

## Noise specialist cheers wind farm report

GRAHAM LLOYD THE AUSTRALIAN JANUARY 23, 2015 12:00AM

**A STUDY of health impacts from low-frequency noise at Victoria's Cape Bridgewater wind farm is "groundbreaking" and makes "a unique contribution to science", a noise and health expert says.**

Bob Thorne, a psycho-acoustician qualified to assess health impacts from noise, said the obvious question from the report, written for owner Pacific Hydro, was whether the operation could be modified to reduce or mitigate disturbances to residents.

"At 235 pages for the report and six technical annexures (491 pages), the study cannot be matched by any previous wind farm study in Australia," Dr Thorne said in a letter to its author, Steven Cooper, and provided to The Australian.

Mr Cooper was asked by Pacific Hydro to assess three households that had complained about impacts from the wind farm.

He used sophisticated recording equipment inside and outside the houses and near the wind turbines and matched the wind farm performance with sensations recorded in diaries by six residents.

In his report, Mr Cooper said the residents' observations "indicates that the major source of complaint from the operation of the turbines would appear to be related to sensation rather than noise or vibration".

The impacts were found to be most pronounced when the turbines were starting up, at full power or changing load by



Local resident Melissa Ware near the Cape Bridgewater wind farm in Victoria. Source: News Corp Australia

more than 20 per cent up or down. The trigger for adverse sensations was identified as 4Hz to 5Hz at 50 decibels, well below the hearing threshold for that frequency.

Mr Cooper said the results were in line with studies in the US on early-model wind turbines and appeared to be the result of instability of the turbine blades, which did not have free air flowing over them.

Due to the small number of residents surveyed, Mr Cooper and the company said, more testing was required. Pacific Hydro has said that it did not accept Mr Cooper's findings that a "cause and effect" had been established between wind-farm performance and resident complaints.

The Clean Energy Council has dismissed the findings .

Dr Thorne, who has been asked previously to investigate the health concerns of residents living near wind turbines, said the Cooper report "has raised hard questions for Pacific Hydro to discuss with the residents ... The development and determination of the concept of 'sensation' as distinct from 'noise' due to infrasound, low-frequency sound, audible sound or vibration is groundbreaking and unique", Dr Thorne said.

"The concept has an important place alongside standard measures such as 'quality of life' and psycho-acoustical correlates."

The obvious support from both Pacific Hydro and the residents was the standout feature of the Cooper study, "and it is clear from the text that the outcomes were not envisaged by yourself (Cooper) or study participants".

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