

Massachusetts Wind Turbine Health Impact Counter Points

- **What the Study Says:**
 - **On page 1:“...It should be noted that the scope of the Panel’s effort was focused on wind turbines and is not meant to be a comparative analysis of the relative merits of wind energy vs. non-renewable fossil fuel sources such as coal, oil, and natural gas.”**
 - However:
 - The second paragraph of Chapter 1 of the study discusses a significant decrease in the consumption of conventional fuels and a corresponding decrease in the production of carbon dioxide and nitrogen and sulfur oxides
 - The second paragraph states that reductions in the production of these pollutants will have demonstrable and positive benefits on human and environmental health
 - Appendix A has a 28 page summary on the origin of wind energy, the mechanics and operation of wind turbines, and the reduction of emissions if more turbines were providing energy (Section 12 is titled “Wind Turbines and Avoided Pollutants”)
 - **On page 1: “The overall context for this study is that the use of wind turbines results in positive effects on public health and environmental health...local impacts of wind turbines, whether anticipated or demonstrated, have resulted in fewer turbines being installed than might otherwise have been expected. To the extent that these impacts *can be ameliorated*, it should be possible to take advantage of the indigenous wind energy resource more effectively.”** This passage indicates the true purpose of the Massachusetts study—to create an expansion of the wind industry through a slanted interpretation of wind health study documents.
 - The Panel merely reviewed literature and public media sources and met only three times
 - Stated that sleep disruption is the most commonly reported complaint by people and discusses this primarily as a result of “unwanted sound” and audible, amplitude-modulated noise (“whooshing”)
 - Writes off most self-reported “annoyance” as a combination of sound, sight of the turbine, and attitude towards the wind project (ES-5)
 - Therefore, according to the Panel, because they “found” no negative health effects to humans as a result of their literature research, it must necessarily follow that there are positive health effects. Yet, these positive health effects are not the result of wind turbines being safe, but that the turbines’ “green” impact on the environment will result in a decrease of conventional sources of fuel. This endorsement of safety is an admission that the Panel failed to strictly adhere to the scope of their charge.
- **Expert “Independent” Panel Members:**
 - Dr. James F. Manwell and Dora Anne Mills are extreme pro-wind advocates:

- Manwell oversaw the first utility scale wind turbine and the largest wind turbine constructed in Massachusetts
- Manwell has won several awards from American Wind Association and U.S. Department of Energy
- Mills has provided public testimony and “op-ed” newspaper pieces supporting wind turbines while a member of the Commission and before the findings were released
- Posted information on Maine’s CDC website as Maine’s public health director that wind turbines do not have negative health effects in 2009
- Page 2 of the study states that 5 of the panel members “did not have any direct experience with wind turbines.” While the other members had backgrounds in epidemiology, toxicology, neurology, and sleep medicine, they had no past direct experience with wind turbines
- **Massachusetts Study Cites Sources that Contain Information that Wind Turbines Cause Negative Health Effects:**
 - The Panel used several articles by the same authors of other studies that Senator Lasee provided to the PSC
 - The Panel used several articles that Senator Lasee provided to the PSC that found that infrasound from wind turbines can have negative health effects, yet the Massachusetts panel comes to different conclusions than the study authors:
 - Ambrose, S.E. & Rand R. W., (2011, December). The Bruce McPherson Infrasound and Low Frequency Noise Study: Adverse Health Effects Produced By Large Industrial Wind Turbines Confirmed. <http://randacoustics.com/wp-content/uploads/2011/12/The-Bruce-McPherson-ILFN-Study.pdf>.
 - Nissenbaum, M., Aramini, J., & Hanning, C. (2011). Adverse health effects of industrial wind turbines: a preliminary report. Paper presented at the 10th International Congress on Noise as a Public Health Problem (ICBEN) London, UK.

Concludes on page 6: “We conclude that IWT noise...disrupts the sleep and adversely affects the health of those living nearby. The current ordinances determining setback are inadequate to protect the resident and setbacks of less than 1.5km (appx. 1 mile) must be regarded as unsafe.”

http://www.healthywindwisconsin.com/Nissenbaum%20et%20al%20ICBEN2011_0158_final.pdf.
 - Moller, H. & C.S. Pedersen, “Low-frequency noise from large wind turbines,” Journal of the Acoustical Society of America, June 2011 vol. 129 no. 6 pages 3727-3744. <http://dx.doi.org/10.1121/1.3543957>.
 - These include Dr. Alec Salt, who is presenting two new papers before the end of this year demonstrating that infrasound has negative health effects on humans
 - Salt, A., “Infrasound: Your ears ‘hear’ it but they don’t tell your brain”—Powerpoint presentation by Alec N. Salt, Ph.D., Department of Otolaryngology, (2010), Washington University School of Medicine,

First International Symposium on Adverse Health and Wind Turbines, Sept. 2010. http://windvigilance.com/downloads/symposium_2010/swv_symposium_presentation_infrasound_your_ears_hear_it_2.pdf.

- Salt, A.N. & Hullar, T.E., “Responses of the ear to low frequency sounds, infrasound and wind turbines,” *Hearing Research*, September 2010 vol. 268 nos. 1-2 pages 12-21.
<http://www.ncbi.nlm.nih.gov/pubmed/20561575>.
- Salt, A.N. & Kaltenbach, J.A., “Infrasound from wind turbines could affect humans,” *Bulletin of Science Technology & Society*, August 2011 vol. 31 no. 4 pages 296-302.
<http://bst.sagepub.com/content/31/4/296>.

- **Wisconsin Law:**

- 196.378(4g)(b)
 - “...these rules shall include setback requirements that provide reasonable protection from any health effects, including health effects from noise and shadow flicker, associated with wind energy systems.”
 - A political subdivision may not place a restriction on the installation or use of a wind energy system more restrictive than the rules promulgated by the PSC.

- **Final Thoughts:**

- The Brown County Board of Health issued a resolution stating that wind turbines cause negative health effects
- Studies cited by the Massachusetts Study and by Senator Lasee contain evidence that wind turbines cause negative health effects
- With the PSC in possession of these studies (nearly a 12 inch stack total), they are aware that there is peer-reviewed information stating that wind turbines cause negative health effects
- With Wisconsin citizens feeling negative health effects by wind turbines, PSC 128 is not compliant with state law and the PSC should promulgate an emergency rule to protect the health and safety of the citizenry.