turbines. Symptoms which people claim are consequent to wind turbine exposure, may be common in the community and may sometimes be attributed to psycho-social factors. In general, a relative minority of those exposed to wind turbines report being affected, and annoyance is higher in those who are unhappy about the presence of wind turbines.

3. A review of over 60 scientific review articles on wind turbine noise and health states that "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".

4. In 2014 the NHMRC released a further review of the literature on the health effects of wind turbines. Three aspects of wind turbine effects were reviewed: noise, shadow flicker and electro-magnetic radiation (EMR). No reliable or consistent evidence of noise directly causing health effects was found, although indirectly the annoyance and possible sleep disturbance some people experienced may impact on wellbeing. Impacts from audible, infrasound and low frequency noise from wind turbines were considered. However study outcomes reporting health effects from annoyance and sleep disturbance may also be affected by from bias, or confounding factors (such as an antipathy to wind farms). No evidence of effects from shadow flicker were found. The levels of low frequency EMR were less than in the average suburban home.

5. There is evidence that audible sound from multiple sources (and so presumably wind turbines) can cause annoyance and sleep disturbance in a small proportion of the population. With wind turbines, it is the variable tonal or fluctuating swish audible component that may contribute to the annoyance in susceptible people.

6. There is some support for a view that the reported effects may in some cases may be consistent with a pattern of psychogenic, ‘communicated’ disease and may be affected by the nocebo effect, where a heightened fear of a new development has been generated.

7. The impacts which some people perceive to their lives should not be trivialised or ignored, but they need to be placed in context. The impacts of wind turbines need to be assessed in the bigger context of the health effects of all energy choices. In the broad context the immediate, direct, local and global, long term effects of fossil fuels, nuclear energy and renewable energy need to be considered. Fossil fuel and nuclear energy present a much
greater threat to populations as a whole and to the environment than do the effects of wind turbines.

_The Public Health Association of Australia affirms the following principles:_

7. The balance of evidence currently suggests that although wind turbines are not completely free of all harm to neighbouring populations, in comparison with non-renewable sources of energy such as fossil fuels, and nuclear energy, they are likely to be considerably less harmful in both the short and long term at a population level than the alternatives.

_The Public Health Association of Australia believes that the following steps should be undertaken:_

8. Complaints of people affected by the noise of wind turbines need to be recognised and managed, and fair and reasonable solutions for them developed.

9. Allegations of harm to health from wind turbines need to be placed in the context of minimal evidence supporting some of these claims and considerable evidence supporting harms from alternative energy sources.

10. Governments should support wind power as one of the renewable energy options to rapidly transition of the economy from fossil fuels. This is supported on both health and climate grounds.

_The Public Health Association of Australia resolves to undertake the following actions:_

11. The Board and Branches, with advice from the Ecology and Environment Special Interest Group, will:

   • Advocate an evidence-based approach to discussion of energy options and their health impacts
   • Engage with governments to ensure that decisions about regulation of wind turbines (and other energy sources) are based on the evidence of what is best for population health and wellbeing.

ADOPTED 2014

_First adopted at the Annual General Meeting of the Public Health Association of Australia in September 2014._

_References:_


2. Castelo Branco NAA, Alves-Periera M Vibroacoustic disease. *Noise & Health* 2004; 6, 3-20


8. Leventhall, H., Low frequency noise and annoyance. Noise and Health 2004, 6, (23), 59
