

October 13, 2010

Senator Jeff Plale
Chairman of Senate Committee on Commerce, Utilities, Energy, and Rail
P.O. Box 7882
Madison, WI 53707-7882

Dear Senator Plale:

My name is Brenda Salseg and my husband, Bob, and I are residents of Forest Township located in northeastern St. Croix County, Wisconsin. Forest Township is one of the newest proposed wind energy projects under possible development. My husband and I are opposed to the wind project as it stands now because of health, safety, nuisance issues, property devaluation, and an apparent conflict of interest by and between our town board members. There was no public hearing held regarding the proposal.

The majority of Forest Township residents did not find out about the wind "farm" agreement between the Town Board and Emerging Energies LLC of Hubertus, WI until approximately 25 days after the resolution was signed. I was born and raised a farm girl and currently live on a 40 acre parcel that is part of my family's Century Farm. I wish to testify right here and now those 39 turbines virtually 500 feet tall sited in a 36 square mile community, with an average of 6 homes per square mile, will be no "wind farm." It would be an industrial park.

If Emerging Energies' project is constructed and grandfathered in under current rules, my family will be forced to live next door to 500 foot tall Turbine #18 well under a quarter mile from my mother's mobile home and the nearest outside wall of our residence. Even if these proposed wind siting rules are adopted, we won't be much better off. Turbine #18 would be situated southeast, with another due east, and another due south. I don't need a shadow flicker study to tell me my home will be affected. I also don't need a study to tell me my property value will plummet. It is a simple matter of common sense. Consider Property A and Property B, one with a tower in close proximity and one without and all other improvements similar or equal. Which one do you think is going to sell first and sell at a fair market value? Which one would you want buy? Virtually all of our property will become a buffer for Turbine #18, whether sited under current rules or the proposed rules, and virtually worthless for any type of subdivision. We had no notice of, no say in, and do not wish to voluntarily or otherwise forfeit our private property rights.

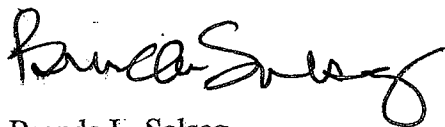
The proposed wind siting rules make mention of "good neighbor compensation. Whatever compensation that would possibly be offered could not offset a 30% or 40% or 50% loss that we stand to incur if we need or choose to sell. To be robbed of one dime of our property's worth due to exacerbating factors is beyond ethically wrong. It is my understanding that signing on for a "good neighbor" agreement also terminates our rights to complain about noise, shadow flicker, low frequency vibration, stray voltage, and other related burdens. I also believe the proposed wind siting rules set up all communities for

de facto eminent domain. Forcible siting of wind turbines within communities is an infringement of private property and constitutional rights.

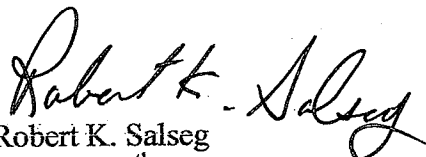
At a minimum, nonparticipating landowners deserve a property value protection plan, based on fair market values before turbines are erected. If the majority wind siting council does not believe that wind turbines have a negative impact on nonparticipating property values, then a protection plan should not constitute significant concern for developers and wind energy system owners. This one simple addition stands to remedy many of the wind development consequences for and fears of nonparticipating landowners. It gives us a choice to stay or leave.

Does our state have a need for renewable energy? Yes, but it should be responsibly designed, with developers and wind energy system owners subject to regulations and standards. There is too much secrecy and it is way too easy to follow the money trail. We need responsible wind siting rules that do not create *de facto* eminent domain, that protect all landowners against health, safety, and property devaluation issues with setbacks of at least ½ mile. While rules can be revised or rewritten when new information becomes available, once a turbine is erected, it isn't going anywhere.

Sincerely,



Brenda L. Salseg
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Emerald, WI 54013
715-263-3490
btsyline@cltcomm.net



Robert K. Salseg
2969 – 210th Avenue
Emerald, WI 54013
715-263-3490

My name is Pamela Schauer. I am a mother of three children, ages 8,9, and 11. The reason I am before you is to plead on their behalf. My middle child is the one of great concern to me and my husband. He is autistic and already has sensitivity to light and sound. The Shirley Wind, 492 foot, turbines were recently constructed in our Township. One turbine will be less than one half mile from our house, with a total of 4 turbines less than one mile. They are directly west of our residence. The audible noise, low frequency noise and shadow flicker these turbines generate will cause serious health effects to my autistic child, if not all 3 children! The ironic part of all of this is that Dr. Seth Foldy was the feature speaker on June 23, 2010 at the Wisconsin State Prevention Conference to discuss "Healthiest Wisconsin 2020: Everyone Living Better Longer". How can the Division of Public Health state they focus on "EVERYONE in Wisconsin Living Better Longer" when these turbines have been shown to have a direct correlation to people becoming ill? Does this loose term, "everyone", include my autistic son? Or has his days and nights of "living better" ended? Will this be his "new-~~reality~~ reality"? Is this ~~part~~ part of a "new reality" for everyone who lives near a turbine?

My husband is a Major in the U.S. Army Reserves. His concern is that, if he would be deployed again, for a third time, the health of his family would suffer. The last thing he needs to be worried about, while serving our country, is our health rights taken away by the people he is serving to protect!

I don't expect anyone to understand the tears in a 9 year old boy's eyes when he says that he doesn't want to leave his home, but he doesn't want to be sick. What is a mom to say to a nine year old, but to explain that this is all about money and not his health!

In closing, Dr. Seth Foldy questioned "What challenges do we face?" In my opinion, wind turbines and the health risks they cause is a large challenge. If ~~the~~ ^{the} real goal is that EVERYONE in Wisconsin lives a healthier, better, and longer life, then ~~we~~ should be ~~concerned~~ ^{concerned} about a great ~~concern~~ concern.

wind
turbines

Pamela Schauer
6225 Highview Rd
Denmark WI 54208
(920) 660-0753

10-13-2010

Jean Eubank - Brown County - Town of Monison

BCCRWE a member of but speaking for myself
I live in the proposed Invenegy Industrial Develop-
ment. I am opposed to the current PSC proposals
A pet peeve of mine is the use of Windmill &
Wind Farm. These are warm & fuzzy terms used by
the wind energy companies to lull people to sleep and
gives a wrong minds eye picture to people.

I would like to see a 2 mile setback from a property
line of a nonparticipating property owner. The
current siting applications from a non-participating
property owners residence is ridiculous. I cannot
put up a building on my property using my
neighbors land. A 2 mile setback would take
care of health safety & property value

I don't want any payment. It wouldn't be
sufficient for my ~~loss~~ health safety & prop value.
It rips communities apart - The relationship between
my brother & I ~~will~~ ^{may} never be the same whichever
way this development goes.

If the Industrial Wind Turbine project is put
up, decommissioning cost should be guaranteed
by whatever means possible because the main
owners and these projects are listed are LLC's
which could let the main ~~po~~ body of the company,
such as Invenegy, walk away from a wind
development, leaving the community to deal with
the abandoned turbines. To many wind turbines
are already abandoned in the U.S. Everything is

is to much about money.

Once a development is installed, nothing can
be reversed.

Thank you

JAMES EICHHORST

7561 County Hwy W

GREENLEAF, WI 54126

920-864-2831

Dean Anhalt
P.O. Box 272
Mishicot WI 54228
920-755-4128

10-13-10

My name is Dean Anhalt. I am a Supervisor with the Town of Mishicot in Manitowoc County. I have been dealing with wind turbine issues since 2004 when 2 wind farm developers came to my area. Unfortunately, here I am again at a public hearing trying to protect the rights and health and safety of the people I represent.

When the state started talking about renewable, rules were made for wind turbines allowing only local restrictions that were for health and safety.

So Manitowoc County spent over a year to research, learn, and develop an ordinance to protect people in our county from turbine issues.

Noise limits for turbines were set not to exceed 5 decibels over the ambient noise level in the area. With ambient levels changing from day to night and location to location this is the only way to protect people from obtrusive noise. A flat rate will never fairly and properly manage turbine noise.

Shadow flicker was not allowed on neighboring properties.

Although setbacks from turbines were only at 1000 feet, the setback was to property lines giving people safety at all parts of their property from blade and debris throw and all the other issues.

But unfortunately local control was taken away. I consider this bad news as we had good rules backed by sound evidence.

But it is good news for people with a financial stake in wind development.

They don't want to ask for permission for property rights or properly compensate.

They just want to take.

Now they are lobbying the state to do the taking for them.

Your proposed wind siting rules will accomplish this.

I like many others live on land adjacent to or in a wind farm. As currently zoned my land is subdividable and build able anywhere. With the lot line set back proposed, here are the issues I will face

An unsafe zone of hundreds of feet will be cast over my property

My property values and ability to use the land will be affected.

Wind will be used over my property for turbines sited on the neighboring property. The developer will gain wind rights over my land and by state statutes will control what I do on my land such as planting trees or erecting buildings.

The latest wind developer to our area has guidelines to be followed.

My ability to site turbines on my lands is greatly diminished because winds are being used and rights are being controlled by someone other than me for my property.

I will be subjected to the health and safety issues such as excessive noise on my land.

I live near Lake Michigan. There are 2 nuclear reactors 3 miles away and 1 reactor that is 10 miles away providing base load power to our state day in and day out. The plants provide good jobs to our area. These people spent money locally and have built homes adding to our local tax base.

I believe that new nuclear expansion in Wisconsin would find the easiest acceptance here.

We have 200 MW of wind power proposed for our area.

If this project is built, 200 MW of space will have to be reserved on the grid for this wind farm, though most days only a fraction will be used.

Is this going to fill the grid in our area not allowing for nuclear expansion without spending millions of dollars to upgrade transmission lines?

Is wind more important than a base load energy provider like nuclear?

We need to consider these issues.

We need economical power, especially in this day and age.

Conservation and efficiency are very important.

Do we actually need more power production in the state?

Are we siting wind turbines solely to meet state renewable requirements?

According to the developer in our area this is what allows them to build their project.

According to the recent Strategic Energy Assessment prepared by the Wisconsin Public Service Commission, Wisconsin has a very significant and potentially expensive excess capacity.

Are we going to stop using production facilities we currently have?

I want our leaders to make fiscally responsible decisions and use common sense when addressing our energy needs.

I want health and safety and property rights to be protected.

We need to make changes to the wind siting rules.

Dean Anhalt

Comments by the Towns of Mishicot, Two Creeks, Two Rivers,
Manitowoc County, Wisconsin, and the
Towns of Carlton and West Kewaunee,
Kewaunee County Wisconsin

The towns of Mishicot, Two Creeks, Two Rivers, Manitowoc County and the towns of Carlton and West Kewaunee, Kewaunee County respectfully submit our comments and concerns in regard to the May 14, 2010, draft of the Chapter 128 rules for wind energy systems.

The towns concur and endorse the concerns set forth by the Towns of Morrison, Wrightstown and Glenmore, Brown County, Wisconsin - Ref. PSC REF# 133746.

We submit the following for consideration by the PSCW when developing rules for Wind Energy Systems so that public safety and health are preserved.

Setbacks should be taken from the property line of the adjoining non-participants.

Setbacks should be large enough so as not to create shadow flicker or excessive ambient noise on adjacent property.


Setbacks should be large enough not to create a loss of wind or property rights for the adjoining property.

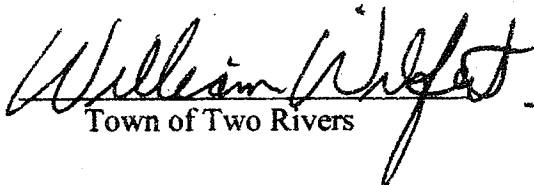
Decommissioning expenses should be backed by a Bond Fund from the developer.

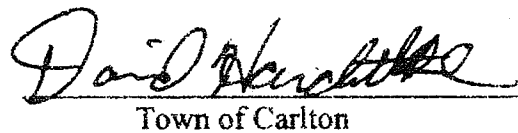
Transportation should also include damage caused to roads from the decommissioning of the wind turbines.

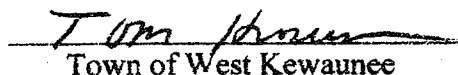
EMS - Emergency Communication Interference caused by Wind Turbines should be corrected by the developer in conjunction with the political sub-divisions within a year.


Town of Mishicot


Town of Two Creeks


Town of Two Rivers


Town of Carlton


Town of West Kewaunee

Public Service Commission of Wisconsin (PSC)

Submitted: 6/24/2010 11:08:34 AM

COMMENTS FILED ELECTRONICALLY IN

Wind Siting Rules

1-AC-2.

Commentor Information:

Name: Glen R. Schwalbach, P.E. for towns of Morrison, Wrightstown, and Glenmore
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E-mail: glenschwalbach@netzero.com
Phone: 920-680-2436

Comment:

Submitted to: Public Service Commission of Wisconsin
Docket No. 1-AC-231 Draft Chapter 128--Wind Energy Systems

Request by the Towns of Morrison, Wrightstown and Glenmore
Brown County, Wisconsin
June 23, 2010

Issue: Request to delay issuing the PSCW wind siting standards until epidemiological studies of health complaints from Wisconsin's current wind farms are thoroughly completed.

The towns of Morrison, Wrightstown, and Glenmore in Brown County are very concerned about the mounting evidence that there are serious negative impacts on human and animal health caused by wind turbines. It appears it is not only reasonable to delay the issuance of wind siting standards but it would be irresponsible to not do so in light of new studies and ongoing complaints of residents in and near Wisconsin's existing wind farms.

In general, scientifically and statistically relevant studies have been limited. But, a very important report was published March 2010 by the World Health Organization (WHO) entitled "Night Noise Guidelines for Europe" (available at euro.who.int/en/what-we-publish/abstracts/night-noise-guidelines-for-europe).

The report is based on a six-year evaluation of scientific evidence by thirty-five scientists from medical and acoustical disciplines. WHO indicated that now governments have justifications to regulate noise exposure at night. WHO sets the limit for annual average exposure to not exceed 40 decibels (dB) outside of a residence.

WHO stated, "Recent research clearly links exposure to night noise with harm to health. Sleep disturbance and annoyance are the first effects of night noise and can lead to mental disorders. Just like air pollution and toxic chemicals, noise is an environmental hazard to health". WHO stated that they hope their new report will prompt governments to invest effort and money in protecting health from this growing hazard.

Our towns ask the PSCW to acquire the WHO report and evaluate its application to setting appropriate sound levels for wind turbines.

The PSCW's draft rules do not address low frequency noise levels. It is not known whether the WHO report addresses this issue but other studies have described the likely effects. This is another area where epidemiological studies are needed before wind turbine setbacks can be reasonably proposed.

Besides sleep disturbance, there are complaints of other physiological problems. It is not acceptable to ignore or minimize the significance of these impacts as just quirks of human imagination.

Also, there is evidence that existing wind farms in Wisconsin are negatively affecting farm animals. Whether it is noise or some other physical phenomena, studies and testing should be done before setting siting standards.

At a public meeting of the Brown County Health Department and the Brown County Human Services Committee, reputable medical and health experts stressed the importance of epidemiological studies to determine the true nature of health impacts of wind turbines.

The State Board of Health pointed out that the lack of funding is a hurdle. But a conviction to do the right thing should prompt the PSCW to make a case to pursue the money issue with state legislators as well as our U.S. senators and representatives. Certainly, our towns would help in this endeavor. That said, it is even more appropriate for the wind developers and their associations to offer funding for independent studies since such studies should reduce future litigation. Electric utilities should have a stake in this effort as well. This is an opportunity to involve the University of Wisconsin research capabilities in both human health and animal health.

It appears that Act 40 does not set a deadline for completing the siting rules. This week a state senator who was one of the leaders in passing the wind siting law agreed that studies should be done to be sure the rules are adequate. If one or two years were used to study the existing wind farms while delaying any new installations, the developers would still have time to help utilities meet their 15% RPS by 2015. Again, if needed, our towns would help in getting the support of legislators.

Our towns implore the PSCW and the Wind Siting Council to not ignore the evidence of potentially serious health impacts and to not set standards until they have done the obvious and reasonable step of studying the health impacts of existing wind turbine installations in Wisconsin. Professional ethics demands no less. We believe our request aligns with the PSCW's responsibility to protect the citizens of Wisconsin.

Submitted for the towns by Glen R. Schwalbach, P.E.

I affirm that these comments are true and correct to the best of my knowledge and belief.
Glen R. Schwalbach, P.E. for towns of Morrison, Wrightstown, and Glenmore

October 13, 2010

To Senate Committee on Commerce, Utilities, Energy, and Rail

Re: Written Public Comments concerning Clearinghouse Rule #10-057; PSC Wind Siting Rules proposed Chapter 128

I am writing to request that the PSC Wind Siting Rules be sent back to the PSC for changes with respect to longer setbacks, stronger noise restrictions and clear mechanisms for the complaint resolution process. I am opposed to revising the Wind Siting Rule so that it is less restrictive for large wind development.

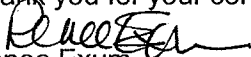
1) The Wind Siting Rules do not contain enforcement mechanisms for local governments to use for non-compliant large wind turbines. As a plan commissioner for my township, I am troubled by this. Our township created a wind siting ordinance with ½ mile setbacks from non-participating residences in order to minimize risks to non-participating landowners and to minimize complaints. The PSC Wind Siting Rules provide for a setback of 1,240 feet for non-participating landowners, which will likely increase complaints that our township will have to process. Yet the PSC did not provide our town and other local governments with the tools to ensure that the wind siting standards are met without unduly burdening the township and the complainant. Commissioner Azar recognized this burden and proposed a solution concerning the complaint process. Douglas Zweizig, the Vice Chair of the Wind Siting Council, provided an example for a complaint resolution process but it was not considered by the Wind Siting Council or the PSC. Further work should be done to provide local governments with clear guidance and tools for enforcing the wind siting standards and administering the complaint resolution process.

2) There is ample, scientific-peer reviewed evidence on the Wind Siting Rules PSC docket in support of setbacks longer than 1,240 feet from a non-participating landowner. Commissioner Azar acknowledged in her opening statement at the PSC hearing that the PSC staffed informed her that in order to reach a nighttime noise limit of 45 dba, setbacks needed to be at least 2,200 feet. I appreciate that the PSC did not follow the Wind Siting Council majority recommendation of a 1,000' setback. Given the evidence presented at the wind siting council meetings, on the docket, and by the experience of non-participating landowners living within 1,240 feet of large wind turbines, the setbacks should be further than 1,240 feet. A further setback would also mitigate complaints with shadow flicker.

3) There are also credible sources that support lower nighttime noise decibel limits than what is proposed in the Wind Siting Rule. The World Health Organization (hardly a big coal-financed NIMBY organization) reviewed the scientific, peer reviewed literature and came to the conclusion that a 40 dba nighttime limit was an appropriate and safe limit. Yet Wind Siting Council member Dr. McFadden and the PSC proposed a higher limit. What is the basis for their conclusions? The nighttime dba limits should be revised to at least match the World Health Organization recommendation.

One of the goals of the Wind Siting Rule should be to protect public health in order for wind development in Wisconsin to be sustainable. The Wind Siting Council majority report and the current PSC Wind Siting Rules fail to protect public health.

Thank you for your consideration.


Renee Exum
W17532 County Rd. C
Evansville, WI 53536

The "Canary in the Wind Farm"

The State of Wisconsin by virtue of the PSC has already sent the proverbial "canary into the coal mine" by installing industrial wind turbines too close to homes and human and animal habitation and forcing un-willing families to participate in what is turning out to be an industrial size science experiment.

"Canaries being tiny birds would choke and die earlier than a man would. In other words, when the canary was off-color, all hands knew that trouble was brewing and that they should take action."

The reason for sending the "canary into the coal mine" was to test the environment. While it was a crude and somewhat cruel form of a warning device, it was the best they had at the time. If the "canary" came out looking in distress or worse yet did not come out at all, it was used as a warning sign to keep the miners out of the mine. If you send in one canary and it gets sick, logic and common sense tells you not to send in another, until you find out what made that first canary sick.

Please keep in mind that the canary did not ask to be sent into the mine, in the same respect that non-participating landowners did not ask to be forced to participate, yes participate, or live in the footprint of an industrial wind energy plant. Fortunately, as a society, we have evolved our techniques and our ability to do research and testing. If you would use a canary type method today, it would be considered misuse or abuse of the poor tiny bird, but are you not in the same respect, abusing landowners of this state, by refusing to do a study of existing wind energy plants before you allow more to be installed in densely populated rural areas?

One person complaining could be a fluke. When there are numerous families complaining about the same negative health effects, they can't all be wrong. Their complaints have to be used as the warning sign that something needs to be done. Please keep in mind that many if not all of the "hosting canaries/landowners" have had their beaks clipped by signing contracts with gag orders that prevent them from speaking out about their health problems related to the turbines. Ignoring their complaints is no better than Toyota ignoring the defects of its vehicles. The wind industry is suffering from the "Toyota Syndrome" by ignoring known risks to people for financial profit.

In the case of industrial wind turbines, too many canaries have already been sacrificed at existing wind farms in Wisconsin and around the world. It is time to stop sending in the canaries, until you figure out what is making them sick. To continue down this unsafe path is not reasonable by any explanation.

The industrial turbines already installed in existing wind plants here in Wisconsin should be used as the "canary in the coal mine", as the sign, as the whistle blower, that there is a problem and it needs to be addressed before you allow one more human or animal to suffer the negative effects of industrial wind turbines. Health problems are being experienced by those in existing wind farms. If you think of this logically and leave profit and politics out of the equation, look only at health and safety as the statute allows, logic dictates that if the proper research is not done, proper setbacks and restrictions are not put in place, changes are not made, the future of those forced to live within the boundaries of an industrial wind energy plant, does not look so good. Or is that first "canary" or all future "canaries" just "collateral damage"?

You cannot force upon some, nor do I want myself, my family, friends or neighbors to be the next canary sent into the coal mine. Legislative authority will not excuse a defendant from liability if the conduct is **unreasonable**. Fault means that the defendant intentionally, negligently, or recklessly interfered with the plaintiff's use and enjoyment of the land or that the defendant continued the conduct after learning of actual harm or substantial risk of future harm to the plaintiff's interest.

One thing that has been lacking in the debate is what to do with those poor families already suffering. Consider it a "recall" on a bad product. The State of Wisconsin needs to do two things. Prevent this debacle from ever happening to anyone else residing in the State of Wisconsin and they should seriously look at what they need to do to assist and compensate those families already suffering from the negligent siting of industrial wind turbines allowed by the PSC. The way their lives have been ruined is a travesty. If I could ask that the State of Wisconsin please send a representative to the FIRST INTERNATIONAL SYMPOSIUM THE GLOBAL WIND INDUSTRY AND ADVERSE HEALTH EFFECTS: The Waring House Inn and Conference Center, Picton, Prince Edward County, Ontario October 29-31, 2010

Lynn Korinek
1316 Rockledge Rd
Mishicot, WI 54228

The issue of "Takings" was discussed by the siting council but due to differing views it was referred to legal counsel for interpretation at the next meeting. Counsel arrived late to that meeting, so Chair Ebert asked Deb Erwin, to summarize the staff's view, who had, she said, concluded that unless 100% of the value of the property was lost, there would be no takings. Ironically when counsel did later arrive, he commented on other issues, but did not address the takings, so it was left at staff's non-legal "opinion".

Actually, not all forms of "takings" use the **100% rule**, as in a partial taking where a landowner may not be completely deprived of his property, but instead suffers a restriction or impairment of the right to use it and therefore the landowner would then be entitled to proportional compensation. (Source: What Constitutes a "Taking", Find Law) A "**constructive taking**," takes place where an activity on one person's property may severely deplete the value of a neighboring property, and the property owner may be entitled to fair compensation. **Noise and vibrations** are common issues that constitute constructive takings on a neighboring property, including livestock farms affected by nearby noise or ground vibrations. (Source: What Constitutes a "Taking", Find Law) A "**constructive taking**," is also referred to as inverse or reverse condemnation.

Low frequency noise, a common complaint of industrial wind turbines, is not addressed in the rules. The wind siting rules also do not protect property rights on land with existing residences or un-developed property zoned for building.

Michael Vickerman feels the rules should not protect "a dream in someone's head, when referring to vacant property zoned for building. When a person buys property to build on, which could in fact be years down the road, one does not get a building permit when you they buy the property, because permits cost money and permits expire. We worked on improving our land and designing our house plans for years before getting a permit. **The point is we purchased a piece of property zoned for building.**

Allowing negative effects of a wind turbine on a neighboring property can definitely be a "taking" of property rights, home or no home. Safety setbacks must be at least 2600 feet from property lines, shadow flicker should not be allowed anywhere on the **property**, noise limits must be set at 5 dba over ambient at the property line, and all rules established must apply to any property zoned buildable to allow future homes to be constructed safely anywhere on the property.

Safety setbacks are put in place to **protect health and safety**. A landowner owner has the inherent right to build a home, in a **safe** area of their choosing, on their own property, and not be forced or **allowed** to build in a safety buffer zone. Some properties may have only one area that perks for their septic. Building sites may be limited due to topography, limiting a landowner's choice of building sites, abusing his rights as a property owner, forcing a landowner to build in an un-safe area or not build at all.

A landowner's entire property that he paid for and pays taxes on must be open as a **SAFE** area to build or to expand. All safety rules must apply to the property, not to the structure to prevent a taking of personal property rights. A zoning regulation that deprives the land owner of the economic value of the property could be challenged as a constructive taking.

So, if there is no loss in property value, no takings, why do developers refuse to sign a property value agreement, similar to the agreement the DNR uses for areas surrounding landfills, and which is recommended by Commissioner Azar, who also stated it would take a 2200 ft setback to meet a 45dba noise limit, but yet the rules use a 3.1 times the height safety setback that would not come close to meeting that noise limit?

Dreams are being shattered by siting industrial turbines too close to homes and properties for the financial gain of wind turbine companies. It is a pathetic course of action for this state to pursue, to encourage and allow the intentional sacrifice of one neighbor's dream and property values for the financial benefit of another, especially when there are proven alternatives forms of renewable energy, like the nuclear plants I live near that actually create real power and real long term sustainable jobs. The PSC needs to admit mistakes were made in the siting of wind turbines and take a new course of action with renewable energy before installing more and allowing more families to become collateral damage.

Lynn Korinek, 1316 Rockledge Road, Mishicot WI 54228

Public Service Commission of Wisconsin (PSC)

Submitted: 6/27/2010 1:16:16 PM

COMMENTS FILED ELECTRONICALLY IN

Wind Siting Rules

1-AC-231

Commentor Information:

Name: Lynn Korinek

Address: 1316 Rockledge Rd

City: Mishicot State:WI Zip:54228

Comment:

I was listening to the wind siting council meeting on 6-23-10, as I attempt to do for each meeting. I feel compelled to make a comment on rules related to property rights, including questions #43 and #44 of the straw proposal on that date, "Should the rules establish requirements that apply to new residences or buildings not yet built?", and "Should the rules address other future potential (not construction related) uses of lease properties and non-participating properties?" Michael Vickerman, a council member, commented that the rules should not cover "a dream in someone's head, referring to vacant property that has yet to be built on. His comment is inexcusable at best.

We purchased our rural property, already zoned for building in 2002, with complete intent of building our "dream home" a few years down the road. While we were entertaining the idea of building a home in the future, we were just casually looking for the perfect piece of property and the perfect one for us just happened to come available.

As we knew we would not be building our home immediately after signing the dotted line, naturally we did not get a building permit. We took our time and spent a few years doing improvements to the property. During that time we had a driveway put in, we had electricity run to the property, we dug a pond to rear fish, and planted fish in said pond. We planted over 7000 trees and shrubs that we purchased through the DNR's Forestry program, creating a future forest and adding to the States sustainable resources. We reduced our carbon footprint without negatively affecting our neighbor's space and most likely increased their property value. So yes it was our "dream" but it was also a work in progress. Work that we did while enjoying the quiet outdoor rural environment

During the years we worked to improve and increase the value of land, we spent time touring homes during "parade of homes" and tearing pages out of magazines and visiting stores and showrooms for ideas. We worked with an architect to design our home to get the best views of the trees we planted, the pond we dug and the sunrise's and sunset's. We designed the home with large windows to take advantage of the view of nature's art display. Large windows that we could open wide to allow the cool country breeze to blow through both day and night to reduce the need for air conditioning, and cut down on our electric usage. We worked on all of this before we got a building permit. Because permits cost money and permits expire.

Then in 2005 we went to get our building permit for the home we worked years to design, that we would begin building later that year on our land zoned for building. We moved into our "dream home" in 2006, our work in progress complete.

Many people purchase property first, with full intent of building their "dream" home maybe immediately or maybe 1, 5 or 10 years down the road, when their personal reasons, or their finances permit them to do so. The point is they purchased a piece of property zoned buildable, for the intent of building their "dream" home. It is a "dream" that is in someone's head and heart, because that is where dreams lie. But "dreams" do become reality and the property owner has the right to take as much time as they need to make those "dreams" come true.

That is why setbacks must be from property lines, and no shadow flicker shall be allowed on any property, and rules established must apply to any property zoned buildable where a home or homes have not yet been constructed. This is to allow the future home to be constructed safely anywhere on the property. Comments were made that the future homeowner could make the decision to build inside the setback area if they choose to do so. The setbacks are being put in place to protect health and safety and there may be a very limited area that is considered buildable on the adjacent property. A landowner shall have the right to build the home in a safe area of their choosing on their own property and not be forced or allowed to build in a safety setback buffer area. All of their property must be open to them as a SAFE area to build or to expand on their property. Buffer zones are buffer zones for a reason. Forcing a landowner to build in an un-safe area, or limiting a landowner's choice of building sites, would be abusing his rights as a property owner.

Certain properties may have limits due to topography, wetlands, etc that may limit where they can build. If that ideal spot ends up to be as close to the property line as zoning allows, they may not have an opportunity to choose an alternative location to build, making their property un-buildable. Or a certain area of their property, being a rural area may be the only spot that perks for their septic permit. If the property is zoned buildable before a wind farm permit is applied for, all rules shall apply to the property, and again why all rules must apply to the property, not to the structure.

Many communities have specific noise limits at property boundaries. (Source: AWEA Siting Handbook)

Most states and localities establish noise limits at property boundaries based on specific sound pressure levels measured in decibels. (Source: AWEA Siting Handbook)

In Manitowoc County it is necessary to have only 1 acre to build on. That is 208 x 208 ft. The entire property zoned for building would be un-safe to build on. That would be 100% loss of a safe buildable site and even by staff's definition would be a "takings".

Families that buy a piece of property to build their retirement home, which yes might be 10 or 20 years down the road, are not going to get a building permit when they buy the property. They buy the property now, because land always goes up in price and value. The value of the land can be used for a partial down payment on the construction loan when they decide to build their "dream".

If we would have found out after purchasing our property, but before having the opportunity to complete our dream our work in progress, that a wind turbines negative effects would be allowed to encroach our property limits, we would have been irate. I guarantee while it was a very desirable property, even before we improved it and increased the value, we would have never ever bought it if there was a itsy bitsy chance of a wind turbine going up next door. Our perception on the value of that piece of property to us would have changed dramatically. "Location, location, location" in fact is equal to one's perception of what value the item has to them personally. Perception plus location, location, location=value.

So yes Mr. Vickerman, it was a "dream", but Mom and Dad always told me, that if you work hard, "dreams do come true" and people work very hard for years for their dreams to come to fruition. Unfortunately those dreams are now being shattered by irresponsibly siting industrial turbines too close to homes and properties for the financial gain of wind turbine companies and the opportunity for a hosting landowner to make some "fun money". It is a pathetic course of action for this state to pursue, to encourage the intentional sacrifice of one neighbor's dream/property values for the financial benefit of another.

A neighboring property owner does not have the right to encroach and trespass upon my property by using it as a safety-buffer zone for the negative effects of their turbine. They cannot use my property for anything without my permission, and that should include noise intrusion, shadow flicker or other negative effects of their turbine. If it cannot be contained within their property boundaries it does not belong to be sited there. My outdoor living area is as precious to me as my indoor area, maybe even more as summers are so precious here in Wisconsin. Myself, my husband, and our family and friends spend a great deal of time using our outdoor living area.

Someone should not have to alter their building plans (dreams) to make sure they can be safe, if they are even left with that option. They should not have to close their homes up like a tomb, ever, to make the shadow flicker go away, that a neighbor's turbine is causing. The person causing the annoyance should be the one forced to stop it. If the neighbor's dog barks non-stop next door, the police will be called and force THE NEIGHBOR to stop the dog from barking, not make me close my windows so as not to hear the dog barking, or put ear plugs in. If the neighbor is playing their stereo too loud at night, again the police will be called and tell THE NEIGHBOR to turn it down or off, not tell me to close my windows or put in ear plugs.

Careful work and research at the planning stage may help alleviate some concerns and yes it may eliminate some wind turbines, but Act 40 clearly states that:

"Rules shall include setback requirements that provide reasonable protection from any health effects, including health effects from noise and shadow flicker, associated with wind energy systems".

If the number of locations that are suitable for the siting of industrial wind are lessened due to the fact that those rules were set to put safety before financial profits, State Statute 66.0401 clearly states that only one of the following criteria must be met:

Unless the restriction satisfies one of the following conditions:

- 1) Serves to preserve or protect the public health or safety.
- 2) Does not significantly increase the cost of the system or significantly decrease its efficiency.
- 3) Allows for an alternative system of comparable cost and efficiency.

No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property. Vacant property must be respected and treated the same as one already having a home or other building.

A private nuisance is an interference with a person's enjoyment and use of his land. The law recognizes that landowners, or those in rightful possession of land, have the right to the unimpaired condition of the property and to reasonable comfort and convenience in its occupation.

Moreover, a nuisance may also disturb an occupant's mental tranquility, such as a neighbor who keeps a vicious dog, even though an injury is only threatened and has not actually occurred.

Lynn Korinek
1316 Rockledge Rd
Mishicot, WI 54228

REAL PROPERTY TAKINGS

I was listening to a discussion on "takings" in relationship to noise, shadow flicker and property values during a recent wind siting council meeting. There was some disagreement as there is on many of the topics and it was decided to refer the question on takings to legal counsel. The following meeting it was stated that "staff" had determined that unless 100% of the property or the value of the property was taken, that it would not be considered a "takings". What I found interesting was why legal counsel did not give his opinion on the matter (he seemed to be in the room for some of the meeting as he commented on something later), but yet staff gave their "opinion" and the matter was dropped.

AWEA siting handbook refers to "an assessment of potential impacts to neighbors and other sensitive receptors is often prudent" and refers to property boundaries for noise limits, not homes.

Developers should be forced to sign a property value protection agreement. If they are adamant that the turbines do not affect property values, they should not have a problem signing an agreement. There can be no takings without compensation. NO ONE should be allowed to diminish another's quality of life and property value for their own financial gain. This includes all property, improved or vacant land. I did some research myself and came up with the following on takings. A zoning regulation that deprives the land owner of the economic value of the property might be challenged as a constructive taking.

PARTIAL TAKINGS

It is often the case that a landowner is not completely deprived of his property, but instead suffers a restriction or impairment of his or her right to use it. For example (and as is frequently the case), a government may need to run a utility through private property, or need to alter a shoreline such that the property is no longer on the waterfront. The property may need to be flooded to create a dam, or a building on the property may need to be relocated to make access to another point. In such cases, a partial taking may be effected, and the landowner is entitled to proportional compensation. (Source: What Constitutes a "Taking", Find Law)

"CONSTRUCTIVE" TAKING OR REVERSE CONDEMNATION

Still another form of taking may occur when there is no actual property being taken from a person. Instead, governmental activity on one property may so severely deplete the value of adjacent or neighboring property so as to constitute a "constructive taking," often referred to as inverse or reverse condemnation. Fumes, noises, vibrations, changes in flow of ground water, or toxic pollutants are some of the more common interferences that may constitute constructive takings. Examples include properties affected by airport noise and fumes, waterfront properties affected by rerouted water, or livestock farms affected by nearby noise or ground vibration. In each of these circumstances, property owners may be entitled to compensation from the governmental entity. (Source: What Constitutes a "Taking", Find Law)

TEMPORARY TAKINGS

Finally, a taking need not be permanent; it may be effected and justified only under limiting circumstances. For example, in time of war or insurrection, a government may need to exercise control and dominion over lands otherwise not needed for public welfare or safety. Again, a landowner may be compensated for the temporary impairment or deprivation in his or her use of private property. (Source: What Constitutes a "Taking", Find Law)

"NOR SHALL PRIVATE PROPERTY BE TAKEN FOR PUBLIC USE, WITHOUT JUST COMPENSTION"

THE FIFTH AMENDMENT TO THE UNITED STATES CONSTITUTION

**"THE PROPERTY OF NO PERSON SHALL BE TAKEN FOR PUBLIC USE WITHOUT JUST COMPENSATION THEREFORE"
THE WISCONSIN CONSTITUTION**

In regards to some in the wind energy industry referring that those that are being negatively affected by noise, shadow flicker, infrasound, and loss of property values as being collateral damage and should make a sacrifice for the greater good:

The United States Supreme Court has also stated that the Fifth Amendment to the United States Constitution is "designed to bar government from forcing some people alone to bear burdens which, in all fairness and justice, should be borne by the public as a whole". If the damage to an individual property owner is so great "that he ought not to bear it under contemporary standards, then the courts are inclined to treat it as a "taking" of the property". (Armstrong v. United States 1960)

Private property is held in subordination to the rights of society. Although one owns property, they may not do with it as they please, any more than they may act according to their personal desires. As the interest of society justifies restraints upon individual conduct, so also does it justify restraints upon the use to which property be devoted. It was not intended by these constitutional provisions to so far protect the individual in the use of his property as to enable him to use it to the detriment of society. (State v. Harper 1923)

I think we should all do our part and practice good conservation, something we all can do, without any negative effect on our neighbors. Let's put Wisconsin on the map for being a leader in responsible energy usage and conservation, but more importantly that we place more value on the health and safety of our residents than profits and politics.

While most takings involve the actual physical occupation of private land, it has long been recognized that private property may also be taken as a result of the enactment of statutes and regulations. In the seminal case of *Pennsylvania Coal Co. v. Mahon*, Justice Oliver Wendell Holmes, Jr., speaking for the Court, specified that "while property may be regulated to a certain extent, if regulation *goes too far* it will be recognized as a 'taking'.

We are in danger of forgetting that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change." (*Pennsylvania Coal Co. v. Mahon*)

"When . . . [the] power [of eminent domain] is exercised it can only be done by giving the party whose property is taken or whose use and enjoyment of such property is interfered with, full and adequate compensation, not excessive or exorbitant, but just compensation." 190 The Fifth Amendment's guarantee "that private property shall not be taken for a public use without just compensation was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole." Just compensation in partial taking condemnation cases must include compensation for the part of a property that is actually taken, as well as compensation for any damage that the taking causes to the part of the property that is not taken. (Find Law, Just Compensation)

Under the constitutional definition of "just compensation," all factors that make up market value must be taken into account in determining just compensation in direct condemnation cases.

Under the Michigan and United States constitutions, a condemning agency must pay a property owner "just compensation" when the agency takes the owner's property for a public purpose. Generally, just compensation is measured by determining the market value of the property that is taken. But when only part of a property is taken, the part that is not taken, sometimes called the "remainder," can experience a decrease in value attributable to the taking. The condemning agency must compensate the owner for any such decreases, because just compensation must leave the property owner in as good a position as the owner would have been had the taking never occurred. Numerous Michigan decisions have discussed the decreases in value attributable to partial takings that must be part of just compensation, and on occasion have discussed using the "cost to cure" some or all of the negative effects of a partial taking as an appropriate measure of compensation. Regardless of the approach that is taken to the problem, the property owner must always receive "just compensation" for losing its property.

This rule requires that the property's market value before the taking be compared with its market value afterward, and the difference serves as the amount of just compensation.

In cases like the present one, where there is a partial taking, just compensation is measured by the amount that the value of the remainder of the parcel has been diminished. This loss is usually expressed in terms of the diminution of the fair market value of the remainder of the property. And, fair market value is found by considering and evaluating all the factors and possibilities that would have affected the price that a willing buyer would have offered to a willing seller for the land under the circumstance. (Source: Calculating Just Compensation in Partial Taking Condemnation Cases by Jerome P. Pesick)

COST OF NOISE ANNOYANCE

The socio-economic impact of noise: A method for assessing noise annoyance.

Numerous attempts have been made to calculate a "cost" or to set a "price" on community noise annoyance. Factors that influence this "price" include the following:

- psycho-physiological effects, stress, etc.
- sleep disturbances (and resulting productivity loss)
- communication problems
- (possible) hearing damage

The price is likely to be reflected in a depreciation of property values. Studies have revealed that there is a linear relationship between noise level and change in property value (in Norway, roughly 0.5% per dBA). In other words, the change in value per decibel is independent of the absolute level.

A similar relationship has been found for the annoyance score. A given change in noise exposure is related to a certain change in annoyance score regardless of absolute noise level or degree of annoyance. By using noise exposure data as a common parameter, it is possible to relate annoyance directly to a sum of money, and any given change in annoyance can be expressed in monetary terms. (Source: Noise and Health, A quarterly inter-disciplinary International Journal)

Lynn Korinek
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Accountability • Respect • Customer Service

Senate Committee on Commerce, Utilities, Energy, and Rail Senator Jeff Plale, Chair

Wednesday, October 13, 2010, 11:00 AM
411 South, State Capitol

RE: Opposition to Clearinghouse Rule 10-057, relating to the siting of wind energy systems.

Dear Senator Plale & Committee Members:

As I testified at the public hearing held over a year ago on SB 185/AB 256, I was opposed to the wind siting bills then, and am opposed to Clearinghouse Rule 10-057 now. I continue to strongly support that the siting of wind towers must be made by the local units of government where wind towers will be located. I strongly encourage the Committee to send the rule back to require local input and decisions.

In the Manitowoc County area we are very interested in efficient new energy technologies. We host two valuable highly efficient nuclear plants (and if you're really serious about producing low cost electricity for a long time we would love to put one more between those two). Our workers manufacture the towers that support the wind turbines. And, the City of Manitowoc operates a new clean coal power plant in the middle of town, a block from my house, three blocks from the Courthouse.

We are "all in" on the energy economy.

The issue here is actually a fairly simple one. "Do you trust people in their local communities to make serious land use decisions on important issues?"

Nearly five years ago when it became clear that the demand for wind power sites would include our area, Town and County government embarked on the intense process of trying to make the difficult land use policy decisions contemplated under existing state law. After a failed first attempt to create a suitable county wind power ordinance, the County Board took a "time out" by declaring a moratorium on projects while it convened a special study committee to write a new ordinance. That committee, **a balanced mix of citizen and elected officials encompassing all the principal points of view, took significant public input and agonized over the implications of making wind tower siting decisions.**

- over -

After more than a year of serious deliberation their work product, a comprehensive wind power ordinance was overwhelmingly passed into law by the Manitowoc County Board in 2006. That both sides of the debate came away from the process a little unhappy with the results speaks highly of the quality of the work they did. It continues to be tested, defined, and refined according to the appropriate due process that is available at the local level for these issues. This would throw all that work away.

I encourage you to stand up for those local officials and the process of making local decisions throughout the State. Their work and the work of similar groups of local officials, who took their responsibilities seriously and in good faith waded in to try address controversial issues in their communities should stand; not be washed away because "Monday morning quarterbacks" from 150 miles away don't like the result.

This proposal tells local people to get out of the way, tells local officials to dodge the tough issues, and because people in Madison know better, you'll decide.

I urge you to not support the rule and send it back for modifications.

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CONTACT INFO:

Glen R. Schwabach

920-680-2436

October 9, 2010

From: Todd Christensen
Town Chairman
Town of Morrison, Brown County, WI

Re: PSCW Wind Siting Rules
Clearinghouse Rule 10-57

To: Senate Committee on Commerce, Utilities, Energy and Rail
State of Wisconsin

Dear Committee Members:

Our town has literally spent hundreds of hours on wind siting issues in establishing our original town ordinance, understanding the impact of the Invenergy 150-megawatt wind complex proposed to have 59 turbines in our town, and reacting to the drafting of the PSCW's wind siting rules.

With a lot of citizens' input from those opposed and those for wind turbines, our town board and I decided that the issues are very technical and complex and cannot be resolved by emotional bias. Besides this, the so-called studies on the effects of wind turbines on humans were conflicting in their conclusions and many times were more scientific opinion, rather than scientific fact.

So, we hired a Professional Engineer, licensed in Wisconsin, to help us establish a process for gathering citizens' input in an objective manner, evaluate national and international scientific studies and reports, and, from this work, draft credible comments and testimony to the PSCW's process for drafting the state's wind siting rules. We feel we accomplished our goal of focusing on public safety and health.

But the fact still remains that there are no statistically-controlled, epidemiological studies which establish that wind turbines are safe or harmful. Such studies have not been done. There are studies, some peer-reviewed, which concluded there is no harm and others which indicate there are adverse effects, especially from noise. None of these rank as adequate, conclusive scientific studies.

It is essential that your committee delay these rules until they can be based upon epidemiological studies performed in Wisconsin's existing wind farms where numerous health complaints are being reported while some residents say they have no problems. The University of Wisconsin should be able to design and manage such studies in a year or two. Such studies would also help the PSCW establish requirements for large wind projects which are under their purview. A one- or two-year delay would still enable any utility which still needs some wind in its portfolio to do so by 2015.

These studies certainly would benefit wind developers by providing a solid basis for designing wind farms, expediting project applications, and reducing future litigation settlements. They should step up and fund such studies. There may be help from the U.S. Department of Energy as well.

I also ask you to request the PSCW to improve the rules for advance notice to the town boards and to the community for better protection of landowners and their property. We suggest a temporary franchise for a wind developer while they contact landowners and inform the community. This would mute the developers concern for being trumped by another developer during their easement procurement activity.

Sincerely submitted,

A handwritten signature in black ink that reads "Todd Christensen" followed by a horizontal line.

Todd Christensen
Morrison Town Chairman

**SENATE COMMITTEE ON COMMERCE, UTILITIES,
ENERGY, AND RAIL**

OCTOBER 13, 2010

HEARING REGARDING PROPOSED PSC WIND SITING RULES

**TESTIMONY AND EXPERT REPORTS SUBMITTED BY:
CARL W. KUEHNE**

My name is Carl Kuehne. I live in De Pere, Brown County, Wisconsin, and am a businessman and a former practicing attorney. I am also a member of the Executive Committee of the Brown County Citizens for Responsible Wind Energy, the BCCRWE.

I want to thank you, Senator Plale, Committee Members, and staff for affording us the opportunity to comment and be heard regarding the wind siting rules that have been proposed by the Public Service Commission.

I am testifying today in opposition to the Wind Siting Rules as proposed by the Public Service Commission. The Wind Siting Rules, as proposed, did not follow the directions for their creation as was expressly set forth by the Legislature in Act 40. Regulations and requirements for the siting of wind turbines will have significant impact on the residents of our state for a very long time into the future. You owe it to the citizens of this state to "get it right" the first time, and to not create deplorable situations that will have a negative impact on our state for decades to come. The rules, as proposed, contain perfect examples of the Law of Unintended Consequences.

You have the responsibility to either send the proposed rules back to the PSC for further review and modification, or to determine the appropriate Wind Energy Siting standards within this committee. There is absolutely no need for haste from any aspect. These standards do not need to be arbitrarily imposed without appropriate study and consideration. Wisconsin energy companies are currently meeting the state standards for supplying renewable energy. At the very least, the impact of additional turbines needs to be completely understood before more wind turbines are irresponsibly sited within our great state.

Unintended Consequences

There are several unintended consequences of Act 40 if the proposed wind siting regulations are enacted as is.

Prior to Act 40, local governments could set standards in individual permit application decisions. Now, in order to do so, the local government must have an ordinance that will meet those minimum standards of the wind siting rules. If there is no ordinance, there are no standards whatsoever for wind energy systems of less than 100 megawatts. What that means is that a wind

developer can set up a wind energy system of less than 100 megawatts without any additional oversight by the PSC. There would be no determination of the need for the energy within the state of Wisconsin, the economic viability of the project, including indicated purchase of the electricity, standards for construction and protection of people and property in the area of the wind energy system.

Also, if the proposed wind siting rules go into affect as is, a developer of a proposed large wind energy system could break it down into several systems of less than 100 megawatts and have absolutely no oversight by the PSC or any other governmental body. Surely this legislature did not intend that a developer could design, construct and operate a wind energy system free of any regulation.

Health and Safety Concerns

The proposed wind siting rules raise many concerns regarding the health and safety of people and animals. Act 40 required the PSC to include requirements that would protect the public health and safety. This was not done. Instead the PSC proposes a set back for wind turbines based on the height of the blade tip of the turbine without any basis for that conclusion.

Every organization and expert that has considered standards for health and safety, bases their requirements on the noise level that is produced from the turbines. The Wind Siting Council and the PSC failed and refused to consider the available scientific evidence and studies that have been done around the world. The World Health Organization's "Night Noise Guidelines for Europe – Final Implementation Report – states, on page 5: "night, outside noise of (less than) 30dB is the ultimate target of Night Noise Guideline to protect the public, including the most vulnerable groups such as children, the chronically ill and the elderly, from the adverse health effect of night noise." The BCCRWE hired an expert, Dr. Carl Phillips, a PhD in health science who has been a professor in public health at the Harvard Kennedy School of Government, and the Universities of Minnesota, Texas and Alberta, Canada. His review of the epidemiology and related evidence lead to his conclusion as stated in his executive summary: "that wind turbines cause serious health problems for some people living nearby." His study also substantiates the fact that the noise from wind turbines is unique and unlike another noise that is know to exist. These studies are also supported by Richard Horonjeff, a consultant in acoustics and noise control, who was also retained by the BCCRWE. I am submitting all three documents and reports as a part of my testimony today.

Act 40 required that the wind siting council appoint an expert on the health effects of wind turbines. The commission's appointee has admitted that he is NOT an expert. The Council and the PSC have stated on the record that they did not review the expert information that was presented by the BCCRWE and others. This result surely can not be what the legislature intended.

At least one of the three PSC Commissioners, Lauren Azar, understood the negative impact that wind turbines can have on the health of people and recommended a "safety net" for people affected and that further study should be done. (See her letter of 8/31/2010)

There is time for appropriate studies to be conducted to determine the effects of wind turbines on people and animals that live in close proximity to wind turbines. Wisconsin currently has over 300 wind turbines in operation. Let's at least study what we have done to understand the impact of wind turbines on people before creating more possible havoc. The impact of those turbines on people, property and animals needs to be understood before more damage is caused to innocent people.

The set back of wind turbines is important.

The impact on people, animals and property value is reduced the farther away the wind turbines are. It is critically important that whatever set back is ultimately determined to be appropriate, that the set back must be from the property line, not existing homes or structures. This prevents the unintended taking of the use of other person's property without any compensation. As is said, a picture is worth a thousand words – take a look at the graph that I am handing out. The imposition of wind turbines too close to property lines effectively takes away the use of the adjoining property owners land.

What is the right distance to protect people's property?? A study by Appraisal Group One of Oshkosh, Wisconsin indicated that for property located in two wind farm projects already in Wisconsin that were within one-half mile from wind turbines, that the wind turbines had a negative impact of 24% to 29% of the value of the property. Why should the owner of property lose the value of his property because someone else decides to put up a wind turbine? Site them far enough away to limit the impact on neighboring property.

With regard to setback distances to protect the health and safety of people, Dr. Nina Perpoint, MD, PhD of New York, has studied the matter extensively. She recommends a set back of a minimum of 1.5 miles to protect public health.

The property takings graph, the Appraisal Group One impact study and Dr. Nina Piepont's report are all submitted with my testimony today.

Obviously more study and discussion needs to take place to determine the appropriate minimum set back distance to protect the people of our state. Let's not just blindly go forward and hope that everything will work out o.k. There are serious implications for the people of our state. We need responsible wind energy – not wind energy at any cost!!!

Thank you for your time and consideration.

Dear Senator Plade,
My name is Alva Coffman and
I live at 2341 Co H in Cuba
City, WI.

I'm in Smelzer township, Grant
County.

The reason I'm writing this
letter to you instead of appearing
in person is because I could
not get off of work.

I hope that you will take the
time to read this letter and
listen with an open ear and
heart to the testimony that you
will hear today.

I was asked to serve on
the Health and Safety committee
here in Smelzer township due to
the incoming Wind Farm.

It was a real eye opener for
me and my husband as he also
came to the meetings with me as
an observer.

During the 9 months we met
I heard testimony from people
who were already living by
the turbines and the issues
they were experiencing since they
started operating.

The decision you will be making
in regards to the set backs
are going to affect myself and my
husband and many, many other people

for years to come so I ask that you please listen and think about what you will do.

All studies I have seen read and investigated say the turbines should be set at least $\frac{1}{2}$ mile from peoples residences.

Because of this I hope you will reconsider the 1250 feet set back currently recommended by the PSC that was suggested by the committee they had formed.

The last thing I would like to say is alot of what I have read that has been quoted by people who do not understand the $\frac{1}{2}$ mile set back is that if you would give the non participating families monetary compensation we will go away.

No money can ever, ever compensate people when it comes to their health.
Thank you for reading this letter

Alva Collman
Encl 1 off

608 744

8413

The document below is from a woman I will name Sue. Sue is a very private person that at this time wants to remain anonymous. I know her boyfriend and in our conversations I would learn that she was suffering from many health issues. I would suggest that she explore the possibility that her health was being affected by the wind turbines. It took many months for Sue to take her boy friend's advice and call me. Now that I have interviewed Sue I would say she had the worst health symptoms of anyone I know living in a wind factory. When I talked with her she did not want our conversation to be recorded nor for me to take a photo of her. I wrote every comment she made on paper, went home and typed my hand written notes and took them back for her approval. Below is what I wrote and near the end comments I wrote after they moved in early June or about a month ago.

May 14, 2010

I wrote this after receiving a call from Sue. I went to her home and as I listened to her I wrote down the symptoms she recited to me. Because up until now she did not believe the turbines were the causes of her symptoms she did not think about which wind direction might be causing the worst nights of sleep deprivation or making certain symptoms more severe. I later took note of the distances of turbines from their home. The closest is about 1560 feet as measured with a range finder. Interesting is that is the same distance as the closest turbine to my house. Two other turbines are ½ mile away. One is 7 tenths of a mile away. There are two more that could be in the ½ mile range, but I did not estimate the distance of those turbines.

On about April 29 I received a phone call from a woman in great distress about the serious health affects she is experiencing due to living near large industrial wind turbines. I had been talking to her boyfriend for at least six months about what he had been telling me about her health. I had suggested the large industrial wind turbines near their home. She was in denial that the turbines were causing her serious health issues.

Sue moved out to live with her boyfriend on Road X about September 7th of 2007. She has two sons in the 6th and 9th grades from a previous marriage. Some of the large industrial wind turbines were erected however the turbines closest to their home were not yet up or turning. The area where she lives is somewhat near where the first turbines were erected. The turbines closest to their home and causing the most noise and discomfort are turbines 107, 40a (?), 44, 45 and 48 and probably turbine 22a to the NE of their home.

The concerns began about 2 months after Sue moved to rural Oakfield just ½ mile north of the Fond du Lac County line. As soon as the turbines began turning she had a tightening in her chest, pain in her chest and gasping for air as well as headaches. Sue has a history of headaches which were not greatly enhanced by living in her new residence. She had migraine headaches in the past, but she mentioned these headaches are not migraine headaches, yet they are more severe. She would take large amounts of over the counter pain killers going from one brand to another looking for relief. Later she learned that these headaches were migraines, but were different from what she experienced before moving to this home surrounded by wind turbines.

Then came eye pain. It feels like the left side of her head is inflamed although it is not. As time went on the headaches became excruciating and the left eye hurt more.

She mentions she is becoming forgetful. Talking on the phone is painful and tries to avoid it.

She also realizes she is more crabby than in the past over simple, stupid "stuff".

At issue is lack of sleep, often getting an hour of sleep, looking at the clock and over and over at the night goes on. She tried Benadryl for sleep, but it did not work.

This spring the health affects got greater. She had severe abdominal pain. She had an upper GI series with negative results. She had an abdominal CAT scan with "all is OK results". One doctor told her stress was the cause. The only different catalyst in her life is the industrial wind turbines.

From March 6th to May 6th 2010 she lost 20 pounds. Sue states that otherwise her daily life is no different than the past other than the sleep deprivation caused by the wind turbines. She feels like her body is changing. She has been tested for allergies. Nothing shows up.

Sue's body reacts to foods that never were a problem for her in the past. She enjoys drinking milk, but her stomach no longer can handle milk.

She has been on a hormone medication for about 10 months which she now has quit taking because it began causing her to feel "weird" and delusional.

She feels very frustrated and angry over this invasion of her life. Often she has difficulty breathing. She does not smoke. She often has a fluttering in her chest. In one episode of concern for her life she went to the emergency room.

She has had a CAT scan of her sinuses with normal results. She is tired, exhausted, has anxiety, and stressed. One doctor told her that her immune system is low.

Again when Sue moved to this home in September of 2007 she was in good health and felt really good.

Her eyes and ears have hurt the last few months. Most recently she has spots in her eyes and does not dream anymore.

After our discussion Sue called me with concern that she does not have good circulation. Her feet and fingers are always cold with winter being especially uncomfortable.

In talking to Sue and her boyfriend I found this was to be their dream home. There was 35 acres of land with the house and barn. They found they no longer could live here under these conditions (the loud, sleep depriving, severe health causing life in a wind factory). Because of the farm land and offer in their price range was accepted.

Sue and her boyfriend moved in early June. Most of Sue's symptoms are gone and the remainder has greatly improved. She did exactly what Jevon McFadden's presentation to the wind siting council suggested. She visited health care professionals many times. She had many tests and numerous blood test with normal results. No serious underlying health issues, yet her body was greatly affected. I don't think any findings filtered to the state health department? She feels much better now that she is not living near the large industrial wind turbines that affected her life for about 20 months.

Update October 2, 2010. Sue's boyfriend told me she is a new person since moving away. She feels better and has motivation and ambition she has not had since the turbines began turning.

This information should raise red flags to the Public Service Commission of Wisconsin that there **IS** serious health issues related to large industrial wind turbines being placed too close to residences. Leading doctors and science related professionals are suggesting a 1 mile or more setback from homes. Where is the science that shows that living 1000' from an industrial wind turbine is safe? The state health department states (Wind siting council presentation by expert Dr. Jevon McFadden) **"Evidence does not support the conclusion that wind turbines cause or are associated with adverse health outcomes"**. If you look at this letter, the cortisol testing that I have done and information about many others with serious health issues from living in wind factories you should determine that a moratorium on wind factory construction needs to be enacted until epidemiological studies can be done.

We hear testimony that Wisconsin is lagging in wind farm construction and jobs are being lost. Why should Wisconsin be a leader in wind energy production? Why aren't Wisconsin legislators, doctors and other leaders speaking out for the health and safety of its residents?

As Written by Gerry Meyer

As a retired Postal Service employee I am covered by federal health insurance. The very first time I went to the companies web site this is what greeted me on the home page. Very fitting.

Gerry Meyer
W6249 County Road Y
Brownsville WI 53006-1103

From <http://fepblue.org> federal employees Blue Cross insurance
Sleep Needs and Insomnia

We've been doing a giant experiment on ourselves by turning night into day. In the millennia before electricity lit up our nights, we slept about 10 hours a night. Today Americans average just under 7 hours' sleep on weeknights, and a half hour more on weekends. That's a whopping 20 hours less sleep each week. And 20% of us sleep less than 6 hours a night.

What are the effects of this radical change? For the most part, we don't know. The scientific study of sleep is still young. We're just beginning to chart the territory, from the basics of normal sleep patterns through the woes of insomnia and further to the exotic lands of sleep disorders called parasomnias, where mild-mannered men howl like wolves and women ravage their kitchens for food while fast asleep. It's a fascinating journey for scientists as they discover the role of sleep in learning, memory, disease, immunity and aging. There is already lots of evidence of a feedback cycle between not sleeping well or enough and poor health.

For many of us sleep is a frustrating issue. We have so many tasks and distractions that we can't get our kids or ourselves to bed on time. When we do get to bed we lie awake with racing minds or restless legs. Our partners snore so loudly it makes us crazy. We wake up in the wee hours and can't fall back asleep. By day we're so drowsy we can't think straight. We nod off in meetings and at stoplights--or worse, while actually driving.

Our basic problem is too little sleep. But about 64 million Americans a year also have insomnia, often for long periods. Insomnia is trouble falling asleep, waking up often, waking up early and being unable to fall back asleep, or waking up not feeling rested. Another 18 million or so have sleep apnea, where part of the throat relaxes and repeatedly closes the airway until they snort or gasp and breathe again. As many as 12 million have restless leg syndrome. And another quarter million has narcolepsy, causing "sleep attacks" where they may suddenly lose all muscle tone and collapse.

There's help for nearly all of these problems. This week we'll start with the basics of sleep needs and insomnia. Next week we'll discuss some of the other sleep disorders that trouble our days and nights, like restless legs syndrome and narcolepsy. To learn about the serious health condition sleep apnea, search the Cover Story Archives for our article *More Than Snoring: Obstructive Sleep Apnea (OSA)*.

How much sleep do we really need?

- **Infants:** 11-18 hours per night
- **Toddlers:** 12-15 hours
- **Preschool kids ages 3-5:** 11-13 hours
- **Kids 5-12:** 9-11 hours
- **Teens:** at least 8.5-9.5 hours
- **Adults:** 7-9 hours (women in the first 3 months of pregnancy often need several more)

Many of us feel like we're doing fine even though we get less sleep than that. Part of the problem is that people who are short enough on sleep to do poorly on reflex and coordination tests don't know it. So they keep on

getting less sleep than they need. They don't realize that they're making mistakes and getting into arguments and accidents because they're tired. If you haven't been getting enough sleep, you develop a "sleep debt" and will need more sleep to catch up.

What happens when I don't get enough sleep?

- You're likely to be drowsy and unfocused. If you are unrushed you may function okay. But if you're under any pressure, you'll make more mistakes than you would if you were well rested. You're apt to forget things, get confused and take more risks. You can't solve problems as well. Your brain starts to take tiny naps of 1-10 seconds called microsleeps, when you're not processing information.
- Learning suffers. You won't remember what you learned yesterday as well as if you were rested. Important short-term memories are downloaded into long-term memory while you sleep. If you don't get enough sleep those memories may not make it.
- You're likely to get cranky and feel depressed. And if you're already depressed, you're less likely to recover.
- Your coordination drops to the level of a drunken person, or worse. If you average 6 to 7 hours of sleep a night, your risk of a car crash doubles compared to sleeping 8 hours. If you sleep less than 5 hours, your risk is 4 to 5 times greater. Falling asleep at the wheel causes over 100,000 car crashes and 1,550 deaths a year.
- You're more likely to gain weight and to develop diabetes. Your body will probably produce more of a hormone that makes you feel hungry (gherlin), and less of one that suppresses appetite (leptin). And you'll crave the most fattening kinds of food--high-calorie carbohydrates. Many studies have found that the less sleep you get the more likely you are to be overweight or obese. That applies to toddlers and kids, too. Insufficient sleep is also linked to higher blood sugar levels and greater risk of diabetes.
- Your risk of heart disease is increased. People who are sleep deprived have higher rates of inflammation (a marker of heart disease risk), high blood pressure, heart disease and heart attacks.
- You may have more pain. This can be a vicious circle. Nearly half of people with chronic pain have insomnia. And several studies have found that people report more pain after nights of less than 6 hours of sleep than on nights when they slept more. There's some data that poor or interrupted sleep lowers the brain's inhibition of pain.
- Your immune system doesn't work as well, so you'll have less resistance to disease. In one study, volunteers who slept well the night after getting a vaccine had almost twice the immunity a month later than others who were kept awake the night after the shot. In another, participants were exposed to a cold virus and then quarantined for 5 days. Those who normally slept less than 7 hours a night were 3 times more likely to come down with colds than those who slept at least 8 hours.

Senator Jeff Plale
Chairman of Senate Committee on Commerce, Utilities, Energy, and Rail
P.O. Box 7882
Madison, WI 53707-7882

Senator Plale:

The Wind Siting Council had a huge majority of pro-wind development members. For example, one “public member” is on the board of directors of Renew Wisconsin. Renew Wisconsin is essentially a lobbyist for wind development. The “public member” should have had a neutral position on wind development. The minority report sums up this disparity in council makeup. It is hard to get someone to see the truth when they have a financial interest not to see the truth.

The pro-wind development members ignored first hand testimony from the two members who are wind project residents. The wind project residents said a half mile setback greatly reduces noise and impact. A half mile setback from property lines also prevents the “taking” of resident’s property rights. Instead the wind development members approved a setback of 3.1 times the turbine height from resident’s homes. This setback allows more turbines at the resident’s expense.

The wind development members approved 45 decibels at night for sleeping. The WHO (World Health Organization) stated 40 decibels night time as the beginning threshold of serious health effects from sleep disturbance. Night time noise should be 5 decibels over ambient or 35 decibels at night.

The state should pay for a independently conducted, industrial wind turbine health effects study, testing the epidemiological differences between Fond du Lac turbine residents, and a control group of rural residents. If the state has enough money to provide turbine subsidies, then it has enough money to study if turbines are safe and at what distance.

Factual evidence of health and safety issues were ignored because too many members of the Wind Siting Council have a direct or indirect financial interest in wind development. The wind industry is obviously drafting its own regulatory guidelines.

I wish this letter to be submitted for the record for the

Senate PUBLIC HEARING

Committee on Commerce, Utilities, Energy, and Rail

Clearinghouse Rule 10-057
Relating to the siting of wind energy systems.

Sincerely,

Dave Hettmann

Dave Hettmann
3055 Lark Road
Greenleaf, WI, 54126
hettmann1@hotmail.com

State of Wisconsin

County of Brown

On this day October 12th 2010, personally appeared before me,

Dave Hettman,

to me known to be the person described in and who executed the within and foregoing instrument, and acknowledged that he/she signed the same as his/her voluntary act and deed, for the uses and purposes therein mentioned.

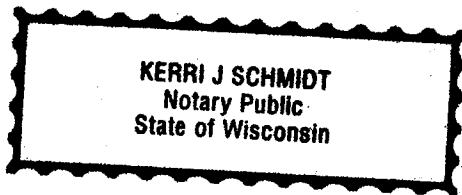
Kerri J. Schmidt

Notary's Signature

10/20/13

Notary's Expiration Date

Notary's Seal



Anna S. Coussons

6649 Ledge Top Dr.

Greenleaf, Wisconsin 54126

October 12, 2010

The Senate Committee on Energy

Re: PAC Wind Farm Siting Rules

I am a homeowner in the town of Wrightstown and in the proposed Ledge Wind Project. I have been very active in learning about the Project ever since I found out that my township was involved in wind turbine hosting. To say that I have been disenchanted about the way the PSC has attempted to recommend siting rules is an understatement. I am severely disappointed and disgusted at how people not living in a wind development can make weak guidelines that will never affect them and where they live. My health, safety, property value and country serenity has all been discounted because the wind council was weighted from the beginning with pro-wind advocates who have something to be gained financially and obviously have no respect or concern for my well being as a property and home owner.

I own a house on 42 acres my husband and five children have chosen to live in the country. We did not choose to live in a city, a subdivision, multi family housing or an industrial park. If tomorrow I wanted to build a business, such as roller rink or on my property zoning laws would forbid it. If I wanted to build another house for my aging parents on my land I could not do that either. My neighbor is also prohibited from doing the same type of building. Yet, my neighbor would be permitted to build a 450 foot turbine 1,000 feet from my home which would result in shadow flicker, excessive noise and loss of building within it's radius. That is absolutely insane! The PAC's recommendations do not give me any rights to protect my property. I am subjected to my neighbor's financial gain when I in turn could never build anything comparable to a turbine.

I want to share with you what is the most upsetting and paralyzing thing in my mind today. I have decided that I do not want to live in a wind development. I do not want the stress, the noise and everything else that comes with it. Well, now I **cannot move** away because no one will buy my home. My property is not worth what I paid and buyers are not interested in living in a wind development either. A local realtor refuses to sell my house because she knows it will not sell and does not the expense to market it. If you think I am exaggerating then I ask you to look at my sister in laws' house on 7327 Pleasantview Rd, Morrison. Her house was valued at

\$340,000—a remodeled farmhouse on 5 acres with a pond and barn. Her family moved out of state one month before the public became aware of the wind turbines and the three surrounding their home. They had a contract on the house and, when the wind farm became public the contract was terminated and the house continues to sit, unsold at \$239,000. They have had 9 months of no one even coming to their open house. It is NOT the economy. There are so many people in wind developments who want to leave but, their house will not sell, directly because of the location. They, like me, are stuck.

I sincerely wish that the pro-wind people on the PSC were required to live in a wind development and then we would see if they would impose these turbines on everyone else. Even when our local governments put zoning restrictions in place by the will of the local people to site turbines responsibly, the state is attempting to come in and allow irresponsible siting that negatively affects the people. This is wrong and an injustice to the local landowners.

I sincerely ask that you reject the PSC Guidelines and legislate to support the will of the local people and the power of the local governments.

Anna Coussons

Anna Coussons

State of Wisconsin
County of Brown

On this day October 12th, 2010, personally appeared before me,
Anna Coussons

to me known to be the person described in and who executed the within and foregoing instrument, and acknowledged that he/she signed the same as his/her voluntary act and deed, for the uses and purposes therein mentioned.

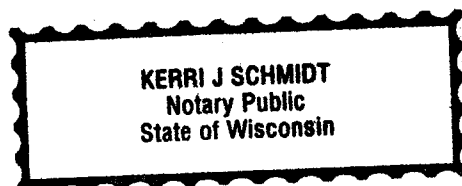
Kerri J Schmidt

Notary's Signature

10/20/13

Notary's Expiration Date

Notary's Seal



Members of the Senate, My name is Mark Deslauriers and my family resides in the Town Of Holland. I commend this committee for calling public hearings. I am alarmed and extremely angry over the disregard the PSC and Wind Siting Council has shown the people of Wisconsin and this committee by not conducting peer reviewed, scientific based health studies prior to submission to the Senate. I am also disgusted at the lack of DNR Commitment to protect both the health our our families from groundwater contamination and the Natural Resources of WI which I will be focusing on today..

Beginning in February 2010, I began dialogue with the DNR's Office of Energy directed by Dave Siebert. This office is responsibility for environmental evaluation of proposed Industrial Wind Farms. I will document the multiple failures of the DNR to acknowledge their responsibility to protect our natural resources, methodical stall tactics to provide updated documents on their website along with the required "Report to the Legislature" addressing jurisdiction as required by Act 40, and finally, the negligent lack of engagement on projects such as Shirley Wind in the Town of Glenmore.

Members of the Senate, I would encourage you to review the Office of Energy's Website. The document identified as "DNR Guidelines" is intended to act as a resource for Wind Developers in WI. The document has not been updated since July 2004 and uses references dated no more recent than 2001 with a majority of references dating from the mid 1990's. The information is outdated in light of the many new studies on the effects on Human Health, Karst features related to drinking water, the size of current projects, and new environmental issues such as "White Nose Syndrome" affecting bats.

I find it ironic that there is only 1 sentence regarding public health and ground water but a paragraph entitled "Major Tourist / Scenic Areas stating : ..." "Because of the potential for aesthetic and noise conflicts, constructing wind farms close to intensively used tourist areas is discouraged...." So much for being concerned about my family.

Second, Dave Siebert (DNR) stated in a response to my e-mail of March 2010 (PSC Ref #128093), "The Department does not have jurisdiction over the siting of wind projects..... 7 months later, still no report to the Legislature requesting jurisdiction! What are the impacts of the DNR's continued delays? Shirley Wind in the Town Of Glenmore (Brown County) is being constructed with "no pre-construction environmental reviews according to Shari Kozlowski (Office of Energy) on May 17, 2010. Take into consideration this project is building the largest wind turbines in Wisconsin (50 story building), sited 1000 feet from homes, and started with 7 and now looks to expand to 32. Going back to August 10, 2009 in a letter to the Shirley Wind Developers, Shari Kozlowski (DNR) reiterated what she was told by the developers: " (the developers) do not have the time or resources to conduct environmental reviews.... How many years has the DNR known about projects like Shirley Wind and continue to delay requesting jurisdiction? Our families and environment are paying a dear price for their inaction.....!"

Next in a statement by Dave Siebert to this committee:

"... The Department does not intend to testify at the October 13 hearing on proposed PSC 128. While we did cooperate with the PSC as they developed this rule package, the rules are primarily to address siting issues not related to DNR areas of expertise and authority. 2009 WI Act 40 (see s. 23.39 Stats.) has provisions regarding DNR authority and jurisdiction over bird and bat issues and requires a DNR report to the Legislature in this regard. That report is due to the Legislature by mid-November 2010. The statute also requires DNR to develop a map of areas of concern, and we are currently working to both update our guidelines for developers and to prepare a map that will be published on the DNR web site later this year..."

The above statement is not accurate according to Act 40. Act 40 does not just require a "Report to the Legislature" regarding bird and bat issues but states the following"

Section 14 par 3

(3) DEPARTMENT OF NATURAL RESOURCES STUDY. The department of natural resources shall conduct a study to determine whether the department's statutory authority is sufficient to adequately protect wildlife and the environment from any adverse effect from the siting, construction, or operation of wind energy systems. In conducting the study, the department shall consider the authority of other state agencies and political subdivisions to regulate the environmental impact of wind energy systems, including the authority of the public service commission under section 196.491 (3) (d) 3. And 4. of the statutes and of political subdivisions under section 66.0401 (1m) and (4) (g) of the statutes, as affected by this act. On or before the first day of the 13th month beginning after the effective date of this subsection, the department shall submit a report containing the results of the study to the legislature in the manner provided under section 13.172 (2) of the statutes. If the department's study concludes that the department's statutory authority is not sufficient to adequately protect wildlife and the environment from any adverse effect from the siting, construction, or operation of wind energy systems, the report shall include recommendations to the legislature for a bill that provides the department with such authority.

The environment and all wildlife are to be studied. How can the DNR only conclude their responsibility is birds and bats?

The DNR, specifically Secretary Frank and Dave Siebert have an incredible responsibility to protect the health of our families and the environment. We are not collateral damage as stated by Jennifer Heinzen during the Wind Siting Council Meetings... When will the DNR finally take responsibility for the Natural Resources of Wisconsin, How many changes are we going to have to make in the DNR to ensure politics does not win over environmental stewardship?

Difficult to comprehend how the 61 pages of the Wind Siting Guidelines does not mention bird and bat issues as required by Act 40 or the DNR in any way....

I respectfully request the Wind Siting Council Rules be sent back to the Wind Siting Council to properly address all the issues / expectations identified in Act 40. Only then can we ensure that our families and the Wisconsin Environment are protected.

Thank you

Mark Deslauriers

8042 Holly-Mor Road

Greenleaf WI 54126

wifirefightermark@yahoo.com

Dear Senate Committee,

Recently the Wisconsin Public Service Commissioners approved the Wind Siting Rules for our state and have sent these rules to the State Legislature. We are writing you because we are **EXTREMELY DISAPPOINTED** in these rules and how the rule making process was done by the PSC. Now we are asking for your help!

Here are some points that we would like to get across:

The PSC process has been slanted to the pro-wind advocates, and the public needs to be heard! The minority report from the wind siting council shows that the group was stacked with wind advocates and that they simply pushed their agenda through without regard for health and safety, the very purpose of Act 40 in the first place. These rules **CAN NOT** be set up by people with a direct interest in wind energy. We personally wrote comments to the PSC during the rule making process. We also read several letters to the PSC from people living firsthand near wind turbines and read how they have negatively impacted and changed their lives.

Our property values will drop up to 43% based on Appraisal One Group's study in Fond Du Lac, WI. These rules need to include a property value protection plan. The wind industry insists that wind turbines actually increase property values (in spite of clear evidence to the contrary). If that is the case, why are they refusing to agree to a property value protection plan? If property value increases around wind turbines, what have they got to lose?

Each \$1.00 spent on wind energy requires \$0.15 to \$0.20 in transmission investment on the grid. This will result in 2 to 3 times higher energy costs and businesses leaving Wisconsin in search of more reasonable electricity rates. Our grid is already at the "edge" and wind energy produces little energy during peak demand when the wind is calm and it's hot and humid.

Senators, you have the power to recommend safer rules to protect the public in the following ways:

Minimum of ½ mile setback is more responsible and appropriate to minimize the health and safety issues of those living close to wind turbines.

Given all the issues with measuring sound, a conservative approach is needed. A standard of 30dba or 5db above ambient, whichever is less is the proper level, especially at night. There are multiple sites in Fond du Lac County alone where sound studies could be done in a real world environment. An independent company must conduct a 1 year sound study to correlate sleep disturbance with noise levels from the wind turbines. This is not difficult to do, and would provide good data for future wind turbine siting. The State Health Department refuses to conduct any studies, in spite of a convenient lab in rural Fond du Lac.

A ½ mile setback to minimize the effect of shadow flicker on homes.

Protection from blade failure, tower collapse, and ice throw.

over

We hope this does not fall on "deaf ears" as it did with the PSC rule making process. Please listen to the public comments and help fight for more responsible siting rules. These rules will impact the citizens you represent and all the citizens of Wisconsin for the next 30 years. We will remember this when we go to vote for your re-election.

Thank you,

Eric Ludwig

Janon Ruchig

Chilton W,
53014

Senate Committee on Commerce, Utilities, Energy, and Rail
Public Hearing
Clearinghouse Rule 10-057, Relating to Siting Wind Energy Systems

Wednesday, October 13, 2010

By: Richard R. James, INCE

Thank You for the Opportunity to Speak Today,

My name is Richard R. James. I am an acoustical consultant with 40 years of experience and a member of the Institute of Noise Control Engineers (INCE). I offer my services through my company, E-Coustic Solutions which is located in Okemos, MI. I am speaking on behalf of Calumet County Citizens for Responsible Energy (CCCRE), a non-profit organization which supports responsible, efficient renewable energy while protecting the health and safety of people and the environment. I have worked with CCCRE on matters related to siting wind turbines in Wisconsin since 2007. My most recent work was as an expert witness for the hearing held on Glacier Hills Wind Park.

Because time is limited for my comments I wish to focus on two parts of the proposed requirements in the Public Service Commission's Chapter 128 rules for Wind Energy Systems. I have made extensive comments on proper siting requirements in my testimony for Glacier Hills as part of the official record that I ask be considered as an extension of these brief comments. The requirements I wish to address today are:

- The nighttime sound limit of 45 dBA proposed in PSC 128.14 Noise Criteria, section 3) Noise Limits, part (a), and,
- The setback of 3.1 times the maximum blade tip height to nonparticipating homes and 1.1 times the maximum blade tip height to nonparticipating property lines proposed in the PSC Chapter 128.13 Siting Criteria Section (1) Setback Distance And Height Requirements. Part (A), Table 1. Assuming turbines with 80 meter blades and an 80 meter tower are installed, the setback would be approximately 1630 feet to the home and 525 feet to the property line.

The problems that are producing complaints and litigation in Fond du Lac County's Blue Sky, Green Fields and Forward Wind utilities are not unique nor unexpected. Setting a nighttime limit of 45 dBA is not going to change this outcome for future projects. I have seen many wind turbine utilities where sound levels are 45 dBA at the nonparticipating residences and all of them that are above 40 dBA have similar community problems with similar complaints. I have personally observed this at wind projects in Maine, New York, Pennsylvania, West Virginia, Vermont, Illinois, Wisconsin, Iowa, Minnesota, and Ontario. We do not have to wait until new wind turbine projects are constructed in Wisconsin to know whether the Wind Siting Council's and Public Service Commissions recommendations to permit 45 dBA at night will be acceptable to the non-participants who live near the utility. In each of these states, I have clients who, as a result of wind turbine noise measured at 45 dBA are reporting:

- Ongoing sleep disturbance,
- Other adverse health effects (AHE), and
- Loss of use of their outdoor property for recreation and development.

These homes are located at distances between 1500 feet to 2500 feet. At 1500 feet even a single turbine can produce sound levels of 45 dBA. For people living in areas where there are multiple turbines surrounding their property a setback of 2500 feet will still result in sound levels of 45 dBA. The setback of 3.1 times the maximum blade tip height permitted under Table 1 offers little or no protection against nighttime noise disturbance. Any setback of less than 5 rotor diameters (approximately 3000 feet) will not protect people from nighttime noise.

Permitting wind turbine utilities to produce noise resulting in sound levels of 45 dBA or more at night will expose the public to unsafe nighttime noise. The World Health Organization's most recent guidelines for nighttime noise and health set 40 dBA as the Lowest Observed Adverse Effect Level (LOAEL). This was established in 2007/2009 by the World Health Organization (WHO) as the night-time sound level outside the wall of a home at which adverse health effects are first noticed in the more vulnerable groups which include children, seniors, and others with pre-existing medical conditions that interfere with sleep. One might think that the difference between 40 and 45 dBA is not a significant increase. However, it must be understood that every 3 dB means that the acoustic energy has doubled. A 5 dBA increase from 40 to 45 dBA is almost a quadrupling of the sound energy. This is a very significant increase.

Sleep disturbance brought on by the noise and annoyance of too-close wind turbine installations is responsible for the majority of symptoms and negative health effects that are being reported in Wisconsin and other places around the eastern part of the US. Chronic sleep disturbance causes a cascade of pathological responses that result in a host of serious diseases that reduce quality of life and life expectancy. The link between chronic sleep disturbance and these illnesses is proven and unimpeachable. Wisconsin needs to reconsider its current position with respect to permitted sound levels during nighttime hours at the homes of non-participating properties that exceed the 40 dBA established by WHO as the threshold for adverse health effects.

Permitting 45 dBA limits will expose people to unnecessary health risks. While it may be acceptable for companies involved in developing and operating wind turbine utilities it is clear that they have decided to gamble with the health of residents of the state of Wisconsin. This puts the burden of protecting public health on Wisconsin's PSC and the Legislature to protect its citizens from just such a situation.

Responsible planning and siting must use the best available science to set the limits for wind turbine noise and those limits must include adequate margins for error. Permitting 45 dBA at night does not do either of these. It is one thing for private companies and their investors to gamble their own money by pushing for limits that provide them with the greatest opportunity for profits but it is another thing when the public officials who are responsible for protecting both the health and economic welfare of the state's citizens to also gamble.

The Wisconsin's Legislature and PSC should limit the sound level from any turbine at nonparticipating property to no more than 40 dBA based on known health risks. Nighttime sound levels in rural communities, like those in Fond du Lac County, are 20 to 30 dBA. The World Health Organization states that these levels are both safe and healthful for sleep. It is

inappropriate, to create a situation with a new industry, that subjects people who are currently safe in their homes to conditions where they will be at risk of health effects. 40 dBA provides room for the wind turbines to raise current background sound levels, while not raising them to the extent where people's health is at risk.

Thank you for your time.

DATE: October 13, 2010

TO: Senate Committee on Commerce, Utilities, Energy and Rail

SUBJECT: Clearinghouse Rule 10-057 relating to wind energy systems

The final draft rules that the Public Service Commission (PSC) of Wisconsin has issued are very disappointing. I cannot believe that my health and safety anywhere on my property is not a concern of this Commission. Measuring the setback and noise from my home line is proof of this.

Back in June I requested information on the draft rules and also had questions that I had sent to the PSC. On June 30, 2010 I submitted a question again on the setback and personally went down to Madison on July 7 and got a response(attached). Keep in mind July 7 was the last day to comment on the draft rules. The information given to me said setback distances were based on setback distances from recent Commission cases regarding wind energy systems. See especially pages 25 & 26 of the Final decision. The table in this decision shows how many turbines would be eliminated at certain setback distances. The setback distances appear to be a determination between health and safety of nonparticipating owners and the economic impact it would have on the project. Economic impact should not determine setback distances(see attached copy submitted to docket).

In August I received a letter saying more records were available upon payment. In September I contacted the PSC to find out why no information had been sent when my payment had cleared the bank in August. I finally I received 66 references the following week. A number of the Hessler documents received from the PSC on noise clearly indicate 40 dba nighttime and 45 dba daytime for noise levels are recommended. The current PSC rules have 45 dba nighttime and 50 dba daytime. This is much louder and needs to be lowered. Noise should be measured anywhere on non-participating property.

On October 5 I submitted another request to questions still not answered from my original request sent to the PSC back in June. I have attached a copy. I feel these questions are very important and need to be answered. So far, I have not been able to locate answers in the material that was sent to me. The lack of timely response to my questions and lack of answers to many of them has been disappointing. I expect scientific answers, not arbitrary or no answers.

I have asked some of these questions to the current developer in our area, Element Power, and they don't seem to want to answer them either. These current rules allow this industry to regulate themselves on some issues, bad idea when they cannot answer technical questions.

These turbine developers are receiving a redistribution of our taxpayer money as well as other financial incentives for power that is not needed and not base loadable. Because this industry is so heavily subsidized by the taxpayer the PSC and this state needs to put the health and safety of people first when creating these rules, not economic returns of the wind companies.

Renewable energy is not defined as wind energy. It is a small part of it but makes a huge impact on people.

State law allows restrictions on wind turbines for health and safety regardless of how it will affect the number of turbines that can be built. Making the rules fit to what can fit on a 40 acre field is irrelevant. These rules seem to be forcing wind turbines in peoples' backyard with little regard for me, a non-participating property owner.

Please get these rules fixed, the biggest fixes being longer setbacks measured from the PROPERTY LINE and noise lowered to 5 dba over ambient which Manitowoc County documents submitted support. I also would like answers to question I have submitted to the PSC which have not been directly addressed.

I have spent much of my personal time over the last 5 years involved with this wind turbine issue. Rules need to address health and safety first and also protect my property rights.

Respectfully,



Anita Robert

12113 Tannery Road

Mishicot, WI 54228

920-755-2736

DATE: JULY 7, 2010
TO: WISCONSIN PUBLIC SERVICE COMMISSION
610 NORTH WHITNEY WAY
P.O. BOX 7854
MADISON, WI 53707-7854

FROM: ANITA ROBERTS
12113 TANNERY ROAD
MILWAUKEE WI 53228

WISCONSIN PUBLIC SERVICE
COMMISSION
2010 JUL - 7 A 11: 44
RECEIVED

SUBJECT: DOCKET 1-AC-231
Comments on Proposed WIND
SITING RULES

I am submitting a copy of request to the PSC dated June 30, 2010. That was handed into staff (DAN SAGE) AFTER the PUBLIC HEARING HELD IN MADISON on June 30, 2010 at 1pm.

On July 7, 2010 I visited the PSC and asked for a response. I have attached a copy of the response dated July 7, 2010.

In the response I did NOT see any DIRECT REFERENCE TO TECHNICAL OR SCIENTIFIC DATA.

THE TABLE SHOWS HOW MANY TURBINES WOULD BE ELIMINATED AT CERTAIN SETBACK DISTANCES.

THE SETBACK OF 1,250 FEET APPEARS TO BE A COMPROMISE DETERMINED BETWEEN THE HEALTH AND SAFETY OF THE NON-PARTICIPATING LAND OWNERS AND THE ECONOMIC IMPACT IT HAD ON THE GLACIAL HILLS WIND PARK.

HEALTH AND SAFETY SHOULD NOT BE COMPROMISED. I FEEL IT SHOULD BE THE NUMBER ONE PRIORITY.

HEALTH AND SAFETY OF THE CITIZENS IS THE RESPONSIBILITY OF OUR GOVERNMENT.

Respectfully,

Anta Roberts

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HEALTH AND SAFETY OF THE CITIZENS IS THE RESPONSIBILITY OF OUR GOVERNMENT.

Respectfully,

Ante Roberts

DATE: June 30, 2010

TO: Public Service Commission of Wisconsin
~~Docket LAC-237~~

From: Anita Roberts
 12113 TANNERY ROAD
 MISNICOT, WI 54228

I have asked PSC staff, Scott Cullen, for a copy of the information that was considered by the commission listed under DATA & Methodology, Attachment A, p. 8 of Docket LAC-237

Mr. Cullen said to ask for specific information so I am asking for the specific documents that support the safety setback distances listed on page 10, Attachment B of the DRAFT Regulations.

I would like this information by Friday July 2. My e-mail is

funfun@tm.net or can call 920-755-2736 and I can give you a fax number.

Do not send information.

Thank you
 Anita Roberts

fun

funfun@tm.net

July 7, 2010

Ms. Roberts,

You asked about the information considered in drafting the setback distances listed on page 10 of the proposed wind siting rules.

The setback distances listed in the draft rules are based on the setback distances from recent Commission cases regarding wind energy systems. See especially pages 25 & 26 of the Final Decision from the Glacier Hills Wind Park docket 6630-CE-302, available here:
http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=126124.

These distances were included in the proposed rules to indicate possible setback distances that may be established in the final rules. The Commission staff is still gathering information about all of the subjects covered by the proposed rules, and the setback distances and any other provisions in the proposed rules are subject to change prior to finalizing the rules.

If you have information you would like to share or comments you would like to make about the proposed rules, please file the information in docket 1-AC-231 by noon on July 7.

Thanks,

Dan Sage
Assistant Administrator
Gas and Energy Division
Public Service Commission

Docket 6630-CE-302

Setbacks

WEPCO designed GHWP using the following setback distances:

Setback Description	Setback Distance
Occupied Buildings - Schools, hospitals, churches, or public libraries	1,000 feet
Participating Residences	600 feet
Non-participating Residences	1,000 feet
Participating Property Lines	0 feet
Non-participating Property Lines	1.1 times turbine tip height
Public Road Right-of-Way	1.1 times turbine tip height
Overhead Communication and Electric Lines - Not including lines to individual houses or outbuildings	1.1 times turbine tip height
Overhead Utility Service Lines - Lines to individual houses or outbuildings	0 feet

The town of Scott JDA setback requirements are consistent with WEPCO's project design.

Of these setbacks, the majority of public comments received in this docket questioned whether a 1,000 foot setback from non-participating landowners is adequate. In these comments, members of the public state that the setback from non-participating landowners should be increased to distances up to one mile.

For GHWP, the approximate number of preferred turbine sites affected by increasing the setback to representative distances from non-participating residences is summarized in the following table:

		Approximate Number of Preferred Turbine Sites Affected* by Increasing the Setback from Non-participating Residences to:			
		1,250 ft.	1,500 ft.	2,000 ft.	2,500 ft.
Total Preferred Turbine Sites	1,000 ft.				
90	-	15	39	60	81

* Affected turbines could either be moved to meet the increased setback requirement, moved to an alternate turbine location that meets the increased setback, or in the worst-case, would be eliminated, unless other arrangements could be made with the owner of the non-participating residence.

WEPCO states that increasing the setback distance from non-participating residences would require the elimination of turbine sites from the project.

Docket 6630-CE-302

Increasing the setback distance from non-participating residences would reduce the level of impacts on non-participating residents, primarily from noise and shadow flicker. In order to help alleviate these impacts on non-participating residents, for the purposes of this docket only, the Commission finds that increasing the minimum setback from non-participating residences to 1,250 feet is reasonable. The Commission also finds that it is reasonable for WEPCO to file with the Commission Geographic Information System (GIS) data reflecting the modifications to the project design necessary to comply with this Final Decision, prior to commencement of construction.

Stray Voltage

Regarding stray voltage and EMF, the town of Scott JDA states:

Stray Voltage/Electromagnetic Fields (EMF). Owner will utilize Good Utility Practice to minimize, to the extent practicable, the impact, if any, of stray voltage and/or EMF on Non-Participating property. Owner expects there will be no stray voltage impacts from the Project. For purposes of this Agreement, stray voltage and the methodology for determining stray voltage levels, are as set forth by the Public Service Commission of Wisconsin. EMF as used in this agreement refers to the electric and magnetic fields that result from the normal operation of the Project. The Parties agree that should the PSCW establish any requirements with respect to EMF that apply to the Project that would be more protective of the Town or its residents or restrictive upon Owner than those referred to in this Section, then such requirements shall be deemed incorporated into this Agreement and they shall become part of Owner's performance obligations under this Agreement; provided however, compliance shall be established and interpreted by the PSCW as granted under Wisconsin law.

Members of the public submitted comments requesting that the Commission require WEPCO to work with local electric distribution companies to test for stray voltage prior to construction, and again after the project is completed. WEPCO would then work with the distribution utilities and farm owners to rectify any stray voltage problems arising from the construction and operation of the project. WEPCO would provide to Commission staff reports

DATE: October 5, 2010

TO: Public Service Commission of Wisconsin

610 North Whitney Way

P. O. Box 7854

Madison, WI 53707-7854

FROM: Anita Roberts

12113 Tannery Road

Mishicot, WI 54228

SUBJECT: Wind Siting Requests

I submitted multiple requests for information and answers to questions relating to the draft Wind Siting Rules issued by the Public Service Commission. The idea of the information request was to have information to comment on during the public comment period which ended July 7, 2010.

I received very little timely information to comment on by July 7, 2010. I find the response very lacking. Many of the questions were not answered or even addressed. On September 9, 2010 I called the PSC and talked to David Ludwig about no material being received after seeing my check had cleared the bank on August 24, 2010. Finally on September 16, 2010 I received 66 items of reference material.

The questions and requests I have made are listed below with material received. Many of my questions were not even addressed.

Question: Are the rules based on scientific and medical studies? If so please send me a copy of all studies and references that the rules are based on.

You provided 66 items of reference material. These items were received after July 7, 2010.

Question : Why are there no limits on low frequency noise?

You did not answer the question.

Question: What is the technical supporting documentation for the setback distances?

The 1.1 times the height of the turbine distance set back has no basis. I was told to look at the Glacial Hills report. No information on the technical basis was provided in the Glacial Hills report.

The 3.1 times the height from a residence has no basis. I was told to look at the Glacial Hills report. All that was found was an economic determination on the number of turbines that could be placed using this setback. This does not answer the question about the technical basis of the distance.

Question: What was the rationale for measuring from a residence versus the property line?

No answer was provided to this question.

Question: Does the PSC have a debris throw distance for a blade failure associated with uncontrolled turbine operation as a result of a brake failure and supporting calculation from turbine manufacturer?

No answer was provided to this question and no manufacturer calculations were provided.

Question: Does the PSC have the blade throw distance at normal operating speed and supporting calculation from manufacturer?

No answer was provided to this question and no manufacturer calculations were provided.

Question: Has the PSC developed a safe distance for locating turbines from nuclear plant property?

No answer to this question was provided.

Question: Can radar interference caused by the wind turbines be a security threat to nuclear plants?

No answer to this question was provided.

These questions were asked because I am concerned about my health and safety. The Public Service Commission of Wisconsin has made rules about wind turbine placement that directly affect my health and safety. I do not understand why you are unable to provide answers to these questions that have a clear technical basis.

Please provide me with the answers that are of a quality that would allow me to comment on the technical basis used to develop the answer. I would like a response within 10 days. My e-mail address is funfun@tm.net.

Respectfully,

Anita Roberts

Photos of wind turbines sited between 1000 and 2000 feet from homes in the Invenergy Forward Project, Blue Sky/ Green Field, and Butler Ridge in Fond du Lac and Dodge Counties for reference.

by Gerry Meyer, Jim Bembinster and Lynda Barry 2008-2010

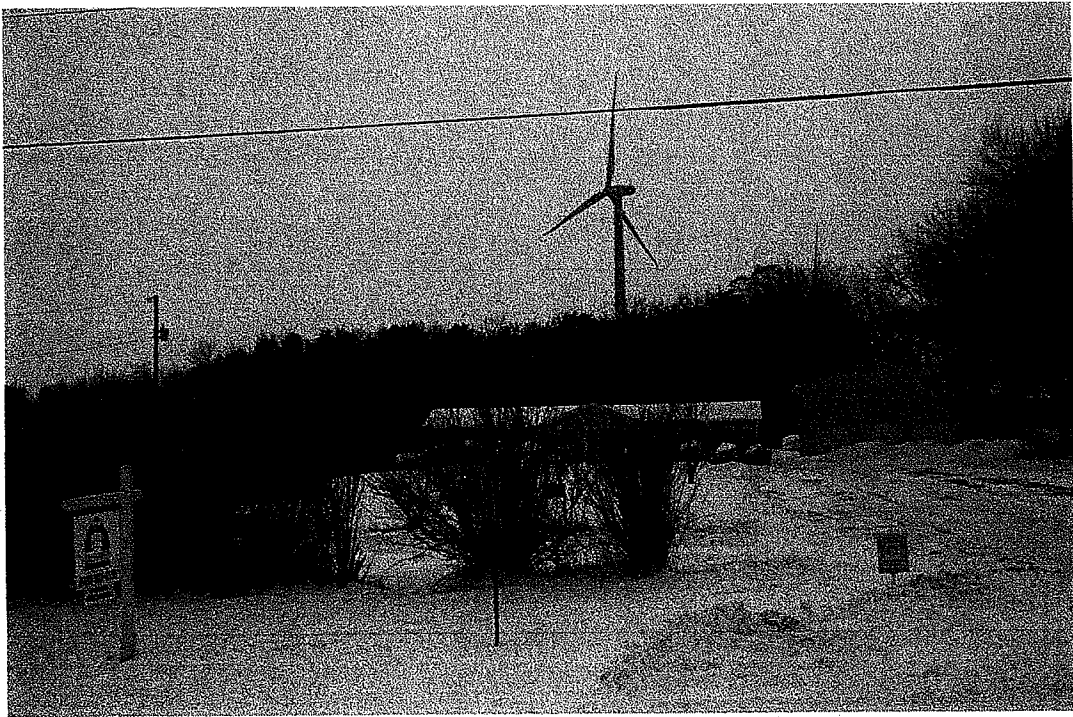


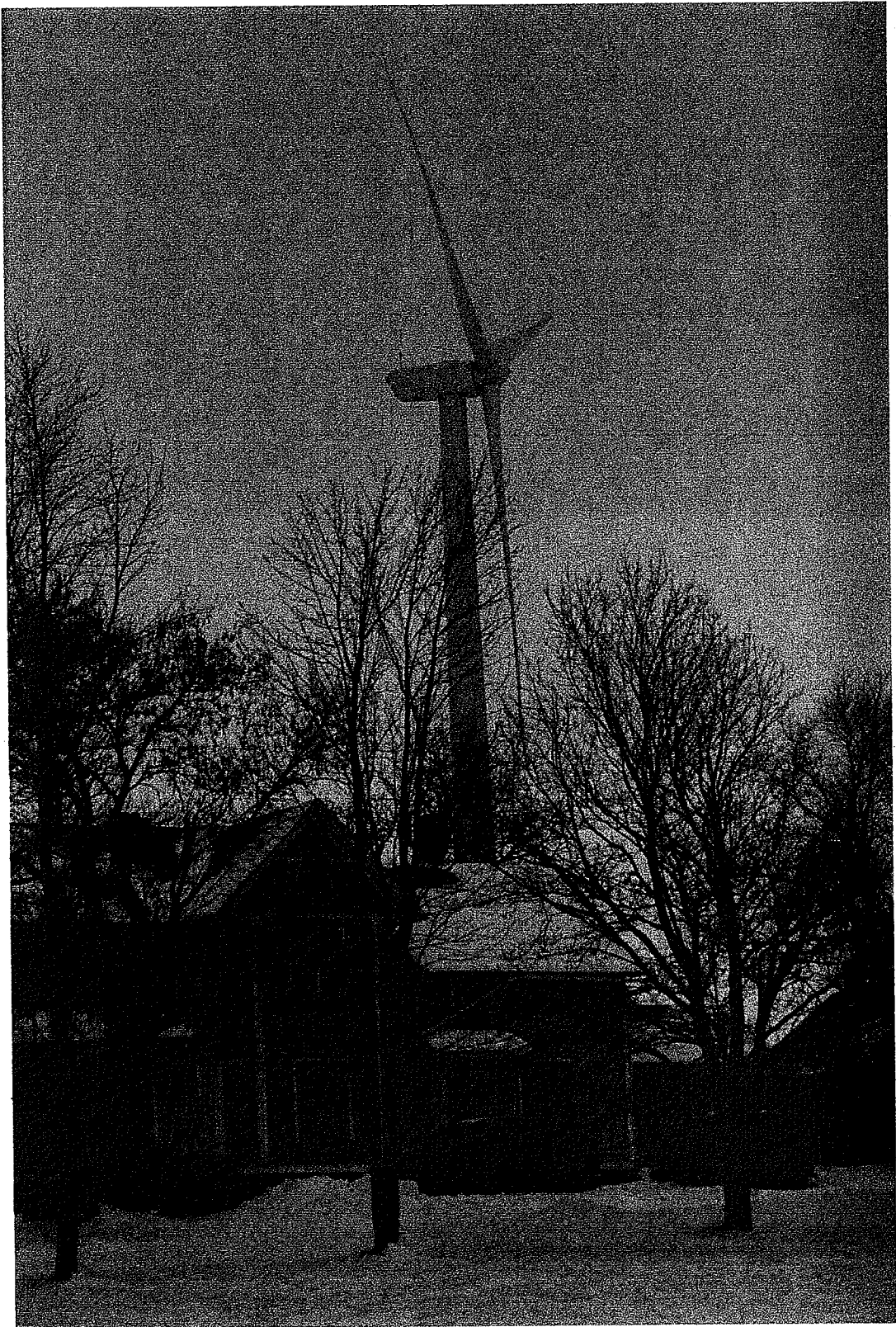
Public Service Commission of Wisconsin
RECEIVED: 07/06/10, 7:47:05 PM











STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION

In Re:

RECORD HILL WIND, LLC)	
Roxbury, Oxford County)	
RECORD HILL WIND PROJECT)	AFFIDAVIT OF
L-24441-24-A-N (approval)	MICHAEL A. NISSENBAUM, M.D.
L-24441-TF-B-N (approval))	

I, Michael A. Nissenbaum, M.D., being first duly sworn, do depose and say as follows:

1. My name is Michael A. Nissenbaum, M.D. I am a graduate of University of Toronto Medical School with post graduate training at McGill University and the University of California. I am a specialist in diagnostic imaging, whose training and work involves developing and utilizing an understanding of the effects of energy deposition, including sound, on human tissues. I am a former Associate Director of MRI at a major Harvard hospital, a former faculty member (junior) at Harvard University, and a published author. A copy of my CV is attached to this Affidavit as *Exhibit A*.
2. I give this Affidavit in support of citizens of the Roxbury, Maine area who are requesting the Board of Environmental Protection ("BEP") to grant a hearing on the health effects of the proposed Record Hill Wind Project.
3. I developed an interest in the health effects of wind turbine projects after becoming aware of and investigating the wide spread and serious health effects suffered by most of the residents of Mars Hill, Maine who live in proximity to a linear arrangement of wind turbines comprising a ridgeline wind Industrial Wind Project. I am preparing a formal study, which includes a control group, on the subject for publication in a peer reviewed medical journal. The draft will be sent to the New England Journal of Medicine for consideration for publication.

I attach a slide show on the preliminary findings of my research project as *Exhibit B* to this Affidavit.

4. There are some differences in the Mars Hill Wind Project now operating and the proposed Record Hill Wind Project. However, there are also some similarities regarding the DEP assessments and permitting process applied which are generally acknowledged to have failed in Mars Hill, and yet were applied once again at Record Hill. It is my opinion that the BEP should hold a public hearing to examine the potential health effects of the Record Hill Wind Project given the potential seriousness of the health issues, and to ensure that an appropriately corrected modeling process (compared to the flawed model that was in fact used) is implemented to best predict the sound emissions that can be expected from the Record Hill Wind Project.

5. The Final Order in the Record Hill application states at page 10 that "Enrad stated that infrasound has been widely accepted to be of no concern below the common human perception threshold of tonal sounds." This statement is in error. **Infrasound has not been widely accepted to be of no concern other than by non-physicians doing work contracted by members of the Wind Industry, and some of the key non-physicians utilized by the Wind Industry have issued self conflicting and contradictory opinions on the issue. There has been no medical refutation of the potential negative health effects of infrasound emitted by Industrial Wind Turbines and the subject is at the least an open medical issue of concern warranting immediate investigation given the haste with which Industrial Wind Projects are being planned and established. There is additionally at this point a small body of unrefuted medical research indicating that there may be problems associated with infrasound. Regardless, there are clear issues relating to audible low frequency noise of a persistent, pulsatile nature such as created by Industrial Wind Turbines.**

6. The Final Order in Record Hill at pg. 10 also states that “MCDC found no evidence in peer- reviewed medical and health effects from noise generated by wind turbines other than occasional reports of annoyances.” **While the word ‘annoyance’ has been used in European studies relating to this turbine noise, the term has been misinterpreted by the Wind Industry and the Maine CDC to mean an inconsequential disturbance, whereas the authors , not being medical doctors, and not being native English speakers, did not describe the health significance or severity of the ‘annoyance’ in medical terms. A review of the Mars Hill and Ontario findings, however, indicates that this ‘annoyance’ is one of the root causes of the sleep disturbances and secondary negative health effects suffered by the residents of Mars Hill, Maine.**

7. Furthermore, and more significantly, the Maine CDC did not investigate the cluster of health complaints in Mars Hill for potential significance. Given that Mars Hill potentially represents a new negative health phenomenon resulting from the interaction of a ridge line source of Industrial Wind Turbines sited too close to human dwellings after faulty pre installation sound modeling, this represents a failure of the Maine CDC to comply with its mandate to investigate newly arising health issues to better understand them and propose solutions for mitigation and future prevention where required. **As such, any statements emanating from the Maine CDC on this subject must be viewed as being based on incomplete information, at this point in time.**

8. **Ex-Governor Angus King, a principal in the Record Hill Wind Project, has publicly admitted to mistakes made in Mars Hill. To the extent that these mistakes relate to faulty pre installation sound modeling, he should be expected to agree that the same modeling mistakes should not be repeated in Record Hill.**

9. Credible evidence of negative health effects from Industrial Wind Projects has been collected in Ontario, Canada by Robert McMurtry, M.D. My own preliminary but significant findings from Mars Hill, Maine and a draft of a potential landmark book, "Wind Turbine Syndrome" by Nina Pierpont, M.D., and others, are also new sources of concern. Dr. Pierpont is an accomplished and well respected physician who is making significant contributions to the body of knowledge on the health impacts of wind turbines. Her basic premises have been well received by some of the foremost experts in the field of Otorhinolaryngology and Otology. I furthermore agree with her statements and recommendations at pages 11-12 of an excerpt of her Draft Report attached hereto as *Exhibit C*.

10. On Saturday, September 12, 2009, the Maine Medical Association passed a resolution, attached hereto as *Exhibit D*, expressing enough concern about the potential health effects of wind projects to urge caution and appropriate sensitivity in siting and permitting, as well as further studies on the subject.

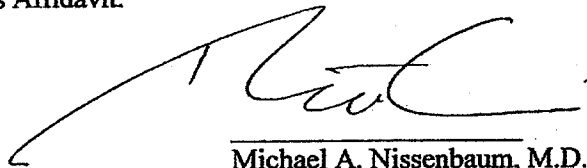
11. This resolution was passed over the prior objections (to a similar resolution in an MMA subcommittee) of the Director of the Maine CDC. The Maine CDC Director's refusal to recognize even potential negative health effects of wind power projects, and her public statements urging the rapid establishment of Industrial Wind Projects in Maine seem to be at odds with the caution expressed by the wider medical community, as indicated by the attached Maine Medical Association resolution, and, as noted above, appears based upon erroneously interpreted and incomplete information.

12. Pending the use of more appropriately designed modeling studies, and the establishment of more appropriate regulations, the DEP and LURC should exercise more caution and deliberation prior to permitting additional Industrial Wind Projects, recognizing that

there are still currently unknowns. The physical scale of the Industrial Wind Turbines used today is relatively new and we are only beginning to learn, as physicians, about the presence or absence of negative health effects that may result from poor siting decisions. In so doing, they will be better discharging their responsibility to protect the health and safety of Maine citizens.

13. I urge BEP to hold a public hearing on the appeal of the DEP Final Order for Record Hill on health effects of the approved Industrial Wind Project and, if that hearing is held, I will give testimony summarized in this Affidavit.

Dated: September 17, 2009



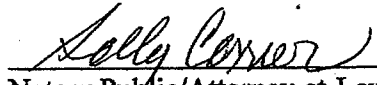
Michael A. Nissenbaum, M.D.

STATE OF MAINE
Aroostook, ss.

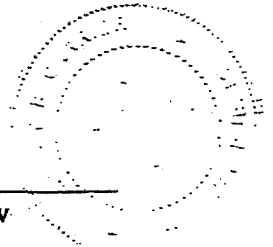
September 17, 2009

Personally appeared the above-named Michael Nissenbaum, M.D., and being sworn, made oath that the foregoing statements by him described are upon his own knowledge, information and belief and that, so far as upon information and belief, that he believes this information to be true.

Before me,



Notary Public/Attorney-at-Law
My commission expires:



SALLY CARRIER
Notary Public, Maine
My Commission Expires
February 1, 2014

**Transcript of Testimony
By Dr. Carl V. Phillips
Wind Siting Council Hearings
June 2010**

**Submitted by:
Carl Johnson
1893 Wayside Road
Greenleaf, WI 54126**

This is a transcript of the oral testimony of Dr. Carl V. Phillips at the Wind Siting Council hearings this summer. His written testimony was also posted on the Wind Siting Council Docket at the Public Service Commission.

PSC: Please raise your right hand. Do you swear to tell the truth, the whole truth, and nothing but the truth?

Carl V. Phillips: Yes, I do.

PSC: OK, spell your name.

PHILLIPS: Carl V. Phillips, C-A-R-L, initial V as in Vincent - Phillips - P-H-I-double L-I-P-S

PSC: All right, go ahead.]

I'm an epidemiologist and policy researcher. I'm specifically expert in how to optimally derive knowledge for decision making from epidemiologic data.

I have a PhD in public policy from Harvard University, and I did a postdoctoral fellowship in public health policy and the philosophy of science.

I've spent most of my career as a professor of public health and medicine, most recently at the University of Alberta and I currently direct an independent research institute.

I reviewed the literature on health effects of wind turbines on local residents, including the reports that have been prepared by industry consultants and the references therein, and I have reached the following conclusions which I present in detail in a written report that I believe will be submitted [to the commission].

First, there is ample evidence that some people suffer a collection of health problems, including insomnia, anxiety, loss of concentration, general psychological distress, as a result of being exposed to turbines near their home.

The type of studies that have been done are not adequate to estimate what portion of the population is susceptible to the effect, the magnitude of the effects, or exactly how much exposure is needed before the risks become substantial, but all of these could be determined with fairly simple additional research.

What is clear is there is a problem of some magnitude. The evidence may or may not be enough to meet the burden of a tort claim about a specific disease, but in my opinion it's clearly enough to suggest that our public policy should not just be to blindly move forward without more knowledge.

The best evidence we have - which has been somewhat downplayed in previous

discussion - is what's known as "case cross-over data," which is one of the most useful forms of epidemiologic study when both the exposure and the disease are transitory. That is, it's possible to remove the exposure and see if the disease goes away, then reinstate it and see if the disease recurs, which is exactly the pattern that has been observed for some of the sufferers who physically moved away and sometimes back again.

With that study design in mind, we actually have very substantial amounts of data in a structured form, contrary to some of the claims that have been made. And more data of this nature could easily be gathered if an effort was made.

Moreover, people's avoidance behavior—their moving from their homes, and so forth—is a clear (what's called) "revealed preference measure" of their suffering. Such evidence transforms something that might be dismissed as a subjective experience or perhaps even fakery, to an objective observation that someone's health problems are worth more than the many thousands of dollars they've lost trying to escape the exposure.

My second observation . . . is that these health effects that people are suffering are very real. The psychologically mediated diseases that we've observed, and in fact overall mental well being, are included in all modern accepted definitions of either individual health or public health. It's true that they are more difficult to study than certain other diseases, but they probably account for more of the total morbidity burden in the United States than do purely physical diseases. Therefore [they] should not be in any way dismissed.

Third, the reports that I have read that claim there is no evidence that there is a problem seem to be based on a very simplistic understanding of epidemiology and self-serving definitions of what does and what does not count as evidence. I don't think I can cover too much of this in the available time right now, but I explain it in detail in my report—why these claims, which probably seem convincing to most readers *prima facie* [at first glance], don't represent proper scientific reading. Moreover, the conclusions of the reports don't even match their own analyses. The reports themselves actually concede that there are problems, and then somehow manage to reach the conclusion that there is no evidence that there are problems.

And my final point, as I've already alluded to, is it's quite possible to do the studies it would take to resolve the outstanding questions, and they could actually be done very quickly by studying people who are already exposed.

This isn't the type of circumstance where we cannot really know more until we move forward and wait for years of additional exposure. The only reason we don't have better information than we do is that no one with adequate resources has tried to get it.

That's the conclusion of my points.

**Wind Siting Council
Final Recommendations
To the Public Service Commission
Wind Siting Rulemaking
Pursuant to 2009 Wisconsin Act 40
August 9, 2010**

The Minority Report Section

**Submitted by:
Carl Johnson
1893 Wayside Road
Greenleaf, WI 54126**

APPENDIX E: MINORITY REPORT

Introduction

We appreciate the opportunity to attach a minority opinion to the Wind Siting Council's final report to the Commission. As described in the report, the Council worked very hard for over four months to make sure that the viewpoints of the varying interested parties were heard, and we have reached consensus on a number of issues. However, there are several issues—which we believe are the most important issues—on which the Council simply was not able to reach consensus. We believe that this inability can in large part be explained by the make-up of the Wind Siting Council and by a process that did not insist on the best quality information and did not elicit critical thinking in the participants.

We acknowledge and respect the vast range of facts, opinions, and interests represented in the Council's membership. The motivation of individual Council members to protect the economic investments of each of the parties involved—property owners, turbine hosts, local governments, developers, and energy companies—is clear and easy to understand. The primary concern of this minority report, written by persons living among wind turbines, by realtors, and by a town official, is protecting the quality of life for people living near wind energy developments who have not chosen to participate in those developments. We believe it is the responsibility of a governmental body to provide an opportunity for citizens to consent on some of the most contentious issues relating to wind energy development.

We believe that our views are not adequately addressed in the straw proposal and the report presented by the Council to the Commission. We worked hard to listen to ideas that differ from our own, and we appreciate the opportunity to hear differing views over the many hours of meetings. However, our concerns with the product of the Wind Siting Council is not with the loss of votes on particular issues, it is with the failure of the process to address the realities of the effects of large wind turbines on nearby populations, to bring quality information into critical areas, and to explore the economic implications of locating an industrial facility next to a residential area.

We would ask the reader to be tolerant of the varying writing styles that result from multiple authors and to excuse indications of frustration that were not removed from the text. Council members supporting this minority opinion include a member representing towns, both realtor members, and a landowner living in the vicinity of a wind energy system. Our opinions are also supported by another landowner living in the vicinity of a wind energy system, Gerry Meyer, who served as one of our alternates to the Council.

Our issues of concern include:

- The Composition of the Wind Siting Council
- Health
- Noise
- Shadow Flicker
- Property Values

APPENDIX E: MINORITY REPORT

Wind Siting Council Membership

Wind turbine siting has been a contentious issue in this state—separating families, communities and abandoning Wisconsin residents to their fate. Recognizing this state of affairs, the legislature in Act 40 designated appointments to a Wind Siting Council that were intended to produce an evenly-balanced composition. Unfortunately, the appointments made were heavily weighted on the side of members having a direct or indirect financial interest in promoting wind development in the state.

It may have been more appropriate to have had all three Commissioners discuss these appointments at one of their open meetings. In future, there may be need for some legislative committee oversight in future Wind Siting Council member selection, since these decisions ultimately promote outcomes that could unnecessarily burden Wisconsin citizens in the name of “the greater good.”

The following is the language in the statute that prescribed the composition of the Wind Siting Council:

2009 WISCONSIN ACT 40

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 15.797 of the statutes is created to read:
15.797 Same; council. (1) WIND SITING COUNCIL.

(a) In this subsection, “wind energy system” has the meaning given in s. 66.0403 (1) (m).
(b) There is created in the public service commission a wind siting council that consists of the following members appointed by the public service commission for 3-year terms:

1. Two members representing wind energy system developers (Developer Members)
2. One member representing towns (Towns Member) and one member representing counties (Counties Member)
3. Two members representing the energy industry (Energy Members)
4. Two members representing environmental groups (Environmental Members)
5. Two members representing realtors (Realtor Members)
6. Two members who are landowners living adjacent to or in the vicinity of a wind energy system and who have not received compensation by or on behalf of owners, operators, or developers of wind energy systems (Landowners)
7. Two public members (Public Members)
8. One member who is a University of Wisconsin System faculty member with expertise regarding the health impacts of wind energy systems (UW Faculty Member)

The Table following indicates the degree of compliance with the legislation and identifies those with direct or indirect financial or organizational interests in the promotion of wind energy systems in the state. Commentary is found on the pages following the table:

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**Membership on the Wind Siting Council called for in 2009 Wisconsin Act 40
As appointed by the Public Service Commission
a check with the legislative language and
identification of financial or organizational interests in the promotion of wind energy systems**

SECTION 1. (b) There is created in the Public Service Commission a wind siting council that consists of the following members appointed by the Public Service Commission for 3-year terms:

NAME	AFFILIATION	APPOINTMENT MATCHES LEGISLATIVE LANGUAGE?	INDEPENDENT OF FINANCIAL OR ORGANIZATIONAL INTEREST IN THE PROMOTION OF WIND ENERGY SYSTEMS?
1. Two members representing wind energy systems developers.			
Tom Green	Wind Capitol Group	YES	NO
Bill Rakocy	Emerging Energies of Wisconsin, LLC; CREWE Member	YES	NO
2. One member representing towns and one member representing counties.			
Doug Zweizig	Town of Union (Rock Co.) (Town wrote an ordinance)	YES	YES
Lloyd Lueschow	Green County (no industrial wind activity)	YES	YES
3. Two members representing the energy industry.			
Andy Hesselbach,	WE Energies; CREWE Member	YES	NO
Dan Ebert,	WPPI Energy; CREWE Chair	YES	NO
4. Two members representing environmental groups.			
Michael Vickerman	RENEW Wisconsin	YES	NO
Ryan Schryver	Clean Wisconsin	YES	NO
5. Two members representing realtors.			
George Krause Jr.	Choice Residential LLC	YES	YES
Tom Meyer	Restaino & Associates	YES	YES
6. Two members who are landowners living adjacent to or in the vicinity of a wind energy system and who have not received compensation by or on behalf of owners, operators, or developers of wind energy systems.			
Dwight Sattler	Landowner 3,700 feet from a turbine	YES	YES
Larry Wunsch	Landowner 1,100 feet from a turbine	YES	YES
7. Two public members.			
David Gilles	Godfrey & Kahn former WPSC General Council	NO	?
Jennifer Heinzen	Lakeshore Technical College, Pres. RENEW WI	NO	NO
8. One member who is a University of Wisconsin System faculty member with expertise regarding the health impacts of wind energy systems.			
Jevon McFadden	Assigned to the Wisconsin Department of Health Services. Employed by the Federal CDC. Admitted non-expert on this subject.	NO	?
Number of members not matching the legislative language		3	
Number of members independent of financial or organizational interest			6

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Commentary on the composition of the Wind Siting Council:

- Three of the members of the Wind Siting Council were also members of the Coalition for Clean, Responsible Energy for Wisconsin's Economy (CREWE), having a history of working in concert on the wind siting issue. "CREWE is a coalition group that formed to advocate meaningful energy policy change consistent with the Governor's Global Warming Task Force final report, which will have a positive impact on Wisconsin's economic development and security and foster job creation. CREWE's membership consists of Alliant Energy, EcoEnergy, Johnson Controls, Xcel Energy, C5•6 Technologies, Madison Gas and Electric, Orion Energy Systems, Forest County Potawatomi Community, Wisconsin Energy Corp., Emerging Energies of Wisconsin, MillerCoors, American Transmission Co. and WPPI Energy." <http://wicrewe.com/>
- The legislation called for two "public members," presumably, in the simplest term, persons who represent the best interests of the public. The definition of "general public" found at [allwords.com](http://www.allwords.com) (<http://www.allwords.com/word-general+public.html>) would be:
 1. *Those members of the public who have no special role in a specific public area, such as an airport, hospital or railway station; there will typically be restrictions on their access.*
 2. *Members of the public not in the attentive public of any given issue; laypersons.*

The two people appointed were far from laypersons on the issue of wind energy systems in Wisconsin:

"**David J. Gilles** is a shareholder and a member of the environmental and energy law practice group in the Madison office and has expertise in energy regulatory law matters. He also works with the antitrust, consumer protection and government practice team. Prior to joining the [Godfrey & Kahn] firm, Dave served as General Counsel to the Public Service Commission of Wisconsin (2003-2007). The Commission is an independent regulatory agency, responsible for overseeing public utilities providing electric, gas, water and telecommunications services to the public. As General Counsel, Dave was responsible for all legal matters affecting the agency. Dave supervised and directed legal representation in state and federal courts and before the Federal Energy Regulatory Commission and Federal Communications Commission. While at the agency, legislation streamlining procedures for approval of energy facilities was enacted (2003 Wisconsin Act 89). In addition, legislation setting renewable resource portfolio standards for energy providers became law (2005 Wisconsin Act 141)." (http://www.gklaw.com/attorney.cfm?attorney_id=300)

Jennifer Heinzen is the President of RENEW Wisconsin. For an example of her advocacy for increased use of wind energy systems in Wisconsin, see her response to perceived anti-wind comments of State Representative Bob Ziegelbauer. <http://renewmediacenter.blogspot.com/2009/01/response-to-comments-of-state-rep-bob.html>

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- Probably the most problematic appointment to the Wind Siting Council was the person appointed to serve as the “University of Wisconsin System faculty member with expertise regarding the health impacts of wind energy systems.” The person appointed is an employee of the Wisconsin Department of Health Services, an agency that has taken a position on the issue of wind turbines and health: “the information currently available to the Division of Public Health does not support the conclusion that existing setback criteria would result in adverse health impacts to the public.” (Letter from Seth Foldy, State Health Officer and Administrator, Division of Public Health to Kendall Schneider, Chair, Town of Union (Rock County) Town Board, September 4, 2009) This carefully worded conclusion is strikingly similar to McFadden’s conclusion in his presentation to the Wind Siting Council on May 17, 2010: “Evidence does not support the conclusion that wind turbines *cause* or are *associated with* adverse health outcomes.” As an employee of the Bureau of Environmental and Occupational Health, McFadden is presumably subordinate to Foldy and therefore constrained in his conclusions to those of his agency.

Act 40 called for an independent researcher, a faculty member in the University of Wisconsin system. The person appointed is not a faculty member, but an adjunct assistant professor:

Definitions are found in the **Wisconsin Administrative Code: UWS 1.04 Faculty**. “*Faculty*” means persons who hold the rank of professor, associate professor, assistant professor, or instructor in an academic department or its functional equivalent in an institution.

and the **Faculty Policies and Procedures University of Wisconsin—Madison** (As approved by the Faculty Senate on 15 May 1978, with subsequent amendments as of 4 May 2009)

1.02. **UNIVERSITY FACULTY. A.** *The university faculty consists of all persons who hold the rank of professor, associate professor, assistant professor, or instructor with at least a one-half time appointment in UW-Madison, or with a full-time appointment jointly between UW-Madison and UW-Extension.)*

Directory search at the University of Wisconsin—Madison:

1 match

Name JEVON MCFADDEN

E-mail

Phone

Title ADJUNCT ASST PROF

Division SCHOOL OF MEDICINE AND PUBLIC HEALTH

Department POPULATION HEALTH SCIENCES

Adjunct professors, as can be learned from Wikipedia, are “Typically part-time non-salaried, non-tenure track faculty members who are paid for each class they teach. This position does not always require a completed PhD.” (http://en.wikipedia.org/wiki/Professor#United_States_and_Canada) Therefore the Wind Siting Council did not have the quality of instruction in the peer-reviewed literature on the health impacts of wind energy systems envisioned by the legislators. Instead of a researcher who is accountable to the University and the community of scholars for the quality of assessment on this question, the Council had a member who only looked like a faculty member, who has not published any investigation into such questions, and acknowledged that he had only informed himself in the relevant literature for a few years.

We want to be clear that our concerns about the composition of the Wind Siting Council are not criticisms of the individuals appointed. In each case, these individuals were appropriate

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representatives of their roles and organizations. They were hard-working and conscientious members of the Council. Our critique is with the effect that these appointments had on the process of the Council's deliberations and with the pre-determination of the recommendations contained in the Council report.

The legislatively-desired diversity of the Council was clearly distorted in the appointment process, and the consequences of that act can be seen in the conduct and product of the Council. At the first meeting, Council members are described in the Council report as sharing "his or her background, experience and thoughts on wind development." However, none of the three members of CREWE mentioned that part of their experience, even though they had been working together to advance that organization's agenda at that time. It is clear that those expecting regulation from the Commission's rules and those Council members associated with them would have a strong voice in the recommendations for those regulations.

The Council Chair repeatedly urged the Council to work toward a consensus and even suggested specific ways in which opposing positions might be accommodated, but the majority operated to deflect information or proposals that might interfere with the agenda of ensuring that local jurisdictions would not be able to restrict wind farm development. The imbalance in favor of increased ability to site wind farms resulted in

- an inadequate and biased review of the scientific literature,
- little review of state and national regulations,
- no examination of the ordinances passed in Wisconsin by local jurisdictions (even though these ordinances were frequently cited as the rationale for the Council), and
- a series of majority votes in favor of relaxed regulation of wind energy systems.

The pattern of voting by this block of members can be seen in the *Wind Siting Council Straw Proposal Amendment Ballot: Data Tabulation* distributed on July 9, 2010.

Had the Commissioners vetted the Wind Siting Council applicants as a group in an open meeting, perhaps the council would have been a more diverse group applying equal consideration for the promotion of wind development and minimizing burdens for the residents of Wisconsin.

Health

The Wind Siting Council failed to address health issues adequately in their recommendations for the wind siting rules.

The following pages are a personal account from a resident in the Forward Energy project. They illustrate how some Wisconsin residents' health is being impacted while living in a wind facility, his increasing awareness of how his neighbors are affected, and his experience in interacting with health professionals.

World wide, wherever large industrial wind turbines are erected, there are numerous complaints of health effects. Most common, and immediately after turbines begin to turn, are headaches and loss of sleep.

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On May 17th wind siting council member Jevon McFadden gave a presentation titled "Wind Turbines: A Brief Health Overview." His research did not include any visit or interview with current wind farm residents, nor did it include overnight stays in homes within a wind farm. It mostly included information obtained from reports obtained on the internet. I feel there are serious flaws in that presentation. I will only cite two of those slides. On slide 68 the second bullet point reads, "Persons with sleep problems should be medically evaluated". That seems to be a needless visit to the doctor as wind farm residents did not have this sleep problem before the turbines began turning. It is not because some of those residents are getting older as one council member suggested; it is the frequent jet-flying-over sound or thumping sounds that often last for days at a time that are the catalyst of the problem. The third bullet point of slide 68 states, "Symptoms of sleep disturbance, vertigo, tinnitus, anxiety, etc. may represent serious underlying medical conditions." Again, these symptoms were not present before the turbines were installed.

In correlation to the symptoms beginning just after or shortly after the wind turbines began turning, the symptoms (depending on their severity) go away immediately after leaving the wind farm for vacation or in some cases abandoning homes out of desperation. Sleep returns immediately, and headaches cease right away. Some residents report that they no longer dream, however dreams return when they sleep away from their home. Ringing in the ears takes several days to clear up, while more serious internal problems may take months to improve.

One young woman in the Forward project had intestinal ulcers that began after the turbines began turning that went away in the following months after her family abandoned their home and moved to a peaceful cul-de-sac in a nearby village. The mother of the same family and a woman in a home less than a mile away both had compromised immune systems. Of course, this was diagnosed by doctors. After moving from their homes, their health and weight improved observably. These, of course, are only a few of an unknown number of persons in the state who have been affected by the placement of wind turbines adjacent to their properties. We urge the Public Service Commission to determine the extent of the problems before permitting the siting of additional turbines.

Before continuing, we will list some, however probably not all, of the health effects experienced by residents living where wind turbines are not responsibly sited: headaches, sleep deprivation, anxiety, dizziness, chest palpitation, stress, depression, anger, nausea, exhaustion, irritability, lack of motivation, loss of short term memory, tinnitus, intestinal ulcers, and reduced immunity system.

The Wind Siting Council heard numerous times from member Larry Wunsch (an uncompensated landowner living adjacent to or in the vicinity of a wind energy system member) about what it is like to live 1,100 feet from a large industrial wind turbine regarding sound, health, and shadow flicker. Council member Dwight Sattler has stated he only hears the turbine to the south east of his home sometimes and does not experience shadow flicker. Mr. Sattler estimated to the council that the single turbine is at least ½ a mile from his home (Other estimates are 3000+ feet away.). This difference between these two members demonstrates irresponsible vs. responsible siting. Those of us in the minority were expecting responsible siting rules from this council.

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Slide 72 of Dr. McFadden's presentation states, "Encourage concerned individuals to report symptoms or illness to a healthcare provider" and "Encourage health officials to continue to assess new evidence as it becomes available." The actual words stated were, "Health officials both at the state and local levels are advised to continue to assess new evidence as it becomes available. This is standard practice with regards to all issues of potential public health impact."

The following is one personal account (An interested Department of Health Services could easily learn of many others.): *On May 18, 2010, I called my clinic. Both my wife and I have been to the doctor concerning our symptoms. My wife especially had a doctor patient conversation of the diseases caused by sleep deprivation. Those diseases include high blood pressure, diabetes, heart disease and fibromyalgia. I called the clinic to find out if they report our visits concerning the negative health affects of living too close to large industrial wind turbines to the county or state health departments. The answer, "No, we do not," "We only report communicable diseases and specific requests from the health department." I again called our doctor on July 27, 2010 to see if they had been requested to submit information to the county and state health departments concerning patients with illnesses due to wind turbines too close to their homes. "No, no such request had been made". Based on the information received from my doctor and clinic, I do not believe health issues caused by wind turbines will "filter" to the state health department from visits to our "local health care provider."*

How many people go to their doctor and then report to their county or state health departments that they made a medical appointment and the results of that visit? How many residents living in a wind farm would even think about calling their county or state health department to let them know of their symptoms? I think the health departments would admit that not many would. Yet, locally we hear many complaints of residents with sleep deprivation, headaches (caused by sound and shadow flicker), and many other health concerns.

In a public meeting of the Brown County health department, Dr. McFadden stated that cortisol levels are inconclusive. If a patient has a cortisol level of 254 (A person's cortisol level should be less than 100.) during a period of high sleep deprivation caused by five wind turbines with $\frac{3}{4}$ of a mile of his home and the day after a 21-day shut down of the Forward Project the patient's cortisol level is 35, it should raise high red flags to the state Department of Public Health and the public health representative on the wind siting council that there could be a health concern related to the wind turbines.

Residents that self-report health issues seem to be in question of their reliability by Dr. McFadden. If we go to our doctor for any symptom not necessarily wind energy-related, our doctor will ask us what brings us today. Our doctor will ask questions related to the issue at hand, often very detailed, to help him/her assess the situation and determine the next steps in tests or treatment. Those answers would be self reported. I believe many patients would anticipate those questions and may even have details mentally prepared or written down

On June 9th, Wind Siting Council Chair Dan Ebert introduced his straw proposal. In his statements explaining his proposal, he concluded: "Having read through a number of the studies and having heard Jevon's presentation, I don't believe there is sufficient analysis

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and evidence to suggest that we need to weigh in on the health issues at this point.” That was taken as a slap in the face to council member Larry Wunsch and his alternate Gerry Meyer and many other wind farm residents in the Wisconsin wind farms and wind farms around the world that are suffering from the effects of industrial wind turbines being irresponsibly placed too close to their homes. The “majority” has downplayed the health issues during the Council’s work time.

We agree that, like many other sounds and daily happenings, some people are more sensitive to surroundings than others. In the case of wind energy there seem to be many residents that are sensitive to not just the loud, very obvious sounds, but also the low frequency sound that often is not heard, but felt by the body. Low frequency sound was barely addressed or was downplayed by the Council. The peer-reviewed literature of Nina Pierpont, and studies done by Dr. Christopher Hanning, Dr. Carl, Phillips, Dr. Robert McMurtry, Dr. Amanda Harry, Dr. Michael Nissenbaum and others, including sound engineer Rick James, were ignored or dismissed.

Numerous times during the wind siting council meetings it was brought up that any decisions on health had to be based on science. If government agencies are not willing to do epidemiological studies, how will science ever determine the health issues related to wind energy? At the Brown County Health Department meeting on May 25th, concerned residents challenged Dr. McFadden and the state health department representatives at the meeting to come up with a questionnaire for current wind farm residents. Part of that request was based on the observation that there were already enough “lab rats” to study rather than create more victims of wind energy. The fact is: That wherever large industrial wind turbines are erected there are health issues.

This conclusion is supported by a physician who has surveyed studies conducted on those affected by wind turbines: “*Large industrial wind turbine developments do not belong in close proximity to locations where people live and work.*”[his italics] (Herbert S. Coussons, MD, “Re: Health Impacts and Setback Guidelines for Wind Siting Council,” PSC REF#: 130689) Dr. Coussons cites authoritative sources to document the levels of sound that disturb sleep, and summarizes: “At 30—40dB measurable objective sleep disturbances are seen. At 40—55dB adverse health effects are seen. Above 55dB is dangerous to public health. Experience has shown industrial wind turbines cause noise that exceeds 40 dB when in close proximity.” This summary suggests that the Wind Siting Council report is recommending a sound level—45 dBA at night and 50dBA during the day—that will disturb sleep and flirts with producing adverse health effects. The problems that result from disturbed sleep are “deficits of concentration, attention and cognitive performance, reduced vigilance, malaise, depressed mood, and irritability,” problems that have distinct implications for health.

While those seeking to minimize the health effects of wind turbines argue for clear causality in order to permit any attention to health concerns, there is recent work that points to the mechanisms through which disturbance from infrasound wind turbine noise takes place. Where Dr. McFadden’s presentation dismisses the possibility of lower levels of infrasound being a problem, since it cannot be “heard,” Alec N. Salt and Timothy E. Hullar have identified the mechanism in the inner ear that could account for the complaints resulting from proximity to working wind turbines: “In most studies of wind turbine noise, this high level, low frequency noise is dismissed on the basis that the sound is not perceptible. This fails to take into account the fact that the OHC [outer hair cells] are stimulated at levels that are not heard.” (Alec N. Salt

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and Timothy E. Hullar, Department of Otolaryngology, Washington University School of Medicine, "Responses of the ear to low frequency sounds, infrasound and wind turbines," June 2010) This work is now part of the peer-reviewed scientific literature and is likely to be followed by more conclusive evidence of a causal path from wind turbine noise to health effects.

Dr. Carl Phillips, an epidemiologist familiar with the science of epidemiology and with the state of research on questions of wind turbines and health effects, concludes that there is reason for investigation to ensure that siting decisions would not cause harm:

In summary, there is substantial evidence to support the hypothesis that wind turbines have important health effects on local residents. If forced to draw a conclusion based on existing evidence alone, it would seem defensible to conclude that there is a problem. It would certainly make little sense to conclude that there is definitely no problem, and those who make this claim offer arguments that are fundamentally unscientific. But there is simply no reason to draw a conclusion based on existing evidence alone; it is quite possible to quickly gather much more useful information than we have.

(Carl V. Phillips, MPP PhD, "An Analysis of the Epidemiology and Related Evidence on the Health Effects of Wind Turbines on Local Residents," PSC REF#: 134274)

On pages 25-26 of his report, Dr. Phillips sketches out a research design that could be used to examine Wisconsin residents' experience with wind farms already permitted and operating. It is irresponsible to neglect to evaluate the effects of decisions already made before making further decisions. Chairman Callisto has attempted to reassure those concerned with the upcoming rules by saying, "I think they're going to be flexible to accommodate new studies," he said. "Rules get modified all the time. Nothing's written in stone." (quoted in "Wind turbine debate spins toward Sept. 1 deadline," The Daily Reporter, June 29, 2010.) Unfortunately, wind turbines are installed in concrete foundations weighing hundreds of tons that will not be modified for decades. In the case of Council-member Larry Wunsch, the turbine permitted under PSC rules to be placed 1,100 from his home has been operating for over five years and will likely continue to operate, though the Council Chair has acknowledged that it should not have been permitted given what we know now. We believe that it would be better to aggressively pursue knowledge of the potential for effects on human health now than to make decisions again that will be regretted later.

Health issues are not limited to humans. One Forward resident, before abandoning their home, also had problems with their alpacas birthing at not normal times of the day and in three cases had still-born or aborted births, where before the turbines were erected there were no reproductive problems. In a neighboring wind project, a man who has raised chickens all his life now has a variety of health issues in his chickens. When the chickens were moved to a relative's property outside the area of the wind farm, the chickens' health returned. In the smaller Wisconsin Public Service project near Algoma, a beef farmer who had not had health concerns with his animals prior to the wind farm had some animals get ill and others die after the turbines were erected. In the Forward project, few if any deer are seen; however residents two miles outside the project are seeing more deer than ever. The same results are reported for turkeys. The concern for wildlife was not addressed in the Wind Siting Council proceedings (such concerns were stated to be the responsibility of the Department of Natural Resources) even though "environmental" groups were part of the make up of the Council.

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Noise

Given that noise from large wind turbines is the source of most complaints from Wisconsin residents, the approach taken by the Wind Siting Council to understanding this issue and to proposing reasonably protective noise standards was seriously flawed.

- Where Act 40 stipulated that a member of the Wind Siting Council be "a University of Wisconsin system faculty member with expertise regarding the health impacts of wind energy systems," the person appointed was not a member of the UW—System faculty but was an adjunct assistant professor whose primary work location was a state agency with an established position on the question of health impacts of wind energy systems. Further, he publicly stated that he was not an expert.
- The Wind Siting Council report is in error in stating that the Council surveyed peer-reviewed scientific research regarding the health impacts of wind energy systems. The Council was given a PowerPoint-assisted talk on the subject. The PowerPoint slides have been made available, but the presenter has publicly refused to provide the text of the report, even though this text has been used by others to make presentations elsewhere in the state.
- The summary regarding "Noise" in the Council report relies on sources that have not been provided to Council members, either in copies or links. In addition, a significant number of the sources in the Council report were not included in the presentation given to the Council. It is impossible to claim that the Council surveyed literature to which they were not given access or of which they had no knowledge.
- The oral report provided to the Council and the presentation included in the Council report shows the selection and use of sources to justify a pre-determined conclusion and does not reflect either an expert or objective survey of the relevant literature. In contrast, the report provided on the docket by Carl V Phillips, "An Analysis of the Epidemiology and Related Evidence on the Health Effects of Wind Turbines on Local Residents," (PSC REF#: 134274) provides a discussion of the issues by an expert and experienced analyst. Phillips details the flaws and limitations of industry-sponsored reports that minimize the effects of noise and proposes timely and efficient approaches to studying the effects of wind turbine noise on the Wisconsin residents already exposed. Neither the Phillips report nor any other assessment of the effects of noise from wind turbines on proximate populations has been considered in Council meetings. After the PowerPoint presentation, the issue was declared closed.
- Selection and use of sources to support a pre-determined point is illustrated by the casual setting aside of recommendations from such organizations as the World Health Organization, Vestas, the New Zealand Wind Energy Association, The National Research Council of the National Academies, and the Minnesota Department of Health (Environmental Health Division) while basing the recommendation for sound levels on studies done in Europe with smaller turbines and greater setbacks than are presently permitted in Wisconsin.
- The majority on the Council that voted for the recommended standard cannot explain the meaning of the noise standard they have voted for. This can be seen in the following two-minute video from a Council meeting: <http://www.youtube.com/watch?v=29RmKZ8raT0> This discussion took place July 15, 2010 after the decisive vote was taken on the noise standard. In an earlier written "straw" ballot, five members of the Council had voted for a

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standard to allow 25 dBA over the ambient or background sound. (This was not one of the choices on the ballot, "25 dBA" had to be written in under "Other.") In the July 15 meeting, Council members were asked how much louder a 25 dBA difference was. Initially, no one on the Council could say. Finally, Dr. McFadden volunteered 500 times louder, probably meaning 500 percent or five times louder. Because of the logarithmic nature of the decibel scale, the difference is closer to six times louder. What is remarkable is that none of those who had just voted for a standard they did not understand sought to clarify or reconsider what they had just decided. This is an unfortunate demonstration of the quality of decision making on which recommendations in the Council report have been based.

- Since the Council approach to the examination of this central issue fails to meet the literal requirements of Act 40, the recommendations of the Council regarding a noise standard should be set aside, and a process that matches what was required in the Act (a survey of the literature by the Council guided by an independent and qualified researcher) should be initiated.

James P. Cowan, INCE BD. Cert. presented "Wind Turbine Generator Noise Issues" to the Council on June 2, 2010. (http://psc.wi.gov/apps/35/ERF_search/content/SearchResult.aspx Noise Presentation Cowan 06-02-10) Mr. Cowan said that in his experience a 2 megawatt 100-meter wind turbine generator would produce 45 dBA at a 2,000 foot setback and that in central New York state, 2,000 feet was a typical setback. He added that at a 1,000 foot setback the sound would be approximately 6 dBA louder, or about 51 dBA.

Setbacks, other than for safety, were not recommended in the Council report because Council members were agreed that setbacks are a crude device for addressing the problems of noise and shadow flicker. Nevertheless, distance is the only sure mitigation for these problems. In lieu of better information or the kind of study recommended below, we would recommend a 2,640-foot setback from homes with a sound level standard set to 5 decibels above ambient sound pressure to wind farm residents. This is a modest set back compared to the call of doctors, scientists, physicists and sound engineers from around the world for setbacks of 1.2 miles and more.

Shadow Flicker

We do not believe the Council has sufficiently addressed the issue of shadow flicker. We believe that a non-participating property owner should not have to deal with the annoyance of *any* amount of shadow flicker. Non-participating property owners should have the right to freely enjoy their property without shadow flicker annoyance.

A property owner has an interest in the private use and enjoyment of his or her land. What a neighboring property owner does on his or her own property needs to stay there, and should not have spillover effects on other properties. Shadow flicker is an annoyance that can affect the use and enjoyment of a non-participating landowner's property. This annoyance should not be taken lightly. Council member Larry Wunsch who lives in a wind farm is affected by shadow flicker on his property at various times of the year. He has stated that this effect in his home is like someone turning the lights on and off inside the house at a rate of 80 times a minute and lasting for an average of 50 minutes daily on non-cloudy days for six weeks in the spring and six weeks in the fall. Shadow flicker affects the total property for considerably longer periods.

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Shadow flicker can be predicted at the time a wind turbine's placement is being considered, and shadow flicker can be prevented from falling on a neighbor's land or buildings through proper siting and setbacks. Therefore, such interference should be avoided unless a waiver is granted by a landowner. Further, we believe that property owners have a right to enjoy the entire property surrounding their residence; we recommend at a minimum that site planning should identify locations for turbines that do not result in shadow flicker at or around gardens, barns, and other areas of a property used on a regular basis.

Council-member Larry Wunsch is the only Council member that lives with shadow flicker. Mr. Wunsch has testified with and provided other members of the Council a DVD of how shadow flicker can take away the enjoyment of a person's land. Our recommendation is to eliminate the hours of exposure that is recommended in the Council report and instead have zero tolerance for shadow flicker on a non-participating property owner's land.

Property Value

The Council was clearly divided on the question of whether locating wind turbines next to a residential property would decrease that property's value. The Council heard testimony and reviewed studies that made the case for loss of property values. It was very apparent to the minority of the Council (The minority included a landowner living adjacent to a wind turbine who is trying to sell his property and two realtors.) that the majority's opinion varies greatly from the minority's opinion and seeks a much different outcome. In the minority's opinion, the evidence showing close proximity to wind turbines to be undesirable to buyers and negative with respect to one's property value is clear and convincing.

The main argument that was used to claim there is no effect of proximity of wind turbines to property values is that any loss of property values is directly and mainly related to the loss of value because of current economic conditions. The Council majority, most of whom have a vested interest in the development of wind energy, has relied heavily on what is known as the "Berkeley Study" as their main source of support that no value loss occurs due to wind turbines. (The "Berkeley Study" citation is: B. Hoen Wiser, R., Cappers, P., Thayer, M., and Sethi, G. (2009) "The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis," Ernest Orlando Lawrence Berkeley National Laboratory. It was funded by the Office of Energy Efficiency and Renewable Energy Wind & Hydropower Technologies Program of the U.S. Department of Energy under Contract No. DE-AC02-05CH1123.)

However, the Berkeley Study has not held up to the scrutiny of other investigators. Michael McCann of McCann Appraisal LLC in Illinois conducted a very thorough review and provided a written analysis in response to the Berkeley Study: "The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis" dated Dec 14, 2009 thoroughly details the flaws within the Berkeley Study.

Albert R. Wilson, a specialist in environmental financial risk management and impaired value analysis, concluded that the Berkeley Study does not meet professional standards ("Wind Farms, Residential Property Values, and Rubber Rulers," can be found at <http://www.masterresource.org/2010/02/is-doelawrence-berkeley-labs-wind-power-impacts-study-junk-science/#more-7526>):

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While I have other issues with the Report (and again reiterate that I have no opinion on the influence of wind farms on residential sales prices), the concerns I have addressed here lead to the conclusion that the Report should not be given serious consideration for any policy purpose. The underlying analytical methods cannot be shown to be reliable or accurate.

Kevin F. Forbes, Ph.D (Associate Professor, Catholic University of America, "Reflections on the Integration of Wind Energy into the Power Grid") also demonstrated why we cannot rely on the study's conclusions (document provided to the Commission, pages 6 & 7). The sample used in the study was incapable of finding any effects of wind turbine proximity to property values, and therefore concluding that there are no effects is the scientific equivalent of a fisherman coming up empty and claiming there were no fish in the lake.

The Council minority would recommend that the proper method for arriving at a reasonable "value factor" would use credentialed professionals within the appraisal industry, rather than rely on speculations on the effects of the economy or dependence on such a deeply flawed study.

The Council minority found credible the direct testimony presented by Mr. Kurt Kielisch, ASA, IFAS, SR/WA, R/W-AC President and Senior Appraiser of the Appraisal One Group. His testimony was directly relevant to our local area and State. Appraisal One Group is an appraisal firm specializing in forensic appraisal, eminent domain, stigmatized properties, and valuation research. His presentation (based on "Wind Turbine Impact Study," Appraisal Group One, 9/9/2009) provided insightful and well-documented information on the impact on property values that wind farms and wind turbines have had locally.

His organization's study and report consisted of a literature review, a survey of real estate professionals, and comparable property appraisals in the area of three of Wisconsin's currently operating wind farms consisting of 88, 86, and 41 wind turbines. He informed the Council that value of any property was based on perceptions of a buyer. His findings have demonstrated that local buyer's perceptions of proximity to wind turbines have been found to be negative, resulting in an average of 30% decrease in the areas studied.

Mr. McCann produced an 82-page report, "Wind Turbine Setbacks," dated June 8, 2010, where he gives his professional opinion regarding wind turbine setbacks and how they affect property values. He provides opinions and recommendations on how to minimize these concerns correspond very closely with those in the report provided to the Council by The Appraisal One Group, dated 9/9/2009.

Some on the Council stated, if there were a negative effect on property values, the shared revenue provided to local jurisdictions would result in a reduction of property taxes and make up for any effects on property values. Andrew Reschovsky's analysis of how this has worked in Wisconsin is summarized as ("An Analysis of Shared Revenue Utility Aid," PSC REF#:134042):

In Wisconsin, utilities are generally exempt from local property taxation. However, county and municipal governments are compensated for their loss of property tax revenue through a state-financed grant program known as shared revenue utility aid. This paper describes the utility aid program and explains why revenue from utility aid will most likely be used to increase spending on municipal or countywide public

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services or to reduce municipal or county property tax mill rates. The paper concludes that these benefits of utility aid accrue to all property owners within the recipient jurisdictions and that they would not provide disproportionately larger benefits to landowners who are within close proximity of a wind turbine farm.

So we can't rely on shared revenue to address the property value problem

Strong evidence from areas that have had wind farms sited and operating much longer than we have experienced here in Wisconsin allows us to predict what will happen in this state. The evidence is far too convincing to allow us to dismiss the reality that wind farms do greatly negatively impact property values and that this effect can no longer be ignored or minimized.

Council member Andy Hesselbach of WE Energies commented that it is the preference of wind energy developers to site wind turbines closest to property lines, as it provides the developer the largest area to maximize the number of wind turbines and minimize development costs. This preference was confirmed by Council-member Michael Vickerman, of RENEW Wisconsin. Encroaching on a non-participating neighboring property without a negotiated easement is a common cause of conflict, results in a loss of property value, and has been argued to be a "taking" of personal property rights. ("Takings: Balancing Public Interest and Private Property Rights, *Wisconsin Briefs* from the Legislative Reference Bureau, Brief 98-2 April 1998)

Given that locating a wind farm adjacent to existing developed properties has been shown to negatively affect property values, providing an equitable Property Value Protection plan in the rules recommendations will help protect the interests of all parties involved.

Summary

Wind siting rules to adhere to the intentions of Act 40 need to be more restrictive than the ones proposed in the majority report in order to protect the health and safety of non-participating neighbors. The value of their property needs to have protection, and the quality of life rural residents intended to enjoy needs to be protected rather than taken from them.

The minority recommends three areas for study that could greatly increase understanding and reduce the contention that is likely to follow from following the recommendations of the Council report:

Health

Those seeking to minimize or deny the health impacts of wind energy systems do not deny that the operation of wind turbines has disturbed and will disturb the sleep of those living nearby. They also cannot deny the well-understood consequences of inadequate sleep. What they attempt is to have us ignore is the possibility that proximity to wind turbines is known to *directly* cause the symptoms that wind-farm neighbors experience. This narrow space on which they have based their argument is diminishing. In addition to the widespread reports of health effects and the phenomenon of neighbors abandoning their homes, there is an increasing amount of the kind of peer-reviewed scientific literature that wind farm proponents have been calling for that is documenting the symptoms and identifying the mechanisms by which wind farm noise can be found to cause them.

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Wisconsin has a large number of residents living close enough to wind turbines already operating in the state. Carl Phillips ("An Analysis of the Epidemiology and Related Evidence on the Health Effects of Wind Turbines on Local Residents," PSC REF#: 134274) has provided a protocol by which a timely and affordable investigation could be conducted to learn about the health impacts that are occurring in this state. It would seem to be responsible to conduct such a study before permitting additional turbines. We would recommend a delay in the permitting of further wind development in Wisconsin until epidemiological studies can be conducted and evaluated.

Safety Setbacks

The Wind Siting Council's considerations of safety setbacks from a wind turbine were inadequate given the potential for harm. The only distances discussed were 1.1 the height of the turbine and 1 time the height of the turbine. The Council was not clear on the source for the 1.1 standard, though it seemed to be a standard used for cell towers. Wind turbines differ from cell towers in that there is a large weight at the top (the nacelle and blades) and in that there are large moving parts. A council member whose utility operates a wind farm reported that there have been cases of wind turbines falling over. Even though there was a request for staff to provide information from authoritative sources for the consideration of setback distance, the Chair said that it would not be necessary. The discussion became more bizarre when a Council member proposed landowners being able to ignore a safety setback, claimed that a safety setback was unnecessary, and said that it should be renamed as a "courtesy setback." In short, the recommendation from the Wind Siting Council cannot be relied upon, and an engineering study to establish safety setbacks from wind turbines is required.

Property Values

Since there is much contention about the effects of wind turbines and property values, and since the Appraisal One study might be dismissed because of its sponsorship, it might be productive for the Public Service Commission to obtain its own study of the issue. The two realtors on the Council would strongly recommend that the issue of property rights and property value effects need to be addressed in order to ensure that wind farm developers and operators are not benefitting from imposing economic hardship on their neighbors.

Wind industry advocates urge the use of science in developing policy for the regulation of wind energy systems. We agree that the discipline of science in the making of observations and reaching conclusions is indispensable to reaching sensible and long-lasting decisions. We also would promote direct observation of realities. When people are abandoning their homes, when they find it difficult or impossible to sell their homes, when symptoms experienced in the vicinity of wind turbines do not occur in other environments, it is not useful to dismiss such reports as inaccurate or hysterical. We would recommend that a body that permits wind turbine installations, whether local jurisdictions or the Wisconsin Public Service Commission, has a responsibility to inform themselves of the consequences of their permitting decisions.

By the same token, we have attempted to be as accurate as possible in our description of the working of the Wind Siting Council, of the literature we have cited, and of the experiences Wisconsin citizens are having living among wind turbines. If we have been in error, we would

APPENDIX E: MINORITY REPORT

desire to have the record corrected, so that we can proceed with a more accurate grasp of the situation.

Finally, we believe that all members of the Wind Siting Council have an interest in increased use of renewable sources of energy in Wisconsin. We in this minority are concerned that the recommendations in the Council report will not address the problems that led to the Council's creation. The standards recommended will, we believe, lead to continuing and increased dissention between proponents of wind development and local governments, and among citizens. We would prefer rules for the siting of wind energy systems that will reduce such conflict because we think that siting turbines in ways that people can live with will provide a sustainable source of energy for Wisconsin.

Respectfully submitted,

George Krause, realtor (Council member)

Tom Meyer, realtor (Council member)

Larry Wunsch, landowner living in the vicinity of a wind energy system (Council member)

Doug Zweizig, towns representative (Council member)

To: Wind Siting Council
From: Doug Zweizig, member
Date: May 20, 2010

I would like to propose that we explore an alternate approach to handling complaints from residents regarding the operation of wind turbines in their vicinity.

The present approach in the draft rules—having complaints handled by the wind farm operator (see p.21 line 3 and following of the "Proposed Draft Rule (5.14.10))—puts one of the parties to a dispute in control of the outcome. In order to see how this might work, I have reviewed the record that we have of the complaint procedures at Marshfield (found at <http://townmarshfield.com/wind-tower-concerns/>). The process there is limited in the concerns it will address, appears to take excessive time to resolve complaints, and provides resolutions arbitrarily determined by the operator.

An equitable process would be overseen by a neutral third party administering well-established criteria for performance and resolution of complaints and following an efficient process. The party granting the license or permit to the wind system operator would be the handiest arbiter for such complaints. That party is the one that set the requirements for the permit or license and would have the interest and responsibility to see that the requirements are being adhered to. I am proposing this approach as a concept that I hope others on the Council will evaluate and improve. One of the issues that would have to be addressed is how this activity would be financed.

As one example of how this might be drafted, I am providing the section from the TOWN OF UNION, ROCK COUNTY, WISCONSIN ORDINANCE NO.2008-06, WIND ENERGY SYSTEMS LICENSING ORDINANCE that was previously provided to the Council. It can be found at <http://www.tn.union.wi.gov/docview.asp?docid=4904&locid=173>.

I am not proposing this language for adoption by the Council, but to illustrate how such a provision might read and to stimulate suggestions for an improved process that is efficient and equitable. It is hard to see the process in the draft rules as either efficient or equitable.

1. 20.01 VIOLATIONS AND PENALTIES; COMPLAINTS AND MODIFICATION, SUSPENSION OR REVOCATION OF LICENSE

- a. (a) Violations of This Ordinance. It shall be unlawful to construct or operate any WESF or part thereof in violation of any provision of this Ordinance, a WESF License, or a WESF License Agreement. Any person who violates or fails to comply with any provision of this Ordinance, a WESF License or a WESF License Agreement shall, upon conviction thereof, be subject to forfeitures of not less than \$250.00 and not more than \$700.00, and shall pay all costs and expenses of enforcement, including attorney and other fees incurred by the Town. Each day a violation exists or continues shall constitute a separate offense.

(b) Complaints and Modification. Revocation or Suspension. The Town Board shall retain continuing jurisdiction to modify, suspend or revoke all WESF Licenses in accordance with this section. Such authority shall be in addition to the Town's authority to prosecute violations and take other enforcement action.

1. In this section, "violation" means a violation of this Ordinance, or a violation of a WESF License issued under this Ordinance, or a violation of a WESF License Agreement entered into under this Ordinance.

2. Any resident of the Town or Town official may file a written complaint with the Town Clerk alleging that a WESF Licensee has committed or is committing a violation. Such complaints shall be forwarded to the Town Plan Commission.

3. The Town Plan Commission shall preliminarily review the complaint. In connection with its preliminary review, the Town Plan Commission may require the Town building inspector, engineer, attorney or other person or persons to conduct such investigations and make such reports as the Town Plan Commission may direct. The Plan Commission may request information from the holder of a WESF License, the complainant, and any other person or entity to assist with its preliminary review.

4. Following its preliminary review, the Town Plan Commission may:

a. Dismiss the complaint;

b. Refer the complaint to the Town attorney for prosecution; or

c. Conduct a hearing to determine whether the alleged violation(s) have occurred, and what remedial action should be taken. Prior to such hearing, notice of the hearing shall be given to the holder of the WESF Licensee and the complainant, and in accordance with the Open Meeting Law. The holder of the WESF License and the complainant, and any other person, may appear at the hearing and may offer testimony and other relevant evidence, and may be represented by any attorney. If the Plan Commission concludes that violations have occurred, the Plan Commission may:

(1) Impose conditions on the WESF License to the extent reasonably necessary to discontinue the violation(s) or avoid any recurrence thereof; or

(2) Suspend the WESF License until such time as the WESF License holder presents a plan, satisfactory to the Plan Commission, that will discontinue the violation(s) or prevent any recurrence thereof, and on such further conditions as the Town Plan Commission deems appropriate to discontinue and prevent further violations; or

(3) Revoke the WESF License and direct decommissioning of the WESF, if the Town Plan Commission concludes that no reasonable modification can be made to the WESF to discontinue or prevent violations; or

(4) Refer the matter to the Town attorney for prosecution, subject to Town Board approval; or

(5) Take no action, if the Town Plan commission concludes that no

further action is needed to discontinue or prevent violations,
and that prosecution is unwarranted.

d. Following any such hearing, the Plan Commission's written decision shall be furnished to the WESF License holder and to the complainant. An appeal from a decision of the Town Plan Commission may be taken to the Town Board as provided in this section.

e. An appeal from the decision of the Town Plan Commission may be taken to the Town Board by the WESF License holder or a complainant. Such appeal must be in writing and must specify the grounds thereof, and must be filed with the Town Clerk within ten days after the final action of the Town Plan Commission. The Town Clerk shall provide any appeal to the Town Board. The Town Board shall fix a reasonable time for the hearing of the appeal, and shall give public notice thereof as well as due notice to the WESF Licensee and the complainant. The action of the Town Plan Commission shall be sustained unless the Town Board, by a favorable vote of the majority of all members of the Town Board, reverses or modifies the Town Plan Commission's determination. An appeal from a decision of the Town Board shall be by certiorari review, which shall be commenced within 30 days after the decision of the Town Board.

An explanation of a 35 dBA recommendation for the Wind Siting Council
Doug Zweizig

As had been pointed out, it is not the mission of the Wind Siting Council to promote the development of wind energy systems in Wisconsin, though it may be the individual interest of Council members. I would state my intention for the Wind Siting Council to be broadly protective of the health and welfare of Wisconsin residents and supportive of wind energy development that will gain community acceptance. I am also mindful of the requirement from Act 40 that:

The subject matter of these rules shall include setback requirements that provide reasonable protection from any health effects, including health effects from noise and shadow flicker, associated with wind energy systems.

"Any health effects" gives the Public Service Commission the responsibility to be broadly protective of health, not just to address health effects that are verified as the direct results of exposure to wind turbine noise.

Since I am not in favor of the sound standard favored by the majority (50 dB day/45 dB night) and have proposed a standard of 35 dB day/30 dB night and have said that I had a basis for this standard, I feel obligated to provide that basis. (I would be very interested to learn the reasoning from someone who supports the higher standard.) This is something like the process I used to determine my position:

Decide if there is a problem with the sound from wind turbines

How do we know that sound from large wind turbines might be a problem? Evidence that people are disturbed by the sound level produced by large wind turbines sited too close to homes is found in the reports of persons suffering their effects that can be found on the docket and in hearings testimony. It is found in the experiences reported to the Council by Larry Wunsch and Gerry Meyer. I have heard it myself in Gerry Meyer's farm yard during the day—and reports are consistent that the sound is a particular problem at night, and that daytime sounds are mild in comparison (See, for example, Pedersen & Waye, "Wind Turbines—low level noise sources interfering with restoration?," *Environmental Research Letters*, 3, January-March 2008.). We have reports from a variety of wind turbine installations that the symptoms that seem linked to the turbines go away when people leave the area, only to return when they come home again.

So it is not necessary for us to turn toward scientific literature to determine if there is a problem (and Act 40 does not limit the Wind Siting Council to consideration of scientific literature). Residents have been complaining for some time. In this state, we have instances of people abandoning their homes because the conditions are intolerable, and Wisconsin has hundreds of families living proximate to wind farms who could be studied if only we had the interest or the will (See the epidemiologist Carl Phillips' report on the docket).

The answer seems to be "Yes, the sound should certainly be under suspicion as a problem," and it would seem prudent ("reasonable") to be cautious in siting wind turbines until we are reasonably certain that our decisions will not cause harm.

Those who want to downplay the effects of wind turbine sound will point to negative attitudes towards wind turbines as the explanation for being affected by sound. There are two counters to that argument. The first is that the data regarding attitude and annoyance from sound to date have shown only that the two are related. We do not know which comes first, annoyance or attitude, and we certainly cannot say that one causes (or even influences) the other. The second counter to the argument is the experience at Vinalhaven, an island in Maine. This island wanted an independent source of power, and islanders were eager to have three 1.5 mW turbines installed, but the problems were immediately evident when the turbines were turned on, so positive attitude toward wind turbines did not prevent islanders from experiencing the negative effects (see <http://mainebusiness.maintoday.com/story.php?hcode=pph&id=311094>).

Decide if it makes a difference

A question to ask is whether there is an important difference between the two standards, a difference that would affect the lives of persons living adjacent to large wind turbines. I have based my recommendation in part on the level of the background sound found in rural areas. Most estimates of ambient sound in rural areas are around 20-25 dB at night. This would make a level of 45 dB to be at least 20 dB louder. Given the logarithmic scale used for decibel measurement, that would mean a four-fold increase of sound volume, and the wind turbine noise would become the dominant sound. This is an unwarranted imposition on a neighbor from a landowner with a wind turbine. I think that anyone would be awakened and disturbed by such an increase in sound volume, particularly those who have chosen to live in a quiet rural environment. People living in

an urban area may be accustomed to nighttime sound levels of 50dB and be able to sleep just fine. However if their sound level was elevated by 20dB to 70dB, the difference would be clearly heard, and sleep disturbance would most likely occur for a significant number.

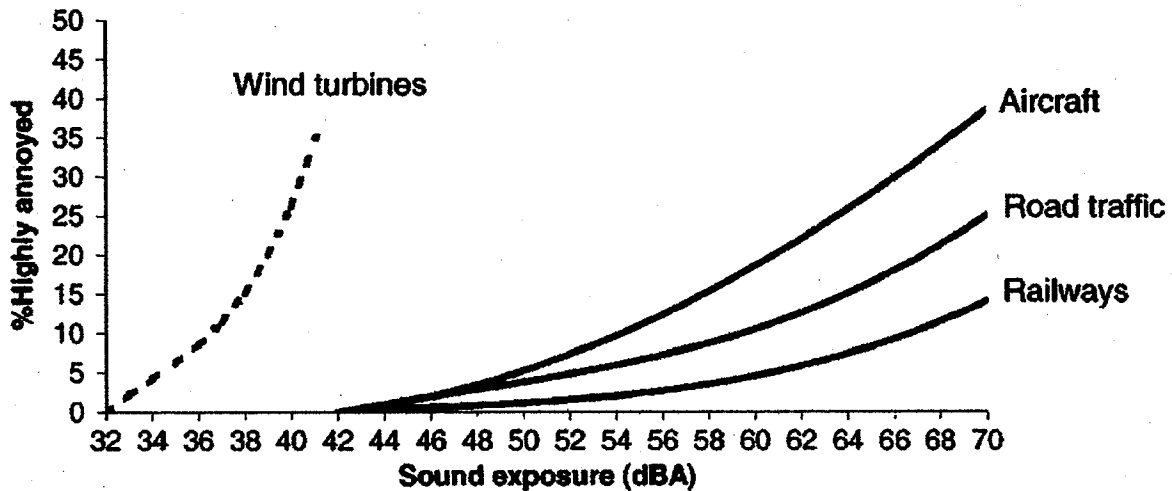
Consider what qualified persons have said

The World Health Organization's "Night Noise Guidelines for Europe," 2009 gives the following recommendation:

For the primary prevention of subclinical adverse health effects related to night noise in the population, it is recommended that the population should not be exposed to night noise levels greater than 40 dB of $L_{night,outside}$ during the part of the night when most people are in bed.

This sound level is for sound generally, and not considering what sound level would be appropriate for wind turbines. It is generally accepted, based on investigations, that the sound from wind turbines has characteristics that make it annoying at levels lower than for other environmental sounds. The following chart shows 10% of the population being "highly annoyed" at around 36 dBA, where road traffic would need to be at 58 dBA, or about 5 times as loud for the same percentage of people to be highly annoyed.

Annoyance associated with exposure to different environmental noises



Reprinted with permission from Pedersen, E. and K.P. Waye (2004). Perception and annoyance due to wind turbine noise—a dose-response relationship. *The Journal of the Acoustical Society of America* 116: 3460. Copyright 2004, Acoustical Society of America.

Found in *Public Health Impacts of Wind Turbines*, Prepared by: Minnesota Department of Health, Environmental Health Division, In response to a request from:

Minnesota Department of Commerce Office of Energy Security, May 22, 2009.

Some of the characteristics of wind turbine sound that may explain this difference have been identified. Richard Horonjeff's paper that is on the docket cites EPA guidelines that indicate a 10 dB correction for sound in a quiet rural setting and a 5 dB correction for an unfamiliar sound source, so the EPA guidelines (also adopted by ANSI) would lower a standard for conventional sound by 15 dB. Other characteristics are:

- the low frequency component of the sound (underestimated by the dBA scale),
- its pulsating nature,
- lack of control over the sound,
- its continually changing as wind speed and direction change over the nighttime hours, making turbine noise impossible to get "used to," and
- its duration ("the jet plane that never leaves").

These particular characteristics of wind turbine sound should lead to more conservative standards in order to be as protective as standards for more conventional sounds, so the WHO recommendation of 40 dB is probably too high for sound from wind turbines.

The Wind Siting Council has already determined to recommend an absolute noise limit, even though it is the difference in sound levels that captures the attention of a receptor. As has already been shared with the Council, Vestas has a policy that recommends relative noise limits:

Vestas recommends relative noise limits that take into account local background noise levels (where new wind turbines are sited near existing ones, already present turbine noise should not be calculated as part of the background noise). Vestas believes this type of regulation is the most effective and flexible, in that it ensures minimal noise disturbance for wind turbine neighbours while allowing turbines to be located in relatively noisy areas (areas with industry or roads, for example) that are rich in wind resources.

The monitoring of a relative noise limit is apparently feasible since such a procedure is contained in the Public Service Commission's Noise Protocol. Such a standard (at 5 dB over ambient) has been in place since 1998 in New Zealand, has just been renewed, and is supported by the New Zealand Wind Energy Association. It may be worth exploring the flexibility that would be gained from using such a relative noise limit. My recommendation for a 30 dBA sound limit at night was partly based on adding 5 dBA to the expected ambient noise level for rural areas of 25 dBA.

Much of the research we have about the effects of wind turbine sound on populations comes from Europe, where the turbines in the research studies are

considered large at 500 kW. The large turbines we are expecting now start at 1.5 mW, three times as large. "Higher towers push the rotors to heights with stronger winds than found lower down, increasing the time a wind turbine operates and increasing differences between immission levels and the background sound levels of wind-induced noise in bushes and trees, especially at night when the atmosphere is stable for part of the time." (Pedersen et al. "Response to noise from modern wind farms in the Netherlands," *Journal of the Acoustical Society of America*, 126 (2), August 2009, 642.)

A further reason for caution is that siting of wind turbines based on sound limits is done through sound modeling that has been found to overestimate the effects of vegetation on masking sound and the ability of house walls to attenuate low frequency noise (the most disturbing component).

These considerations lead me to recommend a conservative sound limit since a local jurisdiction will not be able to make it more restrictive. Therefore, I think that the Wind Siting Council would be wise to recommend a lower decibel level. Local jurisdictions can always set a higher local standard if that is what the community wants.

October 5, 2010

Dear Legislator,

Is anyone listening? Does anyone care? Please, please hear my small voice.

Just think...if a 50 story (500') high wind turbine were to be sited by your home in town...a 3.1 setback would mean that it could be as close as 1550'. If each home lot had 100' frontage...then that turbine could be as close as 15.5 lots from your home. That would be 2-3 blocks from your home. Imagine that!

If a 30 story (300') high wind turbine were to be sited by your home in town...a 3.1 setback would mean that it could be as close as 930'...9.3 home lots from your home...1-1/2 blocks from your home. Shocking!

Do you think your property values would be the same if those turbines were within 1-3 blocks of your home? Commercial factories with spinning blades causing audible and inaudible sound, turbulence, wake, flicker, etc.

Would you call that turbine so very close to your home a wind energy system...or would you call it a commercial factory that has caused a GREAT IMPACT on your property and way of life?

There are only two buildings in the State of Wisconsin that are taller than 50 story turbines, yet these turbines are permitted to be sited in Wisconsin...amidst precious farmland, dairy and beef animals, forage and cash crops...and humans.

And just think what it would be like to have 100 turbines headed toward where you live? 100 turbines! That's what is happening to the towns of Glenmore, Holland, Morrison and Wrightstown.

In the country, the ground level noise and wind is NOT THE SAME as the noise and wind experienced at the hub of the turbine. During the evening and night in our rural area, there aren't combines, tractors, or constant vehicles on the road, etc. And during the day there aren't combines, tractors, and constant vehicles running either. Most farmland crops sit quietly for 6 weeks to 3 months before harvest. So it's pretty simple to understand why the turbines are heard during the day and night.

The dBA levels approved by the PSCW are absurd. They are also the least restrictive in the world...with the least amount of setback in the world. Rural areas aren't as loud as urban areas, so why would dBA levels for urban areas be considered appropriate for quiet rural areas? WHY IS THAT? Perhaps because turbines would have to be set back further, at least one mile, and then none could be sited in a rural area such as Glenmore.

Have you heard the comments from the wind companies that turbines are as quiet as a whisper in your ear? Really? What human exists or sleeps with someone whispering in their ear all day or night? And the other one...that turbines are as quiet as a running refrigerator...again...who sleeps with a running refrigerator?

In the Town of Glenmore, we live and/or work within one-eighth (or less) to one quarter of a mile from each other. One-eighth of a mile is 660' (6 1/2 100' home lots from your home) and one quarter of a mile is 1,320' (13 100' home lots from your home). As you can see, for a rural area, we are quite populated. We are not the open plains. The proposed setbacks from turbines do not protect humans, places of employment, or properties as suggested by the proposed PSCW rules.

Speaking of humans...did you know that occupied barns...where employees work 5-15 hours per day are not covered as inhabited structures? NOT COVERED! These are occupied places of employment with anywhere from two to 15 (or more) employees! Are they not covered because if setbacks had to include occupied barns...it would prohibit siting wind turbines in these rural towns? The farmers are not protected by the proposed PSCW rules.

In a rural area... aerial crop dusting/spraying is not covered in the siting rules. WHAT? Cash crops need aerial dusting/spraying 3-4 times per year. Sometimes forage crops may need aerial dusting/spraying. Both the Wisconsin and the Illinois Agricultural Aviation Associations in the interest of pilot safety, refuse to make aerial applications inside a grouping of wind generators, or to farmland immediately adjacent to a grouping of wind turbines. Hmmm... will that put farmers out of business if they lose a crop? Who knows what type of crops will be grown in the next 25-30 years? Who knows what types of disease or infestation could occur in the next 25-30 years? Is that why it isn't covered... because the turbine companies would have to pay for lost crops? Crops that require aerial dusting/spraying are not protected by the proposed PSCW rules.

Real estate values won't be affected. WHO, IN ALL FAIRNESS BELIEVES THAT? Envision... a quiet, picturesque country home, surrounded by rolling fields, open sky views... and 100 turbines. Thud... that's the property owner fainting at the loss of equity. Why not implement a simple solution? Appraise the property pre-turbine, use comparable properties recently sold that also don't have turbines... achieve an asking price. The difference in selling price vs. asking price can be the turbine company's share to pay. This process would work no matter what the condition of the economy, because the comparables exist in that economy as well. The property owner is not protected by the proposed PSCW rules.

Have you seen adult men cry? I HAVE. I hear from them (as they have pleading looks in their eyes and tears running down their cheeks) that they have lived in Glenmore for 20 - 30 years, that they pay taxes, keep their home and property according to the ordinances and expectations of their neighbors... and now... they are having their freedom and right to live in their home and on their property in a rural environment the way a rural environment is meant to be enjoyed, compromised by commercial wind factories. I entertain that there will be illness, depression, and possibly suicides over this intrusion. The taxpayer is not protected by the proposed PSCW rules.

Rural residents know they must pay the expense to have a well dug and for all the items necessary to get that water cleanly and safely to their home and/or barns. They realize they are responsible for the cost of construction of a mound or other type of septic system, plus are required to pay to have the system cleaned out every three years. They know how vital it is to protect their wells and septic systems. Uncontaminated groundwater is VITAL. Now we are forced to permit 100 turbine sites to be dug and erected with miles and miles of access roads scraping through farmland and cable trenches being dug... all creating very probable pathways for liquid manure to travel to wells.

Because farms are larger, there is already more liquid manure being spread on less acres of farmland. Add to this, the amount of digging and trenching required for these numerous turbine factories, and it creates a hotbed for well contamination and existing areas of Karst features which are direct pathways for manure and soil runs.

Newly discovered areas of Karst features are to be reported by the turbine companies to the DNR. Manure cannot then be spread on these Karst areas which limits further the ability for farmers to spread liquid manure on already diminishing farmland. And who is going to pay to have the discovery of new Karst features monitored and reported to the DNR? Turbines cannot be sited in Karst areas... so what is the incentive for the turbine company, once they discover a Karst feature, to cease digging and stop erecting that turbine? None... because then they can't site that turbine. The property owner and residents whose wells could be contaminated are not protected enough by the proposed PSCW rules.

Rural residents understand they will be exposed to certain sights and smells... animals, manure on the roads, fermented liquid manure spread on the fields, flies, dust from the fields, etc. They expect the height of a 60' or 80' silo. And now, they are to be exposed to a new sight... 40-50 story high turbines with wide and long access roads slicing through precious farmland. Imagine turbines at every view from your home. The residents expected way of life in the rural area is not protected by the proposed PSCW rules.

Farm land preservation is vital. Heavy consideration is given to any new requests to take farmland, including manure pits, silos, an acre or two for a home... all weighed very heavily... EXCEPT for commercial wind factories. They are permitted to march onto farmland and take up huge amounts of acreage for the turbine site and for access roads... and towns have no say except via health and safety... and the STATE OF WISCONSIN takes that away with mandatory setbacks and sound levels. Farmland is not protected by the proposed PSCW rules.

Infrasound/Infrasonic and Low Frequency Sound exists...period. It's documented. The PSCW won't even touch it. Not everyone feels it in their body, but some of the most vulnerable do. As more turbines are sited throughout the world, the measurement will be gathered and reported to health departments...and then who pays? As the lawsuits come forward, who will be named? The vulnerable are not protected by further setbacks in the proposed PSCW rules.

Flicker...why should any non-participating property be forced to accept even one minute of flicker? A resident purchases their property to enjoy. They should be able to enjoy their entire property...patio, lawn, garden, etc., without flicker. The PSCW provides a minimum of 20 hours INSIDE THEIR HOME before it becomes eligible for mitigation. And what mitigation is suggested...blinds, shrubbery, trees. Why not just put the resident in their basement and lock the door? The resident is not protected by the proposed PSCW rules.

When the day is done, the ONE thing we have left is our home. It's where we live, raise families, rest, relax, re-energize. The proposed PSCW rules do not protect our home.

Best practices are not used by the wind companies. They go door to door in dress-down clothing selling 40-50 story turbines as if it is a set of cookware. They won't disclose why they go behind the scenes, door-to-door instead of at a "storefront" level of disclosure, utilizing best practices.

They often produce false statements that everyone is signing up and you will be surrounded by turbines anyway, so you might as well sign the contract. They also often harass and use pressure methods toward the resident with repeated visits and phone calls even when they have been told no. They have deep pockets and offer money as their prime selling point. Examples include offering \$25,000 for a temporary easement during turbine construction. Another is becoming the mortgage holder of a farmer's property so the farmer could host two turbine sites and obtain yearly payments for 25-30 years. Those are not best practices.

They don't mention that 50 dBA is city noise, not rural noise, that setbacks in the United States are less than the rest of the world. They don't discuss property value impact, blade throw, ice throw, flicker, stray voltage, well contamination, turbulence, audible and inaudible noise, health concerns, concerns for their neighbors, etc. They leave that for the Town Board to address.

And then...they come to the town with the application. The proposed PSCW rules do not protect safety and welfare of residents by requiring the turbine companies come to the town first so the town can ensure neutral information is provided to help educate the residents to this UNFAMILIAR, HUGE, IMPACTFUL development that affects those who chose to participate AND THOSE WHO DO NOT CHOSE TO PARTICPATE.

I realize the need to have renewable energy in place...but why the race to meet a deadline at the cost of innocent rural residents? One should easily realize that each area needs to be checked individually, area by area, town by town, state by state to see what type of renewable energy best fits into that specific environment.

Why would we not err on the side of protecting humans, animals, land, environment, this spinning globe we live on, etc., instead of protecting the "rights" of companies? Erring on the side of health and safety is to everyone's advantage. Start with further setbacks and measure what happens. Who pays to pick up a 40-50 story high turbine on a cement foundation and move it back further? Of course that is absurd.

The question still begs as to why we throw away the measurement obtained from countries throughout the world with lower dBA levels and further setbacks. Or is it because then turbines wouldn't be sited in the populated rural/residential areas? Hmmm.

When our local Health Departments, County Boards of Supervisors, DNR, DATCP, Acoustic Engineers, Professional Engineers, etc., are all writing and speaking to the PSCW and NO ONE IS LISTENING...there is something very, very wrong.

These organizations and professionals request NO TURBINES BE ERECTED in southern Brown County due to Karst features. They request NO SHADOW FLICKER to a non-participating resident on any area of their property be permitted. They request a MINIMUM of ½ mile setback (many request a one mile setback) from the PROPERTY LINE of a non-participating resident. But again...then no turbines would be sited in rural areas in

Glenmore, Holland, Morrison, or Wrightstown. The proposed PSCW rules ignore the health and safety of humans.

Unfortunately something smells really bad here...and it's not the manure of the countryside.

When all is said and done...we only have our good name left.

Please use your good name to step forward and slow things down. While these issues may not be within your reach or scope of job description, I hope you will stand tall and step forward as a human and request and support a thorough review of the proposed PSCW rules so they are not rammed through.

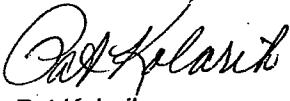
The PSCW minority report and comments by Commissioner Azar help make up that "little voice" that reminds us that all things are "just not right" with the proposed PSCW rules.

Help the PSCW understand that Health and Safety INCLUDES establishing safe RURAL noise limits and safe setbacks to the property lines of Participating and Non-Participating residents. Help the PSCW understand that establishing setbacks and noise limits WITH DISREGARD FOR HEALTH AND SAFETY...is WRONG AND HIGHLY DANGEROUS.

I hope you will also assure that someone actually visits our towns to see how populated they are.

Eyes are watching...

Kindest Regards,



Pat Kolarik
6988 County Road X
Denmark, WI 54208 (Home location is Town of Glenmore.)
920-863-8005
rummajer@gmail.com

PS: Although I write this as a resident of Glenmore, I want to disclose that I also hold a position on the Board of Directors of the Brown County Planning Commission (representing Glenmore and Morrison), as well as the Town of Glenmore Planning Commission.

RESOLUTION NO. 9-07-10
COMMENTS BY KEWAUNEE COUNTY CONCERNING THE DEVELOPMENT OF
RULES FOR WIND ENERGY SYSTEMS
IE HONORABLE KEWAUNEE COUNTY BOARD OF SUPERVISORS:



- 1 **WHEREAS**, The Kewaunee County Board of Health held a discussion on comments prepared and
2 endorsed by the Towns of Mishicot, Two Creeks, Two Rivers, Carlton, and West Kewaunee; and
3
4 **WHEREAS**, based upon the discussion of the Board of Health, the Chairperson of the Board of Health
5 recommends the Kewaunee County Board of Supervisors concur and endorse the following comments
6 and concerns regarding the May 14, 2010 draft of Chapter 128 rules for wind energy systems: 7
8 1. Setbacks for wind turbines should be taken from the property line of the adjoining non-
9 participants; 10
11 2. Setbacks for wind turbines should be large enough so as not to create shadow flicker or
12 excessive ambient noise on adjacent property, a minimum of 2,640 feet; 13
14 3. Setbacks for wind turbines should be large enough not to create a loss of wind or property
15 rights for the adjoining property; 16
17 4. The estimated decommissioning expenses should be backed by a Bond Fund from the
18 Developer; 19

20 5. Transportation expenses should also include damage caused to roads from the
 21 decommissioning of the wind turbines; and
 22
 23 6. EMS - Emergency Communication Interference caused by Wind Turbines should be
 24 corrected by the Developer in conjunction with the political sub-divisions within one year.
 25
 26 **NOW, THEREFORE, BE IT RESOLVED**, by the Kewaunee County Board of Supervisors duly
 27 assembled this 19th day of July, 2010, that the Board concurs and endorses the comments and concerns
 28 expressed above; and 29
 30 **BE IT FURTHER RESOLVED**, the County Clerk shall send a copy of this resolution to: The Public
 31 Service Commission of Wisconsin, Governor James Doyle, Rep. Garey Bies, Rep. Ted Zigmunt, and
 32 Sen. Alan Lasee.

Respectfully Submitted,

/s/Linda Sinkula, Chairperson Board of Health
 Further supported and submitted by:
APPROVED AS TO FORM
 Jeffrey R. Wisnicky Corporation Counsel

FISCAL IMPACT STATEMENT:

	Y	N	A	A
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Abrahamson, J.				
Barlow, J.				
Cravillon, D.				
Dax, B.				
Delebreau, D.				
Garfinkel, R.				
Heidmann, B.				
Huizenga, M.				

Hutter, C.				
Kirchman, L.				
Koenig, L.				
Mayer, D.				
Papham, B.				
Reckelberg, G.				
Roethle, W.				
Shillin, K.				
Sinkula, L.				
Swoboda, J.				
Wagner, C.				
Weidner, R.				
TOTALS				

Public Service Commission of Wisconsin (PSC)

Submitted: 7/5/2010 5:54:35 PM

COMMENTS FILED ELECTRONICALLY IN

Wind Siting Rules

1-AC-231

Commentor Information:

Name: Curt Hilgenberg
Address: 7312 Holly-Mor Rd
City: Greenleaf State:WI Zip:54126

Comment:

What does Al Haas, a farmer in Fon du Lac County, think of the noise issue from industrial turbines on his farm? Below are some comments he made to a Fox 11 reporter.

"Not these big, industrial turbines. They just don't belong here," said Al Haas, a farmer in the Fond du Lac County town of Malone.

Haas has three turbines spinning on his farmland. He makes about \$15,000 a year just for having them there. That's a nice side income with no extra work involved.

"We were told we would basically be able to farm right up to it. We were told there would be basically no land loss to speak of, it just sounded like a good deal," said Haas.

That extra money? Haas now says it isn't worth it. He blames the wind turbines for damaging his crops and interfering with his TV reception.

But his main complaint is the noise. He says it keeps him up at night and has led to stress.

"It can sound like a freight train going through the other end of town. The problem is that freight train don't have a caboose. It don't stop. It just keeps rolling and rumbling on and on and on, for hours and hours," said Haas.

To see the whole story, go to <http://www.fox11online.com/dpp/news/wind-blowing-storm-strong-opinions>

I affirm that these comments are true and correct to the best of my knowledge and belief.
Curt Hilgenberg

Public Service Commission of Wisconsin (PSC)

Submitted: 7/5/2010 12:52:07 PM

COMMENTS FILED ELECTRONICALLY IN

Wind Siting Rules

1-AC-231

Commentor Information:

Name: Curt Hilgenberg
 Address: 7312 Holly-Mor Rd
 City: Greenleaf State: WI Zip: 54126
 E-mail: curthilg@yahoo.com

Comment:

Wind energy slackers?

According to Barnaby Dinges, a member of the American Wind Energy Association and the President a wind energy consulting group who will likely profit from lenient turbine siting rules, when it comes to wind energy "Wisconsin is already an energy slacker. Wisconsin is behind every other Midwest state in wind development, except Michigan which is gaining fast." [1]

According to the 2004 report by the Energy Center of Wisconsin, "Eastern Wisconsin has smaller farms and higher rural population density making it less suitable for successful wind projects." [2]
 According to the DOE, Wisconsin ranks 1 - 2 on a 7 point scale on the DOE wind power classification. A poor to marginal rating. Class 4 and above are considered good resources for powering industrial size wind turbines. [3]

Wisconsin has higher rural population density.

Wisconsin has smaller farm sizes.

Wisconsin has poor wind resources.

Does it make sense for Wisconsin to keep up with states like Illinois, Indiana, Iowa, Ohio, Minnesota and the Dakotas in wind energy development? The obvious answer is no! It makes sense to generate wind powered electricity where the wind quality is good and the rural population is low. This makes sense in both economic returns for the developers and in impact to the people living in the area

Using 90 turbine sites of the Glacier Hills as an example;

- 15 are sited less than 1250 feet from a non-participating residence.
- 39 are sited less than 1500 feet from a non-participating residence.
- 60 are sited less than 2000 feet from a non-participating residence.
- 81 are sited less than 2500 feet from a non-participating residence.

This as a tremendous burden placed upon the non-participation residents. The development of industrial size wind turbines in Wisconsin is not being done with the safety of the residents in mind. They are being shoehorned into the small spaces available with complete disregard for the people in the area. Build them where they make sense, and where they won't harm the people already living there.

Using Mr. Dinges' line of thinking, Wisconsin is also a slacker when it comes to oil wells, gold mines, and ocean front condos. It only makes sense to develop the resources that we have in Wisconsin. If industrial wind development is not a good fit (and it isn't) then don't force it upon unwilling rural communities. What happened to the democratic process when the State of Wisconsin, a developer and a few land owners decide the fate of the majority of the people living in the area?

What if Wisconsin remains a wind energy slacker when it comes to industrial size turbines and instead uses the millions of dollars in wind energy subsidies and develops a small roof top wind system that wouldn't negatively impact the rural countryside? We already have several top notch engineering schools in Wisconsin, let's give them some research projects.

What if Wisconsin remains a wind energy slacker, but becomes a leader in electricity conservation? How much electricity would be saved if every incandescent light bulb in the state were replaced with LED bulbs? Again, we could use the wind energy subsidies' to further development the LED technology and bring down the cost to an affordable level.

Like the old saying, if the only tool in the toolbox is a hammer, every problem becomes a nail. Industrial wind turbines scattered over the entire state and negatively impacting the lives of thousands of families in Wisconsin should not be the only tool. Use wind where it makes sense. Use conservation, geo thermal, solar, etc. where wind is not a good fit.

[1] http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=133945, page 5.

[2] <http://www.ecw.org/prod/231-1.pdf>

[3] http://www.windpoweringamerica.gov/maps_template.asp?stateab=wi

I affirm that these comments are true and correct to the best of my knowledge and belief.
 Curt Hilgenberg

Public Service Commission of Wisconsin (PSC)

Submitted: 7/5/2010 5:57:33 PM

COMMENTS FILED ELECTRONICALLY IN

Wind Siting Rules

1-AC-231

Commentor Information:

Name: Curt Hilgenberg
 Address: 7312 Holly-Mor Rd
 City: Greenleaf State:WI Zip:54126

Comment:

I'd just like to site a recent article from the Wall Street Journal from March 1, 2010.

March 1, 2010 by Robert Bryce in Wall Street Journal

People living near turbines increasingly report sleep deprivation, headaches and vertigo. The wind lobby says there's no proof

Imagine this scenario: The oil and gas industry launches an aggressive global drilling program with a new type of well. Thousands of these new wells, once operational, emit a noxious odor so offensive that many of the people living within a mile of them are kept awake at night. Some are even forced to move out of their homes. It's easy to predict the reaction: denunciations of the industry, countless lawsuits, and congressional investigations.

Now substitute wind for oil and gas and consider the noise complaints being lodged against wind projects around the world.

The Obama administration has made the increased use of wind power to generate electricity a top priority. In 2009 alone, U.S. wind generation capacity increased by 39%. But more wind power means more giant turbines closer to more people. And if current trends continue, that spells trouble.

In 2007, a phalanx of wind turbines were built around Charlie Porter's property in rural northern Missouri. Soon, Mr. Porter began to have trouble sleeping. So did his wife and daughter. The noise, he told me, made sleeping almost impossible. "We tried everything-earplugs, leaving the TV station on all night." Nothing worked. Late last year he moved his family off their 20-acre farm.

Mr. Porter's story is no isolated event. Rural residents in Texas, Maine, Pennsylvania, Oregon, New York, Minnesota, Wisconsin, Canada, New Zealand, Australia, France and England have been complaining about the noise from wind turbines, particularly about sleep deprivation. Dozens of news stories-most of them published in rural newspapers-have documented the problem.

I've spoken to nine other people in New York, Wisconsin, Ontario, New Zealand, Nova Scotia and England who live, or lived, near wind turbines. All complained of the noise, with sleep deprivation being the most common complaint. For example, Janet Warren, who raises sheep near Makara, New Zealand, told me via email that the turbines near her home emit "continuous noise and vibration," which disturb her sleep and are causing "loss of concentration, irritability, and short-term memory effects."

Complaints about sleep disruption-as well as the deleterious health effects caused by the pulsing, low-frequency noise emitted by the giant turbines-are a central element of an emerging citizen backlash against the booming global wind industry.

Lawsuits that focus on noise pollution are now pending in Maine, Pennsylvania and New Zealand. In New Zealand, more than 750 complaints have been lodged against a large wind project near Makara since it began operating last April. The European Platform Against Windfarms lists 388 groups in 20 European countries. Canada has more than two dozen antiwind groups. In the U.S. there are about 100 such groups, and state legislators in Vermont recently introduced a bill that will require wind turbines be located no closer than 1.25 miles from any residence.

In theory, big wind projects should only be built in desolate areas. But the reality is that many turbines are being installed close to homes. Wind developers put a turbine within 550 meters of Mr. Porter's house. Hal Graham, a retired office manager in Cohocton, N.Y., complains about the noise pollution caused by a turbine 300 meters from his home. Tony Moyer, a plumbing superintendent in Eden, Wis., grumbles about the noise generated by three turbines built within 425 meters of his house.

Doctors and acoustics experts from the U.S. to Australia report a raft of symptoms that they blame on wind turbine noise, including sleep disturbance, headaches and vertigo. Dr. Nina Pierpont, a pediatrician in Malone, N.Y., has studied 36 people affected by wind turbine noise since 2004 at her own expense. The people she interviewed were widely dispersed; they lived

in the U.S., Canada, England, Ireland and Italy. She found that the collection of symptoms she calls "wind turbine syndrome" disappeared as soon as people moved out of their noise-affected homes and into new locations at least five miles from any turbines.

Across the border, Ontario-based orthopedic surgeon Dr. Robert McMurtry has been researching wind turbine noise for the past 18 months. Dr. McMurtry, a fellow of the Royal College of Physicians and Surgeons of Canada, counts more than 100 people in Ontario he believes are experiencing adverse effects from turbine noise. "It has compromised their health," he says.

The wind lobby has publicly rejected these claims. In December, the American Wind Energy Association in conjunction with the Canadian Wind Energy Association, issued a report titled "Wind Turbine Sound and Health Effects: An Expert Review Panel." It declared: "There is no evidence that the audible or sub-audible sounds emitted by wind turbines have any direct adverse physiological effects." It also suggested that some of the symptoms being attributed to wind turbine noise were likely psychosomatic and asserted that the vibrations from the turbines are "too weak to be detected by, or to affect, humans."

Yet the report also noted that in "the area of wind turbine health effects, no case-control or cohort studies have been conducted as of this date." True enough-but it means there are no studies to prove or disprove the case. It also says that "a small number of sensitive people" may be "stressed" by wind turbine noise and suffer sleep deprivation. But who gets to define "sensitive" and "small number"? And if turbine noise and sleep disturbance aren't problems, then why are people in so many different locations complaining in almost identical ways? Such questions are only going to be pressed with more urgency in the future.

By 2030, environmental and lobby groups are pushing for the U.S. to produce 20% of its electricity from wind. According to the Department of Energy, meeting that goal will require the U.S. to have about 300,000 megawatts of wind capacity, an eightfold increase over current levels. Installing tens of thousands of new turbines inevitably means they'll be located closer to populated areas.

The health effects of low-frequency noise on humans are not well understood. The noise in question often occurs at, or below, decibel levels that are commonly considered a public nuisance. And detecting low-frequency noise requires sophisticated acoustic gear. For all of these reasons, this issue should be investigated. If policy makers are serious about considering all of the impacts of "green" energy, then an impartial, international study of the effects of wind turbine noise should be undertaken without delay.

Mr. Bryce is the managing editor of Energy Tribune. His fourth book, "Power Hungry: The Myths of 'Green' Energy and the Real Fuels of the Future," will be published in April by PublicAffairs.

Web link: <http://online.wsj.com/article/SB100014240527487042...>

I affirm that these comments are true and correct to the best of my knowledge and belief.
Curt Hilgenberg

Testimony for the public hearing of the Committee on Commerce, Utilities, Energy, and Rail on October 13, 2010

My name is Elaine B Strassburg. I am retired, the widow of a Vietnam veteran whose death in 1995 was service-connected and I appreciate the opportunity to give testimony today. I want state legislators and regulators to understand the concerns of an ordinary citizen who might find 400 ft or higher wind turbines within 440 ft of her property. I live in Union Township (Rock Co) on Cty Rd C where EcoEnergy had requested permission to build three wind turbines. My testimony will be a combination of comments and questions of state legislators and regulators for their consideration and response.

I am incredulous at the recommendations of the Wind Siting Council (Council) to the extent I conclude the Council was stacked with proponents of the wind energy industry. I also ask if legislators and regulators feel so pressured to achieve the alternative energy goals by 2015 that they have not given due consideration to the careful work done by townships such as Union in preparing their local ordinances. If local governments are competent to handle local zoning issues and to adopt individualized Smart Growth Plans (SGP), then why are they not competent to address wind turbine siting issues? With one fell swoop, and only after the wind industry complained, state legislators turned face and wasted a year and a half of effort, talent and expense in Union Township in addition to impacting the SGPs. Legislators should be ashamed at this

Wisdom does not reside alone in the industry. Need I say more than "BP" and their earlier assurances of safe practices and, then, our belated recognition that federal legislators and regulators were too cozy with and/or too influenced by the industry? Ditto for the financial investment industry that has left our economy in tatters. Ditto for the pressure applied by the ethanol industry a decade ago and our belated recognition that net energy gain is not great. Ditto for the hoopla in Evansville several years ago over a bio-diesel facility and the significant investment losses by friends.

I support wind turbines where they are economically feasible (as I will be among those paying for them) and where those who will be living in close proximity are protected physically, emotionally, health-wise and financially. I see nothing in the proposed guidelines that provides me assurance of this. In fact, I am incensed at the lack of attention by state government, regulators and the wind industry to the plights of others who already are suffering health effects and loss of property values. Why should I feel other than deeply concerned and frustrated that I could find myself in similar circumstances when state government and wind energy companies have done little, or nothing, to address existing grievances?

As for financial issues, the Council concluded that there is no loss of property value. I have no acquaintances who would prefer a rural, Victorian home close to a 400+ ft turbine. This is bolstered by a recent realtors' association newsletter showing evidence of decreases in values of homes near turbines, over and above the nationwide decrease in values. I am a retiree and one of my significant assets is my home. Union Township

would also suffer decrease in property tax dollars. How can you accept guidelines that provide no protection to individuals and local governments in this regard?

Beyond financial issues, these turbines sling ice during the winter far greater than 440 ft. What compensation do I receive for property damage from ice and to what lengths do I go to get this compensation? What if the work to place the foundation in bedrock affects the quantity and quality of my well water? What if the structure falls over, catches fire, etc.?

With regard to health issues, a single medical expert proclaimed that wind turbines present no adverse health issues. I know from my own readings, in addition to the work of the Union Township committee, that there are dissenting scientists. And, again, how can you ignore those citizens who have been suffering several years from excessive, continual noise and flickering? Isn't this how the problems with stray voltage from power lines started --- by arrogant dismissal of farmers for claiming it harmed their cattle? **Please pay attention to these residents before you proceed further.**

And why would the Public Service Commission rule that any scientific studies must be presented by the originator of the study? Isn't scientific progress built on the work of other scientists and hasn't publication in a reputable journal sufficed? This does not pass either the common sense or the smell test. In fact, did the lone medical expert present other than his own original work?

Excessive noise is clearly a health problem. Based on their 18 months of study, the Union township committee concluded that the noise level should not exceed 35 dbs. We each have different sensitivity to noise so that might still be more than I'd prefer, but 45 and 50 dbs in the country is unacceptable. Further, the repetitive or rhythmic sound of the blades can be especially bothersome.

Achieving an acceptable sound level in the country is a major reason the Union township committee recommended placement no closer than half a mile. Some residents in the Fond du Lac area hear a continual jet-engine noise from turbines over a mile away. And what relief is there for a property owner when the turbine exceeds the noise maximum? Who will bear the burden of proof and the cost of doing so? Should the turbine be torn down because it exceeds the maximum? I was told by EcoEnergy they can't provide complete assurance of sound level before placement; shouldn't placement, then, be at a distance that provides adequate assurance? Why should this risk be on the resident?

With regard to shadow flicker, blinds are offered as a compensation. What thoughtfulness! I have a sunroom facing west toward the potential turbines. I need more afternoon sun, particularly in the winter, so receiving blinds as a remedy is farcical. Blinds on all west windows in my house would be like living in a cave. I'm also aware that in some instances, blinds are insufficient to block the flicker.

As for the density and height of turbines, there is nothing in the guidelines as to limits. I know that 500 ft turbines are now being installed and EcoEnergy would give no

assurance several years ago there would be only three turbines. It is hard to explain the immensity of these structures. As a comparison, at 400 ft they are 40 story structures; they are half again as tall as the state Capitol. They are industrial-size structures and my township has had its authority to control their siting taken away. In essence, the Smart Growth Plan plan has been gutted. That plan, by the way, had the goal of preserving "the rural character of the township."

At 440 ft from my property, a turbine is all I could see if I looked in its direction --- and there is nothing in the guidelines to prevent them from completely surrounding my property. There are probably as many, or more, individual residences in Union as there are farms. Structures of this size, and higher, will destroy the goal of the Smart Growth Plan and will divide this community. Industrial-size turbines should never be in a rural/residential area.

As for community divisiveness, that is occurring elsewhere where turbines are installed and will have a much greater impact on the long-term economic health and the livability of a community than the short-term economic benefit of constructing turbines. As far as leases helping to retain farms, unless the density is such that the farmland is replaced by turbines, I doubt the leases will retain a marginal farmer, nor should they, and I suspect my neighbors, who operate large farms well, are not in need of the level of payments offered.

The goal of achieving more alternative energy is a good one but I hope this hearing gives pause for considering more than just these guidelines. We should look at options more efficient and less divisive. How many individually-owned small turbines could be placed on rural properties for some of the tax benefits and other incentives that the large companies are getting? I'm interested in a small wind turbine but not when there is the possibility of large turbines near me. And wouldn't many small turbines and other options still provide an economic boost? And why not replace corn grown for ethanol with the much more ecologically beneficial perennial grasses such as the switch grass growing in my 3 acres of native prairie? Another way to benefit the environment and help farmers would be incentives for more manure digesters. And shouldn't we have a greater emphasis on energy conservation? I should have 500 ft turbines 550 feet from my property so that others can buy 50" energy—gobbling plasma TVs?

Neighbors have indicated we need to get used to change. I doubt they have accepted the change I've adjusted to --- the drafting of my husband two months after our marriage and the resulting separation and then suffering through a five-year terminal illness from multiple myeloma due to use of Agent Orange. This aging property, at least 126 years old now, was purchased in 1979 because my husband saw it as our dream home in the country. After years of sweat equity renovating it, maintaining it, raising three children in it, being good neighbors and active community participants, it is a home of wonderful memories and I want to live here until I can no longer care for it. It would grieve me to move but living surrounded by these behemoths is one change I cannot accept. I will accept the greater good and move if it's decided turbines of any size and quantity should

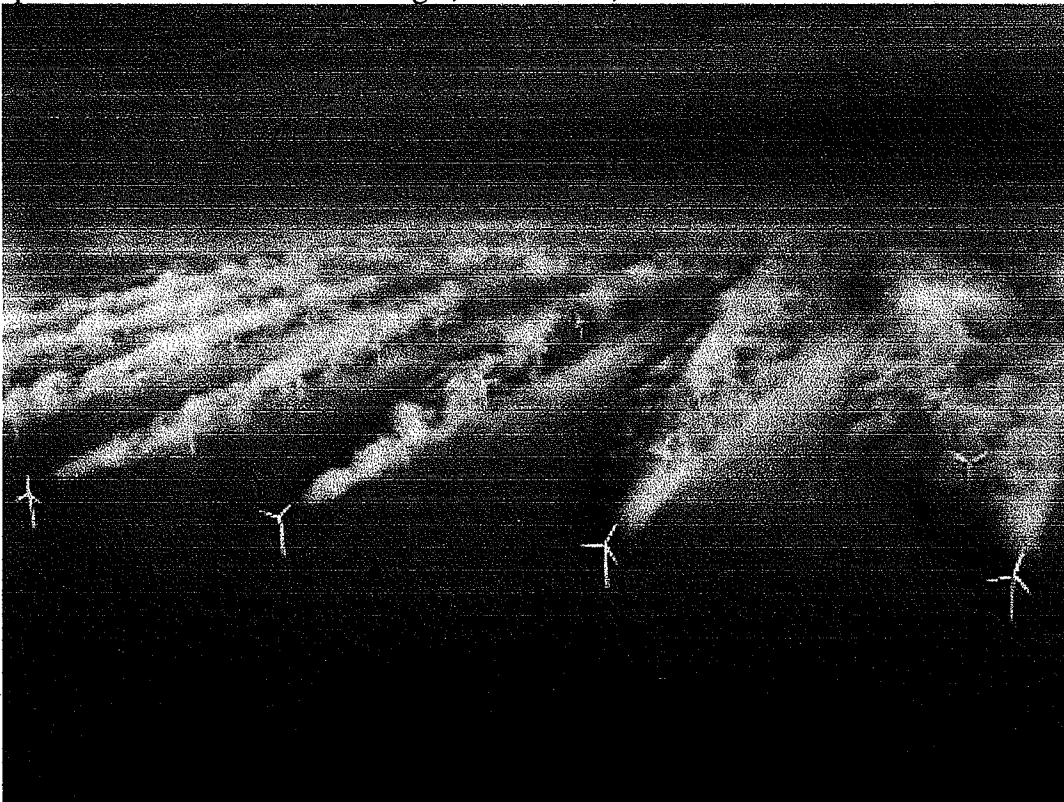
be placed here but not without making the comments in this testimony and not without assurance that my sacrifice of my home does not also mean a financial sacrifice.

Elaine Strassburg
16826 W. Cty Tk C
Evansville,
WI 53536
(608) 882-6590

To: The Senate Committee on Commerce, Utilities, Energy, and Rail
From: Kevin Kawula, Natural Area Restorationist, Owner and Operator of Lone Rock
Prairie Nursery, Rock County Parks Volunteer, Town of Spring Valley Zoning
Board Secretary, Rock County Conservationists Board Member, Concerned Citizen.
Re: PSCW Wind Siting Rule 128, and Addressing
the absence of a Wildlife Representative on the Wind Siting Council.

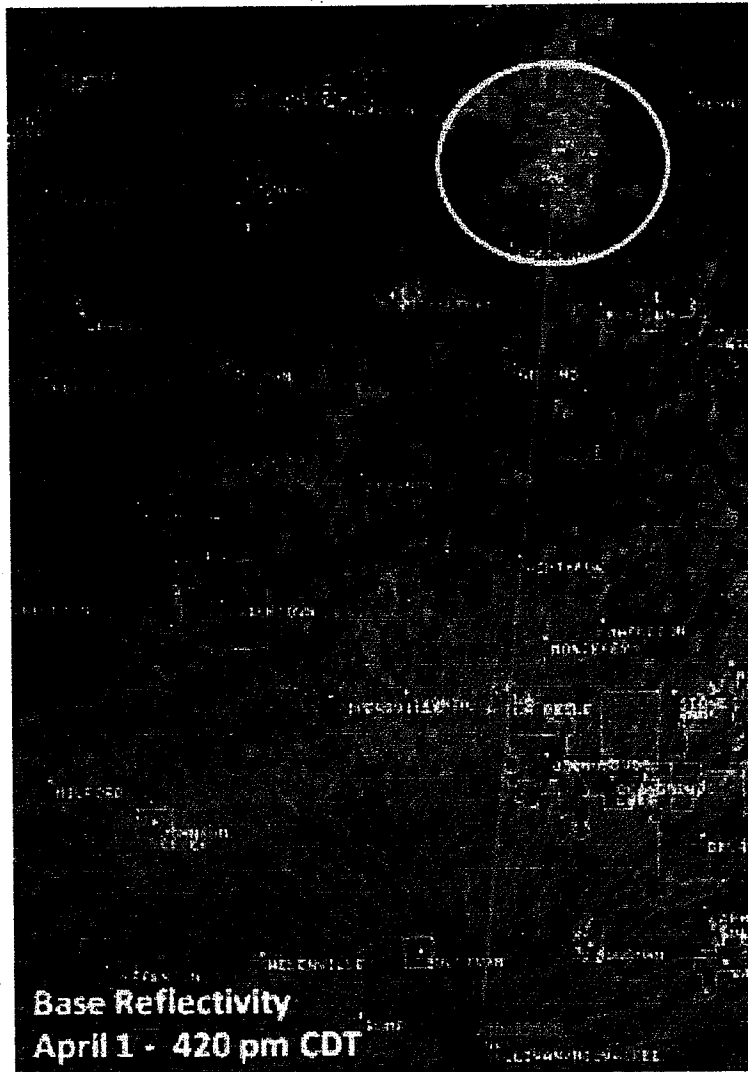
I would like to address PSC Rule 128 first

What PSC Rule 128 does not address is the inherent and obvious trouble with industrial scale wind energy, the size of the machines. Spinning something the size of a 747 or larger will have definite physical impacts. For every action, there is an equal, and opposite reaction. Please look at the image below. Will the effects of these industrial wind turbines be captured within 3.1 times their height, or around 1,240 feet? No.



Denmark Wind Project at Sea, Turbulence and Wake expressed in clouds and mist.

These physical effects of industrial wind turbines are also captured by weather radar, but the false reading/interpretation of these radar images as storms or tornados, may be overshadowing the very real and physical wind turbine impact areas represented by the images. It would be useful to have these weather radar images reviewed to help assess what wind turbine wakes are exacting on a community.



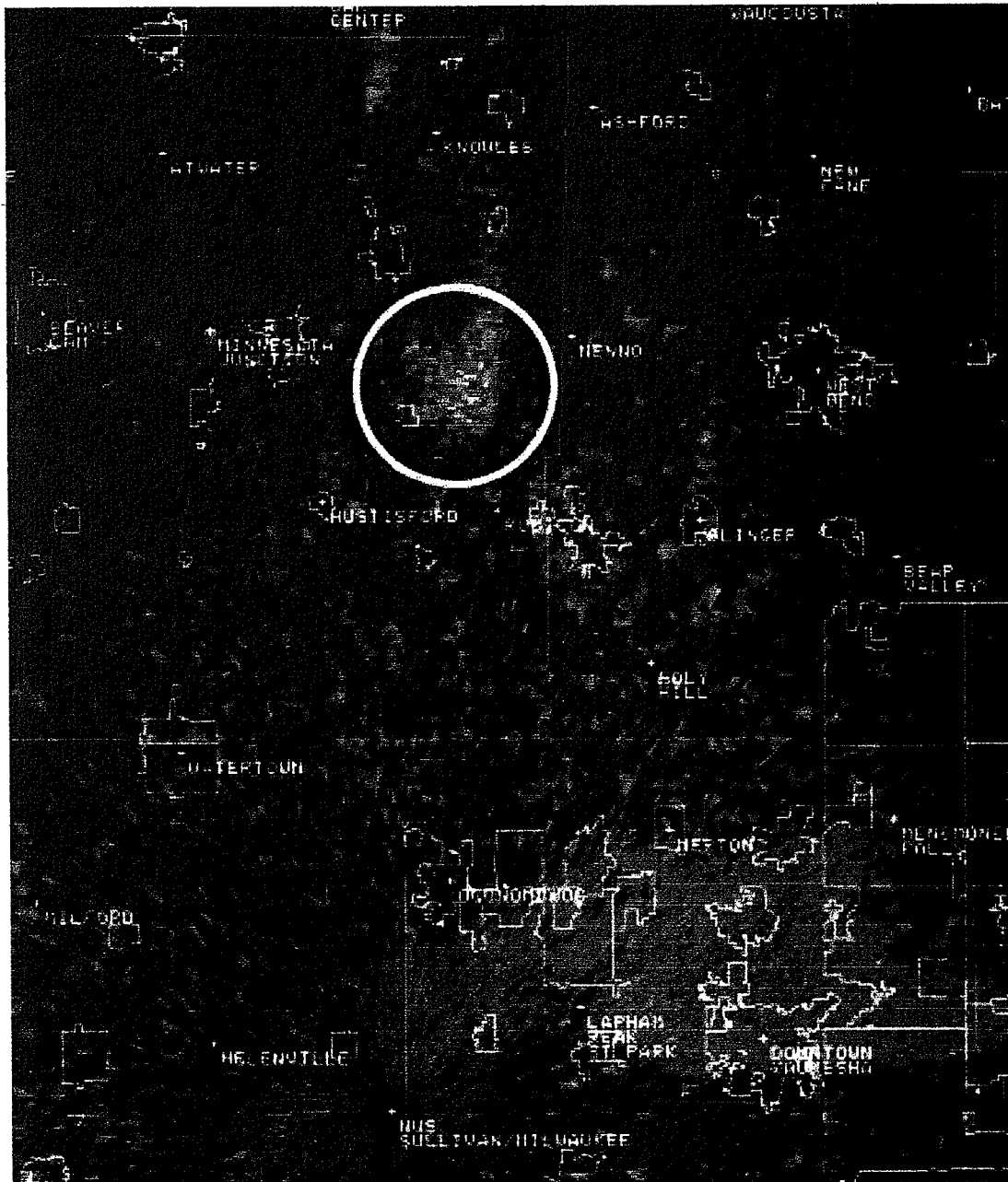
#1 - A small part of the electromagnetic energy radar beam sent from the radar is reflected back by the rotating turbines. The radar processes this "returned energy" as an area of precipitation and plots it accordingly on the map. This contamination of the base reflectivity image as illustrated in the above image, has an effect on the radar algorithms used to estimate rainfall and to detect certain storm characteristics.

This is an image from the Doppler Radar Station at Sullivan Wisconsin. The circled image is the Butler Ridge Wind Farm. Notice the scale of the "returned energy" field.

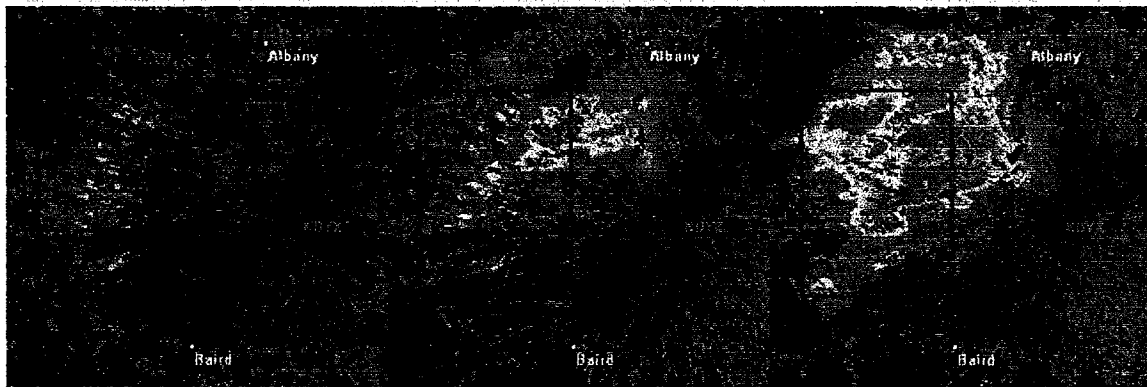


#2 - The rotating turbines also impact the velocity base data as you can see from the above image. This velocity data is used by radar operators and by a variety of algorithms in the radar's data processors to detect certain storm characteristics such as mesocyclones, tornado vortex signatures, and relative storm motion.

A second image from Sullivan showing returned energy with rotational characteristics. This cannot be a benign or harmless environment in which to live.



#3 - The above two hour animation (not animated here) from the evening of April 1, between 915 pm and 11 pm CDT shows the persistent interference from the Butler Ridge wind turbine farm on the KMKX base reflectivity radar image. (animated version available at www.wind-watch.org/documents/wind-farm-interference-showing-up-on-doppler-radar/) Note: The energy returns eventually travel some 15 miles north from the Butler Ridge turbines through Theresa, and up to Lomira (above Knowles). There seems to be a second area of return to the north of the circled Butler Ridge, this appears to be the southern wind turbines in the Forward Energy Wind Project sited around Leroy.



#4 - Sequence (left to right) of 0.5 deg reflectivity images showing thunderstorms developing over a wind farm (purple rectangle) 10-16 nm (18-30 km) west of Dyess AFB, TX WSR-88D. Left: thunderstorms have not yet developed, high reflectivity values due to wind turbines alone. Middle and Right: storm has developed to where in right image a distinct notch structure, indicative of severe weather, formed – note: turbine and weather echoes indistinguishable

These turbine induced physical impacts cannot be captured with a safety, noise, or shadow flicker setback of 3.1 times a turbines height or in the case of a 400 foot tall wind turbine 1,240 feet. 1,240 feet is an industrial turbine spacing distance used to mitigate turbine wake impacts on each other. In the PSCW's Glacier Hills EIS, chapter 2, p.13, 2.1.2 Turbine Spacing – it states that the wind turbines selected for the Glacier Hills project would require a spacing of 1,200 to 2,000 feet between each other to minimize the effect of wake and turbulence caused by the wind turbines operating. According PSC Rule 128 homes and non- participating residences are considered nothing more than another potential industrial wind turbine site.

The proper compromise safety setback, to allow industrial wind development, from non-participating residences is 2,640 feet.

Hosting or easement properties can sign to have the turbines as close as 1,240 feet No turbine should be sited 1.1 times the height of the machine from any residence or non-contracted property line. That is cruelty.

Due to the trouble with industrial wind turbine nighttime noise, and a lack of clear evidence that nighttime wind generation has an impact on curbing baseload thermal generation CO2 emissions, nighttime curtailment of industrial wind turbines must become mandatory, unless a utility can prove a real time social benefit to the reduction of a coal burning facility operation. Any nighttime wind generation, or operation of the turbines, must be approved ahead of time by the hosting Counties, Towns, and residents.

We benefit as a society from timely and accurate weather forecasts and storm alerts, and the same timeliness and forecasting should be expected of the technologically advanced wind industry when it comes to nighttime generation requests.

Wind generation numbers from the Midwest Independent Transmission Systems Operator (MISO) also raise CO2 reduction questions. Mainly how effective is the wind generation at reducing the need for thermal generation? How effective is industrial wind at reducing the need to burn coal? The MISO generation cycle begins at 4am. Load demand and generation rise at a steady rate until peak demand at 2pm-4pm, and then taper off until then end of the evening (8pm-10pm) to baseload operating levels until 4am the following morning.

From April 15th 2010 through October 12th 2010 (180 days), 33 days (18.3%) gained wind generation from their 4am starting levels through 2pm-4pm, while 90 days (50%) lost wind generation from 4am through the 2pm-4pm peak load time. 25 days (13.9%) saw an initial loss of wind generation and then a gain, while 13 days (7.2%) saw an initial gain and then a loss of wind generation. 17 (9.4%) days were positive, negative, and then positive again, one day (.6%) was negative, positive, and then negative again, and one day information for the morning was missed.

It is the wind generation loss days, initial loss days, initial gains and then loss days (the majority 129 days or 71.6% of the days vs. 50 days or 27.7% gain days and gain, loss, gain days), which this Committee, the PSC, and the Wind Siting Council need to evaluate, in order to verify CO2 reduction claims by the wind project operators. How is a MISO system's operator to respond to falling wind generation just when the daily generation load needs to be filled? Would it be more effective to ramp up the coal facilities, or the natural gas? And, should the wind return which would be ramped down?

Safe setbacks, nighttime curtailment, and reviewing CO2 reduction claims of industrial wind turbines will begin to address the shortcomings of PSC 128.

The final area to correct is to seat a missing element on the Wind Siting Council, an Environmental and Wildlife Representative. Renew Wisconsin is not an environmental operation. Clean Wisconsin tries to do better, but lacks any real environmental impact assessment capability past clinging to the hope that the retirement of coal plants will be tied to the siting of additional wind farms, and a 'community wind' loophole can be used to sidestep real siting problems with the same size machines.

Renew and Clean want to site over ten thousand industrial wind turbines in our state, and that is just wrong. They as part of the industrial wind lobby would like to see 200 to 300 industrial wind turbines built per year until 2025. That is 4,500 turbines, running at name plate capacity, but given efficiency issues, Wisconsin will really need to site 12,000 to 15,000 industrial wind turbines, to reach The Governor's Task Force on Global Warming 2025 RPS wind generation goal of 5,562GWh. (While 5,562 GWh of wind generation represents only 6% of forecast total electrical generation, it would represent 24% renewable wind energy by installed nameplate capacity. This gap, shortfall, nameplate loophole, will need to be addressed before the damage is done to our state and wildlife populations.)

The acreage needed to site this many wind turbines would be over one million acres. This Committee, the PSCW, and Governor Doyle are discussing the largest land fragmentation in this state since the introduction of the steel plow, and the development of paved roads.

Does this Committee, the PSCW, and Governor Doyle Really want Wisconsin to end up looking like the Elk River wind project, in the Flint Hills of Kansas?



This is unplowed prairie habitat used to raise grass fed beef, before construction, be sure to notice the three-branched creek in the foreground.



The three-branched creek is in the bottom right corner of this post construction photo. This photo is the definition of wildlife habitat fragmentation.

Problems with bird and bat mortalities, surrounding the inappropriate siting and operation of industrial wind turbines, have been acknowledged. Problems will continue so long as wind turbine operators seek their corporate profits at the expense of environmentally ethical and responsible standards. There is a misunderstanding, on the part of industrialists and policy makers, of how Wisconsin wildlife populations work and survive.

Wildlife populations live and survive on a very narrow margin, especially during migration. This margin is much narrower than that of any utility or shareholder. Migrating birds, bats, and insects need enough potential refugia enroute to nesting and brooding habitats. Fragmentation of these refugia along migration greenways by industrial wind turbine complexes, will lead to migrating population dislocations and additional wildlife deaths. Migrating animals do not have the energy reserves or time to detour the multiple manmade obstacles they encounter. These obstacles provide some of the bird and bat deaths the wind proponents hide behind. But, building 12,000 industrial wind turbines would exacerbate migration corridor obstacles and habitat losses, by removing additional migration opportunities and habitat over vast swaths of Wisconsin.

Agricultural land offers little nesting opportunity, but acts as defacto greenways, feeding, commuting to feeding, and nest protection habitat. The associated edge habitat of agricultural land is vital for the watch of predators, especially aerial predators. Filling Wisconsin with 410 foot tall spinning industrial wind turbines will impact/remove the remaining wildlife nesting, feeding, and rearing habitats. In the PSCW's Glacier Hills EIS, chapter 2, p.13, 2.1.2 Turbine Spacing – it states that the wind turbines selected for the Glacier Hills project would require a spacing of 1,200 to 2,000 feet between each other to minimize the effect of wake and turbulence caused by the wind turbines operating. This means that Glacier Hills would impact, or remove, nearly all of the project area's 17,300 acres plus an additional 200-1000 feet beyond the project area's perimeter from existing wildlife habitats.

What does this fragmentation mean for the potentially negative impacts on bat populations? The Glacier Hills EIS states...

4.3 BATS

"Bat mortality has exceeded bird mortality at most wind farms where post-construction monitoring of both animal groups has been conducted. Many species of bats are long-lived and have low reproductive rates. This is particularly worrisome because even if the mortality rates for birds and bats from wind turbines were similar, wind turbines can have a more significant impact on bat populations than bird populations, with the exception of rare bird species. Bat Conservation International estimates that more than 50 percent of American bat species are in decline. As the number of wind projects continues to increase, the cumulative impact on bat populations could be serious. Wind turbines may be more deadly for bats than other structures, such as towers or buildings, on a per structure basis."

Chapter 4, p. 39, "Post-construction mortality studies are being conducted at three recently completed wind projects in Wisconsin. These projects have land cover (i.e., wooded areas, wetlands, and fallow fields within an agricultural matrix) similar to that present within or adjacent to the Glacier Hills project boundary. In addition, the projected bat activity levels based on pre-construction surveys at one of WEPCO's recently constructed wind farm projects (Blue Sky Green Field) were similar to the pre-construction estimates for the Glacier Hills project. The initial post-construction field data from the Blue Sky Green Field project show a high level of bat mortality.¹⁴ Thus, it is possible that bat mortality at Glacier Hills could also be high."

There is a simple reason for this. The Wisconsin Wind Resource Assessment Program Final Report (WRAP Final Report), states in the report's figures, p.2 "...wind speeds are highest at midday and again late at night to early morning" (10pm to 6am). Industrial wind turbine average yearly generation numbers and income depend on this "late at night to early morning" (10pm to 6am) wind resource. This is prime bat feeding time, and low electricity usage time (no baseload CO2 emission reductions). Cut in speeds on turbines are not the issue. The issue is a devaluing of wildlife to profit an industry. Nighttime winds partly explain Wisconsin's higher than average bat mortalities. The Glacier Hills site map is an excellent tool for forecasting that Glacier Hills will also be a bat killer. Bats prefer to feed within a ¼ mile of roosting and brooding. Roosting for bats in Randolph and Scott will mostly likely be trees or woodlands, and feeding takes place largely over wetlands and streams where insects are plentiful. The Glacier Hills project area is wedged into a river, stream and wetland complex. Nighttime operation of Glacier Hills wind turbines during the bat breeding and migration seasons will cause bat deaths.

It is the alarmingly high number of bats that are dieing and will be killed if nighttime curtailment, and greater sensitivity to wildlife land usage needs are not addressed by this Committee, the PSCW, the Wind Siting Council, and ultimately Governor Doyle.

The number of bats being killed is 40.54 per wind turbine per year. This is the post construction mortality number for Blue Sky Green Field 88 turbine project. Which Means that Blue Sky Green Field project is killing between 3,500 and 3,600 bats per year. This number is consistent with bat mortality levels Cedar Ridge and Forward Wind. This means that if Renew and Clean Wisconsin achieve their lobbying goals of siting an additional 200 to 300 wind turbines each year until 2025 the bat deaths would reach a staggering 131,200 to 192,700 bats killed per year for the 4,753 wind turbines in the state. To reach the RPS goal of 5,562 GWh with 12,000 to 15,000 wind turbines the bat deaths would climb to 486,400 to 608,000 per year.

These kill rates are unsustainable, and it is unlikely that we would see the higher bat kill numbers as the surviving populations would crash, or be driven from the million plus acres occupied by wind turbines. We could see periodic migration season death spikes as bats, which do not know of the wind turbine areas (the young), enter Wisconsin wind project sites. It would devastate Wisconsin's balance of nature for decades to lose our bats to a greedy few.

It is the size of the industrial wind turbine that is causing the bat deaths. Bats are not being struck by the blades, but are suffering catastrophic damage to their lungs as they fly into the low-pressure zone that is created by the spinning blades. This drop in pressure causes the bats' lungs to expand rapidly, rupture, fill with fluid and blood, and they drown. It is called – Barotrauma – deep-sea divers get a version of it called "the bends", when raised to quickly from the depths. Birds have different lung structures, so they are not as readily affected, but bats are mammals with lungs similar to ours, so take a deep breath, imagine you can stop inhaling until your lungs burst, and you are drowning to death. Could this pressure flux be what wind project residents are suffering from, along with the noise, disturbed sleep, and shadow flicker?

In Conclusion

Perhaps now with the physical evidence of dead bats, the images of physical impacts from photos and radar, and the absence of clear proof that coal burning is reduced in our nighttime or early morning electrical generation mix by adding wind turbines, this Committee, and the PSCW will consider adding a true environmental voice or voices, for our citizens, wildlife, and environmental concerns to the Wind Siting Council, and correct the errors in the current PSC Rule 128.

To begin, I would like to recommend Shari Koslowsky, Conservationist with the DNR, at sharikoslowsky@wisconsin.gov (608) 261-4382, to be seated and consult with the Wind Siting Council, and begin to assess the full impact of industrializing rural Wisconsin to be made clear as a part of PSC Rule 128.

Respectfully submitted, Kevin Kawula, 13133 W. Dorner Rd., Broadhead, Wi, 53520
lonerockprairienursery@gmail.com

Kevin A. Kawula 10.13.10

Contact

----- Forwarded Message -----

From: Julie Schneider <jschneider795@yahoo.com>
To: "Erwin, Deborah - PSC" <Deborah.Erwin@wisconsin.gov>
Sent: Thu, July 1, 2010 4:35:41 PM
Subject: Re: turbine rules

Ok. Thank you Deborah. It is important to us. Thank you so much for responding. Julie

From: "Erwin, Deborah - PSC" <Deborah.Erwin@wisconsin.gov>
To: "jschneider795@yahoo.com" <jschneider795@yahoo.com>
Sent: Thu, July 1, 2010 10:51:35 AM
Subject: RE: turbine rules

Ms. Schneider,

It looks like you already posted this information using the Public Comment button on our website.

See http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=134010.

Deborah Erwin

From: Julie Schneider [jschneider795@yahoo.com]
Sent: Wednesday, June 30, 2010 10:03 PM
To: Newman, Paul C - PSC
Subject: turbine rules

This memo is critical it be included with the new rules request for the turbines and this is our public reasons why we do not the government to exclude us from the Public Service Committee rule setting. We need to be grandfathered in to the new rules. Please assist me in getting this added?

We are asking you to hear us out before you make any more rules or decisions

Regarding windmills.

10/12/2010

I am hearing you do not want to include us in your new regulations and you want
To leave us living in this environment without having to deal with our issues.
To do this is not only unfair, and inhumane, it is an act of "see no evil", that
Is disrespectful to us as citizens of this country. I am wondering if any of you voting
That way really feel "right" about it. I am asking you to reconsider.

Do you know what it is like to come home and not be able to watch tv when you

are devastated your 4 year old nephew has a brain tumor and you are desperate for something to take away the images that are burned in your brain of his pain, his huge "port" they stuck in his chest for future chemo. He had terrible misery and was moving continuously to escape pain. Do you know the images in your brain watching that? Do you have any idea how bad you want to go back to the comfort of your home where you want to cry from mental exhaustion and then fall asleep watching some show that gives your mind an hour of rest? You turn on the television and you cannot watch it. It is "out" again. You cannot even imagine the sickness in your stomach when you realize your "sanctuary" at home is gone. You no longer have a place to go.

You have Constant flickering in the morning for an hour. You cannot escape from it, even with the blinds drawn. You cannot move into any room to be free of it if it has windows on that side of the home. You cannot fall asleep at night from the noise that ensues when Winds are more than 11 mph. It is not a "lulling" sound, but a grinding after rain. It is like a constant jet going over. It is also accompanied by a whooshing sound. It is not a comforting dull whoosh... It is a blackboard fingernail type noise that keeps you awake and drives you on the brink of madness. Everytime it rains, you cannot watch tv. Just when you are bored silly...you can't even watch tv. That has been taken away. You get irritable. But, W.E. and the people responsible don't really care. It isn't them. You find out they have given the neighbors radios, and all kinds of bandaids. They have told them they will pay for 120 channels on dishnetwork, but not you because you already had a dish. You are discriminated against. You fight and argue with them for over a year. You are so sick of it, and feel lost. What can you do? You have been lied to, argued with, discriminated against, and you are sick thinking about it. Sick to your stomach. Do you really think you wouldn't be like that? Try living it for even a week. You will not believe what this has done to your life. If you would have told me that 5 years ago, I would have said "I don't believe it".

We are peaceful people. We do not look to make trouble for anyone. We even waited to see how the windmills affected us before we judged them, because that is what is fair.

Yet, no one considered what is fair for us residents. We are in a low area. When I asked the engineer about the noise, and we asked them if they considered the geological location of them in respect to homes, he admitted they did not. We told him We have constant droning. We have constant pressure we can feel in our ears. We wake 3-4 times a night. We have difficulty getting back to sleep. We live with flickering. We live with noise. When we walk now, we hear nothing. We used to hear birds. Now we hear an eerie silence. Nothing. We had moved here for privacy and quiet. We had moved here for wildlife and nature. That was taken away. Our beautiful view of the land was destroyed. Yet, that was the minor part. The major was the lack of sleep, the irritability, the headaches, the ear pressure, the flickering, the noise, the loss of home value. This isn't just a group of "whiners". This is reality. This is a company that stole our homes.

We are afraid. We had an expert on electrical here to tell us there is no such thing as stray voltage, yet we see cows die, etc in the news. "Oh no – there is no such thing as stray voltage. So, when we asked about energy surges, they couldn't answer that. We live in fear. We are worried when we let our 3 two year old grandchildren run in the yard. We are afraid to step on the lawn after a rain. We cannot stand it outside on the lawn during flickering, so we can't stand it inside our home, and we cannot stand it outside.

Our biggest complaint is our home value has dropped drastically. We had a couple people interested in our home, waiting for it to come up for sale. We finally decided maybe it was time. We are unhappy here now due to the windmills. But, of course, they are no longer interested. They said "No, we would NEVER want to live in that area – you have windmills.". So I called the president of the North East Realtors Association. "Yes, you have a huge loss in value, he said. I don't know the exact percent, but I can tell you I do not have people willing to live in that area unless the price is drastically reduced or not at all. I would testify to that." So, we have home value loss. Everything we put into our home, was with a plan to sell it someday and retire in a smaller home. It is now gone. So basically our retirement was also taken away from us. Not just our home. Our retirement. Why are a small isolated group of people burdened with all the liabilities and burdened with health hazards and long term affects "for the good of the nation.". It hasn't even been proven this will "help" the nation. In fact, the engineer admitted to us it wouldn't really. He also stated they put them where they had easy access to high lines. They didn't care if there were residents. They had no right to take away our property. They had

not right to inflict us with flickering and noise without

restitution. How can you people even consider leaving us out of the rules being set up? Can you do that and sleep at night? Can you really turn your back and walk away knowing what has been taken from us? It doesn't matter because it isn't you?

Do you really want to believe you will never pay for that? We need to be grandfathered in to the new rules.

Do you know what it feels like to have your home literally "taken" from you without having a thing to say about it. Everything you have always worked for has now suddenly been taken from you without even a word. You never were able to voice your opinion because you were not the property owner where they stuck these units. Our happiness, health, well being, financial value, everything is gone. Yet, you want to ignore this, and just make "future" laws. Why would you do that to innocent people?

We are asking you, if you have any kind of conscience, to please reconsider that. Please help us. We haven't done anything except work hard for our homes. It feels like we have had them stolen, and no one wants to step outside of the box and help us. We

Are wondering how you can be so cold. Because we are a number? Well, this number tries to sleep. This number has headaches and pressure in our ears. We have flickering.

This number cannot believe a government allowed this. Cannot believe any fellow

Citizens would do that to someone. This number feels sick and hopeless and feels fear and disgust. We want our home back. It is that simple.

We live with days of "airline" type pressure in our ears and lack of sleep. We are often

Irritable. The flickering causes confusion. I race to get out of the house because I cannot

stand it. It is literally driving us mad. Why shouldn't we be compensated? Do you really believe that is right?

I am sickened when I hear no one will help. Why? What have we done to deserve that?

Why are you turning your backs on us? For greed? For political reasons? Please reconsider and get the residents, this was forced upon, some help. Please do what is right for us. The helpless feeling is sickening in my stomach. It is destroying us.

At a minimum, give us our home value back so we can move it we wish. We didn't ask for anything from the way you have destroyed our lives. We are simply asking for our home value back.

We argue when we are irritated that the tv doesn't work. We blame each other because neither of us has been able to get help from someone. We get so irritable it is unbelievable. I am ashamed, but it is still a fact. We have asked W.E Energies for

Help, and they came right out and told us "We won't deal with individuals on this."

W.E. Energies are thieves in our mind. . They have stolen our home. We are asking you now to help us. Please.

We are not "just a number". We are people. We give to charities. We have family. We work for our home. We deserve our home value. We have worked our entire career for that. We just want the security of our home again, and the value returned to us. I don't think that is much to ask when I hear about the High wages they pay workers, and the big money W.E. officials are reaping, and the government is "gaining". We aren't asking for big money. We are asking for our home value back so we can now make the choice on whether to move or not. Our choice has been taken away. We just want it returned. This is a small price for you to pay. Do not pass these rules without including us. Do not leave us on the side like a bastard child. We have a place in this group. Don't kick us to the curb because of politics please. If someone stole from you, you would feel sick and you would want to be compensated. If someone destroyed your home, you would expect payback. If someone wrecked your lives, you would want it back like we do.

Please do not pass this without including us. Laws have been broken – like the nuisance law, and the reverse condemnation laws. No one has paid for these violations against us.

All we can do is ask you to please do what is right now.

Thank you for listening.

Mr & Mrs. David E Schneider

Name

Teacher in the public school system almost 20 years

Share my perspective on the wind sitting rules

Never mind that :

- **The terms being used to describe industrial electrical generation facilities are couched in agricultural terms**

- **We are not fooled: this is not an agricultural endeavor**

Wind farms are not farms that 'harvest' electricity. They are

Industrial electrical generation facilities that are not as beautiful as

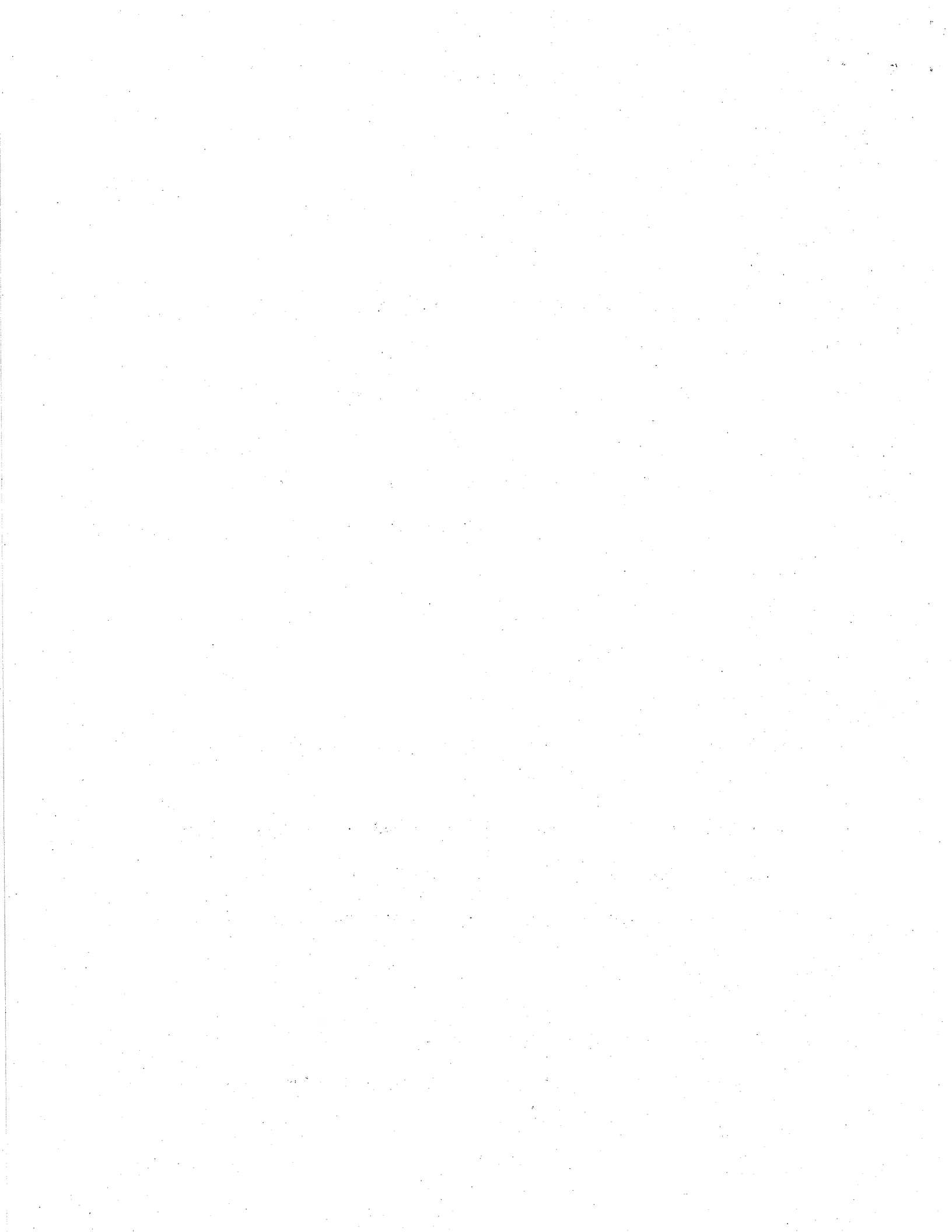
blue skies and green fields nor glacial hills

- **the rules clearly support wind development rights over and above the rights of the people of the state of Wisconsin**

- **Wind development is at the expense of the tax payer and property owners**

- **Wind developers are on the dole of state and federal tax dollars being spent at an unprecedented rate in a quest for what? Reducing dependence of foreign oil? How does that work? What power plants depend on foreign oil?**

- **Never mind that no one is providing citizens with the big picture –just how big will this wind project be? Will the largest project be the proposed Town**



of Morrison project with about 100 towers? Will it be the contiguous facilities from northern Fond du Lac and southern Calumet counties that will host well over 245 towers if all plans are approved? Or will we be able to discuss the true scope of this project that is expected to extend from Columbia County all the way up through Door County filling the Niagara Escarpment with a projected 14 to 16 thousand turbines?

Never mind that:

- Rules as written leave no room for true mitigation of real problems associated with living in a large industrial electrical generation plant
- Never mind that 45 days is already too long to wait for my cell phone and computer access to be restored to its full functioning capacity
- Never mind that my television and radio are frequently interrupted and I can not sit down and enjoy a good show without loss of reception
- Never mind that I don't have blinds on my house now because I want to enjoy the beautiful sunsets
- Never mind that the esteemed members of the committee that drafted the rules believe there are no known health risks associated with living in the middle of industrial electrical generation facilities
- Really? A simple Google will open up sites reporting health risks not just in the United States but also across the globe.

I could continue on with never minds. The real issue that the commission failed to address in drafting the rules for siting industrial wind generation facilities is

really simple. It is simply setbacks. If set backs are adequate, shadow flicker, noise and industrial accidents from ice throws, lightning strikes, and any other occurrence caused by neglect or nature will not be a concern. Adequate setbacks will eliminate the need for mitigation of concerns. Face it, if these concerns were not a problem we wouldn't be meeting here today.

Respectfully,

Teresa Hahn

W3797 Cty F

Chilton, WI 53014