

# Wind farm chief urges tighter rules for noise monitoring

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Noise monitoring of wind farms must be tightened to ensure they never exceed new guidelines set by the World Health Organisation, Australia's wind farm commissioner has said.

The WHO yesterday confirmed excessive wind turbine noise could be linked to health problems and for the first time included the renewable energy source in regulations covering road noise, aeroplanes and loud music.

A WHO investigation highlighted a lack of quality research into wind farm noise and health and said because of its special characteristics, existing measurements might not be adequate.

It made a conditional recommendation that a level be set for average noise exposure of below 45 decibels.

"Wind turbine noise above this level is associated with adverse health effects," the WHO said.

Australia's Wind Farm Commissioner Andrew Dyer said the recommendations were similar to Australian regulations, which ranged from 35dB to 45dB.

Mr Dyer said he would prefer to see a uniform noise level set in all states.

"The important thing is to ensure that the WHO guidelines were not exceeded at any premises," Mr Dyer said. "The tricky thing in this business is who has authority to set standards, implement them and police them."

Of particular concern had been the use of the same acoustics consultant for pre- and post-construction measurements.

New regulations in Victoria insist different, independent consultants be used for before and after testing for new projects.

On health, Mr Dyer said more research was needed, including two studies commissioned by the National Health and Medical Research Council, which were not due until after 2020.

The WHO said the evidence on the adverse effects of wind turbine noise was rated low-quality, but it said the noise emitted from wind turbines had other characteristics, including the repetitive nature of the sound of the rotating blades and atmospheric influence leading to a variability of amplitude modulation, which could be the source of above-average annoyance.

“This differentiates it from noise from other sources and has not always been properly characterised,” the WHO said.

This might “limit the ability to observe associations between wind turbine noise and health outcomes”, the WHO said.

Acoustics expert Steven Cooper said what was missing were socio-acoustic studies to give a dose-response curve to better indicate safe exposure levels.

Mr Cooper has presented research that showed people who were sensitised to wind turbine noise could “sense” the operation of a wind turbine signal in the laboratory even though no one else could hear it.

Mr Cooper said the WHO recommendation was significant, but more work was needed to understand the characteristics of wind turbine noise and the dose response.

“It is a big issue now the WHO has stepped out and said wind turbines can cause health impacts,” he said. “We are getting closer to understanding it and we are doing it with facts.”

The Waubra Foundation, which has campaigned against noise from wind farms, said it welcomed the WHO statement.

“This is long overdue acknowledgment by the WHO of health risks from excessive wind turbine noise,” the foundation said.