

WIND POWER DEBATE: Turbine study not dismissed

Contrary to opponents' claims, Maine study was peer reviewed and published

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The gloves appear to have come off in the debate over whether wind turbines are a health hazard. Information in a story that appeared in the Jan. 19 edition of the *Old Colony Memorial* was based on data provided by wind turbine advocates and, with further investigation, has proven to be misleading.

The information was released to the media after a study by Dr. Michael Nissenbaum, of the Northern Main Medical Center, and colleagues revealed that people living within 4,500 feet of industrial wind turbines suffer from worse sleep disturbances and reductions in mental function than those who do not. The study concluded that wind turbines located in close proximity to residences can pose a health risk.

Wind turbine proponents fired back, and produced a Canadian court case that questioned Nissenbaum's claims. These proponents contended that Nissenbaum's study was dismissed, when, in truth, the court case and the study were not even linked.

The court case, dated October 2010, involved an injunction to stop construction of an industrial wind turbine farm. The judge ruled against the injunction and Nissenbaum's contention that wind turbines should be at least 2,000 meters (more than 6,000 feet) from homes. Nissenbaum based that opinion, he said, on a preliminary study he'd conducted that revealed that people living within 1,400 meters of a wind turbine were suffering ill affects. But this was not the study released last year, which was peer reviewed and published. Since this research was released, Nissenbaum has revised his opinion.

"What I should have said was 3,000 meters," Nissenbaum said in a phone Friday. "We know that at Mars Hill and Vinalhaven (in Maine) people are suffering pretty seriously at 1,500 meters. That's been proven. If we want to drop those sound levels by between 3 and 6 decibels, we have to double the setback distance of those suffering at Mars Hill. It's a known acoustical principal that, depending on the frequency, noise levels will drop by between 3 and 6 decibels with the doubling of distance."

Since the court case, Nissenbaum has co-authored a scientific study of the issue, using validated questionnaires and employing nurse practitioners. The study wasn't released until October 2012, two years after the court case, and Nissenbaum did not reference it in court in 2010.

"I personally did not handle any of the data and did not participate in any of the statistical analysis," Nissenbaum said. "It was all very clean and done very scientifically to

eliminate any claims from wind turbine advocates. I co-wrote it, but I did not handle the data or numerical analysis.”

The study’s claims are as follows:

“Participants living within 1.4 kilometers (4,593.2 feet) of an IWT (Industrial Wind Turbine) had worse sleep, were sleepier during the day and had worse SF36 Mental Component Scores compared to those living further than 1.4 kilometers away. The adverse event reports of sleep disturbance and ill health by those living close to IWTs are supported.”

This appears to contradict a state report on wind turbines and health released in 2011, which concluded that wind turbines aren’t a health hazard. But that report is contradictory as well, because it acknowledges that if noise generated by the turbine caused sleep disturbances, that could, in turn, impact a person’s health.

In addition, Nissenbaum noted that the Massachusetts report is being erroneously referred to as a study when it’s not.

“The state study wasn’t a study; it was a literature review,” Nissenbaum said. “They didn’t talk to people and collect data. All they did was look at a collection of publications done by other people. Any time one does a literature review you introduce a potential bias by what you choose to review and what conclusions you choose to emphasize from what you have reviewed.”

The state report looked at Nissenbaum’s research, apparently, but didn’t acknowledge the findings, since it had not yet been peer reviewed and published. Both those events have since taken place.

The bottom line? While wind turbine advocates aren’t happy with Nissenbaum’s study, no court case was dismissed or contested it or its findings on the effect of industrial wind turbines on people living within close proximity to them.

“It has not been refuted and is not refutable by prior studies,” Nissenbaum said. “This study, in fact, seems to confirm known science and known plausible pathways resulting in disease.”

Nissenbaum questioned those who claim that some people are simply predisposed to dislike wind turbines, so they suffer from them. To suggest, without supporting evidence, that people are suffering ill affects from industrial wind turbines because they don’t like them, when there are known plausible mechanisms for why people may get sick through excessive exposure to wind turbines, is malpractice, in Nissenbaum’s view.

“If someone came into a doctor’s office and said they have chest pain and the physician said ‘It’s all in your head,’ without investigating, that would be the height of malpractice,” Nissenbaum added. “It’s the same thing if patients are complaining of sleep

disturbances and other ill affects, and off the top of your head you claim they're making it up and it's about the way the turbines look, especially when there's a known, plausible mechanism for why people could be affected. There's nothing magical about the effect that people are sleeping poorly due to the noise. There's nothing difficult to understand or fantastical. Nothing stretches your belief.”

Clearly, the wind turbine industry has unleashed nothing short of a firestorm of debate as wind power advocates and those opposed to industrial wind turbines in residential areas continue to lock swords.