



Frank Lasee

WISCONSIN STATE SENATOR
FIRST SENATE DISTRICT



Senator Lasee's Testimony Senate Bill 167—Right to Recover Wind Turbine Damages Bill

For the last several years, dozens of families in Wisconsin have been plagued by a variety of health problems linked to wind turbines. The problems have run the gauntlet from nausea to severe migraine headaches to heart arrhythmia. Because of the health problems, several families abandoned their homes, suffering great financial losses.

This bill will allow people who are harmed by wind turbines that are built too close to their homes to recover their losses. I introduced this bill to make sure the rights of my neighbors are protected.

SB 167 is before you today because victims are unable to afford the legal fees needed to recover the damages caused by wind turbines built too close to their homes. The wind developers have huge resources and will stop at nothing to protect their taxpayer subsidized money stream, even if it means destroying a few innocent people along the way. SB 167 will help create a level playing field so victims of wind turbines have a chance to be made whole.

In Wisconsin law there are at least 230 provisions that allow for victims that are successful in court to be awarded reasonable attorney fees. People that are victimized by industrial wind turbines should have the same right.

I ask the members of this committee to support Senate Bill 167 so those who have been harmed have a chance to be made whole.

Dear Members of the Senate Committee on Judiciary and Labor,

RE: Senate Bill 167: Relating to actions for damages caused by wind energy systems.

I encourage you to support Senate Bill 167. The Wisconsin Public Service Commission (PSC) has been negligent in their permitting of industrial wind facilities and Wisconsin citizens are paying the price.

The Commissioners at the PSC know full well the dangers of siting industrial wind turbines too close to homes. The PSC has been presented with literally a mountain of written testimony and many hours of public hearings where actual wind farm residents speak out concerning the adverse health effects caused by living too close to the turbines. This information is always ignored by the PSC for one reason or another because it doesn't fit with their agenda of promoting wind energy. Regulators at the PSC have lost focus of their real job of protecting Wisconsin residents from the unscrupulous actions of wind developers.

The PSC allows smaller projects to be permitted at the local level knowing that local officials lack the expertise and funds to properly investigate the effects of the turbines.]

Wisconsin residents forced to live too close to these large turbines are shocked to find they have been abandoned to their fate by the very agency they thought was there to protect them the PSC. The task of taking on a large turbine owner / operator like Duke Energy for relief will quickly outdistance their financial resources.

Please give Wisconsin citizens every legal tool possible to protect their families and property from the PSC and dishonest wind developers.

Thank you for your time, consideration, and service to Wisconsin,

*Jim Bembinster
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Subject: For 167
From: Elizabeth Ebertz (eliz.ebertz@ymail.com)
To: eliz.ebertz@ymail.com;
Date: Tuesday, November 19, 2013 1:56 PM

To the Committee for Bill 167,

Thank you for letting me speak today. My name is Elizabeth Ebertz and I live in the Blue Sky Green Fields wind farm. The turbines have been here over five years. On July 15-26 the turbines were turned off. You could never image how surprised I was getting 8-10 hours of sleep without being interrupted. Two years ago I went to the doctors for the pain in my leg, they took x-rays, nothing showed up, so they suggested physical therapy, with no results. The pain in my leg stopped a few days after the turbines were turned off, it felt great.

It just felt so good not having headaches, dizziness, buzzing in my ears, nauseous, lost of balance and my blood pressure was good. Could work in the garden and flower beds without wearing ear protection. Did not have to go by my son just to sleep because of the noise being so overbearing. I could stay home and enjoy the peace and quiet.

On July 26-28 the turbines were turned on. The night they turned them back on I got woken up at midnight with a severe headache and was nauseous, could not get back to sleep. The next two nights with the same symptoms.

On July 29-Aug 1st. the turbines were turned off again, could get 8-10 hours of sleep. But after Aug. 1, when the turbines were turned back on it was bad. On Monday morning, Aug.5, at 2:00a.m. I was woken up by the overbearing noisy turbines. I got up and about 5:30 I went out to feed the birds, should have put on ear protection, because the turbines were very noisy. They finally turned off a few of the turbines about 7:00 A.M. Why does it take so long for them to turn off the turbines, when I was told by Steve Schuler, they have computers to tell them when something is wrong.

I do not think that any private own company should have the right to take your sleep away. Someone should be held accountable.

Elizabeth Ebertz

GOOD MORNING AMERICA | YAHOO NEWS



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'Wind Turbine Syndrome' Blamed for Mysterious Symptoms in Cape Cod Town

By SUSAN DONALDSON JAMES | Good Morning America – 18 hours ago

Sue Hobart, a bridal florist from Massachusetts, couldn't understand why she suddenly developed headaches, ringing in her ears, insomnia and dizziness to the point of falling "flat on my face" in the driveway.

"I thought I was just getting older and tired," said the 57-year-old from Falmouth.

Months earlier, in the summer of 2010, three wind turbines had been erected in her town, one of which runs around the clock, 1,600 feet from her home.

"I didn't put anything to the turbines -- we heard it and didn't like the thump, thump, thump and didn't like seeing them, but we didn't put it together," she told ABCNews.com.

Hobart said her headaches only got worse, but at Christmas, when she went to San Diego, they disappeared. And she said the same thing happened on an overnight trip to Keene, N.H.

"Sometimes at night, especially in the winter, I wake up with a fluttering in the chest and think, 'What the hell is that,' and the only place it happens is at my house," she said. "That's how you know. When you go away, it doesn't happen."

Medical mystery: 19 teens develop Tourette's syndrome-like symptoms.

Hobart and dozens of others in this small Cape Cod town have filed lawsuits, claiming that three 400 feet tall, 1.63 megawatt turbines (two owned by the town and one owned by Notus Clean Energy) were responsible for an array of symptoms. A fourth, much smaller turbine, is owned by Woods Hole Research Center, but it receives fewer complaints.

The wind turbines have blown up a political storm in Falmouth that has resonated throughout the wind energy industry. Are these plaintiffs just "whiners," or do they have a legitimate illness?

In 2011, a doctor at Harvard Medical School diagnosed Hobart with wind turbine syndrome, which is not recognized by the Centers for Disease Control and Prevention.

The name was coined by Nina Pierpont, a John Hopkins University-trained pediatrician, whose husband is an anti-wind activist, criticizing the economics and physics of wind power. Pierpont, who lives in upstate New York, calls wind turbine syndrome the green energy industry's "dirty little secret." She self-published "Wind Turbine Syndrome" in 2009, including case studies of people who lived within 1.25 miles of these "spinning giants" who reportedly got sick.

But her wind-turbine research has been criticized for improper peer review (Pierpont reportedly chose her reviewers), and for its methodology -- small sample size, no control group and the fact that she did not examine her subjects or their medical records but interviewed them by phone.

Neither Pierpont nor her husband, Calvin Luther Martin, responded to ABCNews.com's request for comment.

Hobart and her husband, Edward, filed a nuisance claim last Feb. 5 in Barnstable Superior Court against Notus Clean Energy and its owner, Dan Webb. According to the Hobarts' lawyer, Democratic State Rep. Brian Manna, they are seeking between \$150,000 and \$300,000 in damages for loss of value of their home, and for medical bills.

They filed an earlier nuisance complaint against the town in July 2012, but the judge granted the defendants' motion to dismiss on Dec. 3, 2012.

"The heart of the issue is that they have been pushed off their land," said Mannel. "They have erected these enormous industrial-scale turbines -- larger than a 747 -- in close proximity to residences. They have had to leave their house because they couldn't live there anymore."

Mannel, who took on the Hobarts' suit before running for public office, said he "had a feeling about this case since it first came to me that this is one of the most important things I will do in my professional life. These are people who have been put upon and are suffering under this thing with no avenue for escape.

"This is an industry that has pushed to make wind happen, and I am not against that, but you do it responsibly," Mannel said. "It goes all day and night. My initial take was that [she] was being a hypochondriac, but I went to their house two years ago with a little skepticism and within 10 minutes of being in the house, I could feel it and hear it. ... It acts like a drum and pounds on the house."

In its answer to the court on May 20, Webb's attorney, Michael J. O'Neill, denied all of Hobart's allegations, saying that Notus' application for an operating permit was "subject to rigorous review" by Falmouth's Zoning Board of Appeals. O'Neill also said that Notus had submitted a "thorough noise assessment by a qualified consultant in support of its application," and that the wind turbine project had complied with all applicable standards and regulations. "Scientific research and studies have shown that wind turbines such as Notus' do not cause a nuisance or adverse health effects," said O'Neill in the court filing.

Webb did not comment on the Hobarts' lawsuit but defended wind energy in an email to ABCNews.com, saying that its wind turbine generates approximately 5 million kWh of electricity annually.

"In three years of operation, it has prevented emissions of more than 7,000 tons of carbon dioxide from conventional generation plants," he wrote. "The nearest home to the Notus turbine is approximately 1,700 feet from the turbine. The minimum setback distance recommended by a state model bylaw is three times tip height, or a distance of 1,197 feet. So our setback distance to homes is substantially greater than specified in the state model bylaw."

Neil Andersen and his wife, Betsy, were big fans of alternative energy, but when two town-owned turbines arrived within 1,320 and 2,320 feet of their house, they, too, said they developed symptoms.

Andersen, 60, said that within a week and half, he developed a "very uncomfortable feeling."

"First, it was pressure in my ears -- they were just popping as I was standing out in the front yard doing landscaping," he told ABCNews.com. "Within two months, my ears started ringing with tinnitus, and now I have clenching of my teeth -- bruxism."

He said he had headaches, shortness of breath, sensitivity to sounds and heart palpitations.

"At times, I even have confusion over what is the pulse of the turbine and which is my heartbeat," he said.

He said his wife had suffered migraines so severe that she wrote in a journal she keeps on her symptoms and the wind turbine operations "Never stops, never stops. Headache. HELP."

More than 45 Falmouth residents have complained to the town's Board of Selectmen, which curtailed the hours of its two turbines at night. The board said it's the pressure of infrasound -- sounds with frequencies below 20 Hz -- which are on the low end of audible for humans.

But others say many who live near the wind turbines suffer no ill effects, and there's research that suggests these unexplainable symptoms could be psychogenic, or "contagious." In a phenomenon known as the nocebo effect -- the opposite of the placebo effect -- people can convince themselves that something is producing harm.

One 2013 study on the wind turbine effect published in the journal *Health Psychology* examined the power of suggestion and concluded it may have caused the reported health problems.

In the study, researchers exposed 60 participants to 10 minutes of infrasound and then silence. Beforehand, half the group was shown television footage of people who lived near wind farms and were recounting the harmful effects. Within this group, the people who scored high for anxiety developed symptoms, even if they were exposed to sham infrasound.

"Some people are more suggestible," said Dr. Elizabeth Bowman, a psychiatrist and adjunct professor at Indiana University, who is not familiar with the Falmouth cases. "This is not conscious, it's unconscious.

"What can happen across time is people think maybe this is real, my neighbor's got it," said Bowman. "They start to tune in more to their bodies and amplify and misinterpret normal body sensations."

Andersen, however, said he had no idea his neighbors were suffering when his symptoms began.

"Just come in to my house and feel the walls shaking," he said. "They say it's the nocebo effect, but people who sit on my front porch have to leave within a half hour -- they felt it. Early on, I had a financial adviser sit in my kitchen and within five minutes he was complaining about ear popping.

"Something is going on here, and it's affecting a lot of us physically and mentally," explained Andersen, who said he could no longer work in construction.

"They don't believe us," he said. "It's a very sad situation."

ABCNews.com called the town of Falmouth several times and sent emails, but the calls were not returned and the emails were not answered. The town's lawyer, Frank K. Duffy, also did not return calls.

According to Kim Fish, who is Duffy's paralegal, there are "just so many lawsuits."

The clerk at Barnstable Superior Court confirmed there were numerous lawsuits against the town and its Board of Health.

The Andersens have filed three lawsuits. The one in Barnstable Superior Court alleges the town violated the zoning bylaw, did not go through the proper permitting process for installing the wind turbines and did not hold "one single public meeting."

The second is a nuisance complaint that was initially denied by the building commissioner, but that decision was later overturned by the zoning board of appeals. "We are in the middle of proceedings for an injunction to stop the turbines until the case is heard," Andersen said.

A third private nuisance lawsuit was filed in federal court in Boston.

The Massachusetts Departments of Environmental Protection and Public Health recently commissioned a panel of experts to analyze existing research on the effects of noise, vibration and flicker of wind turbines on health. They concluded that wind turbines present little more than an "annoyance" to residents, and that limited evidence exists to support claims of devastating health impacts.

Earlier this year, the selectmen voted unanimously to take down the wind turbines as "the right thing to do," but when the town put the measure to a vote in April, it didn't pass, according to the Cape Cod Times.

Many Falmouth residents said they're baffled by the complaints.

"My neighborhood is 4,000 feet from the big ones, and we have zero effect," said Tom Stone, who spoke on behalf of the Woods Hole Research Center, where he is a scientist emeritus. Woods Hole Research Center owns the smaller turbine, which has not been the subject of lawsuits. "Houses are being sold on my street, and new houses are being built. It's not an issue.

"My son has been house-sitting one of the families who complained, and it doesn't bother their children but bothers their parents. I don't know what to make of it. Is it one of these things that bothers you if you are sensitive to it, or is it a stress reaction?"

One woman complained about the turbine at the research center, said Stone, but the turbine was not even in operation at the times she logged her symptoms.

Wind turbines are the most popular form of new energy in the United States and are seen widely not only in coastal Massachusetts but throughout California, Texas and Wisconsin.

The American Wind Energy Association, which represents the industry, said that wind power was "an inexhaustible resource," which did not harm the environment and provided a "direct health benefit by reducing air pollution and related health impacts, including asthma."

Spokeswoman Lindsay North, who did not comment on the Falmouth cases, said health complaints were "rare."

A 2010 study by Australia's National Health and Medical Research Council found no negative effects from wind turbines.

But Dr. Steven Rauch, director of the Balance and Vestibular Center at Massachusetts Eye and Ear Infirmary and the doctor who diagnosed Sue Hobart, said he was "unwilling" to rule out wind turbine syndrome as a real medical condition.

Rauch said he had diagnosed only one other patient besides Hobart, but he believed infrasound was a "plausible" explanation for their complaints.

"We don't know enough about it to totally accept it or blow it off," he told ABCNews.com. "When these patients came to me I could not find any other abnormalities to explain their symptoms. I am trying to give them the benefit of the doubt."

Hobart, who was referred to Rauch by Pierpont, said she saw him in July 2011, after she had left her house and was living with a friend.

He did a full otology exam and checked on her gait and hearing, she said, and recommended physical therapy for her gait problems but prescribed no medication.

"He said I was recovering well and to just stay away from the wind turbine," she said. "It was a huge relief to have a doctor of his caliber affirm my situation."

Rauch said he consulted with Pierpont and Alec Salt, an otolaryngology specialist at the Cochlear Fluids Research Laboratory at Washington University in Louis who suggests the level of infrasound generated by a wind turbine one mile away could be harmful.

"He tried to lay out the scientific basis for low-frequency pressure affecting the inner ear," said Rauch. "It seems to do something to other parts of the body, and it persuaded me, that at least in animal research, there is proof. We know that animals are pretty good models of differential susceptibility to noise exposure."

The big question is why some live near wind turbines with no ill effects, and others are crippled by symptoms, such as debilitating migraines.

"Migraines alter the way the brain processes sensory information -- light, stimulation, sound touch, bellyaches and sleep disturbances," said Rauch. "If you put someone with migraine disturbances in an environment with throbbing low-pressure pulse, that affects the autonomic nervous system or inner ear balance organs. It may be likely that those patients, because of general susceptibility, have intensified distorted reactions."

Rauch also cautions against those who say complaints are psychological in nature.

"That's a slippery slope, blaming the patient in medicine," he said. "I am not a wind industry businessman or a policy maker. I am a doctor, and I take care of my patients."

As for Sue Hobart, she has had to give up her floral work and now lives miles away from Falmouth's wind turbine towers in neighboring Bourne. Her house by the wind turbines is up for sale, she said, but because she disclosed her health problems to potential buyers, its value has dropped by half. . "We tried to keep our house -- we built it ourselves," she said. I had six acres, planted trees and flowers and bought a bobcat and a backhoe and built the rock walls myself. It was my pride and joy. Every time I think about it I cry."

Hobart's headaches are gone, but depression has set in.

"I didn't know anything about wind turbine syndrome," she said. "It made me abandon my house. I had everything I ever wanted and I can't live there."

ABC News' Karin Halperin contributed to this story.

Also Read

Brain may go off-line with lack of sleep

Study of rats shows critical cells switch off

By Elizabeth Weise
USA TODAY

Researchers know that sleep deprivation impairs the ability of people and animals to function. Now a team of researchers in Wisconsin and Italy has found that the brains of rats kept awake past their bedtimes begin to turn themselves off even though the rat is still awake.

Not only that, but certain brain cells — neurons — that get used the most during the day are the ones that appear most likely to go off-line. The researchers say it's likely that sleep-deprived human brains respond the same way.

"It's very worrisome," says Chiara Cirelli, a professor of psychiatry at the University of Wisconsin-Madison and one of the researchers whose study is out this week in the journal *Nature*.

Sleep is crucial to mental and physical health in all animals, and it's clearly visible in the brain. Neurons are brain cells that process and transmit information via electrical signals. When we sleep, slow-wave activity appears in our brains as the neurons in the cortex, the portion of the brain involved in consciousness and attention, switch themselves off and go electrically silent. During wakefulness, neurons generate spikes of electrical activity.

The researchers, at the University of Wisconsin-Madison and the Perceptual Robotics Laboratory in Pisa, Italy, kept rats up four hours past the time they'd normally be asleep and measured their brain waves. Although the rats were awake, individual neurons in their brains turned themselves off in a random pattern. The shutdown of those neurons, the researchers believe, is why the rats did progressively less well on a task: finding a sugar pellet.

There's no reason to think this doesn't also happen in the human brain, Cirelli says. Her group is beginning to do similar studies



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hermen," said Jonathan McKnight, of the Maryland Division of Natural Resources. Maryland's ban is a needed step to guard a assured resource, he said.

elsewhere:
The Idaho Legislature passed a resolu- April 7 that stopped short of banning felt s but spelled out the "harmful and cata- phic potential threat" posed by didymo other aquatic invaders, with felt soles led out as a dangerous host.

Oregon lawmakers in the 2011 legisla- session considered a law banning sales of oles but the bill didn't clear committee. Nevada's Department of Wildlife is pre- g a strategic plan regarding invasive es and the felt sole issue "will definitely part of that," department spokesman Healy said.

Maryland, the ban "got a positive reac- from anglers, McKnight said. There are natives on the market, Good said.

g also reports for the Reno Gazette-

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Testimony in Opposition to Senate Bill 167

November 20, 2013

“Improving our state’s legal climate is important to creating an environment that allows the private sector to create jobs”

- Governor Walker, January 2011

Chairman Grothman and members of the Committee, thank you for the opportunity to testify in opposition to Senate Bill 167. I am testifying today on behalf of Wind on the Wires, a nonprofit organization whose mission is to promote technical and regulatory policies designed to help bring wind power to market in the Upper Midwest. Our corporate members include: Invenergy, Iberdrola Renewables, GE Energy, Vestas, and NextEra Energy.

Development of wind power has produced tremendous benefits for Wisconsin’s economy. Supply chain manufacturers, construction companies, transportation businesses, and consulting engineers, as well as rural landowners and local governments all benefit when a new wind farm is built in Wisconsin. For example, We Energies’ two Wisconsin wind farms yielded a capital investment of approximately \$700 million, and accounted for about **850,000 job-hours of construction work**. Each year, wind farms in Wisconsin generate over **\$3 million per year in additional revenues** for local landowners and municipal governments. This money provides farmers with a supplemental source of income and helps local municipalities hold the line on property taxes.

Unfortunately, despite the wind industry’s boom in neighboring states and around the world, **development in Wisconsin is stagnant**. Indeed, Illinois installed over 800 MW of new wind power in 2012 (now 3568 MW total), Iowa added 814 MW in 2012 (5133 MW total), and even Michigan, whose development potential is lower than that of Wisconsin, added 611 MW in 2012. Wisconsin added just 18 MW of **low-cost, clean wind power** in 2012.

Like any other industry, the wind energy sector needs policy, regulatory, and legal certainty in order to grow. By encouraging lawsuits against wind farm owners, **SB-167 creates a challenging and uncertain legal environment** that will not only deter new investment from private companies, but would also present serious legal liabilities for wind farms already operating.

If Senate Bill 167 becomes law, the potential for unavoidable and unending litigation would likely be enough to prevent another wind farm from ever being built again in Wisconsin.

Under current Wisconsin law, citizens with legitimate legal claims can already seek damages from the owner of a wind farm for a wrongful or negligent act. However, by awarding attorney’s fees through legislation, a policy tool traditionally designed to deter an act, SB-167 will encourage frivolous lawsuits against these companies and by eliminating the owner’s defense that a project was legally approved, SB-167 will create **an unlevel playing field for the wind industry in the courts**.

Wisconsin has real potential for new development of wind power. The state has a good wind resource, a great manufacturing and supply chain sector, a strong transportation infrastructure, experienced contractors, and is closer to electric load centers. **Wind developers see opportunity in Wisconsin**, but Senate Bill 167 would drive this robust industry away, hurting the state’s economy.

Policymakers should be embracing and promoting growth within an industry that **creates jobs** in Wisconsin, rather than pursuing policies specifically designed to halt its progress. The wind industry is thriving in neighboring states and **Wisconsin has the opportunity to reap these benefits as well** – we just need reasonable policies that work for the wind energy industry, not against it.

On behalf of the wind industry, Wind on the Wires respectfully requests that the Committee not recommend this bill.



**Wisconsin State Legislature
Senate Committee on Judiciary and Labor
November 20, 2013**

Testimony of Jeff Reinkemeyer in Opposition to Senate Bill 167

Introduction

Chairman Grothman, Vice Chairperson Vukmir, and members of the Committee, thank you for the opportunity to provide written testimony on Senate Bill 167. I am Jeff Reinkemeyer, Director of Eastern Renewable Development for Iberdrola Renewables, LLC (Iberdrola Renewables). Iberdrola Renewables is part of Iberdrola S.A., the world's largest owner and operator of renewable energy assets. Iberdrola Renewables has made significant investments in the United States, with over 5,800 MW of wind power installed nationwide. Iberdrola Renewables also has made large investments in neighboring states to Wisconsin, with 372 MW installed in Illinois, 404 MW installed in Iowa, and 549 MW installed in Minnesota.

I live in Jefferson County, Wisconsin, and have been a Wisconsin resident for the past 8 years.

Senate Bill 167

Iberdrola Renewables opposes the passage of SB 167. Generally, this bill is problematic in that it creates an uncertain and onerous business environment for a single technology in a single industry; wind energy. Our specific concerns are discussed in more detail below:

1. The bill would automatically award attorney fees to a prevailing plaintiff by legislative order. This is very rare, and unnecessary, in our opinion. Citizens with legitimate legal damage claims already have legal recourse under Wisconsin law, which includes consideration for recovery of attorney's fees if warranted. Under SB 167, the Legislature would intrude on decisions that are typically the prerogative of State judges who have the discretion to determine and award compensation for appropriate legal costs.
2. The bill explicitly disregards the use of lawfully obtained operating permits for a defense against lawsuits. This provision renders meaningless many of the legal protections afforded by a permit that is obtained through rigorous public and regulatory review process. As with every other form of electric generation, the wind energy sector depends on valid permits to build and operate generating

facilities. There appears to be no reasoned public policy case to single out wind generation for this treatment.

3. As such, the bill contradicts Governor Walker's agenda to reduce legal uncertainty in order to improve the business climate in Wisconsin. Again, it does not stand to reason to impose this significant uncertainty on one industry only.
4. Although this bill only targets one industry, the precedent established by this bill would send a message to other industry sectors, such as electrical transmission, frac-sand mining, and agricultural processing, that they could be subject to similar, arbitrary, legislative action as well.

Conclusion

If the intent of SB 167 is to stop wind energy development in Wisconsin, enactment of the bill likely would achieve this purpose. This would be unfortunate, since Wisconsin has a good wind resource, great manufacturing and supplier base, excellent construction expertise, and is located close to several upper Midwest electrical load centers. Properly sited wind generation facilities bring a myriad of benefits to local communities, landowners, workers, and the environment through tax payments for schools and other local services, lease payments, construction jobs and ancillary employment among local service providers, operations jobs, and the production of emission-free power.

Thank you for the opportunity to provide written testimony on this matter. My contact information is provided below should anyone like to discuss this in more detail.

Respectfully Submitted,

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Oppose SB 167 to Discourage Wind Energy Development Through Litigation, Before the Senate Judiciary and Labor Committee, November 20, 2013, 10:30 AM, 412 E

Thank you for accepting our comments today. The John Muir Chapter is made up of 15,000 members and supporters of the Sierra Club, the nation's oldest, largest, most influential grassroots environmental organization. Our priorities are reducing climate change threats and protecting water and land resources in Wisconsin. We are here today to urge you to oppose SB 167. If passed, this legislation will encourage costly, lengthy litigation that will have a chilling effect on jobs and clean energy development in our state.

SB 167 impedes Wisconsin's chance to generate clean, safe, local electricity, and reduce our dependence on fossil fuels whose emissions cause climate change. Every day that we fail to expand renewable energy and other climate change solutions, we are digging a deeper hole that will make it harder and more expensive for future generations of Wisconsinites to address this readily observable problem, which will lead to a future plagued by droughts, heat waves and catastrophic storms that will impact our farms, forest, fisheries and other resources.

Unfortunately, SB 167 and other anti-clean energy policies are causing Wisconsin to fall behind in the clean energy race. All of our neighboring states have installed more wind than Wisconsin, and none have adopted similar legislation. In fact, our neighbors in Iowa get over 25% of their electricity from wind, with over 5,000 MW installed. The main impacts that citizens living near those turbines experience are lower unemployment, cleaner air, and lower electricity rates than Wisconsin (6.5-8 ¢/kW hour in IA, 9.51-12 ¢/kW hour in WI). Meanwhile in our state, at least 3 wind projects and 1,100 jobs have been lost as a result of our hostile policy environment, which includes not only bills like SB 167, but also attempts to undermine wind siting rules, freeze renewable energy standards, and allow the use of outdated renewable energy credits. These policies contribute to Wisconsin ranking 44th in private sector jobs creation, as reported by *The Milwaukee Journal Sentinel* in March.

SB 167 is unnecessary, both because individuals can already sue wind developers in cases of legitimate harm, and because peer-reviewed scientific studies and independent agency reviews conducted in the United States, Canada, Australia and the United Kingdom have found no direct causal link between wind turbines and physiological health effects. Studies and popular literature suggesting that wind turbines could impact human health have lacked controls, relied on self-reported symptoms, and had insufficient sample sizes. In contrast, particulate matter caused by burning coal poses serious, well-documented public health impacts, including lung cancer, heart attacks, premature death, and strokes. Mercury emissions from coal plants are linked to nerve damage that has required fish consumption advisories for every water body in our state. Why doesn't SB 167 apply to all forms of energy, such as burning coal or exposure to radioactivity resulting from nuclear power? What about other developments that could impact citizens, like factory farms or mines?

If passed, SB 167 will have immediate impacts on existing and future wind projects that offer the promise of local, sustainable jobs for our state. Wisconsin wind energy industries will not expand if, again, state policy

creates barriers to its growth, and that is why we are urging you to oppose this bill. Thank you for considering our comments on this important matter.

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My name is Laurie Werner and I represent Sheboygan County Communities for Responsible Energy. Currently, the Towns of Holland, Sherman, Lima, and Lyndon are living under the threat of 4 industrial wind turbines being placed in a rural neighborhood that will affect over 532 families that live within 1 mile of the proposed wind farm.

It is our viewpoint that the Public Service Commission is not doing anything to protect the rural citizens of Wisconsin. PSC128 was written by non-elected people, most of who are profiting from the development of wind farms. They have not taken into consideration, nor do they seem to care about the adverse health effects of those living too close to wind farms. There is nothing in the law that addresses low frequency noise, increased vibrations, shadow flicker and how that affects people and the environment. Our constant cries for non-biased health studies have fallen on deaf ears. Additionally, our rights to be represented by our local government have been taken away.

The people that have been affected by industrial wind turbines have no way to be compensated for their doctor bills and on-going therapies required for them to stay in their homes. Their lifetime investments in their properties have been stripped from them. Property values continue to drop as more and more people realize the truth about the negative impacts of industrial wind turbines. People cannot stay in their homes and they cannot sell them and their local government cannot represent them. This is what is happening to rural Wisconsin. Our futures are getting slaughtered just like the migratory birds and bald eagles.

The utilities don't want to be held responsible, the developers don't want to be held responsible, the hosting landowners don't want to be held responsible. So, the people who have had this put upon them and have no means to stop the construction of IWTs are paying the price with their health and their future.

I am here to support SB167. People who have been harmed by industrial wind turbines need some way to put their lives back together. If the developers and land owners believe there is no threat from IWTs, then this law shouldn't worry them.

I hope Sheboygan County does not suffer the way these people have had to suffer. I urge you to pass this bill.

Respectfully submitted,



Laurie D. Werner

Fred Werner

Core Team Members

Sheboygan County Communities for Responsible Energy

SHERMAN.WIND.RESISTANCE

11-20-13

December 6, 2012

Wisconsin Legislature Members,

My name is Darlene Mueller. I live in the Blue Sky/ Green Field Wind Turbine project in Fond du Lac County. I have lived here for 34 years.

From the very first night the turbines have been turned on it has been a living hell. On the first night I asked my husband what was making that vibrating, electrical humming and grinding noise? I said it is not the wind turbines, is it? But it was. It has never been the same. The closest turbine is 2,400 feet from us and we have a hill by our house and that may help funnel the noise toward our home.

Every night is the same noise, electrical humming, vibrating, grinding, whomping, and shrieking sounds. When the air is heavy and still the electrical humming is unbearable. I walk in the house and live like a caged animal trying to get away from the noise, but to no avail. A person cannot go on with little or no sleep every night. If call We-energies about the noise during the night we don't hear back from We-energies until 10:00 or 11:00 the next day and then they always respond with the same answer. The turbines are running properly, you know they are machines. We need help. I can't go on like this.

I am getting migraines and can't get rest day or night. The noise just doesn't go away. I'm nauseated most nights, my ears hurt so bad that they feel like they are bleeding. We are told to use white noise machines that would help with the noise, but what is this doing to our bodies and organs? My body feels like it is trembling on the inside.

The past February our cat started pulling out her fur. I took her to our veterinarian and he thought it is caused by anxiety. She pulled all her fur out except by her head which she could not reach. The cat was only skin.

In May the noise had been so bad for over a week and we were only getting 2 to 3 hours a night of sleep. We kept calling We-energies and one morning at 5:30 A.M. Steve Schueller came to our house and agreed to turn off the turbine south of our house from 10:00 P.M. until 6:00 A.M. every night. During this time our cat's fur grew back and she was fine. We were also able to get more sleep. On Labor Day weekend We-energies decided to turn the turbine south of our home back on again nights and within 2 days the cat began pulling out its fur again and continues to keep doing this. So tell me what this is doing to my body.

People are noticing my memory is bad. I want to say one thing, but it's totally different when I speak. This is very scary and alarming to me. I can't spell decently anymore.

It's unbelievable.

We need help not today, but yesterday. I am afraid I am dying a slow death. Please someone hear us and help us before it is too late. I want to see our grandchildren grow up. I am too young to go yet, because of the health problems the turbines are causing us.

Studies show you need sleep and that it affects the brain if you don't get sleep. We are not sleeping. These are medical issues and something needs to be done now, not later.

My husband has completely turned off our electricity to our house and it makes no difference. The electrical humming and vibrating noises are still there. People can't continue to live like this. Please help us. I just want to leave our home. It is such a nice place, but it is just pure hell living there.

Sincerely,

Darlene Mueller,
N8710 Pine Road
St. Cloud, WI 53079

Wisconsin State Legislature - Committee on Judiciary and Labor

Testimony for Hearing on SB 167 - Glen R. Schwalbach, P.E., NSPE Fellow

November 20, 2013

My name is Glen Schwalbach. I am a town supervisor for the Town of Rockland in Brown County, a Wisconsin-licensed Professional Engineer, and a member of the Wind Siting Council for the Public Service Commission. I am speaking for myself today.

I support SB 167 because it is the least, the very least, that the State can do. The bill will define the conditions by which residents can be compensated when they can prove that they have been negatively impacted by the actions of wind developers. These are residents who have been ignored time and time again by their state government. The leaders of the legislature and the governor have drunk the tax-takers' "green jobs" Kool-Aid and have not acted on bills which tried to address the harm done to many of their own citizens. Note that Wisconsin businesses who have the wind industry as customers do not rely on Wisconsin as their market. Their market is in other states and countries who have a much better wind resource than Wisconsin. But, politics has sadly trumped science and engineering besides the smart economics of a free market. I'm aware that contradictory information has been provided to legislators. It is, probably, a challenge to decipher the truth. But, at the same time, it should be easy to figure out who lines their pockets if they misrepresent the evidence of negative impacts.

In case you are wondering whether I have gotten off-subject, I am still explaining why SB 167 is the very least that the state can do. The State has set its citizens up for exactly the harms, the unintended consequences, which have happened. The State created a captive buyer for whatever energy the wind developer can produce through the Renewable Portfolio Standards mandate. And, through these Standards, created a captive buyer of the wind energy assets when the developer or the third or fourth owner comes to the end of their economic haul. When that time comes and if the Standards are still in place, the utility which is buying the wind energy will have to purchase the wind project with negative financial impacts on the utility's customers. In addition, the State has ignored private property rights of neighboring landowners impacted by thirty to fifty-story wind towers and, in effect, preempted the principles of due process through eminent domain for those impacted.

In a third dynamic, we've seen a misguided occurrence of bipartisan politics. After believing wind developers over honest citizens and supporting a no-risk business scheme for developers, the new majority of legislators and the new

governor decided not to suspend the wind siting rules which were initiated by the previous legislature and the previous governor. These wind siting rules restrict the level of public protection. The hands of local governments and licensed Professional Engineers are tied. Both groups are charged by Statutes, in all of their other responsibilities, to protect public safety and welfare. I, for example, can and should lose my P.E. license if I do differently. So, in trying to do my job, I am here today.

It's within this environment of suppression of the free market, setting up a few winners in spite of the many losers, and creating, perhaps inadvertently, the appearance of crony capitalism that--now--the least that the legislature can do is pass SB 167.

Maybe more important than clarifying the conditions for compensation through a judicial process, SB 167 has potential to motivate the wind developers and the subsequent wind project owners to do the right thing in the design, construction and operation of wind turbines. Maybe, they will pay more heed to their own technical experts who are concerned for public safety. I'm referring to the international wind industry engineering consulting company who spoke at one of their conferences a number of years ago as to how and why the wind industry should be paying attention to low frequency noise generated by their wind turbines. (Low frequency noise is usually not audible but is used, for example, by haunted house operators to give visitors that eerie, physically and emotionally uncomfortable feeling.) I'm also referring to the wind industry's own international design and manufacturing standards-writing body who drafted guidance for measuring low frequency noise and declared the wind industry was underestimating the levels of low frequency noise. And, I'm referring to a large wind turbine manufacturer who produced a document, which I've read, on how to design and operate for less noise impacts if the wind industry would accept some loss in energy production which means a little less federal tax credits.

SB 167 should help the wind developers and operators pay more attention to the impacts to public safety and health. If they do the right thing, they won't have to be concerned about any of their own financial impacts from SB 167.

After all of this is said, the fact is that every wind project is usually financed and built under its own limited liability company to isolate and minimize liability risks. But, still, SB 167 will help provide some means of fairness to those who are negatively impacted and, actually, should result in minimizing negative health and financial impacts upon citizens in the future as wind developers and operators become more motivated to act responsibly.

Wind Energy Systems Damages - SB 167

Senators,

Today you have heard much opposition to Senate Bill 167 from the wind industry, and their lobbyist and apologist. They have repeatedly claimed that this bill would kill all wind project development in Wisconsin.

One has to wonder, what is it they are afraid of? The industry and lobbyist have said these are benign, 500 foot tall, moving industrial machines that can be located merely hundreds of feet from a residence with no harmful effects.

They have said there is no proven link between wind turbines and the negative health effects reported by residents living in wind farms all over the world.

They have said the noise from wind turbines is no louder than a refrigerator.

They have said wind turbine noise is merely "an annoyance" and not a health effect.

They have said there is no loss in property value to homes located in a wind farm.

They have said the quality of life of residents in a wind farm is just as good as people living miles from a project.

If all this is true, then the wind industry has no reason to be concerned about a lawsuit. And yet, here we are, listening to dire claims of doom from the wind project developers and owners.

Again I ask, what are they afraid of? Do they fear the truth? Do they fear being exposed as liars and charlatans?

The people forced to live in the industrial wind project have tried to use the PSC, the Legislature, and appealed to the owners of the wind projects for remedies and solutions to their problems. They have not been successful in getting help, and feel the courts are their next resource. This bill will assist the affected residents of industrial wind projects in getting the relief they deserve, and help restore their quality of life.

Ervin Selk

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Industrial Wind Turbine Development and Loss of Social Justice?

Carmen M. E. Krogh

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SENATOR
GROTHMAN

Industrial Wind Turbine Development and Loss of Social Justice?

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Carmen M. E. Krogh¹

Abstract

This article explores the loss of social justice reported by individuals living in the environs of industrial wind turbines (IWTs). References indicate that some individuals residing in proximity to IWT facilities experience adverse health effects. These adverse health effects are severe enough that some families have abandoned their homes. Individuals report they welcomed IWTs into their community and the negative consequences were unexpected. Expressions of grief are exacerbated by the emotional and physical toll of individuals' symptoms, loss of enjoyment of homes and property, disturbed living conditions, financial loss, and the lack of society's recognition of their situation. The author has investigated the reported loss of social justice through a review of literature, personal interviews with, and communications from, those reporting adverse health effects. The author's intention is to create awareness that loss of social justice is being associated with IWT development. This loss of justice arises from a number of factors, including the lack of fair process, the loss of rights, and associated disempowerment. These societal themes require further investigation. Research by health professionals and social scientists is urgently needed to address the health and social impacts of IWTs operating near family homes.

Keywords

wind turbines, adverse health effects, social justice, procedural justice, disempowerment, disturbed living conditions, impact statements, loss of home, societal themes

Introduction

It is recognized that there are many elements which define human health:

At the Ottawa Conference in 1986, the World Health Organization, along with Health Canada (formerly Health and Welfare Canada) and the Canadian Public Health Association, agreed on the Ottawa Charter for Health Promotion. The Charter sees health in the context of the interaction between the person and the environment. It recognizes the elements of our social environment, including peace, shelter, education, food, income, social justice and equity as prerequisites for health. (Health Canada, 2004, vol. 1, p. 15)

Many articles regarding social justice are available in a variety of psychology and sociology journals and on the Internet; however, a simple definition of social justice seems elusive.

Shain (2011) in a communication with the author comments,

While there is no one account of procedural justice upon which there is consensus, the criteria for what constitutes a fair procedure advanced by Leventhal (1980)

enjoy considerable support and have been used in numerous research studies on the subject (Tyler, Boeckmann, Smith, & Huo, 1997).

Leventhal (1980) proposes six key criteria that people use wittingly or otherwise in judging to what extent a decision-making procedure or process is just or fair:

- *Consistency*: Equal treatment of persons across time and place
- *Bias suppression*: Avoiding self-interest or ideological preconceptions
- *Accuracy*: Using good, accurate information and informed opinions
- *Correctability*: Opportunities for review and amendment
- *Representativeness*: Everyone is involved in decision making who has a material interest in the outcome

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- *Ethicality*: Compatible with fundamental moral and ethical values

These criteria collectively amount to a definition of fair process.

As such, they resonate with Trebilcock's (1993) analysis of what causes breakdowns in contractual relationships: information failure and participation failure. And at a more philosophical level, they resonate with a working definition of fairness given by Shain (2001) following Rawls (2001) in his seminal treatise on *Justice as Fairness* (see also Rawls, 1971).

This definition sees fairness as "the recognition and reasonable accommodation of one another's legitimate interests, claims and rights." As such, fairness calls for a process in which people who are brought into relationships with one another are actively enjoined to make themselves aware of one another's interests, claims, and rights, to understand these as best they can, and to use their knowledge to arrive at best-fit solutions that accommodate all involved. This imperative applies not only to parties involved in personal and domestic relationships but also to those involved in community and commercial undertakings.

While this is a tall order, it is nonetheless the goal of procedural fairness. It also describes the antithesis of the situation we confront in connection with the licensing and siting of industrial wind turbines (IWTs). These concepts set the stage to raise awareness of the issues associated with social justice and its effects on those living in the environs of IWTs.

Urgent research by health professionals and social scientists is required to further study this social phenomenon.

The Beginning

In January 2009, I began investigating reports of adverse health effects made by individuals living in the environs of IWTs. Over the course of more than 2 years I have been in communication with many of those experiencing physiological and psychological symptoms in Ontario, Canada and elsewhere globally. The descriptions of reported symptoms are consistent and based on individuals' reports, correlate with the onset of IWT facilities' operations.

An impact statement from early 2009 provoked my awareness that in addition to experiencing adverse health effects, there was evidence of a feeling of disempowerment and lack of process: "I trusted the wind energy companies"—"I can't believe the government is doing this to me." (S. M., personal communications, 2009, Ontario).

Many feel abandoned by the very procedural systems they believed would protect them. Through my research, I observed a progression of impacts starting with the identification of physiological and psychological symptoms and culminating

with frustration, grief and anger, disempowerment, loss of trust, and an overall sense of social injustice.

When the health symptoms became apparent, there was an expectation that authorities and/or the IWT developer would resolve the issues. Individuals report their distress intensified when attempts to obtain recognition of their situation failed. An unexpected lack of response from a cross section of society, including government officials, industry, medical practitioners led to an exacerbation of their situation.

Failure to obtain recognition and resolution has resulted in some individuals seeking legal counsel, abandoning their home, or continuing to experience the adverse health effects, which ultimately, heightens the feelings of injustice.

Social well-being is acknowledged to be a determinant of health: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization [WHO], 1948). Many jurisdictions, including the Canadian federal, provincial, and territorial governments and health officials have accepted WHO's definition of health (Health Canada, 2004, vol. 1, p. 1-1).

Social Justice Violated

The WHO (2008) acknowledges the importance of social justice. It states, "Social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death" (p. 3).

This statement set the stage for my presentation on social justice and IWTs (Krogh, 2010) given during the Society for Wind Vigilance, First International Symposium "The Global Wind Industry and Adverse Health Effects: Loss of Social Justice?"

The WHO (2008) final report on social determinants of health identifies three overarching principles:

1. Improve daily living conditions.
2. Tackle the inequitable distribution of power, money, and resources.
3. Measure and understand the problem and assess the impact of action.

Improve Daily Living Conditions

WHO (2008) states, "Different government policies, depending on their nature, can either improve or worsen health and health equity" (p. 110).

In response to environmental and economic concerns, some governments have adopted wind energy development as an alternative energy source (Green Energy and Economy Act, 2009; VisitDenmark, 2009). In some jurisdictions, implementation of IWTs has resulted in unexpected consequences. There are global reports of adverse health effects correlated with the onset of operations of IWTs (Harry, 2007; Krogh, Gillis, & Kouwen, 2011; Nissenbaum, 2009; Pierpont, 2009; Phipps, Amati, McCoard, & Fisher, 2007).

In several case series, respondents report experiencing a reduced quality of life. WindVOiCe, a self-reporting health survey from Ontario, Canada found that in addition to a plethora of symptoms, 113 of 131 respondents reported altered quality of life (Krogh et al., 2011). Similarly, in the United Kingdom, Harry (2007), 40 of 42 reported this as well.

In my presentation at the Society for Wind Vigilance International Symposium held in Ontario, Canada, I presented impact statements from a number of countries that described disturbed living conditions and adverse health effects (Krogh, 2010). One impact statement from Japan described how family members were sufficiently sleep disturbed by IWT noise they resorted to renting a second home in order to sleep. A family member from Germany described experiencing tachycardia, which intensified as the IWT speed increased.

References, both from peer-reviewed and other literature, acknowledge that IWTs may cause annoyance and/or stress and/or sleep disturbance (Colby et al., 2009; Keith, Michaud, & Bly, 2008; Minnesota Department of Health, 2009; Pedersen & Persson Waye, 2004, 2007; Rideout, Copes, & Bos, 2010; Thorne, 2010).

The Wind Turbine Noise (2011) post-conference report states,

The main effect of daytime wind turbine noise is annoyance. The night time effect is sleep disturbance. These may lead to stress related illness in some people. Work is required in understanding why low levels of wind turbine noise may produce affects which are greater than might be expected from their levels.

Noise from IWTs is found to be more annoying than other sources of noise at comparable sound pressure levels (Pedersen, Bakker, Bouma, & van den Berg, 2009).

In everyday language, the term *annoyance* may be viewed by some as trivial; however, in the context of human health, annoyance is an adverse health effect (Health Canada, 2005). In 1991, Suter commented that

“Annoyance” has been the term used to describe the community’s collective feelings about noise ever since the early noise surveys in the 1950s and 1960s, although some have suggested that this term tends to minimize the impact. While “aversion” or “distress” might be more appropriate descriptors, their use would make comparisons to previous research difficult. It should be clear, however, that annoyance can connote more than a slight irritation; it can mean a significant degradation in the quality of life. This represents a degradation of health in accordance with the WHO’s definition of health, meaning total physical and mental well-being, as well as the absence of disease. (p. 27)

Niemann and Maschke (2004) also comment on the significance of annoyance: “The result confirms the thesis

that for chronically strong annoyance a causal chain exists between the three steps health–strong annoyance–increased morbidity” (p. 18).

The exact cause of IWT-induced adverse health effects is not fully understood. Plausible causes are not limited to but include amplitude modulation, temporal variability, lack of nighttime abatement, shadow flicker, and visual impact. Audible low-frequency noise has also been identified as one of the IWT noise characteristics that can be a contributing factor for annoyance (Minnesota Department of Health, 2009; Møller & Pedersen, 2010).

Reported symptoms associated with human exposure to IWT’s include sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic episodes associated with sensations of internal pulsation or quivering when awake or asleep (Pierpont, 2009, p. 26).

Leventhall (2009) attributes these reported IWT symptoms as effects of “annoyance by noise” stating, “I am happy to accept these symptoms, as they have been known to me for many years as the symptoms of extreme psychological stress from environmental noise, particularly low frequency noise.”

The effects of low-frequency noise-induced annoyance and stress from various sources have been researched. “Regulatory authorities must accept that annoyance by low frequency noise presents a real problem . . .” and that “The claim that their ‘lives have been ruined’ by the noise is not an exaggeration . . .” (Leventhall, 2004).

DeGagne and Lapka (2008) note, “Unlike higher frequency noise issues, LFN is very difficult to suppress. Closing doors and windows in an attempt to diminish the effects sometimes makes it worse . . .”

Respite from the effects of low-frequency noise can require extreme measures: “Those exposed may adopt protective strategies, such as sleeping in their garage if the noise is less disturbing there. Or they may sleep elsewhere, returning to their own homes only during the day” (Leventhall, 2004).

In Ontario, personal communications with individuals residing in the environs of IWTs report their attempts to mitigate the low-frequency component of the noise by wearing ear protection day and night proved to be ineffective. To escape the noise, some report resorting to sleeping in vehicles, tents, trailers, basements lined with mattresses, garages, and at relatives or friends’ homes. Others have bought or rented a second residence to obtain respite (G. W., personal communications, 2010; T. W., personal communications, 2011) or relocated with friends or family (T. K., personal communications, 2011). Some families have been billeted at the IWT developer’s expense (Hansard, 2009, p. G-547). Others have abandoned their homes or been bought out by wind developers (Braithwaite, 2009a, 2009b). Buyouts by IWT developers have been reported in other parts of the globe (Rolfe, 2011).

An impact statement from Italy conveys the health and economic effects associated with having to leave their home:

“... I had to abandon my home ... because of the terrible symptoms. My house is worth nothing.” (G. A., personal communications, 2010).

An individual representing a group of families testified before the Ontario Standing Committee on Green Energy and Green Economy Act and described how

Each family has incurred additional costs from budgets for food, fuel, laundry and doctor visits while living away from our homes. Family events had to be held in restaurants. There is wear and tear on our vehicles. There is the extra cost of extensive phone bills from trying to get the problems fixed. There is the price of putting isolators on our homes to protect our families from the unfiltered power. There's the cost of going to meetings. There's loss of productivity due to sleep deprivation. A loss of three weeks from work occurred.

Ontario common law and MLS rules and regulations set out for Ontario realtors all require full disclosure of factual information regarding properties offered for sale by owners. This means an owner is legally obligated to disclose any information known or expected about a property that may affect a buyer's decision to purchase a property.

My real estate agent tells me our farm is unsellable. Our homes are unsellable or of zero value. Buying a second home to live in, which I've done—possible lawyer fees, possible appraisal costs. Our lives are upside down for the last 18 months, and how do you put a cost on that? This is like someone committing a crime, going to jail for, say, 10 years and then finding out after DNA tests, “Oh, you're innocent.” How do you get that time back at our ages? (Hansard, 2009, p. G-548)

P. C. from Ontario described the impacts to the family:

Although we did not realize it at the time, November, 2008 was to be the beginning of the worst nightmare to affect our quality of life that we had and still have ever experienced. There was now a total of 33 industrial wind turbines within a 3 km radius of our house. With the whirling of the turbines came the destruction of personal, family and social life as we knew it. I was positive that the wind corporation and our government would fix the problem as soon as I told them that the noise of the turbines was affecting our health and our quality of life. I was wrong! Since May, 2009 I have been communicating with the wind corporation and with various ministries of our Ontario government (mostly MOE) explaining that the noise from the turbines often makes it impossible to sleep thus causing other health problems that are associated with lack of sleep and sleep disturbance. We also started often feel-

ing our bed vibrate, our chest vibrate, our heart racing, headaches, nausea, pounding in the ears. We were told that mitigations are in place, we are still feeling the same ill effects (P. C., personal communications, 2011).

The impacts on P.C.'s family life have extended to an elderly mother who had to leave the affected home and adult children who were unable to visit:

Our lives have been changed drastically ... have been ruined. The building we live in is not a home because the 33 turbines within a 3 km radius have an adverse effect on the health of the people who live in this house and the turbines cause a loss of enjoyment of normal use of our property. The whooshing audible noise of the turbines is torture, it is often a continuous “on/off” whooshing noise often both inside and outside our house. In my opinion, our government pretends we do not exist. Our government caused this problem, we did not ask for it yet we suffer. We are moms, dads, grandpas, grandmas, children, babies, pregnant mothers ... why have we become insignificant to the turbine corporations and to our provincial government? (P. C., personal communications, 2011)

Additional testimony has described negative health and societal impacts:

We are quizzed or defending our health problems at community events such as hockey games, shopping or church. Dysfunctional community relations have been created by the wind project representatives and some community members trying to discredit the validity of our problems.

The family unit for each family has deteriorated and has been torn apart. We begged for sleep, and four families were billeted by the wind company from their homes for 90 to 180 days in motels, hotels and a rooming house. The consistent stress has broken apart the family unit—no gatherings, few or no celebrations at home. At present, one family has purchased a separate residence to live in, and two others had to, at the expense of thousands of dollars, modify their hydro connection to try and live in their homes that they've lived in for 19 to 35 years.

Due to concerns for the health of grandchildren, grandparents, older children, extended family members and friends, we all strongly discourage extended visits to our homes. We had to meet somewhere else other than our homes for celebrations. (Hansard, 2009, p. G-547)

While the data base of youth impact statements is limited, some young people are also negatively affected. A teenager

reports having to leave home prematurely. This displacement and separation of family was destructive. The outcome is *isolation from friends and family*: “I am forced to sit back and say nothing as my own teachers teaches my classmates and peers that wind energy is flawless . . . I am forced to live away from home with my grandmother . . . I can never go home” (J. K., personal communications, 2010).

Tackle the Inequitable Distribution of Power, Money, and Resources

WHO (2008) states, “Empower all groups in society through fair representation in decision-making about how society operates, particularly in relation to its effect on health equity, and create and maintain a socially inclusive framework for policy-making” (p. 158).

Absence of fairness has been raised globally by individuals who are disturbed by some governments’ procedures for implementing a renewable energy policy. Rapid introduction of IWTs into rural communities has resulted in negative social impacts.

For example, in Ontario, the Green Energy and Economy Act (2009) was passed with the intention of streamlining the approval process for thousands of IWTs. The Act legislated a centralized decision-making process and removed jurisdictional authority from local municipalities (Gallant, 2011). The domino effect is that those living in the affected communities are unable to participate in meaningful consultation.

In Ontario, local communities no longer have planning authority to determine how or if renewable energy projects will be incorporated. As result, a significant number of local municipalities and counties have expressed concern and have requested that planning authority be restored to local governments. At the time of this article, 76 municipalities have expressed concerns regarding the development of renewable energy projects (Wind Concerns Ontario, 2011). The disempowerment of local councils and residents is perceived as a loss of democratic rights and social justice.

Section 2 of the Green Energy and Economy Act (2009) states, “This Act shall be administered in a manner that promotes community consultation.” However, in practice, the community consultation process does not include the right to approve or not approve IWTs in individual communities.

In a reported statement by former Minister of Energy and Infrastructure, George Smitherman: “We passed a law, and the law does not create an opportunity for municipalities to resist these projects just because they may have a concern” (Hendry, 2009).

Impact statements from other parts of the globe report concerns regarding IWT development and social impacts to the local community:

We are Japanese concerning about wind farm developments. Big wind is destroying nature and local

communities in Japan too. People near wind farms are suffering from low-frequency noise from the turbines. (Y. T. O., personal communications, 2010)

M. R. from Australia notes,

. . . the social division; the slander, lies and intimidation; the anxiety that is caused by the health problems whether they are real or imagined. Again it is how dismissive the neighbours, authorities etc are, of the claims of people who have been affected. Then there is just the total destruction of small communities—pitching one faction against another; appearing to spread largesse when it is a farce; interference with the normal political processes in a small country town. (M. R., personal communications, 2010)

Another individual comments,

Besides all the health problems, friendships, families and local communities have been destroyed forever. It’s so sad. Has the government stopped to think of the real cost in all this so called green energy. (M. O., personal communications, 2010)

A. R. reports,

. . . the social dislocation that the wind farm has caused. There seems to be dismissal of any opinion that is contrary to the wind company, the government. . . . As dissenters, our rights as citizens of Australia have been eroded—they being the right to free speech and opinion, the right of association and thirdly the right to the benefits of our property’s that were meant to be protected under planning laws. This community is forever divided and mentally the wounds are incurable. (A. R., personal communications, 2010)

These sentiments reflect a perceived erosion of local democratic rights and loss of procedural justice.

During the course of several years, over 600 IWTs were commissioned in Ontario, Canada. Coinciding with these IWT developments were increasing reports of adverse health effects. After several years of IWT operations, correspondence from the Ministry of Environment, Ontario (2009) stated, “There is currently no scientifically accepted field methodology to measure wind turbine noise to determine compliance or non compliance with a Certificate of Approval limits.”

This lack of measurement and enforceability explained in part, why in spite of a growing number of complaints and requests for help, mitigation and resolution for those experiencing adverse health effects was elusive. Ontario,

Canada residents' impact statements reflect frustration and disappointment:

The wind developers get free access to all levels of the Ministry of Environment—when there are discussions about our noise study, we are excluded from the meeting.

Who do you go to for help?—the government says it's ok—the industry says it's ok—society says it's ok. I follow all the rules—they call me a NIMBY. What can I do—the developer says it has a license and a right to put the turbines there.

When people can't sleep, the developer always wins. The Ministry of Environment says they're in compliance, even when they aren't. It's not about justice—it's about procedures. (Personal group interviews by the author, 2010)

In Ontario, the Renewable Energy Approval (REA, 2009) process came into effect with the passing of the Green Energy and Economy Act. The REA is a fast tracking system with the intention to streamline the approval of renewable energy projects.

An individual may appeal a REA if they provide

- (d) a description of how engaging in the renewable energy project in accordance with the renewable energy approval will cause,
 - (i) serious harm to human health, or
 - (ii) serious and irreversible harm to plant life, animal life or the natural environment. . .”
 (Rules of Practice and Practice Directions of the Environmental Review Tribunal, (July 9, 2010), section 142.1 (s. d. ss. i, ii).

Originally, the Government of Ontario had proposed an even more onerous legal test in that the serious harm to human health would also have to be “irreversible” (Bill 150, 2009, Section 142.1 (3)).

Concern has been raised that the process for filing an REA appeal is daunting for the average Ontarian. Those who wish to appeal an REA, must file one within 15 days. This time limit provides little time to organize an appeal. The appeal process has a number of steps with which an environmental lawyer might be familiar, but most residents would not. The legal requirement to prove that the renewable energy project will cause serious harm requires a comprehensive inventory of evidence, including testimony from expert witnesses.

Typically, an REA appellant would face the well-funded legal resources of the government and the project developer. The associated financial costs are a significant deterrent, which would discourage most individuals from filing an appeal.

In spite of these challenges, an appeal has been launched in Ontario, Canada, regarding the Kent Breeze project in Chatham Kent (The Canadian Press, 2011). At the time of writing this article, testimony by 26 appellant and respondent witnesses has been completed. The appeal hearing started February 1, 2011 and final submissions are scheduled for the end of May 2011.

People expressing legitimate concerns that IWT be sited to protect people from harm have been negatively characterized using preemptive stereotyping such as “those opposed to wind,” “anti-wind farm activists,” “detractors,” “opponents,” “beyond NIMBY” (Not In My Back Yard), and “BANANAS” (Build Absolutely Nothing Anywhere Near Anything), (Chatham Kent Public Health Unit, 2008; Colby, 2010; Colby et al, 2009; Kelahan & Purslane, 2009).

Martin (2009) reports on comments by the Premier of Ontario, Canada stating,

He said the new Green Energy Act his government will enact is intended to prevent such barriers to green energy projects and the 50,000 jobs they bring. “We are going to find a way, through this new legislation, to make it perfectly clear that NIMBYism will no longer prevail,” he told reporters at a luncheon gathering of the London chamber of commerce.

An impact statement in response to the Premier of Ontario's allegations of NIMBYism expressed an absence of fairness and stated, “. . . it lowered my sense of value and insulted my personal integrity—and it was coming from the highest office of my provincial government (S. M., personal communications, 2011). This individual's family was billeted by the IWT developer for months and ultimately has left their home of decades to live elsewhere.

The practice of using preemptive stereotyping labels such as NIMBYs demonstrates a lack of understanding of the health and social issues faced by individuals and their families. This lack of understanding results in increased feelings of injustice.

Based on my research, people initially welcomed IWTs into their communities and the adverse impacts were unexpected. Impact testimony reveals

You need to know the problems with wind turbines and people living with them. I know you probably know me. You've probably seen my letters. When the wind turbines started up in early December, we had terrible noise issues, and it was pretty much instant. There were three nights straight we didn't sleep at all. . . . We had no thoughts that we were going to have problems. When the wind turbines were actually going up at our place in the summer, we were putting a double-car garage up at the same time. We had put in a new fence, a new deck, everything. We weren't

expecting anything. We're not anti-wind, we're not anti-green. . . . When I hear people say, "There aren't problems," and "It's all in their heads," and "They're just unhappy because they don't have a turbine," I don't even know what to do. My government has not been helping. If you guys are going to go push more through—and then, because I came out and starting speaking, I've got people all over the province phoning me and saying, "Help us. We're not getting anywhere with our MPP. Nobody's listening to us." (Hansard, 2009, p. G-517)

Inconsistent government decisions can undermine Leventhal's (1980) criteria of equal treatment of persons resulting in a perceived discrimination.

For example, the Ontario, Canada, government has been inconsistent in its application of setback distances for IWTs. Currently, the on shore setback distances are 550 meters; however, it was proposed that off shore setbacks would be 5 kilometers (Ministry of Environment, Ontario, 2010). Spears (2010) reports regarding the Minister of Energy (Ontario):

Minister Brad Duguid said the proposed guideline provides clarity to proponents of wind power projects and to people who may be affected by them. "I think it sets to rest the concerns of some moderate people who were concerned that if they go to the beach, they could be looking up at a huge wind turbine," he said in an interview.

Many Ontario rural residents were disturbed by the government's discrimination between the two groups—those living along a shore line and those living inland.

Measure and Understand the Problem and Assess the Impact of Action

WHO (2008) notes, "society must acknowledge when there is a problem monitor and initiate surveillance, then once the problem is identified, conduct research, and finally, take action" (chap. 16, p. 178).

Inconsistent information, including competing claims and denial of IWT adverse health effects has suppressed the stimulus to investigate the reports of those experiencing negative health and other negative impacts.

The Canadian Wind Energy Association's (CanWEA, 2008) website informs visitors: "Scientists conclude that there is no evidence that wind turbines have an adverse impact on human health."

The tactic of denying of health risks by industry has been employed in the past:

In 1954, the industry established the Tobacco Industry Research Council. Its task was to reassure the public that the industry could responsibly investigate the

smoking and health issue and that it could resolve any problems that were uncovered. The Council's real role, however, was "to stamp out bush fires as they arose." Instead of supporting genuine scientific research into the problems, it spent millions of dollars publicizing research purporting to prove that tobacco did not cause cancer. Its true purpose was to deliberately confuse the public about the risks of smoking. "Doubt is our product," proclaimed an internal tobacco industry document in 1969. "Spread doubt over strong scientific evidence and the public won't know what to believe." (Saloojee & Dagli, 2000)

The American and Canadian Wind Energy Association commissioned and funded panel report acknowledges that IWT noise may cause annoyance, stress, and sleep disturbance, which may have other consequences but then inexplicably states in the conclusion: "Sound from wind turbines does not pose a risk of hearing loss or any other adverse health effect in humans." (Colby et al., 2009, p. 5-2)

A draft final report prepared for the Ontario Ministry of Environment states,

The audible sound from wind turbines, at the levels experienced at typical receptor distances in Ontario, is nonetheless expected to result in a non-trivial percentage of persons being highly annoyed. As with sounds from many sources, research has shown that annoyance associated with sound from wind turbines can be expected to contribute to stress related health impacts in some persons. (Howe Gastmeier Chapnik Limited, 2010, p. 39)

The WHO (1999, p. xiii, 32) recognizes annoyance as a health effect. In terms of annoyance and stress from low-frequency noise in general it has been noted, "The noise, typically classed as 'not a Statutory Nuisance,' causes immense suffering to those who are unfortunate to be sensitive to low frequency noise and who plead for recognition of their circumstances" (Leventhal, 2003, p. 5).

An impact statement from Ontario reveals,

This hum and vibration is not covered in the guidelines. There are no guidelines for interior noise in our house. When the winds are whipping up, and we can't sleep for days and days at a time, there's nothing. You phone the MOE and I cannot tell you how many times I heard, "We're in compliance. We're in compliance." They're in compliance. They're in compliance. In fact, they weren't in compliance. Finally, we dragged it out and got the acoustics study back. It's just been such a fight to get information. (Hansard, 2009, p. G-517)

In response to proposed Ontario requirements that IWT proponents ". . . be required to monitor and address any

perceptible infrasound (vibration) or low frequency noise as a condition of the Renewable Energy Approval" (Renewable Energy Approval Regulation, June 9, 2009, p. 15), the CanWEA (2009b) stated, "... CanWEA submits that the proposed requirement for infrasound or low frequency noise monitoring as a condition of the REA be removed" (EBR Posting).

Individuals experiencing symptoms report the lack of recognition of their circumstances. An impact statement from G. M. (personal communications, 2010) in the United States reveals, "I am a victim of large IWTs . . . it is time that legislators and public health officials learn about and are held accountable for the terrible health affects inflicted on nearby residents . . ."

In the meantime, a local public health unit responded to an individual reporting IWT adverse health effects: "Our public health unit does not have the recourse, resources or expertise to monitor the health effects of turbines . . . To stray from this course, by pursuing such avenues, would be highly problematic" (B. A., personal e-mail communication, 2009). Ultimately, this individual's family home was purchased by the IWT developer. A nondisclosure clause prevents the family members from discussing specific details of their experience.

The Ontario Chief Medical Officer of Health's (2010) literature review states, "While some people living near wind turbines report symptoms such as dizziness, headaches, and sleep disturbance, the scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects" (p. 10). However, the literature review does not adequately address effects of noise regarding the indirect pathway, which includes annoyance, sleep disturbance, cognitive and emotional response, and stress (WHO, 2009, p. 62, figure 4).

The health outcomes associated with the indirect pathway are significant:

Physiological experiments on humans have shown that noise of a moderate level acts via an indirect pathway and has health outcomes similar to those caused by high noise exposures on the direct pathway. The indirect pathway starts with noise-induced disturbances of activities such as communication or sleep. (WHO, 2009, p.138)

The lack of evidence of IWT adverse health effects is cited as the rationale for not conducting health studies.

The industry trade association-sponsored panel report stated: "Panel members agree that the number and uncontrolled nature of existing case reports of adverse health effects alleged to be associated with wind turbines are insufficient to advocate for funding further studies" (Colby et al., 2009 p. 5-2). The president of CanWEA reportedly stated, "We don't support the implementation of an epidemiological study" (Avery, 2010).

At the same time, peer-reviewed scientific articles have identified the urgent need for research on human response to IWT sound (Pedersen, Bakker, Bouma, & van den Berg, 2009; Salt & Hullar, 2010).

In testimony at the Green Energy and Economy Act Standing Committee, Ontarians living in the environs of IWTs asked elected officials for understanding:

I want everybody to live in my house. Nobody will live in it. I offer to everybody here: Come and live in my house, free.

A government should take all the money we've given in taxes, use some of it to get the science people out there with no association with the wind industry at all—get out there and study this, and don't put up another wind tower or another wind project until you fix the problems. That's what good government does. Good government looks after its people. (Hansard, 2009, p. G-549)

It is expected that "Government's job is to provide citizens with accurate and appropriate information so that they can protect themselves" (Health Canada, 2004, p. 1-1).

A media report from the United Kingdom discussed the suppression of information regarding IWT health concerns: "Civil servants have suppressed warnings that wind turbines can generate noise damaging people's health for several square miles around." The media report cites a U.K. resident: "We abandoned our home. We rent a house about five miles away—this is our fourth Christmas out of our own home. We couldn't sleep. It is torture—my GP describes it as torture. Three hours of sleep a night is torture" (Leake & Byford, 2009).

The CanWEA states: "...findings clearly show there is no peer-reviewed scientific evidence indicating that wind turbines have an adverse impact on human health." (CanWEA, Revised: April 2009, p.3). However, Health Canada states "In fact, there are peer-reviewed scientific articles indicating that wind turbines may have an adverse impact on human health". (Health Canada, 2009)

It was reported,

Minister of Health Matthews also took on the question of whether the province will undertake a comprehensive health study on industrial wind turbines now that wind farms are becoming more abundant in Ontario thanks to the province's Green Energy Act.

The short answer to the question of the possibility of a full-scale study is no.

"There is no evidence, whatsoever, that there is an issue related to turbines," says Matthews, noting Ontario's Chief Medical Officer of Health completed

a report, *The Potential Health Impact of Wind Turbines*, which shows there is no correlation between wind projects and ill health effects. (Heath, 2010)

In an apparent contradiction, the Premier of Ontario, Canada stated in the legislature:

... we're now funding a research chair devoted to putting in place a longitudinal study so we can ensure that we are in fact not compromising the health of Ontarians. I think we're doing exactly what we need to do at this point in our history. (Hansard, 2010, p. 1032).

The \$1.5 million in total funding for the research chair is distributed over a 5-year term (Council of Ontario Universities, 2010). In the meantime, IWT projects continue to be approved (Kent Breeze, 2010) and by the time the health research has been completed; more people are expected to be adversely affected.

Meanwhile, impact statements from existing IWT installations reveal chronic distress:

I begged the Premier to help me, please help me.

It's mental abuse—I will never be the same . . . I have lost all hope.

We wait and wait for help—our hopes are dashed over and over—the problem is never solved.

I write letters and keep hoping the next one will get us out of this. (Personal group interviews by author, 2010)

Similar comments are expressed in other parts of the globe:

We still have the noise 4 years later and no one has done anything . . . No one came. No one rang, no one wrote. I am still waiting for someone to take some interest. They don't know the impact on our life. . . . They don't care. (L. C., personal communication, 2010)

Other impact statements describe additional negative social impacts, including the inability to earn a living:

We have lost our health, our home, and no one cares . . . I had to quit my job, a job I dearly loved. (N. S., personal interview, 2010)

I am a teacher, we are driven from our home of 31 years and I have to teach the social marketing about wind turbines to our youth. (S. M., personal interview, 2010)

G. W. from Australian reports a similar issue about livelihood:

I've been living in [city y] for 25 years. I live and work from home. The nearest cluster of turbines is approximately 3.25 kilometres from my home. Since the operation of the . . . Windfarm I have suffered headaches, ear aches, ear pressure, head pressure, tinnitus, severe sleep disturbance and mood swings. All of which living in a tranquil bush environment I had never experienced before. These symptoms disappear when I am away from home. The symptoms present themselves again on my return home. These health issues have had a significant detrimental effect on my capacity to work as an artist. (G. W., personal communications, 2010).

In 2009, an increasing number of media reports documented some individuals in Ontario were experiencing adverse health effects from IWTs. In response to the lack of IWT vigilance monitoring in Ontario, volunteers established a self reporting health survey in March 2009. WindVOiCe (Krogh et al., 2011) follows the principles of Health Canada's *Canada Vigilance Programs* for reporting adverse events for prescription and nonprescription products, vaccines and other. Individuals do not have to prove the effect, only perceive it. Under Canada Vigilance, the pharmaceutical industry is obligated by law to submit any reported adverse health effects it receives to Health Canada (Health Canada, n.d.). This obligation to report adverse effects does not apply to wind energy development in Ontario.

The lack of a post-market monitoring methodology to measure wind turbine noise and its compliance with the Ontario IWT noise guidelines is a serious lapse in responsible and fair policy making.

In Ontario, the inability to measure IWT noise for compliance has resulted in a lack of mitigation and resolution for those reporting IWT adverse health effects and other associated societal impacts.

In 2010, after several years of IWT development and operation, the Ministry of Environment, Ontario, released a request for proposal (RFP):

The Ministry requires a consultant to assist in the development of a measurement procedure to assess noise compliance of existing wind farms with the applicable SOUND level limits. The resulting procedure can be used both by operators of existing wind farms to assess compliance and by Ministry abatement staff in assessing compliance with noise limits. The measurement procedure must address two scenarios.

- Assessment of compliance in a noise complaint situation
- Assessment of compliance in the context of an acoustic audit. (MERX# 189608, 2010)

At the time of authoring this article, the protocol is still under development. In the meantime, individuals continue to report IWT adverse health effects which are not resolved.

Discussion

The impact statements in this article represent a small sample of a larger body of data acquired through the WindVOiCe health survey, official reports of debates, personal interviews, and other communication.

It is acknowledged that IWTs, if not sited properly, can adversely affect the health of exposed individuals. In addition to physiological and psychological symptoms there are individuals reporting adverse impacts, including reduced well-being, degraded living conditions, and adverse societal and economic impacts. These adverse impacts culminate in expressions of a loss of fairness and social justice.

The above impacts represent a serious degradation of health in accordance with commonly accepted definitions of health as defined by the WHO and the Ottawa Charter for Health Promotion.

Wind turbines are a new source of community noise to which relatively few people have yet been exposed (Pedersen et al., 2009). Public policy to adopt renewable energy as an alternative energy source has inspired governments to introduce measures to encourage rapid development. This has resulted in many IWTs being sited in close proximity to human habitation.

Ontario's Green Energy and Economy Act (2009) is reported to be designed to remove barriers to renewable energy development such as removal of local planning authority. The Act arguably erodes individual human and environmental rights. The Act is written such that a renewable energy development can be approved even if it will cause harm to human health and serious harm to plant life, animal life or the natural environment.

As discussed in the introduction, fairness can be defined as "the recognition and reasonable accommodation of one another's legitimate interests, claims and rights" (Shain, personal communication, 2011). Evidence indicates the rapid implementation of IWTs has circumvented fairness. My research demonstrates that IWTs were initially welcomed into communities. The reported adverse impacts were unexpected. Individuals initially believed there were systems in place that would resolve the problems. Instead, those adversely affected report receiving little if any recognition or reasonable accommodation of their legitimate interests, claims, and rights. A review of IWT development in Ontario indicates that the application of fair process and social justice criteria as proposed by Leventhal (1980) and WHO (2008) are not being achieved.

This subject provides research opportunities for clinicians and social scientists. There are unanswered questions about the risk of short and long term exposure to IWTs. The long-term health impacts to infants, children, and the unborn, family members, and workers such as farmers and technicians who live and work in close proximity to IWTs are unknown.

The long-term psychological, economic, and social impacts on families who have abandoned their homes or been bought

out by IWT developers but are silenced by nondisclosure clauses are also unknown.

Conclusions

In Ontario, Canada, there is a suspension of critical appraisal and due process regarding IWTs. The lack of confidence in the political and regulatory systems will persist if governments and industry continue to deny the existence of adverse impacts from human exposure to IWTs.

Societies concerned with health place value on the individual: "A society that is concerned with health and health equity acknowledges the existence of all its citizens and the importance of their well-being" (WHO, 2008, p. 177).

Good governance implies that governments have a responsibility to correct policies that result in harm. Governments have the power to halt development of IWTs in close proximity to humans until authoritative human health research has been completed. Facilities where there are reports of adverse health effects should be decommissioned and health and quality of life restored.

The negative psychological effect of disempowerment interacting with the adverse health effects attributed to IWTs has intensified the negative synergy of justice lost. Impact statements indicate that the violation of procedural justice will not be easily forgotten.

It is expected that this topic will be explored by health care professionals, psychologists, and social scientists for decades to come.

Author's Note

I would like to express my appreciation to the many who have shared their experiences with me. Most of the author's research has been conducted in Ontario, Canada; however, effort has been made to include an international perspective.

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Bio

Carmen M. E. Krogh, BScPharm is a retired pharmacist with more than 40 years of experience in health. She has held senior executive positions at a major teaching hospital, a professional association and Health Canada. She was a former Director of Publications and Editor-in-chief of the *Compendium of Pharmaceutical and Specialties (CPS)*, the book used in Canada by physicians, nurses and other health professions for prescribing information on medication.

To: **The Committee on Judiciary and Labor**

Dear Committee Members:

Thank you for the opportunity to address you concerning "2013 Senate Bill 167".

I strongly encourage you to support this bill because I believe passage of the bill truly is a **justice issue**. There are a number of Non-Participating Landowners in the Glacier Hills Wind Park, which is owned and operated by WE Energies, that are sorely in need of help from this committee and the lawmakers of this state to restore our right to be healthy in our own homes.

We do not have the resources nor influence to force WE Energies to act with integrity concerning our health problems caused by noise from its wind turbines. WE simply refuses to acknowledge its turbines are the cause of our health problems, such as tinnitus and sleep deprivation.

I work from my home and am exposed to turbine noise almost 24 hour each day. Nights are generally the worst for noise, because this is when our area has the best wind.

My home is surrounded by several turbines. The closest turbine is 1265 feet from my home.

My health issues to date caused by the turbines are:

- 1) I do not sleep well anymore. I cannot sleep in my upstairs master bedroom because of the turbine noise. I have permanently moved into a basement bedroom where there is less noise. Its single window is covered with 4 inches of foam rubber to deaden the turbine noise so I can attempt to get uninterrupted sleep. I still awaken for no reason during the night and have a difficult time getting back to sleep because my mind will focus on the turbine noise. At times the walls in my basement bedroom and in other basement rooms, seem like a sounding board and resonate with turbine sound; and,
- 2) I have developed tinnitus, a constant, high-pitched tone in both ears. I never had a condition like this before. The tinnitus seems to try to mask the sound of the turbines. The louder the turbine noise, the louder the ringing in my ears.

I complained to our township (Wind Agreement) Monitoring Committee about turbine noise and used a provision of the Township Joint Development Agreement to request a Property Value Protection Plan so I could sell my home without fear of losing so much money on the sale that we could not pay our mortgage and re-settle. WE Energies told me "No" because the PSCW did not want them doing Property Value Protection Plans.

Last week on November 14th, 2013, for reasons of negative health impacts upon a homeowner caused by its wind turbines, WE Energies purchased the home of a Participating Landowner inside the Glacier Hills Wind Park! The Participating Landowners only sold their house, and kept the approximately 20 acres with the turbine on it. They will continue to receive their annual turbine payments of \$5200 per turbine and \$20 an acre! I have included a copy of the Warranty Deed from the Columbia County Register of Deeds Office as proof of the sale.

This is unjust that WE Energies will spend approximately \$240,000 to purchase the home of Participating Landowners to solve their health problems -- yet continues to ignore the health problems of Non-Participating Landowners. These landowners absolutely knew the high health risk at their residence in that section of the wind park before they contracted to put their land in

the program and collect wind payments. Apparently, the turbine related health problems of Participating Landowners at Glacier Hills is a much greater concern to WE Energies than those of Non-Participating Land Owners, and WE is willing to give very special considerations and to subsidize those participants to help them relocate outside the wind park without suffering any financial harm.

Passage of this legislation holds a real opportunity for Non-Participating Landowners in Glacier Hills (and other wind generating facilities in Wisconsin) to recover damages for a myriad of injustices inflicted upon us by WE Energies and their wind turbines. As the Senate Committee whose focus is justice, I believe you will do an immense public health service by approving Senate Bill 167 and passing it on to the full Senate. Passage of this bill into law could prove useful to assist WE Energies in developing a proper justice ethic for use in future dealings with Non-Participating Landowners at future wind developments, and to help it gain a positive understanding that people's health should not be sacrificed for commercial gain.

Respectfully,



Jeffrey Alan Bump
N9093 County Road E
Scott Township
Cambria, WI 53923

November 20th, 2013



State Bar of Wisconsin Form 1-2003
WARRANTY DEED

Document Number

Document Name

DOC # 855477
REGISTER OF DEEDS
COLUMBIA COUNTY

RECORDED ON:
11/14/2013 03:00:33PM
PAGES: 1

LISA WALKER
REGISTER OF DEEDS

REC FEE: 30.00
NEW TRANS FEE: 720.00

Recording Area Exempt #:

Name and Return Address
WE Energies CCTC
Attn: Pat Adams
231 W. Michigan Street, A252
Milwaukee, WI. 53203

11034-402.04

Parcel Identification Number (PIN)

This is not homestead property.
(is) (is not)

THIS DEED, made between RODNEY D. KOK and SANDRA P. KOK,
husband and wife

("Grantor," whether one or more), and WISCONSIN ELECTRIC POWER COMPANY,
A WISCONSIN CORPORATION, DBA WE ENERGIES

("Grantee," whether one or more).

Grantor for a valuable consideration, conveys to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in COLUMBIA County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

Lot One (1) of Certified Survey Map No. 5489 recorded in the Columbia County Register of Deeds Office in Volume 39 of Certified Survey Maps, page 4, as Document No. 854901, in the Town of Randolph, Columbia County, Wisconsin.

Grantor warrants that the title to the Property is good, indefeasible, in fee simple and free and clear of encumbrances except: municipal and zoning ordinances and agreements entered under them, recorded easements for the distribution of utility and municipal services and general taxes levied in the year of closing.

Dated NOVEMBER 14, 2013

Rodney D. Kok (SEAL) _____ (SEAL)
* RODNEY D. KOK *
Sandra P. Kok (SEAL) _____ (SEAL)
* SANDRA P. KOK *

AUTHENTICATION

Signature(s) Rodney D. Kok and Sandra P. Kok

authenticated on November 14, 2013

Scott R. Reif
* SCOTT R. REIF

TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, _____
authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED BY:
SCOTT R. REIF - REIF & KENDALL ATTORNEYS
RANDOLPH & MARKESAN, WISCONSIN

ACKNOWLEDGMENT

STATE OF _____)
_____) ss.
_____ COUNTY)

Personally came before me on _____
the above-named _____

to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

* _____
Notary Public, State of _____
My commission (is permanent) (expires: _____)

(Signatures may be authenticated or acknowledged. Both are not necessary.)
NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

Nov. 18, 2013

To the members of the
wind turbine hearing committee

My health, has been affected,
since the wind turbines,
have been in operation.

I wake up often, because
the turbines wake my wife
up. Sometimes I cannot
fall back asleep. If
she doesn't get enough
sleep, she gets crabby.

We cannot document their
noise and WE Energies
refused to.

My hearing has gotten
worse and I have a
constant, ringing, in my
ears.

We are surrounded by

six turbines. The project manager is sympathetic to some of our complaints, but, cannot do too much because his superiors will not let him.

Everytime you have to deal, with WE Energies you get mad and get all worked up. Your blood pressure goes up.

They have not done, what they agreed to do with cell phones and computer modules. They blame the cell phone companies.

The worst thing is, we are subsidizing, these turbines, with our tax dollars. We do not have say about how

it they affect our health or
property values.

They refuse to give us
a fair market guarantee,
if we want to sell our
house.

Thank you
John Heil

JOHN HEIL
W2741 CTH E
CAMBRIA, WI. 53823
920 210 7600 cell
920 348 5936 home

Dear Committee,

Health Concerns Caused by Wind Turbines

- No Peace and Quiet on our property anymore, the generators never shut off, when the turbines don't turn the generators on top are still humming, not too many people know that. Trains, air traffic, highway noise can all be very noisy but it's not constant like the wind generators, they never shut off so therefore we never get a break from the noise. I wish we could get a break!!!
- Flicker from the turbines first thing in the morning is just terrific with a cup of coffee in the morning, everyone should have to experience this. Flicker can be at different times of the day depending on where the sun is at. This just drives me crazy!
- Ears have been popping. Hearing is not as good as before because I don't get a break from that constant noise.
- Stressed out and crabby because of no sleep and getting up in the middle of the night periodically between 1:00 a.m. till my alarm goes off for work at 5:00 a.m. Believe me that never happened before. I never had problems sleeping! Some nights the noise sounds like planes taking off with our windows shut.
- Headaches on occasions in which I never had before, probably from the constant low frequency noise even when there not running. We were told when they were off they wouldn't run but they don't ever shut the generators down.
- The other night my chest even started to hurt. I hope all these stressful issues aren't causing other problems from living with all these wind turbines (generators).

Sincerely very tired,

Debra Heil

Debra Heil

W 2741 CTY E

Cambria, WI 53923 11-19-2013

I, Pete DeBoer, live at W2182 Friesland Rd., Cambria, along with my wife Sandy. Our house has turbines on all sides, the closest is about 1400 feet. We have shadow flicker in the morning and afternoon during the winter months. The steady howl from the turbine can be heard whenever it is turning. It is especially noticeable in the summer when the windows are open at night. The noise sounds like a jet plane hovering overhead. The noise seems to vibrate through the house, something we never had before. The only time we get a full night's sleep is when the turbines aren't turning.

Pete DeBoer

Senate Bill 167

Early in the wind turbine permit process **Parliamentary Procedures were used to prevent viewing** of Good Neighbor and Turbine Host contracts, by the general public. **What is so secret about Good Neighbor contracts?** Our legislators have sent us reams of information on wind turbine rules and regulations. This is easily summed up as “advantage to the wind turbine industry”. I have never read anything concerning the public rights or legal remedies! **Please show us wording in law that addresses our rights and remedies!**

Flashing lights, repetitive sounds, sleep deprivation are all considered as enhanced interrogation and torturous! The ACLU and other human rights groups protest such abusive treatment of the Terrorists detained in Cuba at GIDMO. The tax payers of the United States deserve the same basic human rights.

I live on the south east edge of the **Blue Sky Green Field wind project** in the town of Mount Calvary, WI. I have a wind turbine west by south-west **a third of a mile from my home**. My home hosts an unwanted light show in February and again in spring. The turbine blades rotating through the setting sun result in **sweeping flashes** every 1.4 seconds, 43 flashes a minute, about 900 per day! Multiply all that by, the number of windows in my home and the **secondary flashes** reflected off other buildings and you should understand why **I am forced to leave my home**. I get a pounding heart beat, disoriented and sick to my stomach.

Jim and Darlene live a third mile north of said wind turbine. They are **forced to sleep in an unfinished basement** during nights with southerly winds. The sound of the blades cutting the wind pounds on their bedroom wall!

Trembling and in tears, a retired farmers wife describes how she is **forced to wear hearing protection when working in her back yard garden**. She has half-dozen or more wind turbines surrounding her home.

We have not even considered low frequency and sub sonic noise, complaints of health problems, stray voltage, no antenna TV reception (no Packer games) and the list goes on!

Please give us some tools to regain our health and quality of life! At very least give us the same rights you grant to the terrorists that are sworn to do this nation harm!

Thank you, James Kalmbacher

W1365 County Road WH

Saint Cloud, WI 53079-1331

Senate Bill 167

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W1365 County Road WH
Saint Cloud, WI 53079-1331





ANDRÉ JACQUE

STATE REPRESENTATIVE • 2nd ASSEMBLY DISTRICT

(608) 266-9870
Fax: (608) 282-3602
Toll-Free: (888) 534-0002
Rep.Jacque@legis.wi.gov

P.O. Box 8952
Madison, WI 53708-8952

TO: Members of the Senate Committee on Judiciary and Labor
FROM: Representative André Jacque
DATE: November 20, 2013
RE: Senate Bill 167

Chairman Grothman and Committee Members:

For several years now, Wisconsin families have abandoned their homes due to health concerns caused by Industrial Wind Turbines that were placed too close to their houses and farms. Most who were forced to move must now pay twice for a place to live, and many of those individuals and families simply want to move and start over but can't afford a second home while their wind turbine-plagued home won't sell in an already difficult housing market. Stripped of health and home, it is impossible for most families to be able to afford the legal battle that the wind energy industry can fund.

Senate Bill 167 does not create more liability for wind farm owners and operators, or make it easier to sue a wind farm owner or operator, but safeguards the right to a fair court proceeding, eliminates a smokescreen defense, and allows recovery of legal fees only if a suit is successful. If Industrial Wind Turbines are truly as safe as alleged, then this bill would be of small consequence and have little or no effect on the current system.

It has been said that under SB 167 anyone living within 1.5 miles of a wind turbine may sue for damages and that a wind farm owner would automatically be forced to pick up the tab. This is a misrepresentation as anyone within 1.5 miles of a wind farm currently **may** sue a wind developer though this will not automatically pin legal fees on an owner or developer – a court must still consider all evidence and find in favor of an injured party.

SB 167 simply disallows a wind turbine owner to use the fact that the wind turbine was sited legally as a defense that a turbine or wind farm could not be the cause of health problems or lost property value and means that any action brought by an individual or family against a wind farm owner or operator will actually be decided on the merits of the case. Wind developers, as well as town officials throughout Wisconsin, are well aware of the publicly documented health problems experienced in Wisconsin, the rest of the US, and abroad that are occurring as a result of improper siting of industrial wind turbines. The fact that Wisconsin has stripped its towns of their local control, in regards to turbines, and their ability to protect the health and safety of their own residents- their most important duty- should afford no shield to wind developers.

Again, what SB 167 does provide is that if a wind energy system is located within 1.5 miles from the plaintiff's residence, it is not automatically able to assert that an action for lost health or property values has no merit just because an energy system was operating pursuant to an appropriate legal permit or local governmental approval.

A person may bring a civil action to be compensated for damages he or she suffers as a result of another's wrongful or negligent act. Parties to a civil action are generally responsible for paying their own attorney fees, but current law generally allows a prevailing plaintiff to recover up to \$500 for attorney fees under certain circumstances.

Senate Bill 167 states that, in an action for damages caused by a wind energy system, the prevailing plaintiff may recover damages for his or her physical and emotional harm, compensation for loss of property value and for expenses incurred by the injured person if he or she moves as a result of harms caused by a wind energy system, and other damages. The bill also allows a prevailing plaintiff to recover reasonable attorney fees.

Thank you again for your time and for your consideration of Senate Bill 167.



222 S. Hamilton, Madison, WI 53703

Statement of RENEW Wisconsin in Opposition to SB167
Senate Committee on Judiciary and Labor
November 20, 2013

RENEW Wisconsin leads and represents businesses, organizations, and individuals who seek more clean, renewable energy in Wisconsin. RENEW Wisconsin has been advancing a sustainable energy future for Wisconsin since 1991. Of our 300+ members, more than 60 are companies headquartered in Wisconsin businesses.

Relying exclusively on baseless and unsubstantiated claims regarding health and property value impacts, SB 167 would, if adopted, effectively extinguish what remains of wind development activity in Wisconsin. This would be accomplished by encouraging residences living within 1.5 miles of a wind turbine to sue both turbine owners and landowners for damages. If this bill were to pass, no wind energy developer would risk locating a wind turbine within 1.5 miles of a residence, and no landowner would risk hosting a commercial wind turbine on his or her property.

No other state has adopted, or is considering the adoption of, a policy that puts wind generators and host landowners at risk of being sued for alleged damages. No other state has established, or is considering the establishment of, such extreme setbacks in order to eradicate a legitimate business activity that supports thousands of jobs in the United States, including many here. This begs the question, how much business activity would actually occur in Wisconsin if the Legislature granted state residents the right, on the basis of an alleged hardship, to sue the owners of coal-fired power plants, high-voltage transmission lines, metallic mines, non-metallic mines, landfills, waste transfer stations, airports, railroads, truck stops, metal fabrication plants, paper mills, food processing facilities, and confined livestock operations so long as the offending facility is located within 1.5 miles of the complainant?

In contemplating this retrograde bill, we ask the committee to consider the following points:

- Payments from wind generation facilities support rural economies. The counties and towns hosting six of Wisconsin's seven largest operating windpower installations--Glacier Hills, Blue Sky Green Field, Forward, Cedar Ridge, Butler Ridge and Shirley--receive more than \$2.3 million in payments in lieu of taxes each year. Landowners hosting the 349 turbines in these projects receive more than \$2.0 million per year combined. Not counting payments for transmission-related infrastructure, these six wind projects pump more than \$4.3 million annually to local governments, host landowners and neighboring residents. (See Tables 1, 2 and 3 below on pages 3-4).

- There is no credible evidence that existing wind development in Wisconsin has depressed property values statewide. In 2008 and 2009, Poletti and Associates, an Illinois real estate appraisal firm, investigated the impact of the Lincoln and Rosiere wind projects on nearby land sales and home construction activity. Analyzing seven years' of sales data, the Poletti study concluded that the 31 turbines in Kewaunee County have not had an effect on area property values. Poletti's conclusions have been corroborated by local assessors in Lincoln and Red River. Moreover, since 1999, when the turbines were placed in service, more than 10 houses have been constructed within one-half mile of a turbine there. (See article below, "Years Later, Wind Farm Fears Fail to Materialize" on pages 5 -9.)
<http://www.midwestenergynews.com/2011/12/20/wisconsin-wind-farm-fears-fail-to-materialize/>

- There is no scientific and medical evidence supporting claims from antiwind campaigners that wind generation is detrimental to human health. Quite the contrary, wind energy is a clean, safe, effective and economically sound source of electricity. Roughly 250,000 wind turbines with a capacity of 300,000 megawatts of capacity have been built worldwide as a result and with fewer negative side effects than with virtually every other source of electricity. That's a fact that often gets drowned out in conventional media treatments that take wind energy opponents' claims at face value (see pages 10-11).

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Table 1

Wind Power's Contribution to Wisconsin's Local Economies

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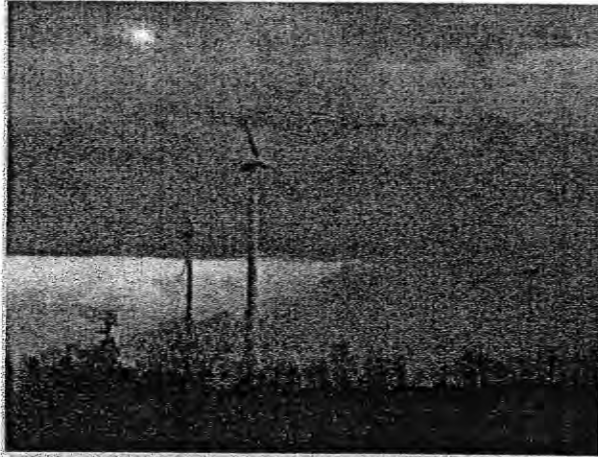
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Years later, Wisconsin wind farm fears fail to materialize

Posted on [12/20/2011](#) by [Rick Chamberlin](#)



Madison Gas & Electric wind turbines in northeast Wisconsin. While divisions still remain over Wisconsin's first wind farm, the worst fears raised by opponents have failed to materialize. (Photo by Rick Chamberlin for Midwest Energy News)

LINCOLN TOWNSHIP, Wis. — When the 31 Vestas wind turbines in northeast Kewaunee County, Wisconsin began producing electricity in the summer of 1999, a moderate Republican named Tommy Thompson was a few months into his fourth term as governor. Relative peace reigned between the parties in the legislature, statewide unemployment was at a record low and the Dow had just topped 10,000 for the first time.

But in Lincoln and Red River townships, where the turbines were erected, the climate was anything but mild. Residents' tempers had been flaring since before April 1998 when Madison Gas & Electric (MGE) hosted the first meetings in the community about its plans to build 11.2 megawatts of wind power in the area. Wisconsin Public Service (WPS), a Green Bay-based utility, had also announced its intention to build a large-scale wind farm in the area.

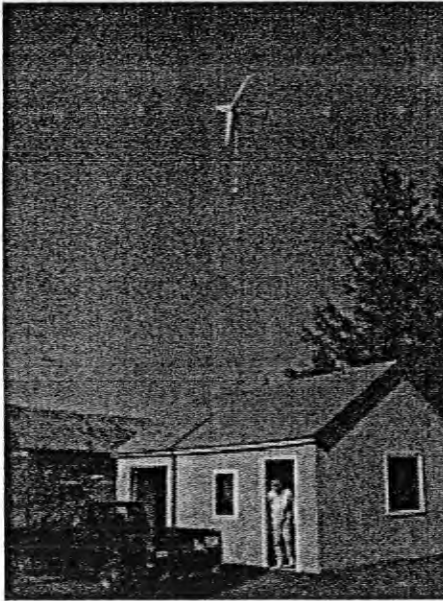
Despite the heat, the two utilities found more than enough landowners in the two towns willing to host all 31 turbines, and the town boards soon voted to approve conditional use permits for the projects. But pressure from several vocal landowners convinced the Lincoln town board in February of 1999 to amend its zoning ordinance to require board affirmation of all applications for future conditional use permits. A few months later, both townships adopted 18-month moratoriums on future wind farm sitings.

“We had some real knock-down-drag-outs,” said Mick Sagrillo, who chaired a committee charged with evaluating the impact of the projects on residents and proposing any changes to the permit process. More than anything, Sagrillo said, people feared change.

Struggle and fear are no strangers to the people of the two townships, in an area that was long the home of the Potawatomi before the first Europeans arrived in 1634. The Belgian immigrants who landed here in the 1850s had to contend with dense virgin forests teeming with wolves and bears. When they set to clearing trees so they could do what they knew – farm – they discovered shallow, rocky, clay soil. They persevered, enduring an economic panic in 1857 and the Peshtigo Fire of 1871, which burned out 62 families in the Town of Red River and left 170 people homeless and destitute in the Town of Lincoln. Even a depression two years later couldn’t defeat them, and by 1874 they’d entirely rebuilt their communities.

‘Guinea pigs’

In 1999, resiliency and a pioneering spirit, along with dairying and Roman Catholicism, still helped help define the two towns, which even today comprise the nation’s second- and fourth-highest concentrations of Belgian-Americans.



The small wind turbines on Mick Sagrillo’s property were among the first in the area. (Photo by Rick Chamberlin for Midwest Energy News)

“We were the guinea pigs,” said Sagrillo, who was appointed to chair the Lincoln moratorium committee in part because of his background in small wind; he’d put up the first of three wind turbines that stand on his property in 1981.

The 292-foot Vestas turbines MGE and WPS erected were giants compared with Sagrillo’s machines, but small by today’s sizes. Nevertheless, they were met by some members of the

community with apprehension. A common refrain in 1999 was that the turbines would cause property values to plummet.

That was then

Although the Kewaunee wind farms were the state's first, today there are 10 large wind installations in the state and 839 in the nation. But the man now holding Tommy Thompson's old office has chilled wind development in Wisconsin. Seven large-scale wind installations have been cancelled or suspended since January, when Governor Scott Walker proposed legislation calling for much greater setbacks than those outlined in the Wisconsin Public Service Commission's new wind siting rule.

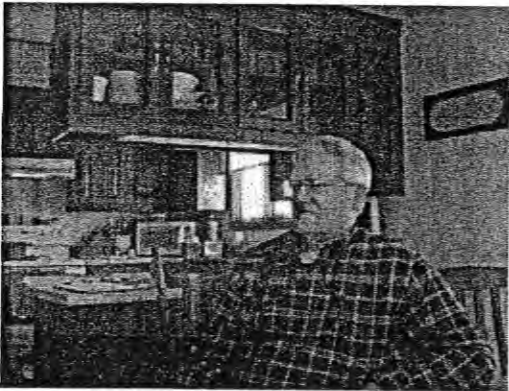
Wisconsin as a whole is more volatile politically and economically than it was in 1999, but only a few embers from the firestorm that once raged in Lincoln and Red River townships over wind power still smolder.

The moratoriums in both towns expired uneventfully a decade ago, and the Lincoln Town Board took no action on the recommendations of its study committee. Conditional use permits for both utilities were extended in 2004 and 2009 with little opposition, although WPS's 2004 permit renewal was held up for some months by objections from several nearby landowners, including one farmer who claimed stray voltage from the turbines had hurt his dairy herd.

That landowner and a few others went on to add their voices to an increasingly robust national anti-wind movement. Meanwhile, nearly everyone in the community has seen their property values rise despite a recession, and revenues meet those promised.

Property values

A 2003 study by the Renewable Energy Policy Project (REPP) found "no significant evidence that the presence of the wind farms had a negative effect on residential property values" in the communities closest to the Kewaunee County turbines.



Joe Jerabek

Town of Lincoln Assessor and Zoning Administrator Joe Jerabek, who said he was on the fence about the wind farms when proposed, said the turbines haven't had an impact on residential property values "one way or the other" since they were built. Recent figures from the Wisconsin Department of Revenue appear to confirm Jerabek's assertion. The total municipal assessed value of residential property in the Town of Lincoln, which includes new construction, rose steadily from 2007 to 2011, with a total increase of 3.5 percent over the 5-year period. In the Town of Red River, where most of the 31 turbines stand, the increase exceeded 41 percent. By comparison, adjoining Casco Township, which has no wind turbines, saw an overall rise of 9.9 percent.

Gene Dalebroux is a direct descendant of the Belgian pioneers and has been Red River's town clerk for 51 years. He agreed with Jerabek that the wind farms have not affected property values, and added that he's not personally aware of anyone who moved away because of them. Jerabek counted eight new homes built in his township within a mile of the turbines since 1999.

Promises kept

When asked if dollars promised to landowners and the townships have materialized, Jerabek said, "I haven't had any landowners complain that they haven't received their lease payment." Lease payments from the utilities include a per-turbine fee and a fee for acres removed from service. Although the utilities don't disclose how much individual landowners get, Dalebroux says the average to begin with was around \$1,500 per turbine per year, "but that's grown." Don Peterson, who was MGE's project manager for the Red River installation and is now Executive Director of Energy Products and Services at the utility, said landowner payments increase six percent annually and are adjusted every 10 years.

The county and the townships get shared revenue through the state's tax on the utilities' gross receipts in lieu of property taxes. Initially Lincoln Township's share amounted to \$19,765 annually for the MGE installation alone. But because these revenues decrease yearly due to depreciation on equipment, MGE agreed to make up the difference to the townships for the 30-year life of the wind farm. Jerabek says the check always arrives on schedule.

Two MGE turbines stand on the family farm where Ida and Joanne Fameree grew up and still live in Red River Township. Ida Fameree said MGE has lived up to its end of their agreement. As for negative impacts, Fameree says she hasn't seen any. She believes the old steel water windmills many farmers once employed were far noisier than the modern turbines. She said she would rather live near a wind farm than a nuclear power plant, a reference to the reactors at Carlton and Point Beach, about 40 miles away.

Fameree hasn't noticed any impact on wildlife, either. DNR conservation biologist and Office of Energy liaison Shari Koslowsky said the agency has never received a report of dead or injured animals near the turbines in Lincoln or Red River Townships.

Retired Lincoln dairy farmer Andrew Nowak said he voted against the wind farms when he served on the zoning board, but now says he can live with them. He said noise from several turbines within a quarter mile of his home on a neighbor's property doesn't bother him. When asked if the wind farms have been a good thing for the community, he said, "I don't think they're bad."

Done their part, thank you

Despite the converts, few residents interviewed think the community would favor more wind farms in the area.

"No comment," is how Nowak answered the question, before adding, "A few people are still bitter."

Former Lincoln Town Board member Ron Opichka, who was often at odds with Mick Sagrillo in the early days, is one of those few. He used the term "shoved down our throats" to describe how the turbines were sited and built.

Sagrillo said the passion of a small number of individuals like Opichka make many people think twice about singing the wind farms' praises, despite evidence indicating the turbines are more benign moneymakers than monsters.

Joe Jerabek puts it differently when asked if he thinks his neighbors would be in favor of more wind farms in their community.

"We the people of the Town of Lincoln have made our contribution to renewable energy."

Rick Chamberlin is a Wisconsin-based freelancer whose work has appeared in Wisconsin Trails Magazine, The Capital Times and other outlets.

Barnard on Wind

Countering Disinformation About Clean, Safe Wind Energy

<http://barnardonwind.com/health-presenting-the-evidence-and-challenging-the-pseudoscience/>

Health: presenting the evidence and challenging the pseudoscience

Wind farms are an unqualified good for human health as they reduce fossil fuel pollution and counter global warming, the two largest negative impacts from electrical generation. However, it's clear that some people do find them annoying to the point of feeling stress and are having negative health impacts as a result. It's important to understand that while this is a real phenomenon, the root causes have little to do with physical aspects of wind turbines including sound that they generate, and much more to do with health fears raised by anti-wind campaigners and other psychological aspects.

- **Wind farms don't harm human health, anti-wind campaigners do.** 19 reviews world wide of all of the available research and complaints by credible, independent groups have cleared wind farms of health impacts. Meanwhile, studies in the UK, Australia and New Zealand point the finger at anti-wind lobbyists spreading health fears and jacking up stress. <http://barnardonwind.com/2013/02/17/wind-farms-dont-make-people-sick-so-why-the-complaints/>
- **Infrasound produced by wind farms is harmless;** humans evolved with infrasound and wind farms produce less than waves on a beach, yet beach front property is in major demand. <http://barnardonwind.com/2013/02/20/humans-evolved-with-infrasound-is-there-any-truth-to-health-concerns-about-it/>
- **How reliable are individual wind and health studies as evidence?** Assessing five factors — quality of publication, hierarchy of evidence, full declaration of any biases, inclusions and exclusions of references and methodology and structure of the evidence — can assist in rapidly getting a sense of how much weight to put on individual wind and health pieces of evidence. <http://barnardonwind.com/2013/06/27/how-should-you-assess-the-quality-of-a-wind-health-study/>
- **Analysis of the 50 most commonly cited studies,** reviews and governmental reports used by both sides finds that the literature used by anti-wind campaigners to claim health impacts is much, much less reliable than the evidence showing no health impacts outside of limited noise annoyance to some. <http://barnardonwind.com/2013/08/06/health-studies-reliability/>

- **Pierpoint's wind turbine syndrome is more wind than syndrome.** Completely lacking in methodology, self-selected study group that blamed wind turbines for their ailments, no medical history, no peer review, self-published by the vanity press she set up for the purpose and so intent on leading the witnesses that it fell off a cliff. <http://barnardonwind.com/2013/02/28/wind-turbine-syndrome-is-more-wind-than-syndrome/>
- **Wind turbine setbacks of 350-400 meters are completely safe** in all but the tiniest fraction of cases. The World Health Organization sets 50 dB of regular and prolonged night time noise that cannot be mitigated via closed windows and white noise generators as the level at which sleep loss becomes a concern. 40 dB, the level that Ontario's Regulation 359/09 regulations make the norm 99% of the time for 99% of properties, is a good cautionary level. 35 dB, the level set in a couple of Australian states, is even more conservative. <http://barnardonwind.com/2013/03/07/how-close-is-too-close-meteors-vs-wind-farms/>
- **The suggestion that wind turbine related-infrasound causes motion sickness is a wild leap in two directions.** It extrapolates from motion sickness induced by flight simulators which violently shake and roll a person while simultaneously giving them visual inputs that only coarsely relate to movements. It assumes that there is a physiological response mechanism where 20 reviews have concluded no direct physiological impact and when the evidence with setbacks of 350+ meters points to psychological reasons for symptoms. As the hypothesis of a single acoustician presented at a conference, it shouldn't be considered even likely, never mind entertained as probable. <http://barnardonwind.com/2013/09/23/from-flight-simulator-induced-nausea-to-infrasound-a-remarkable-leap/>
- **The Nissenbaum / Aramini / Hanning study published in *Noise and Health* is unreliable.** The data actually shows that everyone in the study group sleeps poorly, not just the ones close to wind farms. Their data is too scattered to support a correlation between wind turbine placement and sleep. Five of the six authors and thanked reviewers are Advisory Board members of the anti-wind lobbyist group, the Society for Wind Vigilance, but their long histories of anti-wind activism are unstated. One of the authors, Nissenbaum, was active in the wind farms studied previously doing poorly structured studies that would have increased fear and stress. <http://barnardonwind.com/2013/02/25/a-study-in-noise-and-health-shows-that-wind-farms-cause-people-to-lose-sleep-how-reliable-is-this-study/>



44 East Mifflin Street • Suite 202 • Madison, Wisconsin 53703 • 608/257-3151

To: Wisconsin Legislature

**From: Bill Skewes, Executive Director
Wisconsin Utilities Assn.**

Re: Opposition to SB 167

Date: November 20, 2013

On behalf of Wisconsin's investor-owned energy providers, the Wisconsin Utilities Association (WUA) opposes SB 167, relating to actions for damages caused by wind energy systems.

WUA opposes this bill because it creates liability where none currently exists. Doing so would lead to higher liability insurance rates, the costs of which will be borne by customers.

SB 167 will also encourage unwarranted lawsuits, leading to additional costs for utilities and their customers and could lead to a de facto reversal of state energy policy through the threat of litigation.

The majority of wind projects that would be impacted by this proposal are facilities that were built in order for Wisconsin utilities to comply with the renewable portfolio standard enacted in 2005 WI Act 141. They were extensively studied during the construction project review process of the Public Service Commission of Wisconsin that takes place prior to construction and operation being approved.

Requiring the utilities to build renewable projects, requiring them to comply with all permitting terms and conditions, and then passing a law to target them for significant liability risk for following Wisconsin law and policy places Wisconsin utilities in an untenable position. SB 167 would create bad public policy and be unfair to the utilities that are providing electric service in the manner they are required to under the laws of our state.

For these reasons, we respectfully urge you to reject SB 167.

November 11, 2013

Senator Glenn Grothman
Committee on Judiciary and Labor

Re: Public Hearing for Senate Bill 167

As chairman of the Town of Holland in Sheboygan County for the past 9 years, I feel obligated to comment on Senate Bill 167 that will, if passed, allow certain individuals who believe they have been harmed to seek damages from the developer of industrial wind turbines.

I strongly support this bill for two reasons:

1. This nation's founding fathers saw the dangers of big centralized government. In fact they wrote into the constitution and bill of rights many safe guards to protect local governance and our individual rights. Unfortunately today we have seen governing bodies seizing power they don't have by stripping local units of government of the ability to govern on matters affecting their communities. Wind turbines are but one of many such examples of this. As a result, bureaucrats at the state level, not even elected individuals, are given the authority to decide what is best for our townships with regard to industrial wind turbines. It is a sad statement on the health of our union when it is perceived that a small group of people, geographically separated from the people affected, know better what is best for the community. Nothing could be further from the truth. Other bills intended to restore the right of individual townships to govern on this matter have failed. This bill will at least restore the right of an individual to seek justice in a court of law if they believe they have been harmed.
2. Life might be simpler in many regards if 'one size fit all.' Shopping would be easy and writing legislation or a regulation would be greatly simplified. But one size does not fit all. Not only are our physical appearances different, our physiology is different. Some of us have a food sensitivities that do not affect the preponderance of the population; some have life-threatening reactions to insect bites; some have simple allergies that cause them to locate to specific geographical areas where they find relief; and yet the physiology of others are completely intolerant to wheat – simple bread. The same is true with regard to our reaction to different environmental stimuli such as noise – audible or inaudible. This bill will give the developer reason to consider things that might not otherwise have been considered. For the person who has been harmed physiologically, economically or both, it will give this individual recourse to restore their right to live a peaceful life.

Thank you for considering my comments.

Sincerely,



Donald W. Becker
Chairman, Town of Holland



222 S. Hamilton, Madison, WI 53703

Statement of RENEW Wisconsin in Opposition to SB167
Senate Committee on Judiciary and Labor
November 20, 2013

RENEW Wisconsin leads and represents businesses, organizations, and individuals who seek more clean, renewable energy in Wisconsin. RENEW Wisconsin has been advancing a sustainable energy future for Wisconsin since 1991. Of our 300+ members, more than 60 are companies headquartered in Wisconsin businesses.

Relying exclusively on baseless and unsubstantiated claims regarding health and property value impacts, SB 167 would, if adopted, effectively extinguish what remains of wind development activity in Wisconsin. This would be accomplished by encouraging residences living within 1.5 miles of a wind turbine to sue both turbine owners and landowners for damages. If this bill were to pass, no wind energy developer would risk locating a wind turbine within 1.5 miles of a residence, and no landowner would risk hosting a commercial wind turbine on his or her property.

No other state has adopted, or is considering the adoption of, a policy that puts wind generators and host landowners at risk of being sued for alleged damages. No other state has established, or is considering the establishment of, such extreme setbacks in order to eradicate a legitimate business activity that supports thousands of jobs in the United States, including many here. This begs the question, how much business activity would actually occur in Wisconsin if the Legislature granted state residents the right, on the basis of an alleged hardship, to sue the owners of coal-fired power plants, high-voltage transmission lines, metallic mines, non-metallic mines, landfills, waste transfer stations, airports, railroads, truck stops, metal fabrication plants, paper mills, food processing facilities, and confined livestock operations so long as the offending facility is located within 1.5 miles of the complainant?

In contemplating this retrograde bill, we ask the committee to consider the following points:

- Payments from wind generation facilities support rural economies. The counties and towns hosting six of Wisconsin's seven largest operating windpower installations--Glacier Hills, Blue Sky Green Field, Forward, Cedar Ridge, Butler Ridge and Shirley--receive more than \$2.3 million in payments in lieu of taxes each year. Landowners hosting the 349 turbines in these projects receive more than \$2.0 million per year combined. Not counting payments for transmission-related infrastructure, these six wind projects pump more than \$4.3 million annually to local governments, host landowners and neighboring residents. (See Tables 1, 2 and 3 below on pages 3-4).
- There is no credible evidence that existing wind development in Wisconsin has depressed property values statewide. In 2008 and 2009, Poletti and Associates, an Illinois real estate appraisal firm, investigated the impact of the Lincoln and Rosiere wind projects on nearby land sales and home construction activity. Analyzing seven years' of sales data, the Poletti study concluded that the 31 turbines in Kewaunee County have not had an effect on area property values. Poletti's conclusions have been corroborated by local assessors in Lincoln and Red River. Moreover, since 1999, when the turbines were placed in service, more than 10 houses have been constructed within one-half mile of a turbine there. (See article below, "Years Later, Wind Farm Fears Fail to Materialize" on pages 5 -9.)
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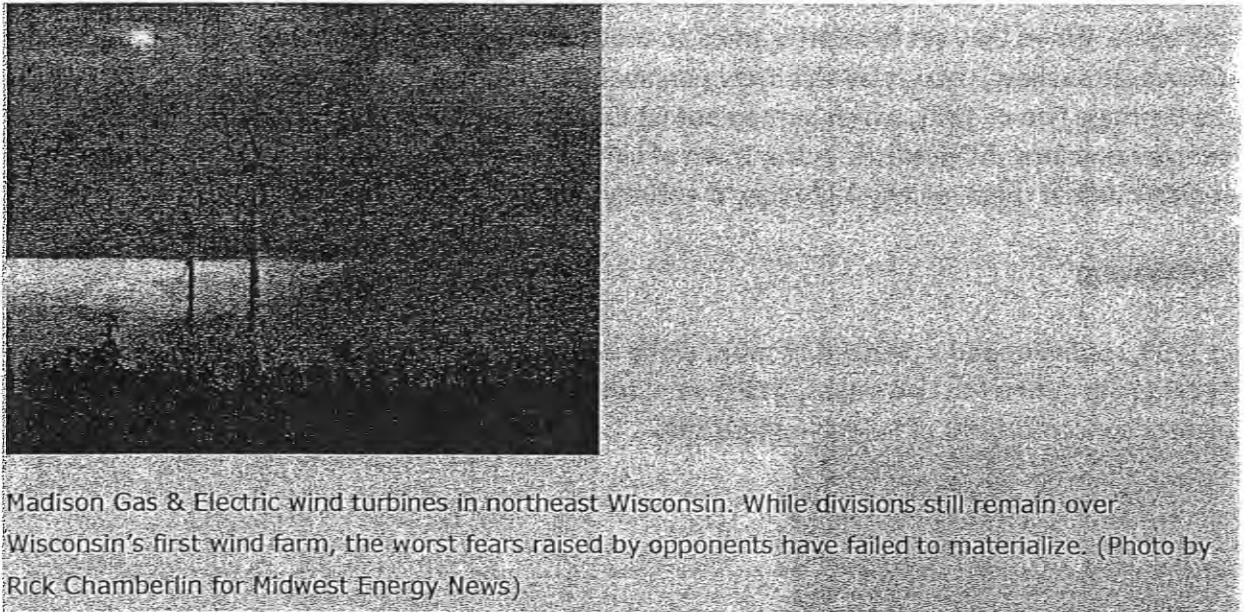
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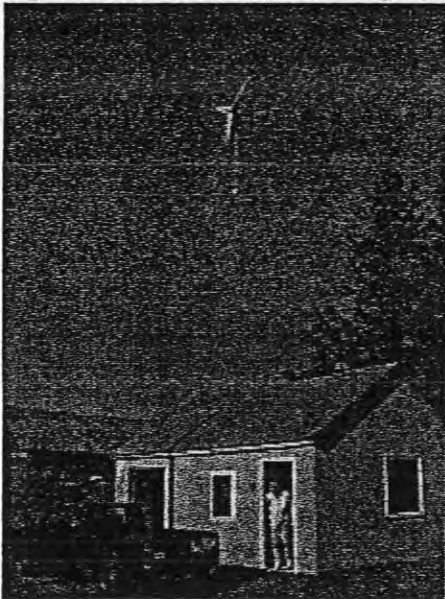
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“We were the guinea pigs,” said Sagrillo, who was appointed to chair the Lincoln moratorium committee in part because of his background in small wind; he’d put up the first of three wind turbines that stand on his property in 1981.

The 292-foot Vestas turbines MGE and WPS erected were giants compared with Sagrillo’s machines, but small by today’s sizes. Nevertheless, they were met by some members of the

community with apprehension. A common refrain in 1999 was that the turbines would cause property values to plummet.

That was then

Although the Kewaunee wind farms were the state's first, today there are 10 large wind installations in the state and 839 in the nation. But the man now holding Tommy Thompson's old office has chilled wind development in Wisconsin. Seven large-scale wind installations have been cancelled or suspended since January, when Governor Scott Walker proposed legislation calling for much greater setbacks than those outlined in the Wisconsin Public Service Commission's new wind siting rule.

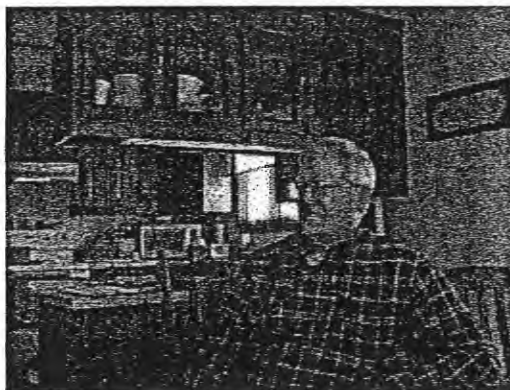
Wisconsin as a whole is more volatile politically and economically than it was in 1999, but only a few embers from the firestorm that once raged in Lincoln and Red River townships over wind power still smolder.

The moratoriums in both towns expired uneventfully a decade ago, and the Lincoln Town Board took no action on the recommendations of its study committee. Conditional use permits for both utilities were extended in 2004 and 2009 with little opposition, although WPS's 2004 permit renewal was held up for some months by objections from several nearby landowners, including one farmer who claimed stray voltage from the turbines had hurt his dairy herd.

That landowner and a few others went on to add their voices to an increasingly robust national anti-wind movement. Meanwhile, nearly everyone in the community has seen their property values rise despite a recession, and revenues meet those promised.

Property values

A 2003 study by the Renewable Energy Policy Project (REPP) found "no significant evidence that the presence of the wind farms had a negative effect on residential property values" in the communities closest to the Kewaunee County turbines.



Joe Jerabek

Town of Lincoln Assessor and Zoning Administrator Joe Jerabek, who said he was on the fence about the wind farms when proposed, said the turbines haven't had an impact on residential property values "one way or the other" since they were built. Recent figures from the Wisconsin Department of Revenue appear to confirm Jerabek's assertion. The total municipal assessed value of residential property in the Town of Lincoln, which includes new construction, rose steadily from 2007 to 2011, with a total increase of 3.5 percent over the 5-year period. In the Town of Red River, where most of the 31 turbines stand, the increase exceeded 41 percent. By comparison, adjoining Casco Township, which has no wind turbines, saw an overall rise of 9.9 percent.

Gene Dalebroux is a direct descendant of the Belgian pioneers and has been Red River's town clerk for 51 years. He agreed with Jerabek that the wind farms have not affected property values, and added that he's not personally aware of anyone who moved away because of them. Jerabek counted eight new homes built in his township within a mile of the turbines since 1999.

Promises kept

When asked if dollars promised to landowners and the townships have materialized, Jerabek said, "I haven't had any landowners complain that they haven't received their lease payment." Lease payments from the utilities include a per-turbine fee and a fee for acres removed from service. Although the utilities don't disclose how much individual landowners get, Dalebroux says the average to begin with was around \$1,500 per turbine per year, "but that's grown." Don Peterson, who was MGE's project manager for the Red River installation and is now Executive Director of Energy Products and Services at the utility, said landowner payments increase six percent annually and are adjusted every 10 years.

The county and the townships get shared revenue through the state's tax on the utilities' gross receipts in lieu of property taxes. Initially Lincoln Township's share amounted to \$19,765 annually for the MGE installation alone. But because these revenues decrease yearly due to depreciation on equipment, MGE agreed to make up the difference to the townships for the 30-year life of the wind farm. Jerabek says the check always arrives on schedule.

Two MGE turbines stand on the family farm where Ida and Joanne Fameree grew up and still live in Red River Township. Ida Fameree said MGE has lived up to its end of their agreement. As for negative impacts, Fameree says she hasn't seen any. She believes the old steel water windmills many farmers once employed were far noisier than the modern turbines. She said she would rather live near a wind farm than a nuclear power plant, a reference to the reactors at Carlton and Point Beach, about 40 miles away.

Fameree hasn't noticed any impact on wildlife, either. DNR conservation biologist and Office of Energy liaison Shari Koslowsky said the agency has never received a report of dead or injured animals near the turbines in Lincoln or Red River Townships.

Retired Lincoln dairy farmer Andrew Nowak said he voted against the wind farms when he served on the zoning board, but now says he can live with them. He said noise from several turbines within a quarter mile of his home on a neighbor's property doesn't bother him. When asked if the wind farms have been a good thing for the community, he said, "I don't think they're bad."

Done their part, thank you

Despite the converts, few residents interviewed think the community would favor more wind farms in the area.

"No comment," is how Nowak answered the question, before adding, "A few people are still bitter."

Former Lincoln Town Board member Ron Opichka, who was often at odds with Mick Sagrillo in the early days, is one of those few. He used the term "shoved down our throats" to describe how the turbines were sited and built.

Sagrillo said the passion of a small number of individuals like Opichka make many people think twice about singing the wind farms' praises, despite evidence indicating the turbines are more benign moneymakers than monsters.

Joe Jerabek puts it differently when asked if he thinks his neighbors would be in favor of more wind farms in their community.

"We the people of the Town of Lincoln have made our contribution to renewable energy."

Rick Chamberlin is a Wisconsin-based freelancer whose work has appeared in Wisconsin Trails Magazine, The Capital Times and other outlets.

Barnard on Wind

Countering Disinformation About Clean, Safe Wind Energy

<http://barnardonwind.com/health-presenting-the-evidence-and-challenging-the-pseudoscience/>

Health: presenting the evidence and challenging the pseudoscience

Wind farms are an unqualified good for human health as they reduce fossil fuel pollution and counter global warming, the two largest negative impacts from electrical generation. However, it's clear that some people do find them annoying to the point of feeling stress and are having negative health impacts as a result. It's important to understand that while this is a real phenomenon, the root causes have little to do with physical aspects of wind turbines including sound that they generate, and much more to do with health fears raised by anti-wind campaigners and other psychological aspects.

- **Wind farms don't harm human health, anti-wind campaigners do.** 19 reviews world wide of all of the available research and complaints by credible, independent groups have cleared wind farms of health impacts. Meanwhile, studies in the UK, Australia and New Zealand point the finger at anti-wind lobbyists spreading health fears and jacking up stress. <http://barnardonwind.com/2013/02/17/wind-farms-dont-make-people-sick-so-why-the-complaints/>
- **Infrasound produced by wind farms is harmless;** humans evolved with infrasound and wind farms produce less than waves on a beach, yet beach front property is in major demand. <http://barnardonwind.com/2013/02/20/humans-evolved-with-infrasound-is-there-any-truth-to-health-concerns-about-it/>
- **How reliable are individual wind and health studies as evidence?** Assessing five factors — quality of publication, hierarchy of evidence, full declaration of any biases, inclusions and exclusions of references and methodology and structure of the evidence — can assist in rapidly getting a sense of how much weight to put on individual wind and health pieces of evidence. <http://barnardonwind.com/2013/06/27/how-should-you-assess-the-quality-of-a-wind-health-study/>
- **Analysis of the 50 most commonly cited studies,** reviews and governmental reports used by both sides finds that the literature used by anti-wind campaigners to claim health impacts is much, much less reliable than the evidence showing no health impacts outside of limited noise annoyance to some. <http://barnardonwind.com/2013/08/06/health-studies-reliability/>

- **Pierpoint's wind turbine syndrome is more wind than syndrome.** Completely lacking in methodology, self-selected study group that blamed wind turbines for their ailments, no medical history, no peer review, self-published by the vanity press she set up for the purpose and so intent on leading the witnesses that it fell off a cliff. <http://barnardonwind.com/2013/02/28/wind-turbine-syndrome-is-more-wind-than-syndrome/>

- **Wind turbine setbacks of 350-400 meters are completely safe** in all but the tiniest fraction of cases. The World Health Organization sets 50 dB of regular and prolonged night time noise that cannot be mitigated via closed windows and white noise generators as the level at which sleep loss becomes a concern. 40 dB, the level that Ontario's Regulation 359/09 regulations make the norm 99% of the time for 99% of properties, is a good cautionary level. 35 dB, the level set in a couple of Australian states, is even more conservative. <http://barnardonwind.com/2013/03/07/how-close-is-too-close-meteors-vs-wind-farms/>

- **The suggestion that wind turbine related-infrasound causes motion sickness is a wild leap in two directions.** It extrapolates from motion sickness induced by flight simulators which violently shake and roll a person while simultaneously giving them visual inputs that only coarsely relate to movements. It assumes that there is a physiological response mechanism where 20 reviews have concluded no direct physiological impact and when the evidence with setbacks of 350+ meters points to psychological reasons for symptoms. As the hypothesis of a single acoustician presented at a conference, it shouldn't be considered even likely, never mind entertained as probable. <http://barnardonwind.com/2013/09/23/from-flight-simulator-induced-nausea-to-infrasound-a-remarkable-leap/>

- **The Nissenbaum / Aramini / Hanning study published in *Noise and Health* is unreliable.** The data actually shows that everyone in the study group sleeps poorly, not just the ones close to wind farms. Their data is too scattered to support a correlation between wind turbine placement and sleep. Five of the six authors and thanked reviewers are Advisory Board members of the anti-wind lobbyist group, the Society for Wind Vigilance, but their long histories of anti-wind activism are unstated. One of the authors, Nissenbaum, was active in the wind farms studied previously doing poorly structured studies that would have increased fear and stress. <http://barnardonwind.com/2013/02/25/a-study-in-noise-and-health-shows-that-wind-farms-cause-people-to-lose-sleep-how-reliable-is-this-study/>

Please accept this testimony for the public hearing concerning SB167.

November 18, 2013

Senator Grothman,

RE: Senate Bill 167: Relating to actions for damages caused by wind energy systems.

I encourage you to support Senate Bill 167. The Wisconsin Public Service Commission (PSC) has been negligent in their permitting of industrial wind facilities and Wisconsin citizens are paying the price.

The Commissioners at the PSC know full well the dangers of siting industrial wind turbines too close to homes. The PSC has been presented with literally a mountain of written testimony and many hours of public hearings where actual wind farm residents speak out concerning the adverse health effects caused by living too close to the turbines. This information is always ignored by the PSC for one reason or another because it doesn't fit with their agenda of promoting wind energy. Regulators at the PSC have lost focus of their real job of protecting Wisconsin residents from the unscrupulous actions of wind developers.

The PSC allows smaller projects to be permitted at the local level knowing that local officials lack the expertise and funds to properly investigate the effects of the turbines.]

Wisconsin residents forced to live too close to these large turbines are shocked to find they have been abandoned to their fate by the very agency they thought was there to protect them the PSC. The task of taking on a large turbine owner / operator like Duke Energy for relief will quickly outdistance their financial resources.

Please give Wisconsin citizens every legal tool possible to protect their families and property from the PSC and dishonest wind developers

Thank you for your time, consideration, and service to Wisconsin,

Jim Bembinster
18002 W Cr. Rd. C
Evansville, WI 53536
608-201-1050
jbembinster@att.net

Senator Grothman and the Senate Committee on Judiciary and Labor:

This letter is my feelings on SB167 that is before the Senate Committee on Judiciary and Labor.

I am in support of this bill. It has been 10 years of wind turbine issues for me. Currently EEW is again trying to get a permit for commercial wind energy systems near my home. Besides no LFN or infrasound rules in the current PSC 128 rules, the setbacks do not protect me and my family from blade and debris throw. I have heard discussion on curtailment, feathering to possibly decrease the sound but what about a blade or debris flying through the air and hitting or potentially killing me or my family because of the lack of setbacks based on scientific evidence or calculations. Modelling accuracies are not even mentioned in the current rules. Feathering or curtailment isn't going to keep a blade or debris from hurting me on my own property or the property of my brother whose farm I help out on. Just knowing that a blade turning at speeds of 200 miles per hour could have brake failure or made defectively scares me when this states allows a 500 foot turbine 1250 feet from my house foundation and 550 feet from my property line.

Can you give me the basis or calculations that the current PSC 128 rules of 1250 feet from the home foundation (not a property line)? I have asked the PSC and they will not give me any definitive answer on this. Very disappointed.

I support this bill to help people affected. Why not fix the problems causing this bill to be proposed also. Fix PSC 128.

When is my life, health and safety going to be as important as those in non-rural areas?

Respectfully,

Anita Roberts

12113 Tannery Road, Mishicot, WI 54228

920-755-2736