TESTIMONY OF WARREN MORRIS, MD

Van Wert County

IN OPPOSITION TO Sub. H. B. 114

To revise the provisions governing renewable energy, energy efficiency, and peak demand reduction and to alter funding allocations under the Home Energy Assistance Program.

Chairman Balderson, Vice Chairman Jordan, Ranking Member O'Brien and members of the Committee, I am opposed to any revision of the setbacks for industrial wind turbines that would measure the distance from my home rather than my property line. I also object to any proposed reduction of the current 1,125-foot setback from property lines. I would like to thank the Committee for this opportunity to present the following comments:

My name is Warren Morris MD. I am a life-long resident of Van Wert County. I work as the Chief Clinical Officer of HPWO based in Lima, Ohio. My duties include the review and interpretation of published clinical studies that influence our patient care and health center policy and operations. I am board certified in Internal Medicine and Addiction Medicine. I am a Fellow of the American Society of Addiction Medicine where I also serve as faculty. My medical degree is from the University of Cincinnati College of Medicine, class of 1982.

The medical literature regarding the health effects of the proximity of wind turbines to occupied residential buildings has matured greatly over the last 15 years. In 2010 available studies were short term, under powered and often sponsored by parties with strong economic and political biases that made their way into the conclusions and ultimately into the policy of the time.

To limit the effect of bias it is valuable to examine literature from government and state agencies or medical organizations from nations that have had the longest experience with wind turbines. The effect of diffuse stressors like wind farms can be lost in statistical methodology especially when study times are short and populations studied small or poorly defined. Using the experience of nations with longer experience lets us benefit from their mistakes.

There are now abundant quality studies that reveal that many residents within the footprint of large windfarms are negatively affected by the low frequency sound generated by the turbines. The most common negative effect is significant sleep disturbance caused by resonances of residential structures with the low frequency sounds produced by turbine operations. It should be noted that many pre-2010 studies measured only higher frequencies and did not discuss the effects of low frequency sounds. This caused those studies to greatly under report the health effects in question.

This lack of understanding at the time of construction allowed wind turbines to be built as close to 750 feet of occupied dwellings in the Blue Creek Windfarm in Van Wert and Paulding counties. Had there been a more modern understanding of the risks from turbine failure, ice throw and other direct physical injuries from turbines, such close proximity would never have been allowed. I have been unable to find any supporting studies from that time and the decision appears to be solely economic in that it allowed Iberdola to place more turbines on less land.

Outcry has been blunted because the patients most affected by the Blue Creek Wind Farm have either left the area or are bound by non-disclosure agreements that they signed before they understood how they would be affected.

I've included a short list of relevant articles that are free of bias and based on outcomes of actual patients and how their lives are affected. I've chosen reports written or supported by national medical societies or ministries for the highest quality and fairest discussions. Below I've included quotes from a recent study from Ontario posted in the American National Institute of Health Library that reflects findings from other studies and other nations:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653647/

Noise-induced annoyance is acknowledged to be an adverse health effect.27–30 Chronic severe noise annoyance should be classified as a serious health risk.31 According to the WHO guidelines for community noise, "[t]he capacity of a noise to induce annoyance depends upon many of its physical characteristics, including its sound pressure level and spectral characteristics, as well as the variations of these properties over time."32 Industrial wind turbine noise is perceived to be more annoying than transportation noise or industrial noise at comparable sound pressure levels.33 Industrial wind turbine amplitude modulation,34 audible low frequency noise,35 tonal noise, infrasound,36 and lack of nighttime abatement have been identified as plausible noise characteristics that could cause annoyance and other health effects.

And:

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The statement above is from The College of Family Physicians of Canada and was published in 2013. This and other studies has been driving changes in wind turbine regulation around the world. The Germans now mandate a 500-meter setback from property lines. This is 1640 feet, a number that has been strongly supported in French and other studies stating beyond this distance the negative health effects of turbines approach those of non-turbine affected areas. The Swedes perform elaborate sound mapping for each turbine and each home affected and over time the permitted distances have grown longer as more is understood. The UK has greatly cut back onshore wind farm development, allowing only a handful of new projects on very isolated islands to go forward.

Knowing what we know now we can say with confidence that wind turbines have a very real negative effect on the health and well-being of people living within and near their footprint. Siting closer than at least 1640 feet to dwellings is not consistent with the best evidence and practices in the field and subjects those affected to avoidable health risks.

Across the studies we see that 5-15% of residents' health is significantly affected by the proximity of wind turbines. Not all people are affected – this should not be used to dismiss the issues of people who are. I

would like to note that not everyone who smokes tobacco develops lung disease, heart disease or cancer but enough do that the medical community recommends that all people should not use tobacco.

In addition, wind turbines present a very real risk of injury to people within their safety setbacks. Ice throw, falling debris and even fire risks are well known hazards. Extending safety setbacks onto land against the will of the landowner puts Ohio citizens at undo risk on their own land and gives free use of that land to the wind power corporations. Unlike right of way disputes involving power companies, affected land owners have no recourse and are not given the protection of eminent domain. This presents a significant health risk that must be considered in policy and regulations.

Research over the last 15 years has shown that proximity to wind turbines causes significant health issues to people living near them. This harm can be largely mitigated by responsible turbine placement with current best practice being 1640 feet or more from residences. Setbacks should be measured from the property line to protect citizens from undo risk from turbines while on their own land.

Submitted with respect,

Warren Morris MD, FASAM Van Wert County, Ohio

References:

https://www.sciencedirect.com/science/article/pii/S0160412017317889

Short-term nighttime wind turbine noise and cardiovascular events:

A nationwide case-crossover study from Denmark

Environment International May 2018, Pages 160-166

Subjects had need subjected to wind turbine noise from 1982 to 2013. Exposure to WTN outside of buildings seem less affected. Indoor WTN associated with increase of heart attacks and strokes. Small study, needs to be enlarged and repeated.

http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=2012;volume=14;issue=60;spage=237;epage=243;aulast=Nissenbaum

Noise and Health

Effects of industrial wind turbine noise on sleep and health

Year : 2012 | Volume : 14 | Issue : 60 | Page : 237-243

This joint American and Canadian study shows that the health effects of wind turbines decreases with distance from the turbine. In this study negative effects fell to the background level beyond 1400 meters (4593 feet).

https://hal.archives-ouvertes.fr/hal-01635752/document

Health effects of low frequency noise and infrasound from wind farms: results from an independent collective expertise in France

12th ICBEN Congress on Noise as a Public Health Problem, 18-22 June 2017 Zurich

Study authorized by French Government found that measurable low frequency sounds fell below levels that affect other residents at 500 meters and beyond. As expected complaints fell as distance increased.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4483687/

The link above connects to the NIH library and the article by Mroczek et al. whose research consistently shows no decrease is quality of life for those living near wind farms.

http://www.mdpi.com/1660-4601/14/2/140/htm

The link above connects to an insightful letter from Prof. Daniel Shepard at the University of Technology in Auckland, New Zealand. The author rebuts the Mroczek article point by point and reveals the flaws in experiment design and interpretation used by a consistently pro-wind researcher. I have included these last two citations to demonstrate how study design can drive conclusions and ultimately policy.