

Lori & Sherm

From: "Colin Hansen" <colin.hansen@adelaide.edu.au>
Date: Thursday, August 30, 2018 8:23 PM
To: <sol@midstatesd.net>
Subject: Re: Wind farm noise

Dear Mr Fuerniss

Thank you for your message. I am very sorry to hear of your predicament with wind turbines near your house and more proposed turbines. I certainly sympathise with your situation as that many turbines so close to your residence is clearly unacceptable. I can give you some free advice but I am not able to be directly involved in any legal proceedings. Based on your message, I have the following comments.

1. 45 dBA is an unusually high allowable noise limit. In my state in Australia, the limit is 40 dBA for a commercial farming area and 35 dBA for a rural residential area. Some states are currently working on legislation that will limit noise to 35 dBA at all residences in rural areas. This is substantially lower than the levels that you have to put up with and I would regard 45 dBA as very excessive.
2. The dBA scale underestimates annoyance and sleep disruption of low-frequency noise. Vertigo has also been reported by many people living near wind farms.
3. It is difficult to demonstrate problems to courts when they visit wind farm sites for a number of reasons, including
 - (a) The wind may not be blowing sufficiently to cause the wind farm to emit its worst case noise.
 - (b) The wind farm operator can run the turbines at low noise and low power output to minimise noise during a court visit.
 - (c) Worst case noise usually occurs at night as that is when mid and high frequency background noise is usually lowest and it is also when more favourable meteorological conditions exist that maximize noise downwind of the turbines.
4. For the reasons mentioned above, long term noise monitoring is needed over several months to properly evaluate existing wind farm noise levels.
5. 2000 ft set back is way too short. In the one state in Australia where setback distances have been legislated, it is 3,300 ft. Even this is way too close as we have many instances of serious complaints from people living 10,000 ft or more from the nearest 3 MW turbine in a 37 turbine wind farm.
6. Wind farm noise is quite different in character to traffic noise, which the WHO uses as a basis of its recommended exterior noise levels, and wind farm noise can be considerably more disturbing at the same dBA level for most people. This is a result of its low-frequency energy content which becomes more noticeable as the distance from the wind turbines increases and as mid and high frequency background noise from other sound sources decreases.
7. People have widely varying hearing thresholds and sensitivity to low-frequency noise such that some people are completely unaware of noise that is causing severe annoyance and associated medical problems for other people. This results in some journalists and misguided academics (see Simon Chapman's rantings on <http://theconversation.com/profiles/simon-chapman-1831>) claiming that wind farm noise is at too low a level to affect people and unfortunately courts also have access to these articles. This makes any litigation very difficult to win.

I wish you the very best in your fight for your rights to not have your environment, sleep and health disrupted by intrusive noise.

Best wishes

Colin Hansen