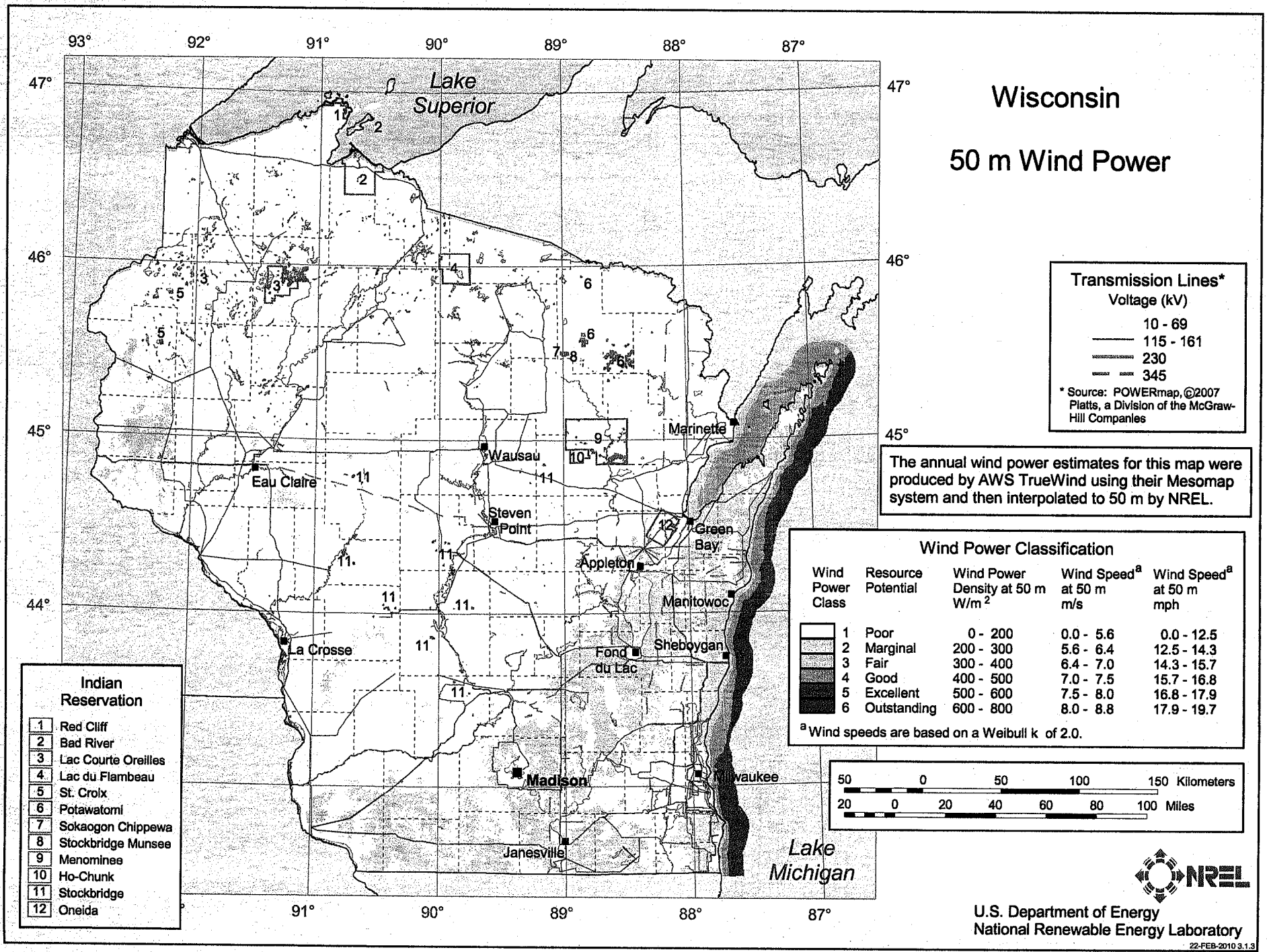
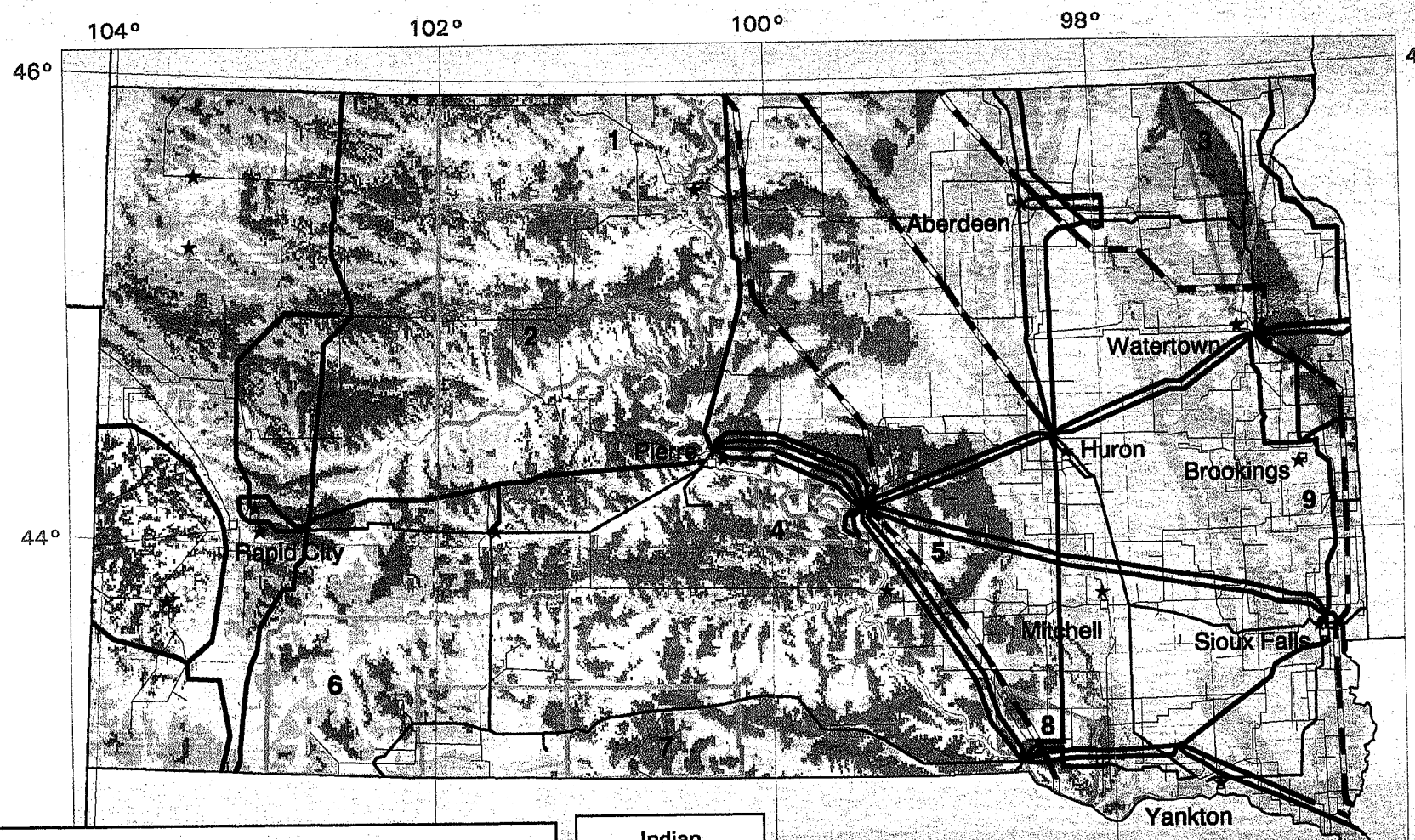

Wisconsin
50 m Wind Power
Lake Superior
Lake Michigan
93°
92°
91°
90°
89°
88°
87°
47°
46°
45°
44°
Transmission Lines*
Voltage (kV)
10 - 69
115 - 161
230
345
* Source: POWERmap, ©2007 Platts, a Division of the McGraw-Hill Companies
The annual wind power estimates for this map were produced by AWS TrueWind using their Mesomap system and then interpolated to 50 m by NREL.
Wind Power Classification
Wind Power Class
Resource Potential
Wind Power Density at 50 m W/m 2
Wind Speed[a] at 50 m m/s
Wind Speed[a] at 50 m mph
1 Poor 0 - 200 0.0 - 5.6 0.0 - 12.5
2 Marginal 200 - 300 5.6 - 6.4 12.5 - 14.3
3 Fair 300 - 400 6.4 - 7.0 14.3 - 15.7
4 Good 400 - 500 7.0 - 7.5 15.7 - 16.8
5 Excellent 500 - 600 7.5 - 8.0 16.8 - 17.9
6 Outstanding 600 - 800 8.0 - 8.8 17.9 - 19.7
[a] Wind speeds are based on a Weibull k of 2.0.
Indian Reservation
1 Red Cliff
2 Bad River
3 Lac Courte Oreilles
4 Lac du Flambeau
5 St. Croix
6 Potawatomi
7 Sokaogon Chippewa
8 Stockbridge Munsee
9 Menominee
10 Ho-Chunk
11 Stockbridge
12 Oneida
Eau Claire
Wausau
Marinette
Steven Point
Green Bay
Appleton
Manitowoc
La Crosse
Fond du Lac
Sheboygan
Madison
Milwaukee
Janesville
50 0 50 100 150 Kilometers
20 0 20 40 60 80 100 Miles
NREL
U.S. Department of Energy
National Renewable Energy Laboratory
22-FEB-2010 3.1.3

South Dakota - Wind Resource Map



Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m²	Wind Speed[a] at 50 m m/s	Wind Speed[a] at 50 m mph
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	800 - 1600	8.8 - 11.1	19.7 - 24.8

[a] Wind speeds are based on a Weibull k value of 2.0

Indian Reservations

1	Standing Rock
2	Cheyenne River
3	Lake Traverse
4	Lower Brule
5	Crow Creek
6	Pine Ridge
7	Rosebud
8	Yankton
9	Flandreau

★ Meteorological Station with Wind Data
□ City or Town

Transmission Line Voltage

- 69 Kilovolts
- 115 Kilovolts
- 230 Kilovolts
- 345 Kilovolts

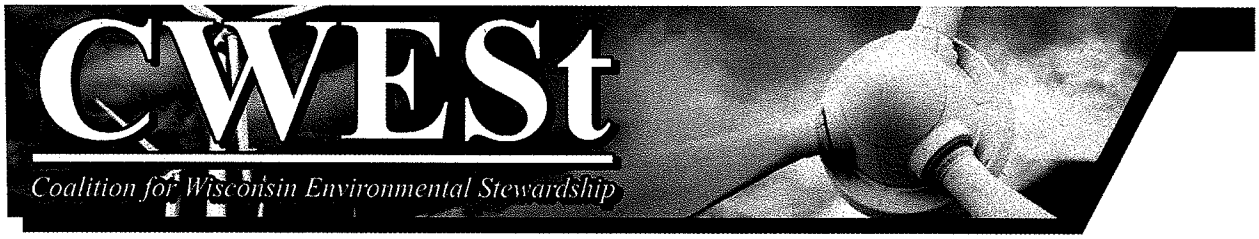
50 0 50 100 Kilometers

25 0 25 50 75 Miles

N

NREL

U.S. Department of Energy
National Renewable Energy Laboratory



Dedicated to making sure that wind turbines get sited the *RIGHT WAY.*

The Windmill Ghetto

Why Building Wind Turbines in Wisconsin's Rural Communities is BAD for our State's Economy

1 – Siting Turbines in developing areas causes all other economic activity to stop. Wind developers in Wisconsin have targeted the fast growing Fox Valley region for their planned construction. Calumet County alone is expected to grow by 56% in the next 25 years.

A comprehensive appraisal study done in Fond du Lac County shows those landowners within 2 miles of a wind development will see *land values drop by an average of 40%.* This will create a "windmill ghetto" covering tens of thousands of acres. Within these wind farms, no building can or will occur.

2 – Each turbine is heavily subsidized with Federal Tax Dollars. Higher taxes and higher interest rates from exploding Federal debt will suppress job creation. It was recently exposed that GE is building a wind farm in Oregon with $1.2 billion in tax subsidies out of a total cost of $1.9 billion. The Manhattan Institute concludes that federal subsidies for wind amount to $6.44 per million BTUs. The price for a million BTUs from coal was just $2.27.

3 – Building turbines at this time will cost ratepayers money. The Heritage Foundation found that electricity generated by *wind is more than double the cost* of coal generated power - $78/ MgW v. $177/MgW.

We have an energy surplus in this state of around 25%. The cost of each new generation facility being built now will somehow need to be paid. Data from the PSC suggests nearly $2 billion in capital expenditures would be necessarily to carry out the state's current 10% renewable mandate. Wisconsin already has among the highest electric rates in the Midwest. This would drive up costs and make us even less competitive.

4 – Green job "creation" causes a net job loss. Spain was one of the first and most aggressive builders of wind turbines. However, a recent Juan Carlos University study concluded that Spain had lost 9 jobs for every 4 green jobs it had created. Two-thirds of all green jobs were in construction and quickly evaporated as projects completed. Subsidies added up to 1 million Euros per wind energy job created. If the subsidies were translated into electric rates, those rates would have risen by 31%.

There will be only a handful of full time jobs associated with maintaining the turbines. How many jobs will be lost by the loss of economic activity associated with turbines crowding out more sustainable development?

5 – Wind turbines do not produce effectively in Wisconsin. The turbines in Wisconsin run only about 22% of the time. Turbines in the Dakotas run about twice as much. Wisconsin turbines are even MORE in need of subsidies and will cost the economy even more than turbines built out west, where the wind is stronger and there is less interference with other economic activity.

6 – Governor Walker's proposed wind siting regulations treat communities fairly. All neighboring property owners whether they "host" a turbine or not are considered affected parties, and developers must deal fairly with them. This does not "stop wind development" as some opponents have claimed. It merely makes developers compete against other uses for the land with the people who will have to live in the windmill ghetto.

Developers want to force wind turbines into communities where they are not wanted, with huge government subsidies and onerous regulations, bypassing community involvement, and stepping on property rights. Governor Walker's proposal is based on our constitutional rights and the free market.

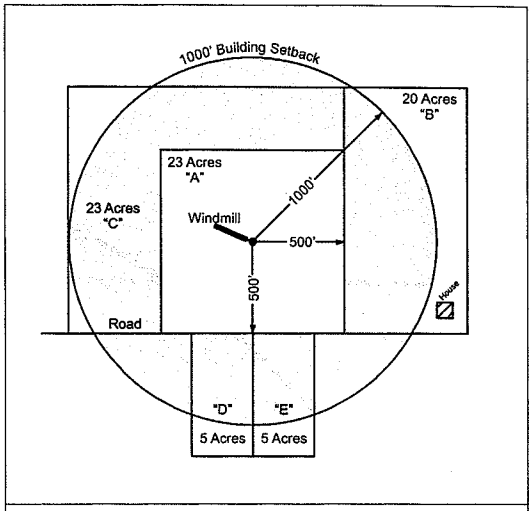
For more information contact Bob Welch at 608.819.0150 or bob@thewelchgroup.org.

Coalition for Wisconsin Environmental Stewardship
22 North Carroll Street – Suite 310 – Madison, WI 53703
608.819.0150 | contact@cwestonline.org | cwestonline.org

CWESt

WIND FILE #0003

CREATING THE WINDMILL GHETTO



See full size image on reverse side.

They say a picture is worth a thousand words.

This map illustrates the property rights issue for neighbors of industrial wind turbines.

Under current PSC siting regulations, turbines can exist 1000' from a home and about 500' from a property line.

Thus the person that owns parcel "A" can site a turbine and collect the contracted payments from a wind developer.

The Owners of Parcels "B", "C" , "D" , and "E" have their **right to build a home anywhere in the yellow circle taken from them without any compensation**. Even worse, they cannot appeal to any local government or planning committee. They have no say whatsoever in this "taking"!

Thus an owner of 23 acres can "take" the right to build a home or office from an additional 50 acres that is owned by his neighbors.

Under current law, local governments do at least have the right to ensure public health and safety and many have used that authority to make sure that yellow circles don't pop up in their communities.

Statewide siting preemption would remove even this small amount of local control from our Wisconsin communities.

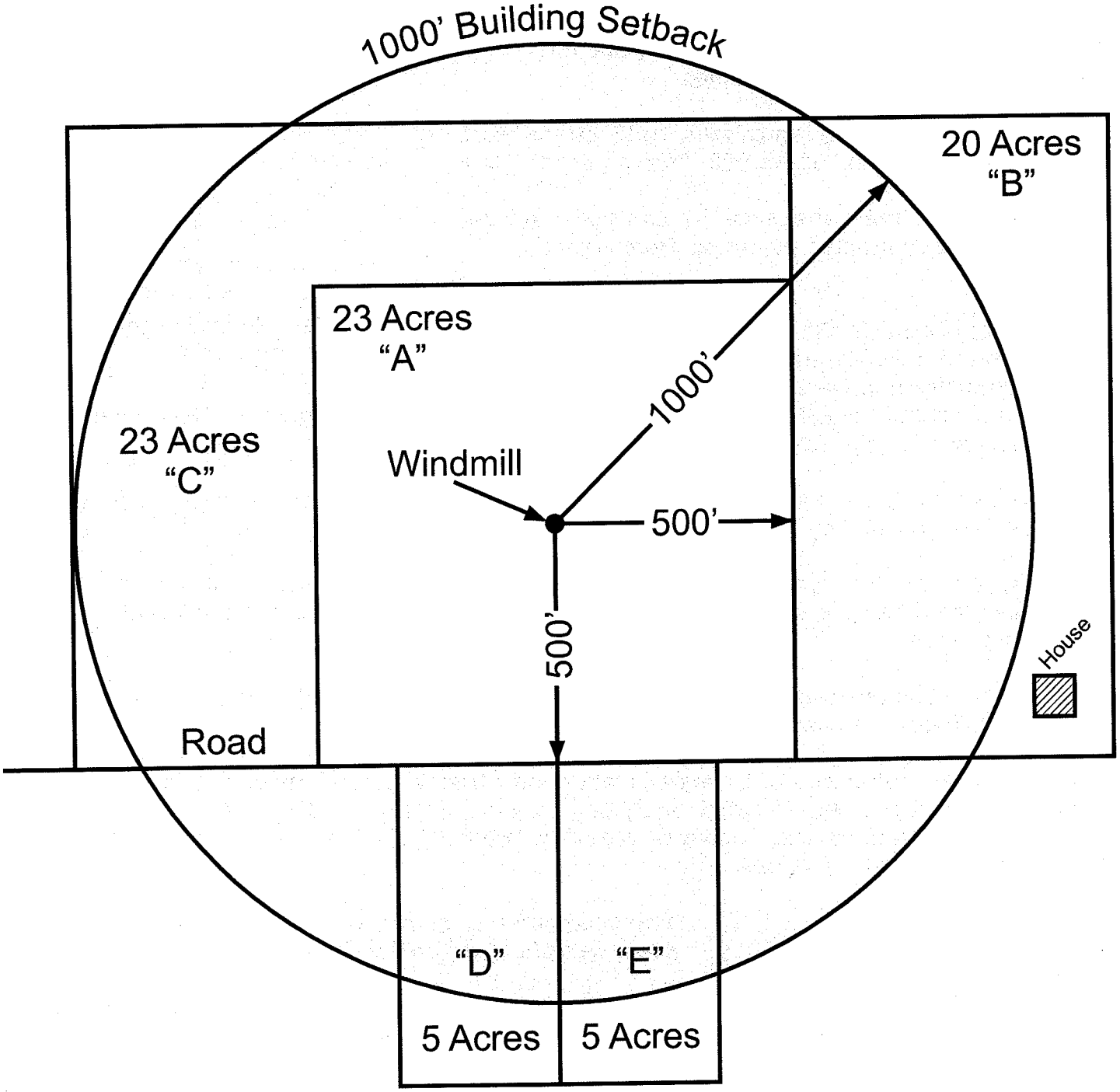
The theoretical environmental benefits of siting industrial wind turbines go to the entire planet. But the costs are overwhelmingly borne by neighboring landowners in terms of plummeting land values, loss of control over their property, and noise effects that can have long term health consequences.

The Wisconsin Legislature can assure that the cost/benefit distribution is done more fairly.

We should insist that siting decisions are consistent with comprehensive local planning.

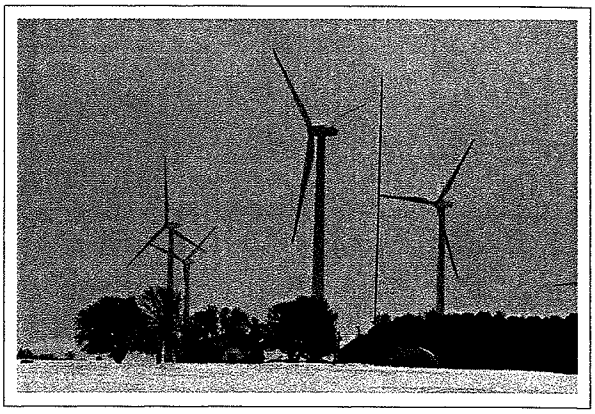
And any consideration of a state preemption bill should make certain that neighbors are protected either through adequate setbacks or by requiring easements from those that will have to live with the windmills.

For more information contact CWESt's representative Bob Welch at 608-819-0150


1000' Building Setback
20 Acres
"B"
23 Acres
"A"
23 Acres
"C"
Windmill
1000'
500'
500'
House
Road
"D"
"E"
5 Acres
5 Acres

CWESt

WIND FILE #0010



How well do you sleep at night?

If you live near a wind farm, chances are that you don't get a good night's rest.

Studies show...

Decibel readings from a little over ½ **mile away from a 20-turbine wind farm measure 50-60 dB**. Added to the turbines' existing **low frequency levels, the actual decibel reading is 60-75 dB**. That's the same sound level as a washing machine, hair dryer or vacuum cleaner!

The World Health Organization recommends...

The **average sound level for a good night's rest should be in the 30 dB range**. Anything above 30 dB has shown an increase in sleep disturbance as well as physical side effects. What side effects? Glad you asked.

30 to 40 dB

Increased body movements, awakening, self-reported sleep disturbance and arousals. It cannot be ruled out that vulnerable groups (children, the elderly and the chronically ill) are affected to some degree.

40 to 55 dB

Sharp increase in adverse health effects, especially vulnerable groups such as children, the elderly and the chronically ill.

above 55 dB

Considered increasingly dangerous for public health. Adverse health effects occur frequently, a high percentage of the population is highly annoyed and there is some limited evidence that the cardiovascular system is coming under stress.

Please be informed of the property value, health and safety concerns of helpless citizens when considering SB-185 or amendments to the bill.

THE SOLUTION IS IN YOUR HANDS!

For more information contact CWESt's representative Bob Welch at 608-819-0150

Wisconsin Towns Association

Richard J. Stadelman, Executive Director
W7686 County Road MMM
Shawano, Wis. 54166

Tel. (715) 526-3157
Fax (715) 524-3917
Email: wtowns1@frontiernet.net

To: Joint Committee for Review of Administrative Rules
From: Richard J. Stadelman, Executive Director
Re: Clearinghouse Rule #10-057; PSC Wind Siting Rules proposed Chapter 128
Date: February 9, 2011

On behalf of the Wisconsin Towns Association, I would respectfully request the Joint Committee for Review of Administrative Rules to suspend the rules on Wind Siting, proposed in PSC 128, for the following reasons. We would ask that PSC 128 be modified as described below.

First, we want to state that the state legislature by authorizing the PSC to promulgate these rules which will limit the local governments' authority to regulate the siting of wind turbines, the state has preempted local government authority to protect their residents and property owners for public health, safety and welfare to no greater restrictions than as allowed under the rules. Therefore local governments must rely on the PSC rules to ensure that public health, safety and welfare are protected. It is our opinion and many of our members who have followed the rule development that at least two key provisions listed below should be modified by the PSC to provide the needed protections for residents and property owners of the state.

The first provision that warrants modification is the **setback of large wind turbines from nonparticipating residences on Table 1.** The setback should at the minimum be from the property line of a nonparticipating property, not the residence. The draft rule of 3.1 times the maximum blade tip height from a nonparticipating residence results in a "taking" of the nonparticipating property owners use of his or her property between the residence and the property line, without compensation. Increasing this setback to the property line also reduces some of the other impacts of large wind turbines, such as noise and shadow flicker effect. We would also suggest that the PSC consider a greater setback from the nonparticipating property line than 3.1 times the maximum blade tip height or at the minimum conduct more studies on noise before setting the distance as proposed.

The second provision that warrants modification is the **maximum noise limits at 50 dBA during daytime and 45 dBA during nighttime hours.** It is my belief that based upon existing studies that noise levels at these levels will have negative health impacts on many people in the immediate proximity of the large wind turbine (such as living in a nonparticipating residence at 3.1 times the maximum blade tip height distance from a turbine). Decreasing these maximum noise limits in combination with increasing the setback from nonparticipating property lines will better protect public health, safety, and welfare.

We want to point out that in addition to the health impact upon individuals within the immediate proximity of large wind turbines, when the impacts of setbacks and noise levels that are perceived as insufficient to protect public health, safety, and welfare, the value of properties adjoining wind turbines will likely decrease, reducing the tax base on the political subdivision,

resulting on a shifting of tax burden on local property owners outside of the immediate proximate area of the large turbines. This is a negative impact on the town government that is not sufficiently reimbursed by the municipal aid payments (shared revenue) from the large turbines.

In addition to the two key provisions that we ask the Committee to direct the PSC to modify, we believe some other provisions warrant review and reconsideration by the PSC. These following provisions should be reviewed by the PSC:

(1) **PSC 128.02 (4) Individual Consideration**. While it may not be the intent of the current PSC to allow the future applicants for large wind turbines to have lesser standards than written in the rule, this section clearly provides the commission the authority to set lesser standards than written in the rule without limitation. This latitude creates uncertainty to local governments and the residents in the immediate proximity of proposed large wind turbines that the minimum requirements can be waived without any recourse or without protection to the public of health, safety, and welfare. This section should be modified to eliminate the authority of PSC to approve lesser standards than the minimum standards to protect the public.

(2) **PSC 128.33 (3) Monetary Compensation**. While we commend the PSC for allowing the local government to require the large wind turbine owner to compensate the owner of a nonparticipating residence, we question why it is limited to an amount not to exceed 25% paid to the owner of a turbine host property. With a setback maximum from the nonparticipating residence of 3.1 times the height of the maximum blade tip, a nonparticipating property owner could be closer than the owner of a host property's residence and be impacted to a greater extent than a host property owner. The 25% limit should be increased.

(3) **PSC 128.18 (4)(e) under Emergency Procedures.** While we support the requirement that the owner of the wind turbine should be required to provide annual training for fire, police, and other appropriate first responders, we would assert that the cost of time spent by the appropriate emergency personnel should be reimbursed by the owner. These large wind turbines are unique structures that warrant the special training and time spent by local emergency personnel in such training, but such time should be at the expense of the wind turbine owner.

(4) **PSC 128.32 (4) Effect of Ownership Change on Approval**. As written this section does not provide for the political subdivision to require the new owner to show proof of compliance with such requirements as general liability, financial assurance for decommissioning, bonds for possible road damage, or other requirements that may have been specific to the original owner but not necessarily the same documents and guarantees available to the new owner. The change of ownership should not be valid until the new owner has shown proof of compliance with all such specific requirements of the original owner. This language should be written into the rule.

In general we commend the work to date of the PSC in proposing the draft rule. However, there are the two major provisions listed above that should be modified and the other sections that need clarification or rewriting to ensure that the preemption of local government authority by setting these state standards does not do harm to public health, safety, and welfare. Again, we respectfully ask your committee to suspend this rule and that further modification be made as suggested above. Thank you for your consideration.

Wisconsin REALTORS® Association

Memorandum

To: Members, Joint Committee for Review of Administrative Rules

From: Tom Larson, Chief Lobbyist and Director of Legal and Public Affairs

Date: February 7, 2011

Re: Wind Siting Rules – Clearinghouse Rule 10-057

The Wisconsin REALTORS® Association supports the creation of statewide standards for the siting of wind turbines and was actively involved in the wind energy system enabling legislation (2009 Wis. Act 40).

However, we oppose the wind siting rules as currently drafted because they fail to adequately protect the interests of Wisconsin property owners. Specifically, we are concerned that the rules (1) will allow wind turbines to be located too close to neighboring homes and buildings, and (2) fail to adequately protect the interests of property owners from a consumer-protection standpoint.

1. Proposed setback is inadequate to protect human health, property values and use and enjoyment of property

The rules establish the following setbacks from homes and property lines:

Medium and Large Wind Energy Systems

Participating residences	1.5 times the maximum blade tip height
Neighboring residences	3.1 times the max. blade tip height (max. of 1250 feet)
Neighboring commercial and industrial buildings	None

Neighboring property lines	1.1 times the maximum blade tip height
Participating property lines	None
Nonparticipating property lines	1.1 times the maximum blade tip height

Small Wind Energy Systems (wind energy system up to 300 kw that consists of individual turbines up to 100 kw (can be up to 150 ft))

Participating residences	None
Nonparticipating residences	1.0 times the maximum blade tip height
Participating property lines	None
Nonparticipating property lines	1.0 times the maximum blade tip height

For example, if a wind turbine is 500 ft high, the setback is 1250 ft from a neighboring home, and only 750 ft from the neighboring property line or commercial /industrial building located on a neighboring property.

These distances were chosen, in part, for safety considerations (in case the turbine falls over) and fail to adequately address the following possible impacts of wind turbines on human health, use and enjoyment of property, and neighboring property values:

- **Health problems** – After wind farms have located in the area, some residents have complained of insomnia, anxiety, headaches and nausea. They have blamed their health problems on the pulsing noise coming from spinning turbines near their homes. (*See* "Turbines Too Loud? Take $5000," http://www.nytimes.com/2010/08/01/us/01wind.html?ref=wind-power)

- **Noise** – Depending on the turbine model and wind speed, wind turbines can create a constant "whooshing" or pulsating noise that can be heard both inside and outside a home (day and night), if located too close. Studies have shown that an "average-size" turbine (2 megawatts, 100 meters high) located 1,000 feet away can produce the same amount of noise as a suburban area during the day (51 decibels). Many studies show that repeated noise levels of 45 dBA can have adverse consequences on human health. (*See* "For Those Near, The Miserable Hum of Clean Energy," http://www.nytimes.com/2010/10/06/business/energy-environment/06noise.html?ref=wind-power)

- **Excessive shadows on neighboring property** -- Depending upon the number of clouds and angle of the sun, wind turbines can create a "shadow flicker" (a term used to describe the shadow of the turning blades as it hits the ground) on nearby property. Some property owners have described the shadow effect on their home as being like "someone turning lights on and off inside the house at a rate of 80 times a minute" and lasting for almost an hour on sunny days. (*See* Wind Siting Council Final Recommendations to the Public Service Commission, August 6, 2010, Appendix E, Minority Report, pg. 12)

- **Property values** – A recent study of several Wisconsin wind farms showed that prospective buyers had a negative perception of nearby wind turbines. While the exact impact is difficult to quantify, the study indicated an average decrease in vacant residential property values ranging from 12% to 40%, depending on the size of the lot and the distance from the wind turbine. (*See* "Wind Turbines & Property Value," presentation by Kurt C. Kielisch, President/Sr. Appraiser – Appraiser Group One)

  Similarly, a survey of REALTORS® working in a wind turbine area indicated that the impact on neighboring vacant land ranges from a 43% decrease if the wind turbine is located very close (within 600 ft) to 29% if the turbine is located in near proximity (½ mile away). With respect to the impact on improved property, the impacts are believed to be similar, but slightly lower (39% and 24%, respectively). (*See* "Wind Turbines & Property Value," presentation by Kurt C. Kielisch, President/Sr. Appraiser – Appraiser Group One)

Moreover, the proposed setback limits fail to meet setback limits (a) established by European countries, (b) recommended by wind turbine manufacturers, and (c) that are necessary to adequately protect against noise disturbance.

- In Europe, the minimum setback for turbines is generally over 1200 ft away from residences. Moreover, many countries have adopted a minimum setback of 4 x the height of the turbine or a maximum of 40 dBa at any time during the day. *See* Letter from Professor Jon McGowan, Renewable Research Energies Laboratory, March 14, 2008, http://www.notuscleanenergy.com/images/UMass_RERL_Letter.pdf)

- Wind turbine manufacturers recommend a minimum safety zone of at least 1300 feet from a turbine. *See* Mechanical Operating and Maintenance Manual for the V90-3.0 MW turbine published by Vestas (http://www.windaction.org/documents/16496)

- According to a survey of residents living near wind turbines in Kewaunee County, individuals living within 2400 feet found noise to be problematic, 32% within 4800 feet and 4% greater than 1 mile were disturbed, and 67% reported disturbed sleep if they lived within 1200 feet. (Kabes 2001) (http://www.windaction.org/documents/28688)

Recommendation – To adequately address the negative impacts of wind turbines on neighboring property owners, we recommend that the proposed setback be increased to a more reasonable distance, such as to a minimum distance of at least (a) 3.1 times blade height from *neighboring property lines*, or (b) 1500 feet from a neighboring residence, whichever is greater. Another possibility is 1800 feet from the neighboring property line or closer, if the neighboring property owners agree.

2. Proposed rules fail to contain adequate consumer protections for property owners

In addition to insufficient setbacks, the proposed rules fail to adequately protect the interests of property owners in several other ways, as identified below.

a. Attorney review of contracts – Unlike in most transactions, property owners entering into contracts involving wind energy system easements generally receive very little, if any, independent, professional advice as to how the terms of the contract will impact them. These property owners are often pressured to sign lengthy and sophisticated lease agreements without fully understanding the meaning of the lease terms because they were not given the opportunity to obtain advice from an attorney, REALTOR®, or other knowledgeable professional before entering into the contract. Moreover, the proposed rules allow these lease agreements to contain provisions that would override the minimum state standards designed to protect the health, safety and other interests of the property owners. *See e.g.,* PSC 128.13(5).

Recommendation -- Because the terms of these leases could have an adverse impact on the health and safety of the property owners and the value of their property, we recommend that the rules be modified to provide property owners with up to ten days

after entering into a contract with a wind energy company to have an attorney review the contract and, if necessary, terminate the contract if the attorney believes that the terms of the contract are not in the best interests of the property owner.

b. Information brochure – Many property owners are unaware of the potential health and safety risks of wind turbines if located too close to their homes or livestock. Moreover, most property owners will be unaware of the specific standards included in the wind energy rules designed to protect their interests. Most importantly, these property owners will be unaware that the proposed wind siting rules allow written lease agreements to include "waiver provisions" which allow wind developers to follow lesser standards if the property owner agrees to them in the writing.

Recommendation -- To better inform property owners about some of the potential risks related to wind energy turbines, we recommend that (a) the state produce an informational brochure that describes wind energy systems, state standards (including the waiver provision) and some of the possible impacts on property owners, and (b) wind developers be required to provide property owners with this pamphlet prior to entering into a contract. This requirement would be similar to the informational brochure given to property owners neighboring a proposed large livestock facility, as required by Wis. Stats. s. 93.90 and Wis. Adm. Code ch. ATCP 51.

c. Clarification that lease negotiators must have a Wisconsin real estate license -- Under Wisconsin law, anyone who negotiates an interest in real estate for another person (including leases) and receives compensation must be licensed in Wisconsin as a real estate broker. See Wis. Stat. §452.01(2)(a). Real estate brokers owe certain fiduciary obligations to the public (e.g., must provide services honestly and fairly, prohibited from giving false information, must disclose all material adverse information) and are regulated by the Wisconsin Department of Regulation and Licensing. *See* Wis. Stat. § 452.133.

Recommendation -- To ensure that those who are responsible for negotiating leases on behalf of wind developers are aware that they must be licensed as Wisconsin real estate brokers and have certain fiduciary obligations to the public, we recommend that the proposed rules be modified to specifically state that anyone who negotiates a lease on behalf of wind developer for the purpose of siting a wind turbine must have a real estate license, as set forth under Chapter 452 of the Wisconsin Statutes.

d. Additional research – The rule fails to include a requirement for the state to perform additional research on the health impacts of wind energy systems or the impacts of wind energy systems on neighboring property values. This information is important to better understand the true impacts of wind energy systems on human health and property values and whether any future modifications to the rules may be necessary.

Recommendation -- We recommend that the rules be modified to require the state to gather information and conduct further studies about the true impacts of wind energy systems on neighboring property owners.

e. Time period for addressing complaints – The proposed rules provide owners of wind turbines with 30 days to responds to a complaint and up to 45 days to make a good faith effort to resolve complaints related to the wind turbine. *See* PSC 128.40(2). These

time periods could cause property owners to be subject to unreasonable noise, shadow flicker and disruptions in cable and cell phone service for excessive periods of time.

Recommendation -- We recommend that the rules be modified to require owners of wind turbines to resolve all issues related to complaints within 14 days after receiving such complaints.

f. Definition of "affected nonparticipating residence" -- The rule requires wind developers to provide notice of the shadow flicker requirements to owners of "affected nonparticipating residences" but the rule does not define the term "affected." See PSC 128.15(5). Other sections of the rule specifically define the distance a nonparticipating residence must be away from the wind energy system. (*See e.g.,* PSC 128.14(6)).

Recommendation -- We recommend that this term be further defined.

Comments for JCRAR hearing regarding PSC 128
Feb. 9, 2011

My name is Chris Linn. I'm the Vice President of Marketing and Business Development at Bassett Mechanical. Thank you for allowing me to speak on the matter related to PSC 128.

Bassett Mechanical is a Wisconsin-based, family owned business with our headquarters in Kaukauna and service operations in Madison and Milwaukee. We have a 75-year history of serving many of Wisconsin's major industries including, paper, cheese and dairy, printing and packaging, and shipbuilding to name a few. While we continue to have strong ties to these long-standing Wisconsin industries, we find that renewable energy, particularly wind energy, is also a vital part of our business today and a key component of our business growth plan going forward.

I made the trip to Madison today to express my support for PSC 128. As passed, the wind siting rule is positioned to support economic development in the state by providing manufacturing, construction, operations, maintenance, development, transportation, and other jobs. It also provides guidelines to allow for the thoughtful development of wind energy in the state.

I work for a company that has been actively engaged in the Wisconsin wind industry supply chain for about 6 years. Over those 6 years we've seen the wind supply chain in Wisconsin grow significantly. Today, more than 275 companies are in the Wisconsin Wind Works directory. While I speak for Bassett Mechanical, I know that I also speak for many of the other companies in the wind supply chain when I express support PSC 128.

Bassett, like many of these companies, sees the wind industry as an important part of its future growth. For 6 years we've been manufacturing embedment rings that are used to anchor the bolts in the foundations for wind towers. To date we've supplied foundation components for more than 2000 towers and nearly half of the ones in Wisconsin. In addition to the foundation components, our business plan calls for us to manufacture towers for medium sized turbines. This part of our business plan anticipates an increase of 50-60 jobs, which is significant for a company that currently employs 340 people.

PSC 128 was developed in a very thorough, open and balanced manner. The resulting setback rules provide a fair and reasonable way for the development of wind projects while protecting property owners, peoples' health and well-being, and the environment. PSC 128 is consistent with rules established in other states and in many other countries.

continued

Any proposals that would increase the setback rules beyond 1250 feet will only serve to hurt the wind supply chain in this state, reduce our ability to develop wind energy, and severely hinder the creation of jobs related to the wind industry.

Please note that keeping the setback at 1250 ft. will have positive economic and environmental impacts, whereas, increasing it will hurt the wind industry in the state overall.

We cannot attract major players in the wind industry to Wisconsin if we have rules that are detrimental to wind energy development. For example, we know that major turbine manufactures have avoided locating new manufacturing facilities here in favor of other states, in part because of onerous regulations affecting wind energy.

Suspending the rule now, before it has a chance to work, would send a strong negative message to those considering investments in the wind industry in Wisconsin, including those wind supply chain companies already located in the state. We need to create regulatory certainty now to retain and capture the jobs created by this industry.

Thank for the opportunity to express support for PSC 128.

WISCONSIN FARMERS UNION

February 9, 2011

Good morning Chairwoman Vukmir, Chairman Ott, and members of the Joint Committee for Review of Administrative Rules:

thank you for the opportunity to speak today. My name is Kara Slaughter, and I am here on behalf of Wisconsin Farmers Union, which is a member-driven organization committed to enhancing the quality of life for family farmers, rural communities and all Wisconsin residents.

In general, our organization is supportive of PSC rule 128. We have advocated for uniform wind siting standards from the outset, and feel that the PSC rulemaking process was fair and provided opportunity from input from all sides. As a state without any fossil fuel resources, Wisconsin needs to be open to the opportunities presented by renewable energy production, and wind energy specifically. Wisconsin Farmers Union members, the vast majority of whom live in rural areas, understand that renewable energy technologies offer them the opportunity to diversity their income streams and get in on the ground floor of a growing segment of our economy. We need reasonable wind siting rules to allow this to happen.

Do we feel the PSC rule 128 is perfect? No. The 1,250-foot setback is a reasonable one, but we'd rather see the setback calculated from the property line rather than the nearest non-participating residence. Calculating setbacks from property lines provides better property rights protection for neighboring landowners, and recognizes the dynamic nature of land use decisions.

There are a few other protections for landowners that we feel should be included in any wind standards:

1. Prohibition of non-disclosure or secrecy clauses in leases. Landowners should be allowed to review leases with attorneys, lenders and other holders of leases to ascertain the relative value of a lease offer.
2. Establishment of a registry of current standard wind leases and that they are made accessible to the public. A registry allows landowners to compare offered leases with standard leases and better ascertain the relative value of a lease offer. It also allows landowners to compare other lease terms with standard leases.
3. A prohibition on mandatory arbitration clauses.

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4. Authorization for collective bargaining of leases. Allowing landowners to bargain collectively for standard lease terms throughout a region or development project would encourage fairness in the application of lease terms among multiple landowners;
5. Disclosure of actual lease payments and premiums in contracts.
6. Five working day cooling-off period. Allows a five working day cooling-off period after a lease agreement is signed. This allows a landowner a window to reconsider if, for example, his attorney has an objection to the contract language.

Wisconsin Farmers Union applauds the inclusion of the section on wind turbine decommissioning, to ensure that landowners will not be stuck with the cost of removing a turbine at the end of its useful life. Overall, Wisconsin Farmers Union believes that the Public Service Commission has taken a comprehensive look at wind siting, and reached a reasonable compromise with PSC 128.

Thank you for your time.

February 8, 2011

The Joint Committee for Review of Administrative Rules (JCRAR)
Madison, Wisconsin

Re: Wisconsin Manufacturers in Support of PSC 128 Wind Siting Rules

Dear Members of the Joint Committee for Review of Administrative Rules,

We are contacting you as leaders of business and industry in the State of Wisconsin actively engaged in the manufacture of products, and the provision of essential services to the wind energy industry in North America. We respectfully request that you support and maintain the PSC 128 Wind Siting Rules. Suspension of the PSC rules would be a counterproductive, anti-business message to send to a growing industry, and to existing employers in your state already substantially invested in the wind industry.

While wind siting rules have been debated with respect to prospective wind farm development in Wisconsin, it is essential that you also understand the impact that adverse legislatinve action will have on current business income, existing jobs, and capital investment already established in our state. **Diverse manufacturers throughout Wisconsin, such as Wausaukee Composites, Lindquist Machine, Bassett Mechanical, Tower Tech, Milwaukee Machine Works, Applied Plastics, MCL Industries, Boldt, Matenaer, Merit Gear, C. A. Lawton, Ingeteam, Velocity Machine, and Avanti Wind Systems, to name a few, are already actively engaged in the manufacture of wind turbine components.** In fact, a number of these companies are now established market leaders in North America in the components that they supply to the wind industry!

Prior to the financial credit crisis that led to our national recession in 2008, many of these companies enjoyed thriving production lines with hundreds of employees dedicated to the manufacture of renewable energy components. Wind component manufacturers suffered through job losses in 2009, and again in 2010, as spending has only tentatively and sporadically returned to the wind energy marketplace. While order activity is gradually increasing, economic recovery and jobs expansion in the renewable energy industry -- like most industries -- remains cautious and fragile.

The point is, restrictive legislative action such as suspension of the PSC 128 wind siting rules only makes this economic recovery more difficult. It is incorrect to assume that more prohibitive siting rules will only impact hypothetical future jobs. It is a fact that this legislation will negatively impair business and jobs already established in Wisconsin. We are writing to you as diversified manufacturers and significant employers in Wisconsin, to request that you not take regressive, anti-business legislative action against the PSC 128 wind siting rules.

The American Wind Energy Association estimates that total direct and indirect jobs supporting the Wind Energy industry in Wisconsin exceeds 2,000 jobs. More than 20 manufacturing facilities in Wisconsin currently provide essential components to the industry, and a number of these plants were purpose-built and are exclusively dedicated to wind turbine component manufacture, representing tens of millions of dollars in sunk investment. Wind-related revenue derived from these established jobs and capital investment exceeds $200 Million, based upon conservative estimates by Wisconsin Windworks. In short, the wind energy business already represents a meaningful share of the Wisconsin economy.

Wisconsin's wind resource, estimated at greater than 103,000 MW, is ranked 16th in the United States. More than 500 MW of wind power generation is already installed in Wisconsin, 180 MW of power generation projects are currently under construction in the state, and more than 900 MW are pending development. Ours is a state with considerable wind resource potential. More importantly, it is a state with high ambition and substantial investment in the wind energy business, as evidenced by our active operations, and our numerous advocacy organizations, including Wisconsin Windworks, the Wisconsin Energy Business Association, RENEW Wisconsin, and others.

Stifling progressive investment activity with regressive regulatory action will result in eliminating Wisconsin jobs, not creating them. Implementing harsher turbine siting rules will result in discouraging corporate investment, not promoting it. And deliberately positioning Wisconsin as a pariah state in this important and growing industry is not a prudent strategy for a state attempting to redefine itself as pro-business.

JCRAR Committee Members, we ask that the PSC 128 Wisconsin Wind Siting Rules which were developed by consensus in an open, balanced and fair environment just last year, remain in place. And as business leaders with a vested interest in the wind energy industry, we wish to express our sincere interest in working with you to mutually establish a progressive renewable energy investment climate in the state of Wisconsin.

Thank you for your favorable consideration of this letter, and we look forward to future progressive collaboration with you on this very important subject.

Respectfully submitted,

David Lisle, President & CEO
Wausaukee Composites, Inc.
Wausaukee, Wisconsin

Mark Kaiser, President/COO
Lindquist Machine Corporation
Green Bay, Wisconsin

Chris Linn, Vice President - Marketing & Business Development
Bassett Mechanical
Kaukauna, Wisconsin

Mike Manna, General Manager
Milwaukee Machine Works
Milwaukee, Wisconsin

Kent Pedersen, General Manager
Avanti Wind Systems
New Berlin, Wisconsin

Chip Stringer, President
Matenaer Corporation
West Bend, Wisconsin

Joe Klein, Vice President
Applied Plastics
Oak Creek, Wisconsin

Alex Lawton, CEO
The C.A. Lawton Co.
De Pere, Wisconsin

Gary Lofquist, CEO
MCL Industries, Inc.
Pulaski, Wisconsin

Kevin Fredrick, President
Velocity Machine, Inc
Green Bay, Wisconsin

Larry Steffens, Vice President – Sales and Marketing
Merit Gear
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Avanti Wind Testimony PSC128 **February 9, 2011**

Committee Members,

My name is Connie Reilly. I 'm employed with **Avanti Wind Systems Incorporated** located at 5150 South Towne Drive, New Berlin, WI 53151. Our business is **100 % dedicated** to safe work **in Wind** Turbines. We supply ladders, lifts, climb assists, rescue gear and internals in addition to offering training, service and certification of those systems. Avanti and our Partner Ernst Incorporated combined; have 21 employees and capital investment exceeding 1 million dollars. I've been asked to speak to you on how our business and the state of Wisconsin benefit from the reasonable standards established under PSC 128.

Unpermitted projects in Wisconsin currently represent 572 megawatts, $1.5 billion in investment and approximately 1.6 million job hours. Based on design this converts to Avanti revenue potential to manufacture or service the following:

- 193 to 386 lifts, climb assist systems and internals packages
- 15,000 to 31,000 meters of ladder production
- 2 to 4 additional service related jobs
- Unlimited certification and training opportunities for the life of the turbine

Now Consider the State of Wisconsin. To support the Avanti sales; up to 15000 line items per turbine could require procurement. Consider 2-3 potential sources of supply both import and local competing for the business and job opportunities. Consider the Wind farm site requirements to prepare the roads, the site, erect the turbine and maintain the installed fleet. Consider the turbine life extinguished and the requirements to dismantle the turbine recycle the waste stream restore the roads. Now; consider the Jobs, the state revenue and the taxes generated in the following industries:

- Airline, Car rentals, Hotel and Dinning
- Port Clearance, Transportation, Fuel and Packaging
- Manufacturing, Supply, Equipment, Maintenance and Service.
- Land acquisition, transfers, Insurance underwriters, and Legal
- Construction and Transportation permits Lead and Follow cars.
- General management, Construction, Cabling, Electrical, Recyclers
- Education Institutes, Fire, Emergency and Rescue

So when I'm asked how does Avanti and the State of Wisconsin benefit under PSC128 I say:

Today, 2-3000 Wisconsin residents are employed directly or indirectly in Wind Energy.
Today, under PSC 128 employment and revenue generating opportunities for Avanti and the State of Wisconsin have the potential to grow.
Today, there are strong sound and shadow criteria which ensure protection of landowners.
Today, wind developers are able to efficiently site wind.
Today, we have open, balanced and fair rule making.
Today, wind development in Wisconsin is showing growth despite the economy.
Today, under existing 2010 sitting rules; we send a message that Wisconsin wants wind.
Today, enactment of the existing 2010 siting rules protects Wisconsin jobs, and the revenue flow to local governments and landowners.

Today, Avanti and the state of Wisconsin benefit under the existing PSC 128 rules.

Thank you

Survey Responses from Grant County Landowners Show Overwhelming Support for Wind Energy Development.

In the fall of 2007, Grant County landowners received a survey conducted by The Southwestern Wisconsin Regional Planning Commission.

Question 30 on the survey asked respondents if Grant County jurisdictions should pursue Ethanol Plants, Solar Energy or Wind Energy alternatives as a form of economic development. Data compiled from those surveys shows overwhelming support for Wind and Solar Energy with marginal support for Ethanol.

The proposed White Oak Wind Farm falls within Smelser Township, Cuba City, Hazel Green, Hazel Green Township and Dickeyville. Survey pages illustrating the responses to the renewable energy issues for the county and those townships follow.

The raw data for the comprehensive plans, which includes the survey data for all participating jurisdictions in Grant County, is also available at http://www.swwrpc.org.

The Southwestern Wisconsin Regional Planning Commission
Provides intergovernmental planning and coordination of community development planning, economic development, and transportation. In response to local and regional goals, the Commission and its Staff work to enhance fiscal and physical resources and to balance local and regional development, preservation, conservation, and social priorities. SWWRPC's member counties are Grant, Green, Iowa, Lafayette, and Richland.

Executive Summary

During the fall of 2007, the South Western Wisconsin Regional Planning Commission sent comprehensive planning public opinion surveys to 18,978 residents of Grant County and 4,715 (25 percent) were returned. From the 4,715 returned questionnaires the Survey Research Center (SRC) at UW-River Falls constructed a random sample of 379 surveys based on the number of occupied housing units in each jurisdiction. For example, the city of Boscobel, with 1,174 occupied housing units, represents 6 percent of the total occupied housing units in the County (18,559), so we wanted 6 percent of the overall County sample to come from the city of Boscobel (24 observations). The 379 surveys provide estimates that are accurate to within plus or minus 5 percent of the reported value.

The demographic profile of the sample of 379 surveys was compared to data from the 2000 Census of Population and Housing and was found, in general, to align very closely with it. Key features of the demographic profile of the sample are: about 70 percent include two adults and no children, very few reported being unemployed, they are solidly middle class (few with very low or very high incomes), and most have lived in Grant County for a long time (71 percent report having lived in Grant County for 25 or more years).

Key findings of this study include:

Quality of Life

- The predominant reasons people gave for living in Grant County is the "small town atmosphere" (58 percent) and to be "near family and friends" (56 percent).
- The next most common reason cited for living in Grant County (to be near a job) was cited by only 40 percent of respondents.

Community Facilities

- More than half of respondents rated all community services (ambulance, fire, etc.) as good or excellent.
- Substantial minorities rated street and road maintenance (36 percent) and police protection (24 percent) as fair or poor.
- Those younger than 55 are significantly more concerned about the quality of street and road maintenance than are older residents.
- Men are more concerned about the quality of police protection than are women.

Communication Preferences

- People in the County prefer to get information about planning efforts via direct mail (70 percent) and newsletters (56 percent).

Natural and Cultural Resources

- Grant County residents place a high value on natural and cultural resources in their jurisdictions.

Economic Development

"Government should work toward guiding development without giving away services or over burdening the developer or individual land owner."

". . . my husband has to drive to Madison everyday to have a good paying job with benefits. Grant County should provide more opportunities for people to get an education or learn a new skill WHILE working at the same time . . ."

"Lack of good restaurants."

Grant County residents were asked to provide their opinions about a number of economic development issues and their responses are summarized in Table 7. The first set of questions asked if the location of commercial and/or industrial activities involving truck traffic and manufacturing should be limited. Only about one-quarter of respondents would allow such activities to occur anywhere in the County but a majority agree or strongly agree that it should be limited to inside a city or village (53 percent) or near a city or village (79 percent). This result is consistent with the concern noted above about preserving farm land in the County. Male respondents were significantly more likely to agree that manufacturing activities should be located within cities or villages and less supportive of allowing them to be sited near a city or

Table 7: Opinions About Economic Development Issues, Grant County, 2007

Limit manufacturing involving truck traffic to:	Count	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
in city or village	347	14%	39%	28%	7%	12%
near a city or village	347	16%	63%	8%	3%	10%
anywhere in Grant county	339	7%	19%	38%	20%	16%
	Count	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Coordinate new businesses recruitment	358	53%	40%	2%	2%	3%
Require water and sewer services	360	26%	45%	11%	4%	14%
Grant County should provide land with infrastructure	360	16%	43%	19%	7%	15%
Grant County should pursue	Count	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
ethanol plants	361	22%	33%	23%	9%	13%
solar energy	366	39%	45%	5%	1%	10%
wind energy	372	48%	43%	2%	2%	6%

village or anywhere in the County than were women. Higher income households were, similarly, more likely to favor location of manufacturing businesses within cities or villages and less supportive of allowing them to locate anywhere in the County.

Virtually all respondents (93 percent) agreed or strongly agreed that Grant County should coordinate efforts to recruit new businesses and industry. Likewise, there is majority support for requiring developments at the edge of cities and villages to have municipal sewer and water (71 percent agree or strongly agree) and that all Grant County jurisdictions should provide at least some land with infrastructure for industrial and commercial developments (59 percent agree or strongly agree). Men are significantly more skeptical about the wisdom of providing infrastructure at public expense for industrial or commercial developments than are women.

Respondents were asked to weigh in on whether Grant County should pursue the development of three types of renewable energy to promote local economic development: ethanol, solar and wind energy. Interestingly, the only one of these options for which there is significant opposition is ethanol (about one-third disagree or strongly disagree that this option should be pursued). On the one hand, this is surprising given the clear and substantial impact that ethanol has had on the corn market in the U.S. during the past two years. On the other hand, press accounts with concerns about the sustainability of the rate of growth in this industry, concerns about the impact of these plants on local air quality and water supplies, and the increase in animal feed prices caused by ethanol make this level of opposition understandable. Men and those from higher income households are particularly skeptical about ethanol as a driver of local economic development.

Finally, Grant County residents were asked to provide their opinions about the importance of various types of economic activities to the Grant County economy. Figure 6 illustrates the fact that almost all respondents recognize agriculturally-related business as important or very important to the County's economy; only 4 percent disagree or are neutral with respect to this assessment. All of the items listed in Figure 6 gathered the support of strong majorities. Home based businesses had the lowest level of agreement that they are important or very important to the County's economy and even this option was supported by 71 percent of County respondents.

SUMMARY OF KEY POINTS – ECONOMIC DEVELOPMENT (COUNTY COMPARISON)

- When compared to the County average, support for wind energy is somewhat weaker in Smelser (though still a very solid majority). Town residents held similar views on the development of ethanol plants and solar energy.
- Residents of Smelser also hold similar views on commercial and industrial development as the County as a whole. However, Smelser residents are more likely to agree that development should be located in an existing city or village than other county residents.
- While Smelser residents are more likely to view tourism and recreation business development more important than the county average, all other forms of business development received similar ratings.
- Like the county, agriculturally-related business development is rated most important by residents of Smelser.

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Smel	Cnty	Smel	Cnty	Smel	Cnty	Smel	Cnty	Smel	Cnty
26. Commercial or industrial buildings and activities involving truck traffic and manufacturing should be located:										
a. In an existing city or a village	27%	14%	49%	39%	14%	28%	3%	7%	7%	12%
b. Near a city or village	16%	16%	61%	63%	12%	8%	4%	3%	7%	10%
c. Anywhere in Grant County	6%	7%	19%	19%	37%	38%	25%	20%	13%	16%
27. Coordinate business recruitment	52%	53%	39%	40%	4%	2%	1%	2%	3%	3%
28. Provide land & infrastructure for industry/commerce	19%	16%	39%	43%	25%	19%	3%	7%	14%	15%
29. Required muni water & sewer	31%	26%	39%	45%	10%	11%	4%	4%	17%	14%

30. Grant County jurisdictions should pursue the following energy alternatives as a form of economic development:

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	SMel	Cnty	Smel	Cnty	Smel	Cnty	Smel	Cnty	Smel	Cnty
a. Ethanol Plants	24%	22%	30%	33%	23%	23%	13%	9%	11%	13%
b. Solar Energy	42%	39%	45%	45%	4%	5%	1%	1%	7%	10%
c. Wind Energy	41%	48%	36%	43%	7%	2%	5%	2%	11%	6%
d. Other	26%	28%	21%	8%	5%	0%	0%	0%	47%	63%

SUMMARY OF KEY POINTS – ECONOMIC DEVELOPMENT (COUNTY COMPARISON)

- Like Grant County residents generally, those in Cuba City feel that commercial and industrial development should generally occur in or near an existing city or village.
- Residents of Cuba City feel more strongly that all Grant County jurisdictions should provide at least some land with infrastructure for industrial and commercial uses either owned publicly or privately.
- Like the overall County sample, Cuba City supports alternative energy development. By a small margin, Cuba City residents support the pursuit of ethanol plants more enthusiastically than the overall County average.

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty
26. Commercial or industrial buildings and activities involving truck traffic and manufacturing should be located:										
a. In an existing city or a village	11%	14%	44%	39%	36%	28%	2%	7%	7%	12%
b. Near a city or village	18%	16%	72%	63%	3%	8%	1%	3%	6%	10%
c. Anywhere in Grant County	6%	7%	27%	19%	43%	38%	11%	20%	13%	16%
27. Coordinate business recruitment	60%	53%	37%	40%	1%	2%	0%	2%	1%	3%
28. Provide land & infrastructure for industry/commerce	28%	16%	46%	43%	14%	19%	2%	7%	10%	15%
29. Required muni water & sewer	28%	26%	48%	45%	7%	11%	3%	4%	13%	14%

30. Grant County jurisdictions should pursue the following energy alternatives as a form of economic development:

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty	Cuba City	Cnty
a. Ethanol Plants	26%	22%	38%	33%	16%	23%	7%	9%	13%	13%
b. Solar Energy	43%	39%	41%	45%	6%	5%	0%	1%	10%	10%
c. Wind Energy	53%	48%	36%	43%	3%	2%	1%	2%	7%	6%
d. Other	12%	28%	12%	8%	0%	0%	0%	0%	76%	63%

30. Grant County jurisdictions should pursue the following energy alternatives as a form of economic development:

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty
a. Ethanol Plants	21%	22%	34%	33%	27%	23%	8%	9%	10%	13%
b. Solar Energy	30%	39%	51%	45%	8%	5%	2%	1%	10%	10%
c. Wind Energy	51%	48%	37%	43%	5%	2%	2%	2%	6%	6%
d. Other	10%	28%	20%	8%	0%	0%	0%	0%	70%	63%

Residents of the Village of Hazel Green have marginally higher levels of interest in home-based businesses than the overall County average.

31. Rate the importance of the following:

	Very Important		Important		Unimportant		Very Unimportant		Not Applicable	
	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty	Haz Gn	Cnty
a. Ag Related Business	59%	59%	35%	38%	2%	2%	0%	0%	5%	1%
b. Commercial & Retail	27%	33%	63%	59%	5%	7%	0%	1%	5%	1%
c. Downtown Devel	26%	31%	54%	52%	17%	11%	3%	2%	0%	4%
d. Home-Based Bus	11%	17%	70%	54%	16%	22%	0%	3%	3%	4%
e. Ind & Manufacturing	30%	40%	63%	50%	2%	8%	3%	1%	2%	1%
f. Tourism & Rec	23%	36%	63%	55%	9%	7%	3%	1%	2%	1%

SUMMARY OF KEY POINTS – ECONOMIC DEVELOPMENT (COUNTY COMPARISON)

- Compared to the County, Town of Hazel Green residents have higher levels of agreement that commercial or industrial development that involves truck traffic be located in existing cities or villages.
- Residents of the Town of Hazel Green have lower levels of agreement to require new development at the edge of an existing city to connect to municipal water and sewer.
- The level of support for the development of alternative energy as a tool for economic development is very similar to the overall County average, with the possible exception of ethanol plants. Respondents from the Town of Hazel Green may be slightly less likely to support ethanol plant developments than the County average.

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty
26. Commercial or industrial buildings and activities involving truck traffic and manufacturing should be located:										
a. In an existing city or a village	13%	14%	49%	39%	24%	28%	4%	7%	9%	12%
b. Near a city or village	7%	16%	73%	63%	7%	8%	4%	3%	10%	10%
c. Anywhere in Grant County	10%	7%	24%	19%	35%	38%	20%	20%	10%	16%
27. Coordinate business recruitment	50%	53%	45%	40%	1%	2%	0%	2%	4%	3%
28. Provide land & infrastructure for industry/commerce	24%	16%	41%	43%	19%	19%	4%	7%	13%	15%
29. Required muni water & sewer	18%	26%	46%	45%	18%	11%	1%	4%	18%	14%

30. Grant County jurisdictions should pursue the following energy alternatives as a form of economic development:

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty	T Haz Grn	Cnty
a. Ethanol Plants	14%	22%	34%	33%	26%	23%	14%	9%	13%	13%
b. Solar Energy	36%	39%	48%	45%	8%	5%	0%	1%	7%	10%
c. Wind Energy	44%	48%	40%	43%	6%	2%	0%	2%	9%	6%
d. Other	24%	28%	18%	8%	0%	0%	0%	0%	59%	63%

SUMMARY OF KEY POINTS – ECONOMIC DEVELOPMENT (COUNTY COMPARISON)

- Village of Dickeyville residents were generally less supportive of commercial and industrial buildings and activities involving truck traffic and manufacturing in an existing city or village.
- Relative to the County, residents feel slightly more strongly that jurisdictions should provide at least some land with infrastructure for industrial and commercial uses.

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Dville	Cnty	Dville	Cnty	Dville	Cnty	Dville	Cnty	Dville	Cnty
26. Commercial or industrial buildings and activities involving truck traffic and manufacturing should be located:										
a. In an existing city or a village	7%	14%	32%	39%	42%	28%	8%	7%	12%	12%
b. Near a city or village	21%	16%	61%	63%	7%	8%	2%	3%	8%	10%
c. Anywhere in Grant County	9%	7%	24%	19%	45%	38%	6%	20%	16%	16%
27. Coordinate business recruitment	49%	53%	45%	40%	3%	2%	1%	2%	2%	3%
28. Provide land & infrastructure for industry/commerce	21%	16%	44%	43%	19%	19%	3%	7%	13%	15%
29. Required muni water & sewer	21%	26%	48%	45%	18%	11 %	0%	4%	14%	14%

- Residents of the Village of Dickeyville give similar high support of pursuing alternative solar and wind energy as do County residents as a whole. As was true with the County, Village residents are less enthusiastic about ethanol plants as a form of economic development.

30. Grant County jurisdictions should pursue the following energy alternatives as a form of economic development:

	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion	
	Dville	Cnty	Dville	Cnty	Dville	Cnty	Dville	Cnty	Dville	Cnty
a. Ethanol Plants	19%	22%	32%	33%	33%	23%	4%	9%	13%	13%
b. Solar Energy	38%	39%	46%	45%	9%	5%	0%	1%	7%	10%
c. Wind Energy	51%	48%	43%	43%	2%	2%	0%	2%	4%	6%
d. Other	13%	28%	0%	8%	0%	0%	0%	0%	88%	63%

My name is Marjorie Nett.

Thank you for allowing me time to speak.

I live in the town of Brothertown in Calumet County.

In 2007, I was invited to serve on the Ad Hoc Committee advising on the Wind Energy Ordinance to preserve and protect the public health and safety of the citizens in Calumet County. During my research I discovered that the nation turns to the National Academies such as

a. National Academy of Sciences
b. National Academy of Engineering
c. Institute of Medicine and
d. National Research Council

for independent, objective advice on issues that affect people's lives worldwide.

This book was published not just for Wisconsin, not just for the United States it was published for the World when considering Wind Energy Projects.

I would like to quote two items from this book..

On Page 153, the 3rd bullet states – Turbine..noise usually is most critical within a half-mile of a project. Efforts to reduce potential noise impacts on nearby residents therefore may be most important within that distance.

On Page 159, the first sentence under Mitigation Measure and Standards – Noise produced..by wind turbines generally is not a major concern for humans beyond a half-mile. 2640 ft.

Most of your research has already been studied by these National Academies. I would like to provide you with the contact information, address and phone number, in order for you to get additional copies of this report. Please use this book as a resource when drafting the recommendations for the people of Wisconsin.

In summary, setbacks should be no less than 2640 feet from property lines to protect the land owners' rights and land values and to reduce potential noise impacts and shadow flicker concerns.

I ask that you protect me and my family from becoming "collateral damage" as the wind companies have already been known to call us.

I need your help to change the PSC wind siting rules.

Thank you for your time and consideration.

Margorie Nett
W4815 Dick Rd
Chilton WI 53014

920-418-1203

Book title - "Environmental Impacts of Wind-Energy Projects."

by:

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Attached is Appendix E: Minority Report

taken from:

Wind Siting Council

Final Recommendations
To the Public Service Commission

Wind Siting Rulemaking
Pursuant to 2009 Wisconsin Act 40

August 9, 2010

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 on 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:

APPENDIX E: MINORITY REPORT

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

APPENDIX E: MINORITY REPORT

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/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

APPENDIX E: MINORITY REPORT

- 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

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.

APPENDIX E: MINORITY REPORT

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.

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 ¾ 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

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

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.

APPENDIX E: MINORITY REPORT

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

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.

APPENDIX E: MINORITY REPORT

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

> 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 disproportionally 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.

APPENDIX E: MINORITY REPORT

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 indispensible 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

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)

Thank you for your hearing our concerns today.

I am very concerned that the Wind Siting Rules allow the property rights of a nonparticipating landowner to be taken away from him because of a wind turbine nearby, by restricting what he can build on his own property. He can be prevented from erecting a silo, from erecting his own wind turbine, from planting trees, or from doing anything that would interfere with the flow of wind to someone else's wind turbine. The developer is not required to negotiate any wind access easement agreement in which the nonparticipating landowner is compensated for a loss of certain uses of his property. Those property rights are simply "taken", without consent, and without even being notified. The Wind Siting Rules do nothing to address this injustice.

The Wind Siting Rules need to require a notice, such as the following, as a part of the application:

Notice of Possible Property Restrictions.
The applicant shall deliver by certified mail or by hand a notice to the owner of any property, which the applicant proposes to be restricted by the permit. The notice shall state that the permit, if granted, may affect the rights of the notified owner to develop his or her property and to plant vegetation.

The Wind Siting Rules also need to require wind access agreements, such as the following, as a part of the application:

Wind Access Agreements.
The applicant shall provide evidence (a signed statement from the applicant and countersigned by the landowner) that the applicant has negotiated with adjacent landowners and has obtained written agreements with all landowners whose wind rights may be affected by the Wind Energy System or who could otherwise potentially interfere with the applicant's wind access.

In conclusion, placing a wind turbine next door must not be allowed to legally restrict the use of my property without a wind access easement agreement that I consent to and which compensates me for my lost property rights. This is an obvious taking of property rights that needs to be rectified.

PSC 128.01 Definitions.
(22) "Wind access easement" means a written document that creates a legal interest in real property that restricts the use of the property to avoid interference with the wind resource on another property.

Jim Vanden Boogart
7463 Holly Mor Rd.
Greenleaf, WI 54126

Yes NEARLY 2000 COMMENTS POSTED) BUT NOT SERIOUSLY CONSIDERED
PUBLIC HEARINGS IN FONDULAC

OTHER STATES WHERE TURBINES ARE PLACED ARE NOT PLACED NEAR PEOPLE RESIDENCES

AWEA AMERICAN WIND ENERGY ASSOCIATION

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Statement of the American Wind Energy Association (AWEA) and Wind on the Wires (WOW) before the "Joint Committee for the Review of Administrative Rules" on PSC 128 Rules Set to Take Effect on March 1, 2011

Good morning, my name is Jeff Anthony. I am a resident of Milwaukee, WI and I work for the American Wind Energy Association, AWEA, as its Director of Business Development. AWEA is based in Washington, DC and is the national trade association for the wind energy industry. I am also representing Wind on the Wires, our regional partner in the Upper Midwest. They are a non-profit advocacy organization based in Minnesota and have responsibility for addressing regulatory and legislative issues in Wisconsin and other Midwestern states on behalf of the wind energy industry.

AWEA and Wind on the Wires are here today to encourage this Committee to take no action on the PSC 128 rules that are scheduled to take effect on March 1st. These comprehensive, statewide rules were developed over a two-and-a-half year period and reflect a fair and open process that involved many different stakeholders. The result was some very stringent, yet workable rules for wind project siting. These rules are critical to making sure Wisconsin is indeed "OPEN FOR BUSINESS" to investment and jobs growth by the wind energy industry.

Wisconsin has almost 500 megawatts (MW) of operating wind power capacity on-line in the state today, but only 54 MW were added in 2009 and only 20 MW were added in 2010. These projects bring direct economic benefits to Wisconsin each and every day – not to mention cleaning the air we breathe every day. And each year, the operating wind projects in Wisconsin:

- Provide annual property tax payments by wind project owners of $870,000
- As well as annual land lease payments to property owners of $1.35 million

Onerous wind siting restrictions by some municipalities are the primary culprit for why Wisconsin continues to fall behind our neighboring states:

- Indiana has over 1,000 MW of wind projects installed
- Minnesota and Illinois both have over 2,000 MW installed
- And Iowa has well over 3,000 MW installed, producing almost 15% of the state's electricity and reaping the benefits of thousands of jobs in the wind energy industry in the state.

Wisconsin has almost 1000 MW of new projects ready for development, but these projects will never see the light of day if our state cannot present a stable and predictable set of siting requirements. The siting rules set to take effect on March 1st provide exactly the kind of stable and predictable environment that wind project developers need.

The siting bill introduced earlier last month in the Governor's special legislative session would have gutted the rules developed through a lengthy, multi-stakeholder, consensus-based process and indicated to developers that Wisconsin was "CLOSED FOR BUSINESS" for future wind project development. This would have eliminated $1.8 billion worth of investment in new wind projects in the state and deprived the construction industry in Wisconsin of over 2 million hours of construction labor. This bill would have had serious impacts on Wisconsin manufacturers who supply components to the wind energy industry as well.

This hearing today is intended to review the new rules developed in 2010. These rules represent a compromise – a compromise which by definition means that no party or stakeholder got what they wanted. Indeed, the wind energy industry had to concede on several points and ended up with rules that are more stringent than most states in the U.S. on setback distances, sound requirements, and shadow issues. But the open, consensus-driven process yielded something that all parties can abide by. These rules should not be abandoned before they have even been allowed to take effect. The uncertainty and lack of a stable regulatory environment, caused by one group of stakeholders that perhaps did not get its way on every issue, is jeopardizing hundreds of jobs and millions of dollars in investment over the next couple of years in this state.

The existing rules also provide the necessary protections for landowners and neighbors. The rights of these parties were fully considered and incorporated into the rules contained in PSC128.

If Wisconsin is serious about economic development, then it must look to establish a stable environment for wind project development, and for wind turbine component manufacturing in the state. Turbine manufacturers and makers of major components want to locate factories (and jobs) close to where projects are being installed. States that are "open for business" to the wind energy industry, like Iowa, Kansas, and Texas, are reaping the benefits of associated manufacturing jobs as well. In Wisconsin over 2,000 existing jobs that directly or indirectly support the wind energy industry are at stake, as well as $1.8 billion dollars of new wind project investment and over 2 million construction job hours in the next few years.

Implementation of the existing PSC 128 wind siting rules must proceed ahead. These rules should be allowed to take effect, as planned on March 1st. To suspend the rules will basically hang a "CLOSED FOR BUSINESS" sign on the state to the wind energy industry and will ship jobs to Iowa, Illinois, and Minnesota in droves.

Thank you for the opportunity to present the case for strong economic growth and jobs creation in the state of Wisconsin.

TESTIMONY TO THE JOINT COMMITTEE FOR REVIEW OF ADMINISTRATIVE RULES

ATTORNEY JEFF VERCAUTEREN
ON BEHALF OF THE WISCONSIN ENERGY BUSINESS ASSOCIATION*

FEBRUARY 9, 2011

Senator Vukmir, Representative Ott, and members of the Committee, thank you for the opportunity to testify on the uniform wind siting rules promulgated by the Public Service Commission. I am testifying today on behalf of the Wisconsin Energy Business Association ("WEBA"), a trade association of over 60 businesses and organizations promoting reliable, secure, and cost-effective energy solutions to strengthen our economy and support market-driven innovation and supply chain growth in the energy sector. Our members include TowerTech, Badger Transport, Bonestroo Engineering, and Wind Capital Group.

Texas Governor Rick Perry gave a speech in 2008 titled "Texas is Wide Open for Business," touting improvements in the legal and regulatory market to make the state more attractive to new investment, including wind energy development. In a speech last month, he again reinforced the importance of more predictable regulations in encouraging and fostering economic growth over the past decade, a decade in which his state created more jobs than any other state in the nation. Texas is also the leading producer of wind energy in the country.

That type of regulatory certainty has been lacking for the wind energy industry in Wisconsin over the past decade, a result the uniform wind siting rules in PSC 128 will help reverse if allowed to take effect on March 1. Without these rules, Wisconsin will continue to lose investment opportunities to neighboring states with more favorable regulatory climates.

PSC 128 is needed to establish a reasonable approach to regulating wind energy systems in our state. Far too many wind projects remain stalled because of ordinances that essentially ban such projects. As promulgated, PSC 128 maintains strong protections for neighboring landowners, including strict sound and shadow criteria that ensure a safe setback distance. It also provides monetary compensation to neighboring landowners within a half-mile of a turbine.

Much of the debate over the past month has centered on the issue of neighboring landowners, and it is important to protect those property rights. However, the property rights of host landowners have been lost in the debate. Wind energy is a substantial new crop for Wisconsin farmers allowing small family farms to remain in operation in the face of increasing economic difficulties. As Governor Perry said in 2008, "I am especially encouraged by the fact that many families in rural Texas, whose grip on their land was slipping because of the rising cost of farming . . . can now keep their land because of revenues from hosting wind turbine towers."

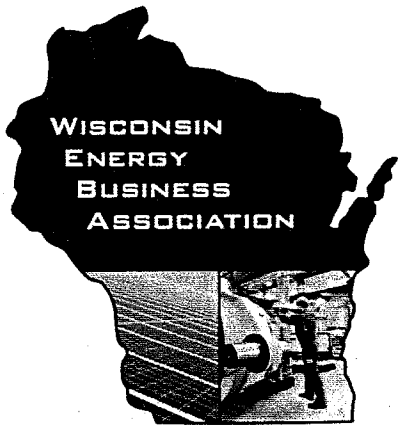
We must strike an appropriate balance between the property rights of neighbors and hosts. PSC 128, through its strong sound, shadow, and setback standards, does just that. We must also

embrace the kind of regulatory certainty that has allowed states like Texas to remain prosperous and competitive, even in the midst of a national economic recession. The renewable energy supply chain in Wisconsin has become an increasingly important sector of our economy over the past decade. It is a key element of the renaissance of Wisconsin manufacturing that we must encourage. We must lift the burden of intrusive government policies on this important industry and allow Wisconsin manufacturers and contractors to function in a free market that includes opportunities for reasonable and responsible wind energy development.

Accordingly, we respectfully request that the Committee take no action and allow PSC 128 to take effect on March 1. Thank you. I would be glad to answer any questions that Committee members may have.

BRIEF SUMMARY OF PSC 128	
Setback from Property Lines	1.1 times total turbine height
Setback from Nonparticipating Residences	The lesser of 3.1 times total turbine height or 1,250 ft.
Sound Limits	50 dBa (day), 45 dBa (night)
Shadow Standard	Not to exceed 30 hours/year
Shadow Mitigation	Mandatory above 20 hours/year
Neighbor Payments	Allows municipalities to require developers to offer annual payments to nonparticipating residences within one-half mile of a turbine. Sets annual payment levels of $600, $800, and $1,000, based on the number of turbines within one-half mile.

*THE WISCONSIN ENERGY BUSINESS ASSOCIATION IS A COALITION ORGANIZED BY WIND ON THE WIRES AND RENEW WISCONSIN. FOR ADDITIONAL INFORMATION, PLEASE CONTACT LEE CULLEN, JEFF VERCAUTEREN, OR SHAINA KILCOYNE, 608.251.0101, CULLEN@CWPB.COM, VERCAUTEREN@CWPB.COM, KILCOYNE@CWPB.COM.



Wisconsin Energy Business Association Members

Addison Wind LLC, *Random Lake*
Agri-Waste Energy, Inc.
American Wind Energy Association
Badger Transport, *Clintonville*
Baldwin Dairy, *Baldwin*
Bonestroo Engineering, *Green Bay*
Broadwind Energy
Business Biomass Solution, *Middleton*
Clean Wisconsin
Clear Horizons LLC, *Milwaukee*
Convergence Energy, *Lake Geneva*
D&D Equipment Company, *Chilton*
E3 Coalition LLC, *Viroqua*
EcoManity LLC, *Elkhart Lake*
Eden Renewable Energy LLC, *Campbellsport*
Element Power
Emerald Dairy, *Emerald*
Emerging Energies of Wisconsin, LLC, *Hubertus*
Energies Direct, LLC, *Sauk City*
Energy Concepts, Inc., *Hudson*
Full Spectrum Solar, *Madison*
GHD, Inc., *Chilton*
Green Power Solutions Inc.
H&H Solar Energy Services, Inc., *Madison*
Half Moon Power LLC, *Milwaukee*
Helios USA, LLC, *Milwaukee*
Horizon Wind Energy
IBEW Wisconsin State Conference of Inside Construction Locals
Institute for Local Self-Reliance
Invenergy Wind LLC
Kettle View Renewable Energy, *Random Lake*
L&S Technical Associates, Inc., *Spring Green*
Lake Michigan Wind and Sun, Ltd., *Sturgeon Bay*
Legacy Solar, *Frederic*
Michael Fields Agricultural Institute
Midwest Wind Energy
Natural Resources Consulting, Inc.
Next Step Energy LLC, *Eau Claire*
North Wind Renewable Energy, LLC, *Stevens Point*
Northern Biogas, *Little Suamico*
Northern Power Systems, *Hartford*
Organic Valley Family of Farms, *La Farge*
Pennan Energy, *Middleton*
Prairie Solar Power & Light, *Eastman*
Procorp Enterprises, *Milwaukee*
RENEW Wisconsin
Renewegy, *Oshkosh*
Ritger Law Office, *Random Lake*
Seventh Generation Energy Systems, *Madison*
Sierra Club – John Muir Chapter
StormFisher Biogas
SUN & Daughters Renewable Energy, *Rhinelander*
Suring Digester LLC, *Suring*
Sustainable Living Group, *Sheboygan*
Tower Tech Systems, Inc., *Manitowoc*
UrbanRe Vitalization Group LLC, *Milwaukee*

URIEL WIND
VERTERRA ENERGY, *MILWAUKEE*
WAVE WIND LLC, *SUN PRAIRIE*
W.E.S. ENGINEERING, *MADISON*
WIND CAPITAL GROUP, *MADISON*

WIND ON THE WIRES
WIND WISCONSIN, *MIDDLETON*
WISCONSIN ENVIRONMENT
WISCONSIN FARMERS UNION

WISCONSIN ENERGY BUSINESS ASSOCIATION IS A LEADING BUSINESS TRADE ASSOCIATION PROMOTING RELIABLE, SECURE, AND COST-EFFECTIVE ENERGY SOLUTIONS TO STRENGTHEN OUR ECONOMY AND SUPPORT MARKET-DRIVEN INNOVATION AND SUPPLY CHAIN GROWTH IN THE ENERGY SECTOR.

RENEW Wisconsin

222 South Hamilton Street, Madison, WI, 53703 • 608.255.4044 • www.renewwisconsin.org

Statement of RENEW Wisconsin before the Joint Committee for the Review of Administrative Rules on PSC 128 Rules Set to Take Effect on March 1, 2011.

Good morning, my name is Michael Vickerman. I am here to represent RENEW Wisconsin, a nonprofit advocacy and education organization based in Madison. Incorporated in 1991, RENEW acts as a catalyst to advance a sustainable energy future through public policy and private sector initiatives. We have over 300 total members, and more than 60 businesses around the state, including Biogas Direct (Prairie du Sac), Bleu Mont Dairy (Mount Horeb), Bubbling Springs Solar (Menomonie), Crave Brothers Farm (Waterloo), Convergence Energy (Lake Geneva), Emerging Energies (Hubertus), Energy Concepts (Hudson), Full Circle Farm (Seymour), Full Spectrum Solar (Madison), GDH, Inc. (Chilton), H&H Solar (Madison), Kettle View Renewable Energy (Random Lake), Michels Wind Energy (Brownsville), North American Hydro (Neshkoro), Northwind Renewable Energy LLC (Stevens Point), Pieper Power (Milwaukee), Organic Valley (LaFarge), Quantum Dairy (Weyauwega), Renewegy (Oshkosh), and Seventh Generation Energy Systems (Madison).

On behalf of all our members that have an interest in wind generation, RENEW Wisconsin took the lead in bringing together diverse groups and companies and forging a broad and bipartisan coalition to support legislation establishing statewide permitting standards for all wind generators in the state of Wisconsin. The fruit of that labor, 2009 Act 40, was signed into law in September 2009.

I am here today to encourage this Committee to take no action on the PSC 128 rule that is scheduled to take effect on March 1st. The Commission's rule is a good-faith compromise that balances the state's interest in promoting a preferred energy resource with the interests of neighboring landowners.

I would like this committee to consider the following points:

- **The statewide rule promulgated by the PSC is the culmination of two uninterrupted years of agency involvement in wind siting proceedings. The record built on the major issues is nothing short of encyclopedic.**

- **A longer setback distance is not necessary given PSC 128's strict regulation of sound propagation and shadow flicker duration.** Both the maximum allowable nighttime sound threshold (45 dBa) and the maximum

allowable duration of shadow flicker (25 hours a year) are very strict thresholds in comparison to what other states have adopted.

- **Payments from wind generation facilities support rural economies.** The counties and towns hosting Wisconsin's four largest operating windpower installations receive more than $1.5 million in payments in lieu of taxes each year. Landowners hosting the 251 turbines in these projects receive more than $1.2 million per year combined. Not counting payments for transmission-related infrastructure, these four wind projects pump nearly $3 million annually to local governments, host landowners and neighboring residents. (See the January 12th, 2011, article in the ***Fond du Lac Reporter***)

- **There is no credible evidence that existing wind development in Wisconsin has depressed property values statewide.** In 2008 and 2009, Poletti and Associates, an Illinois real estate appraisal firm, investigated the impact of the Lincoln and Rosiere wind projects on nearby land sales and home construction activity. Analyzing seven years' of sales data, the ***Poletti*** study concluded that the 31 turbines in Kewaunee County have not an effect on area property values. Moreover, since 1999, when the turbines were placed in service, more than 10 houses have been constructed within one-half mile of a turbine there.

The PSC rule will provide wind energy developers with regulatory certainty -- a clearly defined set of requirements which they must comply with in order to obtain a permit. Such stability and clarity in the wind permitting arena has been absent from Wisconsin for the last 13 years, which, more than any other reason, explains why Wisconsin utilities own more wind generating capacity in Iowa and Minnesota (329 MW) than they do in Wisconsin (235 MW). There is one sure way that Wisconsin leaders can demonstrate their commitment to nurturing wind energy-related businesses and the jobs that will emerge from their activities, and that is to allow the PSC 128 rule to take effect as scheduled on March 1st. Thank you very much for your time and consideration.

Respectfully submitted,
Michael Vickerman
February 9, 2011

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Wind farm payouts approach $3 million

Energy developer payouts used to offset local taxes

BY COLLEEN KOTTKE • The Reporter • January 12, 2011

Local municipalities are profiting from the wind. While many residents in Fond du Lac and Dodge counties live nowhere near the turbines dotting the landscape, the revenue stream from the towering towers is helping to offset increases in property taxes.

Last year, owners of Wisconsin's four largest wind energy projects paid out nearly $2.8 million in rent to landowners hosting turbines and payments in lieu of property taxes to local governments, according to figures compiled by RENEW Wisconsin, a statewide renewable energy advocacy organization.

Fond du Lac County, which is home to 166 wind turbines, received a revenue payment of $625,000. Dodge County received $296,000 in payments for hosting 85 wind turbines.

"While we didn't designate the income for anything in particular, we did use it to pay the bills of the county. Ultimately, it saves on property tax," said Fond du Lac County Executive Allen Buechel.

Formula

Towns and counties do not collect property taxes from wind turbines but instead receive payments based on the generating capacity of each turbine, allocated under a formula adopted by the state Legislature in 2003.

Of the total revenue paid out to local governmental entities, counties retain two-thirds of the payments while townships hosting the turbines receive one-third. Payments to those local governments in Fond du Lac and Dodge counties will reach almost $1.6 million for 2010.

Wind energy developers negotiate lease agreements with landowners to host turbines on their property. Payments can be as high as $7,000 per turbine each year. Estimated rental payments to all Fond du Lac and Dodge county landowners will total slightly more than $1.2 million for 2010. Property owners hosting the 88 wind turbines in the Blue Sky Green Field wind farm in townships of Marshfield and Calumet divvied up a total of $440,000 paid to them by WeEnergies.

Marshfield Township Chairman John Bord said the $121,000 received from WeEnergies was used to keep rising property taxes in check in the town.

"Without that income, taxpayers would have felt the loss of state revenue even more," Bord said.

Invenergy issued $516,000 in payments last year to Fond du Lac County and the townships of Byron, Oakfield, LeRoy and Lomira hosting the Forward Wind Energy Center. Property owners leasing land for the 86 wind turbines shared $430,000 in income.

Both government and landowners in the townships of Eden and Empire received $477,000 from Wisconsin Power & Light, owner of the Cedar Ridge wind farm.

Every little bit of income helps, especially when state shared revenue dollars keep decreasing and municipal costs keep rising, said Byron Town Chairman Francis Ferguson. The town of Byron received an annual payment of $50,000.

"It's not a deal where we're getting rich on this," Ferguson said. "We would like to see the townships get a larger share of the money than the county since we have to provide the service for the

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turbines."

Byron was among several townships in the state that supported legislation authored by state Rep. Daniel LeMahieu, R-Cascade, in 2009. Assembly Bill 270 sought to modify utility aid payments paid by wind farm developers. The measure failed to reach the floor for a vote.

Financial support

Michael Vickerman, executive director of RENEW Wisconsin, said the revenues from the wind farms help support farm families and rural Wisconsin communities.

"It's a much better deal for the state than sending dollars to Wyoming and West Virginia for the coal imported to Wisconsin to generate electricity," he said in a press release.

Gary Haltaufderheide, an employee of Madison-based Land Services Company, which negotiates land leases for large projects, like pipelines and wind turbines, said, "Farmers are smart business people, and they're very satisfied with the payments. One farmer saw the lease as a way to cover tuition payments for a child entering college."

While many neighboring landowners are still unhappy with the presence of the wind turbines, Ferguson said he has not heard one complaint from a hosting landowner.

"The host doesn't seem to have a problem with them, but the folks living a half-mile from the turbines seem to," Ferguson said.

The four wind projects — Forward, Blue Sky Green Field, Cedar Ridge and Butler Ridge (Dodge County) — comprise nearly 90 percent of Wisconsin's wind generation fleet.

When calculated over a 20-year contract period, total revenue is expected to exceed $60 million, taking inflation into account.

Will wind developers target the area for additional wind farms in the future? Buechel is not sure.

"Some developers have been looking at the west side of the county, and there's talk of doing more on the east side of the county. But there's nothing that I'm am aware of that's planned right now," Buechel said.

Invenergy of Chicago operates the Forward Energy Wind Center near Brownsville in Dodge County.(The Reporter file photo)

A REAL ESTATE STUDY
OF THE PROPOSED LEE-DEKALB WIND ENERGY CENTER
LEE AND DEKALB COUNTIES, ILLINOIS

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IMPACT ON THE VALUE OF THE SURROUNDING PROPERTIES

One means of estimating a wind power electric generating farm's impact on surrounding property values is to compare sale prices of properties within a Target Area to prices of similar properties within a Control Area. The Target Area is a zone in proximity to an operating wind generating electric farm and is defined by a combination of distance, intervening land uses, and visibility of the facility. The Control Area is the region outside of the target area that is considered to be a zone where property values would not be affected by an operating wind farm.

Since this is a proposed project, it was necessary to investigate property sales around two other operating wind farms. The wind farms used are the Lincoln and Rosiere wind farms in Kewaunee County, Wisconsin and the Mendota Hills Wind Farm in Lee County, Illinois.

ROSIERE AND LINCOLN WIND FARMS, KEWAUNEE COUNTY, WISCONSIN

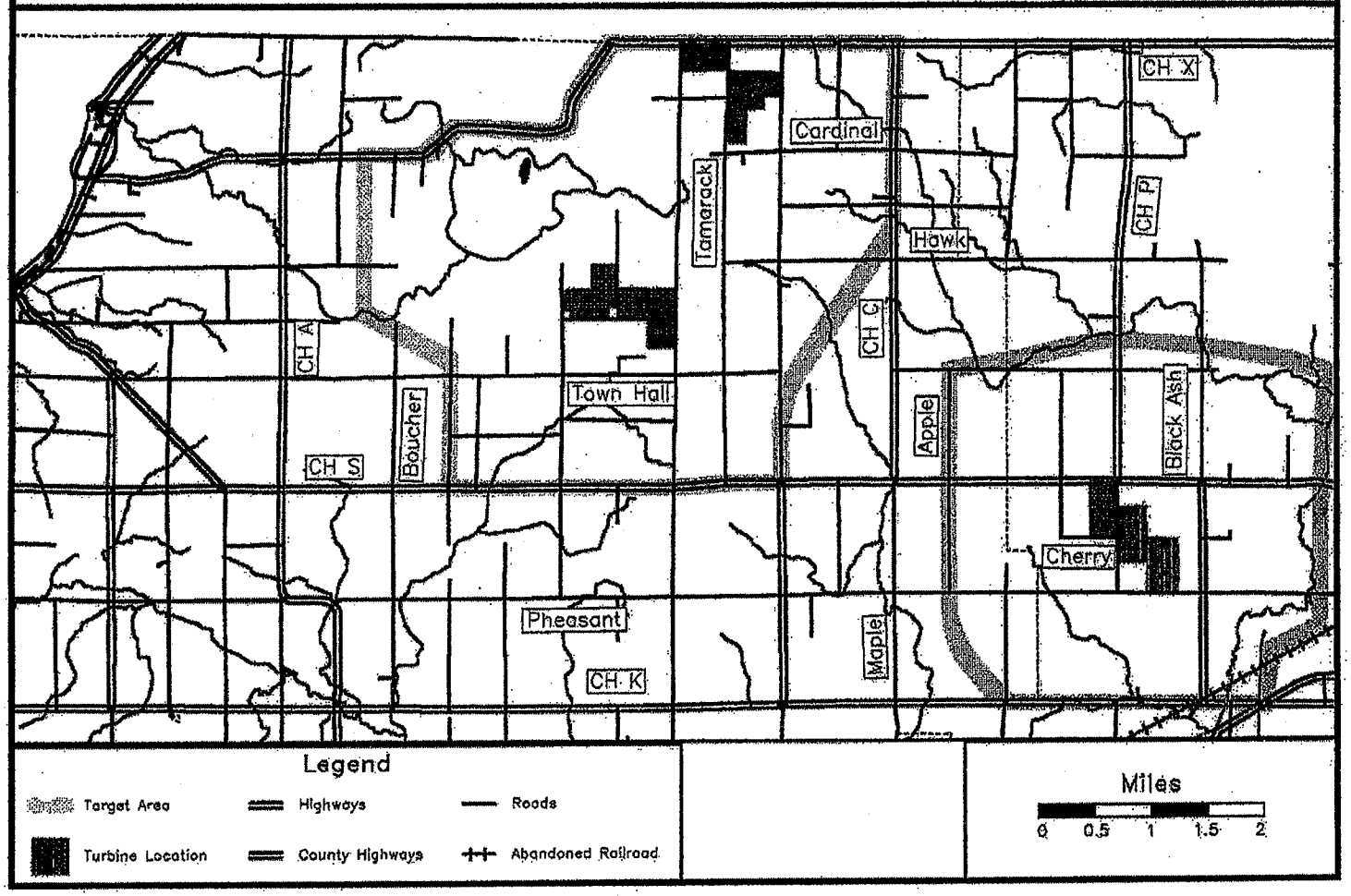
There are two wind farms located within Kewaunee County that have operated since 1998. The farms are located within Red River and Lincoln townships about midway between Lake Michigan and Green Bay. The larger of the two farms is the Rosiere Wind Farm located along Red River and Town Line Road. This wind farm is operated by Madison Gas and Electric and has a total of 17 turbines located on 476 acres. The Lincoln Wind Farm is operated by Wisconsin Public Service and is located near Gregorville. It comprises 14 turbines located on 237 acres. Although smaller than those proposed for the subject project, the design of the turbines is similar to those at the subject.

Land use in the area is primarily agricultural with some commercial establishments located in smaller communities such as Casco and Luxembourg. Most residential development consists of houses located on tracts between one and ten acres. Development throughout both townships has continued since the turbines were constructed in 1998. The topography is somewhat rolling and is generally similar to that at the subject site.

Sales were gathered from Joe Jerabek, the Town of Lincoln Assessor and Gary Taicher, the Town of Red River Assessor. The years that sales were available were from January of 1998 through December of 2004 for the Lincoln Township and January of 2001 through December of 2004 for Red River Township. Sales that occurred between related parties (such as family members), as the result of judicial actions or in lieu of foreclosure, or involved governmental units were eliminated from consideration. Such sales do not represent transactions that meet the requirements of the definition of market value. Also eliminated from consideration were sales to Wisconsin Public Service and Madison Gas or Electric for similar reasons. The studies are detailed below.

Target areas were defined for each wind turbine farm. The Target Areas are illustrated in Figure 3. The Control Area lies outside the Target Area. The Control Area does not include the western most portion northwestern portion of Section 18 and the western half of Section 8 of the Red River Township. This area is near Highway 57 and Green Bay. This area was excluded because of overall better road access to the City of Green Bay and because of the influence of shore front property and bay view on prices of land and homes when compared to those without views of the bay or quick access to City of Green Bay.

Fig. 3: Target Area of Rosiere and Lincoln Wind Farm.



Small Residential Tract Acreage

A review was made of the selling prices of residential acreage. These tracts are defined as comprised of five acres or less. There were a total of nine sales with in the Target Area and twelve sales within the Control Area. The sales are summarized in Table 2. The average selling price per acre within the Target Area was $6,548 while within the Control Area it was $5,785. These two prices are similar, indicating that there is no difference in the overall price of land within the Target Area versus smaller residential tract sales in the Control Area.

Special mention is made of Sale 9 within the Target Area. This sale is located on Cherry Road approximately 1,900 feet from the nearest operating turbine and has a direct view of the wind farm. This property sold for a price per acre of $23,333. There was an existing old house on the property, which was torn down for a new house. The cost for removal of the existing house is not included in the $23,333 per acre. If Sale 9 is ignored, then the overall price per acre of Target Area is $4,450 per acre.

A statistical comparison was made of the two means to ascertain if there was, in fact, a significant difference between the two indicated prices. This analysis does not include Sale 9. This analysis indicated that the calculated *t* statistic for the sample was 0.577. This is less than the Standard *t* of 1.729 indicating that at the 95% confidence interval, there is no significant difference in the mean sale price per square foot of small residential tracts within the target and control areas.

Table 2: Small Residential Tract Sales.

Sale	Parcel No.	Address	Grantor	Grantee	Sale Price	Size	Book/ Page	Sale Date	$/Ft²
Target:									
1	31 010 5 021	X	Sprngdl. DF	Chaudoir	$1,800	1.000	341/011	Nov-99	$1,800
2	31 010 14 151	Black Ash	Wery	Miller	$6,500	1.000	420/207	Feb-03	$6,500
3	31 010 22 12	S	Jeanquart	Dufek	$2,400	2.980	336/355	Jul-99	$805
4	31 010 22 14	Cherry	Cravillon	Naze	$5,000	5.000	338/303	Sep-99	$1,000
5	31 010 35 151	P	Mertens	Srnka	$1,500	0.085	346/362	May-00	$17,647
6	31 010 35 151	P	Mertens	Neuzil	$300	0.120	318/895	May-98	$2,500
7	31 010 35 151	P	Mertens	Vogel	$2,000	2.000	337/589	Aug-99	$1,000
8	31 018 12 153	Tamarack	Schlise	Challis	$20,000	4.600	402/782	Sep-02	$4,348
9	31 010 27 092	N7875 Cherry	Fenendael	Pelnar	$21,000	0.900	472/110	Aug-04	$23,333
Average:									$6,548
Average Sales 1 through 8:									$4,450
Control:									
10	31 010 3 061	Fir	Dutil Trust	Hackett	$3,000	5.000	351/130	Sep-00	$600
11	31 010 10 165	Hawk Rd	Nicolet Brd.	Streck	$10,900	1.600	375/146	Sep-01	$6,813
12	31 010 11 15	Hawk Rd	Moreau	Paul	$500	1.000	341/690	Dec-99	$500
13	31 010 19 151	S	Kinnard Fms	Beaurain	$300	0.210	430/225	Apr-03	$1,429
14	31 010 19 014	Martin	Dhuey Trust	Cochart	$2,000	1.400	428/17	Apr-03	$1,429
15	31 010 29 131	Maple Rd	Deprey	Doperalski	$10,000	1.000	333/256	Apr-99	$10,000
16	31 010 29 131	Maple Rd	Deprey Tr.	Petry	$10,000	1.500	342/235	Jan-00	$6,667
17	31 010 29 135	Maple Rd	Martin	Deprey	$12,900	2.000	349/555	Aug-00	$6,450
18	31 010 33 12	K	Strnad	Spitzer	$28,000	4.500	350/173	Sep-00	$6,222
19	31 010 33 061	Maple Rd	Deprey	Moreau	$2,400	2.300	334/457	Jun-99	$1,043
20	31 018 30 163	E0478 Thiry	Pallet	LeGrave	$17,500	1.000	462/636	Apr-04	$17,500
21	31 018 30 166	E0496 Thiry	Nachtwey	LeGrave	$14,000	1.300	461/169	Apr-04	$10,769
Average:									$5,785

Sample	Sample Size	Degrees Of Freedom	Sample Mean	Sum Of Squares	Standard Deviation
Target:	9	8	$4,450	226,288,635	5318.47
Control:	12	11	$5,785	297,570,905	5201.14
Combined:	21	19		523,859,540	

Variance:	27,571,554.7
Variance of Difference of Means:	5,361,135.64
Standard Deviation:	2,315.41
Calculated T =	0.577
Standard T at 95% 19 Degrees of Freedom:	1.729

Residential Tract Acreage

A review was made of the selling prices of residential tract acreage. These tracts are defined as comprising between five acres and twenty acres. The sales are summarized in Table 3. These sales indicated that the average selling price within the Target Area was $2,494 per acre while within the Control Area it was $1,747. These two prices are close together and would indicate that there is no difference in the overall price of land within the Target Area versus small residential tract sales in the Control Area.

Table 3: Residential Tract Sales.

Parcel No.	Address	Grantor	Grantee	Sale Price	Size	Book/ Page	Sale Date	$/Ft^2
Target:								
31 010 22 021	P	Rhoades	Shaw	$76,000	14.040	327/27	Oct-98	$5,413
31 010 35 151	K	Mertens	Jahnke	$15,000	18.100	343/888	Mar-00	$829
31 010 36 13	Chestnut	Salzsieder	Nell	$6,000	6.000	316/642	Apr-98	$1,000
31 010 36 161	SH 54	Salzsieder	Nell	$8,400	7.000	453/230	Nov-03	$1,200
31 010 36 161	SH 54	Salzsieder	Nell	$11,600	12.000	453/232	Nov-03	$967
31 018 24 161	S	Englebert	Johnson	$100,000	18.000	365/845	Jun-01	$5,556
Average:								$2,494
Control:								
31 010 9 15	Hawk Rd	Horak	Alberts	$6,136	9.000	335/675	Jun-99	$682
31 010 20 151	CH "S"	Dhuey	Theys	$2,000	6.000	324/401	Oct-98	$333
31 010 20 06	Spruce Rd	Dhuey	Jandrin	$10,000	12.500	313/817	Feb-98	$800
31 018 3 022	E1531 Cnty Ln.	Laluzerne	Ahlswede	$15,000	10.000	373/219	Oct-01	$1,500
31 018 3 051	County Line	Mork	Jonet	$23,300	17.300	388/236	Mar-02	$1,347
31 018 3 111	X & Rocky Road	Dalebroux	Derenne	$42,000	19.000	444/348	Aug-03	$2,211
31 018 16 16	Town Hall	Dalebroux	Besaw	$27,300	13.000	452/516	Nov-03	$2,100
31 018 19 16	SS	Mertens	Brenneke	$35,000	7.000	357/882	Jan-01	$5,000
Average:								$1,747

Large Tract Acreage

A review was made of the selling prices of large tract acreage. These tracts are defined as comprised of more than twenty acres. They are used for agricultural purposes or very large residential tracts. Sales between family members and related parties as well as those comprising swamp and forested land were not included in the analysis. The agricultural sales are summarized in Table 4. These sales indicated that the average selling price within the Target Area was $1,418 per acre while within the Control Area it was $1,602. These two prices are close together and indicate that there is no significant difference in the overall price of land within the Target Area versus large tract sales in the Control Area.

A statistical comparison was made of the two means to ascertain if there was, in fact, a significant difference between the two indicated prices (see Table 5). This analysis indicated that the calculated *t* statistic for the sample was 0.881. This is less than the Standard *t* statistic of 1.678 indicating that at the 95% confidence interval, there is no significant difference in the mean sale price per square foot of large tracts within the target and control areas.

Table 4: Large Tract Sales.

Sale	Parcel No.	Address	Grantor	Grantee	Sale Price	Acres	Book/ Page	Sale Date	$/Acre
Target:									
1	31 010 6 153	Spruce Rd & C	Herison	Pagel's	$108,000	72.0	394/62	Jun-02	$1,500
2	31 010 7 05	Tamarack Rd	Hurley	Jandrin	$37,500	25.0	469/662	Jul-04	$1,500
3	31 010 21 031	Apple	Kinnard	Peters	$63,800	75.0	335/341	Jun-99	$851
4	31 010 22 04	P	Morse Trust	Sogge	$58,000	40.0	397/709	Aug-02	$1,450
5	31 010 22 06	Partridge	Golapske	Moynihan	$112,500	40.0	442/103	Aug-03	$2,813
6	31 010 27 14	Cherry Rd	Pelnar	Yunk	$29,155	35.0	324/181	Oct-98	$833
7	31 010 27 05	S. Cherry	Duescher	Petersilka	$40,000	36.0	342/652	Jan-00	$1,111
8	31 010 27 091	Cherry	Almonte	Fenendael	$36,000	39.0	355/450	Feb-01	$923
9	31 010 27 08	Cherry	Miller	Zellner	$80,000	40.7	392/639	Jun-02	$1,966
10	31 010 33 08	Hemlock	Vandermause	Maedke	$60,000	41.0	447/625	Sep-03	$1,463
11	31 010 33 03	Hemlock	Annoye	Srnka	$63,000	70.0	318/192	May-98	$900
12	31 010 34 111	Hemlock	Annoye	Strand	$26,000	34.4	316/829	Apr-98	$756
13	31 010 35 12	E4386 K	Mertens	Hoagland	$40,000	40.0	343/352	Feb-00	$1,000
14	31 010 35 12	K	Mertens	Hoagland	$40,000	40.0	431/738	Feb-03	$1,000
15	31 018 23 061	Town Hall	Haske	Watson	$110,000	34.3	472/683	Sep-04	$3,207
Average:									$1,418
Control:									
16	31 010 3 061	X & Fir	Dutil	Pagel's	$45,204	34.7	388/118	Mar-02	$1,303
17	31 010 3 022	Elm	Dutil Trust	DeGrave	$45,200	34.7	373/820	Oct-01	$1,301
18	31 010 3 11	Fir	Huettl	Pagel's	$63,000	35.0	453/937	Dec-03	$1,800
19	31 010 4 05	X	Forsch	Pagel's	$49,600	33.0	462/307	Apr-04	$1,503
20	31 010 4 03	X	Menne	Pagel's	$99,800	66.5	430/516	Apr-03	$1,501
21	31 010 5 13	C	Delfosse	Pagel's	$58,400	39.2	454/163	Dec-03	$1,490
22	31 010 9 15	Fir	Horak	Kinnard	$35,000	50.0	339/233	Oct-99	$700
23	31 010 9 16	N8967 Fir	Kinnard	Pagel's	$50,000	57.7	421/715	Sep-02	$866
24	31 010 9 141	P	Horak	Pagel	$180,500	260.0	317/645	May-98	$694
25	31 010 10 121	Hawk Rd	Pinchart	3 M Tree Fa	$65,000	39.4	375/26	Nov-01	$1,650
26	31 010 11 063	CH P	Horak	Postotnick	$24,000	20.0	320/682	Jul-98	$1,200
27	31 010 11 063	P	Postotnik	Krzewina	$33,000	20.0	347/496	Jun-00	$1,650
28	31 010 11 063	P	Horak	Postotnick	$33,000	20.0	347/495	Jun-00	$1,650
29	31 010 11 032	Black Ash	Massey	Leitzinger	$90,000	60.0	342/146	Jan-00	$1,500
30	31 010 13 04	Hickory	Gostein	Blair	$87,500	40.0	437/129	Jun-03	$2,188
31	31 010 14 04	Black Ash	Tollefson	Parins	$40,000	40.0	400/795	Aug-02	$1,000
32	31 010 14 03	Black Ash	Carr	Destree	$73,500	40.0	439/867	Jul-03	$1,838
33	31 010 14 08	Black Ash	Massey	Destree	$40,000	41.0	338/414	Sep-99	$976
34	31 010 14 111	Cherry & Part	Deer Trail I	Miller	$50,000	72.6	321/902	Aug-98	$688
35	31 010 15 061	Hawk Rd	Mertens	Sautebin	$40,000	40.0	352/831	Dec-00	$1,000
36	31 010 20 101	Spruce	Dhuey Trust	Kinnard	$30,000	20.0	433/377	Jun-03	$1,500
37	31 010 29 131	Pheasant Rd.	Mueller	Pinchart	$108,700	58.7	452/751	Nov-03	$1,852
38	31 010 29 131	Pheasant Rd.	Deprey Tr	Mueller	$104,000	186.6	391/220	May-02	$557
39	31 010 32 011	Maple Rd	Deprey Tr	Massart	$40,000	20.0	342/878	Feb-00	$2,000
40	31 010 32 05	Pheasant Rd.	Frisque	Kinnard	$47,000	21.3	476/574	Nov-04	$2,207
41	31 010 32 10	C	Pinchart	Kinnard	$60,000	40.0	382/721	Jan-02	$1,500
42	31 010 32 011	Pheasant Rd.	Mueller	Anderson	$86,000	40.0	455/397	Dec-03	$2,150
43	31 010 32 06	E2995 Pheasan	Deprey Tr	Mueller	$183,000	100.0	391/219	May-02	$1,830
44	31 010 32 021	Pheasant Rd.	Mueller	Kinnard Fa	$242,000	118.0	455/378	Jan-04	$2,051
45	31 018 3 111	X & Rocky Rd.	Dalebroux	Derenne	$38,000	20.0	444/343	Aug-03	$1,900
46	31 018 20 073	H	Nellis	Bader	$70,000	20.0	369/631	Jul-01	$3,500
47	31 018 20 141	S	Dalebroux	Jacobs Tr.	$235,000	94.0	452/90	Nov-03	$2,500
48	31 018 21 071	A	Dalebroux	Euclide	$124,200	43.8	465/119	Apr-04	$2,836
Average:									$1,602

Table 5: Statistical Analysis of Large Tract Sales.

Sample	Sample Size	Degrees Of Freedom	Sample Mean	Sum Of Squares	Standard Deviation
Target:	15	14	$1,418	7,521,028	732.95
Control:	33	32	$1,602	13,231,030	643.02
Combined:	48	46		20,752,058	
Variance:					451,131.7
Variance of Difference of Means					43,746.10
Standard Deviation:					209.16
Calculated T =					0.881
Standard T at 95% 46 Degrees of Freedom:					1.678

Single Family Residential Values

A number of homes have sold within the target area surrounding the two operating wind farms in Kewaunee County. A total of seventy-nine improved sales were reviewed. Of these, 33 sales were within the Target Area and 46 sales were within the Control Area. These sales are summarized in Appendix I. Sales between relatives or other related parties, commercial establishments and mobile homes were removed from the analysis as not being truly indicative of values for a single-family residential property. This left a total of 26 sales within the Target Area and 39 sales within the Control Area. The overall average price within the Target Area was $62.19 per square foot and $68.60 per square foot within the Control Area. The two averages are very close indicating that there is no apparent difference between the target and control area prices. A statistical comparison was made of the two means to ascertain if there was a difference between the two indicated prices (see Table 6). This analysis indicated that the calculated *t* statistic for the sample was 0.688. This is less than the Standard *t* statistic of 1.671 indicating that at the 95% confidence interval, there is no significant difference in the mean sale price per square foot of all residences within the target and control areas.

Table 6: Statistical Analysis of All Residential Properties.

Sample	Sample Size	Degrees Of Freedom	Sample Mean	Sum Of Squares	Standard Deviation
Target:	26	25	$62.19	19,782	28.13
Control:	39	38	$68.60	65,630	41.56
Combined:	65	63		85,412	
Variance:					1,355.7
Variance of Difference of Means:					86.91
Standard Deviation:					9.32
Calculated T =					0.688
Standard T at 95% 63 Degrees of Freedom:					1.671

These homes vary significantly in characteristics such as total size, style, age, amount of associated land, and number of outbuildings. Because of the magnitude of these differences, comparing an overall average sale price of all sales within the Target Area to an average sale price within the Control Area would not be meaningful.

To increase the reliability of the study, certain criteria were applied to the sales. Only houses constructed after 1960 were used because these homes are more similar in style, construction techniques, amenities, condition, and utility than homes constructed before this time frame. Homes located on tracts larger than five acres or those with newer large outbuildings were not used because of the possibility of the extra land and buildings distorting the price

per square foot. Bi-level and tri-level homes also were not included in the study because they tend to sell for less per square foot than do one-story and two-story homes and because it is often difficult to accurately estimate the actual amount of living space. Consequently, these types of homes would tend to skew results in the sample.

A total of 19 sales remained in the sample with 6 sales being located within the target area and the remaining 13 within the control area. The sales used are summarized in Table 7. The overall per square foot price range for houses within the target area was from $77.47 to $108.75 with an average of $92.64. In comparison, the overall per square foot price range for houses within the control area was from $68.59 to $122.75 with an average of $91.53 or $1.11 lower than that within the Target Group. A statistical comparison was made of the two means to ascertain if there was, in fact, a significant difference between the two indicated prices. This analysis indicated that the calculated *t* statistic for the sample was -0.147. This is less than the Standard *t* of 1.740 indicating that at the 95% confidence interval, there is no significant difference in the mean sale price per square foot of residences within the target and control areas. Overall, it is concluded that there is no measurable difference between improved residential sales within the Target and Control Area.

Table 7: Sales of Residences Constructed After 1960.

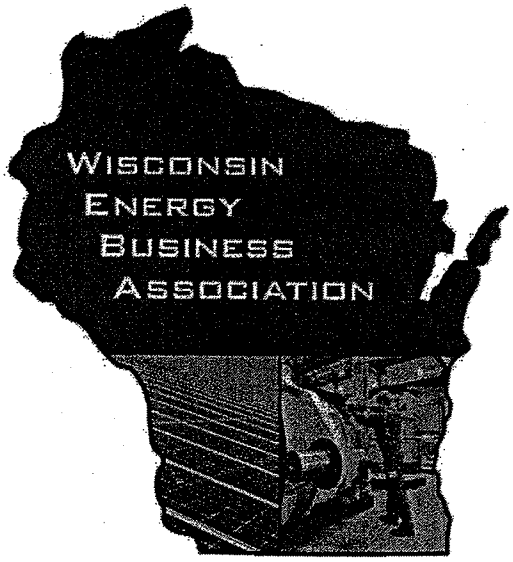
Sale	Parcel No.	Address	Sale Price	Acres	Sale Date	Age	Ft^2	$/Ft^2	Sum Of Squares
Target Area:									
17	31 010 27 05	N8015 Cherry	$162,000	5.00	Oct-02	2001	1,850	$87.57	26.0
25	31 018 3 161	E1650 X	$80,000	1.10	Feb-02	1980	1,000	$80.00	160.0
26	31 018 3 162	E1658 X	$121,500	1.50	Sep-02	1998	1,232	$98.62	36.0
27	31 018 13 093	E2225 Fameree	$119,000	1.10	Feb-03	1983	1,536	$77.47	230.0
28	31 018 15 151	E1596 Town Hall	$184,000	5.00	Mar-04	1995	1,692	$108.75	260.0
29	31 018 15 151	E1596 Town Hall	$175,000	5.00	May-02	1995	1,692	$103.43	116.0
Average:								$92.64	828.0
Control Area:									
42	31 010 17 141	N8601 C	$172,000	1.00	May-02	1980	1,569	$109.62	327.0
54	31 010 31 103	N7452 RR&LTL	$150,000	1.29	Mar-04	1988	1,222	$122.75	975.0
55	31 010 32 111	E2962 K	$120,400	2.00	Sep-99	1972	1,544	$77.98	184.0
57	31 010 32 051	E3009 Pheasant	$127,000	2.00	Jul-02	1991	1,361	$93.31	3.0
58	31 010 32 122	E3088 K	$171,000	0.92	Jul-03	1974	1,808	$94.58	9.0
65	31 018 9 093	N9047 A	$118,000	1.79	Jul-01	1995	1,465	$80.55	121.0
67	31 018 18 013	E457 Macco	$175,000	1.00	Jun-02	1987	2,370	$73.84	313.0
68	31 018 18 012	Macco	$137,500	3.00	Jul-01	2001	1,838	$74.81	280.0
69	31 018 19 133	N8207 H	$103,000	1.00	Oct-01	1978	1,104	$93.30	3.0
70	31 018 25 012	E2497 S	$139,900	1.50	Dec-02	1966	1,500	$93.27	3.0
75	31 018 28 092	N7805 A	$179,000	2.70	Sep-03	1977	1,608	$111.32	392.0
76	31 018 32 121	E642 K	$129,000	3.00	Jul-02	1985	1,344	$95.98	20.0
77	31 018 33 012	N7655 A	$207,000	2.90	Jul-02	1976	3,018	$68.59	526.0
Average:								$91.53	3,156.0

Sample	Sample Size	Degrees Of Freedom	Sample Mean	Sum Of Squares	Standard Deviation
Target:	6	5	$92.64	828.0	12.87
Control:	13	12	$91.53	3,156.0	16.22
Combined:	19	17		3,984.0	

Variance:	234.4
Variance of Difference of Means:	57.09
Standard Deviation:	7.56
Calculated T =	0.147
Standard T at 95% 17 Degrees of Freedom:	1.740

Additional Information

Joe Jerabek, the assessor for Town of Lincoln, provided some anecdotal data. He indicated that construction was continuing in the area and that there was no apparent affect from the wind turbines located in his township. His analysis, based on assessment levels, indicated that the overall percentage level of assessment in the area had declined which would indicate an increase in property value. He also stated that new construction was occurring along Cherry Road, which is approximately 1,750 feet from nearest wind turbine. This was confirmed by a visual inspection of the area.



MEMORANDUM

TO: ALL LEGISLATORS

FROM: WISCONSIN ENERGY BUSINESS ASSOCIATION

DATE: JANUARY 27, 2011

RE: BAN ON WIND DEVELOPMENT IN WISCONSIN (SS-SB-9/SS-AB-9)

The Wisconsin Energy Business Association opposes Special Session SB/AB 9, a bill that would mandate 1,800-foot setback distances between wind turbines and neighboring property lines. No other statewide regulation in the country imposes setback requirements of that length from property lines. The bill as drafted would layer the 1,800-foot setback requirement on top of the already strict standards embedded in the statewide wind siting rule adopted by the Public Service Commission (PSC 128) in 2010. There is not one live wind generation project in the state, including those that have already been permitted by local governments, that could comply with such a setback requirement if the Legislature adopts this bill.

Creating such an inhospitable permitting environment for large wind energy systems would have immediate detrimental consequences to the state's economy and well-being. These consequences include: (1) loss of in-state manufacturing, transportation, construction, and project maintenance opportunities; (2) loss of jobs in businesses directly or indirectly connected to wind energy development; (3) loss of project revenues to host landowners, neighboring residences, and local governments; and (4) increased dependence on both electricity imports and increasingly expensive out-of-state fossil fuel sources.

Recently, the Wisconsin Realtors Association (WRA) circulated a memorandum in support of the proposed *de facto* ban on windpower development in Wisconsin. The WRA memo presents a highly distorted and at times inaccurate view of the wind siting debate, especially relating to economic impacts. The Wisconsin Energy Business Association takes this opportunity to respond to the distortions and unproven claims in that document and present a more accurate picture of wind energy's contribution to Wisconsin's economic health and well-being.

1(a). There is no credible evidence that existing wind development in Wisconsin has depressed property values in Kewaunee County. Wisconsin Public Service Corporation (WPS) and Madison Gas & Electric (MGE) own and operate two of the oldest commercial wind projects in the United States. Placed in service in June 1999, these two projects are located within four miles of each other in the Kewaunee County townships of Lincoln and Red River. Over their 11½ years of operation, the Kewaunee County projects have been a rich source of data for several studies examining the impacts of wind generators on nearby property values. One study, conducted by the Illinois firm of Poletti and Associates, was published in March 2009. Employing a conservative methodology to filter out the effects of related party sales and utility purchases, the Poletti study concluded that the presence of wind turbines had no statistically significant effect on sale prices of small, medium, or large tracts, nor on the sale prices of single

family homes. Moreover, a number of new houses have been constructed in proximity of the MGE and WPS projects. Source: http://www.wiwindinfo.net/studies/Poletti%20Study.pdf.

Indeed, between 1999 and 2010, eight new houses were constructed within one-half mile of WPS's Lincoln project, and seven new houses were built between one-half-mile and one mile of the same installation. Source: Joe Jerabek, Zoning Administrator, Lincoln Township.

1(b). There is no credible evidence that existing wind development in Wisconsin has depressed property values statewide. Of the state's 316 commercial wind turbines, 168 are located in Fond du Lac County, 85 in Dodge County and 31 in Kewaunee County. According to data compiled by the Wisconsin Taxpayers Alliance on property values and levies, total equalized valuation in Wisconsin peaked in the 2008/09 reporting period ($498,431,959,545), and has declined by 3.7% in the ensuing two years ($480,629,166,495). Yet equalized valuation in the three counties with the most wind turbines outperformed the statewide average. In the case of Fond du Lac County, equalized valuation actually **increased** by 1.2% during that time, while Dodge and Kewaunee counties managed smaller declines than the statewide average during that period (2.7% and 2.4% respectively). Source: http://www.wistax.org/facts.

1(c). The WRA's property value study contains several methodological errors and weaknesses that greatly reduce its value. To support its contention that wind turbines can lower residential property values by as much as 40%, WRA relies on a 2009 study that was introduced in the Public Service Commission's Glacier Hills Wind Park proceeding (6630-CE-302). However, there is much in that study that does not stand up to scrutiny, including:

- Extremely limited data samplings;
- Limited time window following project completions (12 months);
- Comparing 2009 values (a bust year) with 2005 values (a boom year) without adjusting for vastly different macroeconomic conditions;
- Comparing unimproved properties with improved properties; and
- Comparing interior properties with properties with views of Lake Winnebago.

In contrast to the rushed nature of the study cited by WRA, data from the ***Poletti*** study captures seven years' worth of property sales. Moreover, in its comparison of property sales between the target area and the control area, the ***Poletti*** study, unlike the study cited by WRA, filters out the variables that can greatly affect sale prices.

2. WRA's discussion of windpower's impacts on commercial and residential construction is wholly one-sided and overlooks the benefits from building energy-producing systems on rural land. In its memo, WRA casts the economic impacts of windpower development strictly in terms of lost jobs and tax revenues accruing from diminished construction activity. As shown by the level of home-building in proximity to the Kewaunee County wind projects, this is a false dichotomy. Wind turbines do not preclude the construction of nearby buildings. Moreover, WRA's formulation fails to acknowledge any part of windpower's well-documented benefits to the building industry, as well as to rural landowners and governments, manufacturers, transportation businesses, and consulting engineers.

The following is a sampling of positive economic impacts from commercial wind development.

- Wisconsin's largest wind generation facility, We Energies' 88-turbine, 145-megawatt Blue Sky Green Field installation generated about 400,000 job-hours of construction activity.

That figure is likely to be eclipsed by We Energies' newest project, the 90-turbine, 162-megawatt Glacier Hills installation in Columbia County, which will begin operation later this year. Combined, both projects represent about $700 million in capital investment and will account for about 850,000 job-hours of construction work.

- The counties and towns hosting Wisconsin's four largest operating windpower installations—Blue Sky Green Field, Forward Energy Center, Cedar Ridge and Butler Ridge—receive more than $1.5 million in payments in lieu of taxes each year. These same governmental units receive additional compensation for hosting the transmission-related infrastructure associated with the wind generation. Landowners hosting the 251 turbines in these projects receive more than $1.2 million per year combined. All told, these four wind projects pump more than $3 million annually to local governments, host landowners, and neighboring residents.

- A number of Wisconsin companies directly participate in the construction of in-state wind projects. The entities include ***Boldt Construction*** (Appleton), ***Michels Wind Energy*** (Brownsville), ***The Manitowoc Companies*** (Manitowoc), ***Tower Tech*** (Manitowoc), ***Wausaukee Composites*** (Wausaukee and Cuba City), ***RMT WindConnect*** (Madison), ***Edgerton Contractors*** (Oak Creek), ***Hooper Construction*** (Madison), ***Sanderfoot Wind and Excavating*** (Appleton), and ***Wondra Construction*** (Iron Ridge). Among Wisconsin participants in the global supply chain are ***Aarrowcast*** (Shawano), ***ABB*** (New Berlin), ***American Superconductor*** (Middleton), ***Avanti Wind Systems*** (New Berlin), ***Bassett Mechanical*** (Kaukauna), ***Strohwig Industries*** (Richfield), ***Magnatek*** (Menomonee Falls), and ***Merit Gear*** (Antigo).

3. WRA's characterization of the rule's promulgation is inflammatory and untrue. The siting rule promulgated by the Public Service Commission in December 2010 is the culmination of two uninterrupted years of fact-finding, technical hearings, public hearings, preparation of an Environmental Impact Statement (EIS) on what will become the state's largest wind energy facility, and advice from a 15-member advisory body created by statute. The evidentiary groundwork for the siting rule started with the Glacier Hills Wind Park proceeding. From the beginning, the PSC reviewed We Energies' application with the understanding that its decision would have implications for future wind proceedings, including dockets to establish rules for wind projects under 100 MW. The agency sought in May 2009, and received in June 2009, an extension of the 180-day review period to 360 days. As the agency reviewed the application, it built a comprehensive record on all the issues that would later emerge in the wind siting docket (1-AC-231). An EIS was prepared to expand the agency's understanding and knowledge of such issues as sound, shadow, property values, and groundwater. One group opposed to Glacier Hills, the Coalition for Wisconsin's Environmental Stewardship (CWEST), received intervenor compensation to underwrite the submittal of testimony on sound and property values.

The PSC's management of the wind siting rulemaking proceeding (1-AC-231) was similarly deliberative and inclusive. Kicked off two months before the Commission order on Glacier Hills, the rulemaking docket was structured to provide the Wind Siting Council sufficient time to review the issues and formulate recommendations to the PSC. Agency staff worked diligently to support the Council, which met over 20 times before issuing its report to the PSC in August. In June Commissioners attended public hearings in Tomah, Fond du Lac, and Madison. Between the Commission staff's draft rule, the Siting Council's recommendations, and the Glacier Hills order, the PSC had before it several well-digested proposals from which to select policy options for incorporation in the new rule.

As indicated in the following chronology, the PSC started wrestling with the wind siting issue in early 2009. From that point forward until December 2010, it built up a record on both proceedings that could be considered encyclopedic. To describe the PSC's deliberations in these proceedings as "ramming" is a cheap shot that is completely contradicted by the evidence.

History—Two Full Years of Deliberation on Wind Siting Issues:

- We Energies files an application to build the Glacier Hills project on October 2008. The CPCN application was deemed complete in January 2009.
- A joint legislative hearing was held May 2009 on a bill (SB 185) directing the PSC to establish uniform permitting standards for wind energy systems.
- The PSC decides in June 2009 to prepare an EIS. The draft EIS was issued in July and the final EIS was issued in September.
- Governor Doyle signs Wisconsin 2009 Act 40 into law on September 30, 2009.
- Technical hearings are held on Glacier Hills in November 2009. In the same month, the PSC initiates the wind siting rulemaking proceeding (1-AC-231).
- The PSC approves Glacier Hills in January 2010.
- In March 2010, the PSC convenes the first meeting of the 15-member Wind Siting Council required under Act 40 to make recommendations to implement the legislation.
- The PSC issues draft siting rule in May 2010, triggering a 45-day comment period.
- The PSC holds three public hearings on the draft rule in June 2010.
- The Wind Siting Council submits its report in August 2010 to the PSC.
- In August the PSC issues its decisions on the rule's contents over the course of four open meetings. The rule (PSC 128) is sent to the Legislature for review.
- The Senate Energy and Utilities Committee holds a hearing on the rule. After the hearing, it sends a letter to the PSC requesting changes to the rule.
- The PSC makes changes to the rule on December 9, 2010, and sends the rule back to the legislative committees, which took no action on the rule. PSC 128 is set to take effect March 1, 2011

4. A longer setback distance is not necessary given PSC 128's strict regulation of sound and shadow. In structuring wind siting rules, an agency has the option of pursuing two different pathways to ensure adequate protection of public health and safety. One way to accomplish that objective is through setback distances. The other pathway involves strict regulation of the physical impacts of wind energy systems. In the case of PSC 128, the maximum allowable nighttime sound (45 dBa) and the maximum allowable duration of shadow (25 hours per year) are very strict relative to statewide standards promulgated elsewhere in the United States. In addition, PSC 128 enumerates a number of measures available to a local government to use when a turbine's impacts exceed the thresholds. Among the remedies that a developer could be required to employ is curtailment of the turbine in violation. Because curtailment results in loss of income, it is a remedy that all project owners will strive to avoid at all costs.

It is the combination of stringent sound and shadow standards coupled with tough penalties for noncompliance that makes PSC 128 a formidable rule of which no prudent developer would want to run afoul. The approach taken by the PSC ensures adequate protection of public health and safety. Thus, there is no justification based on public health and safety to extend required setback distances beyond what is provided in PSC 128.

Wisconsin Energy Business Association is a leading business trade association promoting reliable, secure, and cost-effective energy solutions to strengthen our economy and support market-driven innovation and supply chain growth in the energy sector.

Wisconsin Energy Business Association Members

Addison Wind LLC, *Random Lake*
Agri-Waste Energy, Inc.
American Wind Energy Association
Badger Transport, *Clintonville*
Baldwin Dairy, *Baldwin*
Bonestroo Engineering, *Green Bay*
Broadwind Energy
Business Biomass Solution, *Middleton*
Clean Wisconsin
Clear Horizons LLC, *Milwaukee*
Convergence Energy, *Lake Geneva*
D&D Equipment Company, *Chilton*
E3 Coalition LLC, *Viroqua*
EcoManity LLC, *Elkhart Lake*
Eden Renewable Energy LLC, *Campbellsport*
Element Power
Emerald Dairy, *Emerald*
Emerging Energies of Wisconsin, LLC, *Hubertus*
Energies Direct, LLC, *Sauk City*
Energy Concepts, Inc., *Hudson*
Full Spectrum Solar, *Madison*
GHD, Inc., *Chilton*
Green Power Solutions Inc.
H&H Solar Energy Services, Inc., *Madison*
Half Moon Power LLC, *Milwaukee*
Helios USA, LLC, *Milwaukee*
Horizon Wind Energy
IBEW Wisconsin State Conference of Inside Construction Locals
Institute for Local Self-Reliance
Invenergy Wind LLC
Kettle View Renewable Energy, *Random Lake*
L&S Technical Associates, Inc., *Spring Green*
Lake Michigan Wind and Sun, Ltd., *Sturgeon Bay*
Legacy Solar, *Frederic*
Michael Fields Agricultural Institute
Midwest Wind Energy
Natural Resources Consulting, Inc.
Next Step Energy LLC, *Eau Claire*
North Wind Renewable Energy, LLC, *Stevens Point*
Northern Biogas, *Little Suamico*
Northern Power Systems, *Hartford*
Organic Valley Family of Farms, *La Farge*
Pennan Energy, *Middleton*
Prairie Solar Power & Light, *Eastman*
Procorp Enterprises, *Milwaukee*
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Ritger Law Office, *Random Lake*
Seventh Generation Energy Systems, *Madison*
Sierra Club – John Muir Chapter
StormFisher Biogas
SUN & Daughters Renewable Energy, *Rhinelander*
Suring Digester LLC, *Suring*
Sustainable Living Group, *Sheboygan*
Tower Tech Systems, Inc., *Manitowoc*
UrbanRe Vitalization Group LLC, *Milwaukee*
Uriel Wind
Verterra Energy, *Milwaukee*
Wave Wind LLC, *Sun Prairie*
W.E.S. Engineering, *Madison*
Wind Capital Group, *Madison*
Wind on the Wires
Wind Wisconsin, *Middleton*
Wisconsin Environment
Wisconsin Farmers Union

To the Joint Committee for Review of Administrative Rules,

I ask that you please suspend Clearinghouse Rule 10-057.

I, as a citizen of Wisconsin, am quite frankly appalled at the indifferent attitude of public officials when it comes to public health and safety and wind turbines. Wisconsin currently has hundreds of wind turbines operating in this state with the intention to open the gates to install thousands more. We currently rely on the wind project owner/operators to report if there are problems associated with wind turbines. It would be sensible and appropriate for a state agency that has a responsibility to protect the public's health, safety and welfare, to objectively survey the existing wind projects and investigate alleged effects.

I had attended or listened to all of the Wind Siting Council meetings. On one occasion the subject of TV interference was brought up. After a lengthy discussion the question was asked by Chair Ebert, "just how many people are we talking about"? The answer from an electric utility council member was, about 200! This was a revelation—these are an estimate from only one current wind project in Wisconsin with 88 wind turbines! To reach the wind energy electrical generation goals implemented in the Global Warming Task Force Report[1], the state of Wisconsin will be looking at over 10,000 wind turbines by 2024.

Although TV interference may not be considered a public health and safety issue per se, if you discount severe weather warnings and other emergency transmissions, the subject of alarm should be the number of people involved. Who knows what that number will be? Do you know? What does that tell you about the numbers of other unreported impacts of shadow flicker, noise and vibration?

The Plan Commission in our town wrote a letter to the State of Wisconsin Public Health Department in 2009. With the help of previous wind committee members, the letter included public health and safety issues that they felt were important based on their knowledge of reported and, yes, personally-experienced effects from wind turbines. The Plan Commission also asked if the State of Wisconsin would be interested in investigating the alleged impacts to public health and safety referencing the Minnesota Department of Health report entitled, "Public Health Impacts of Wind Turbines"[2]:

The Plan Commission received a letter back from the State of Wisconsin Public Health Department with what they felt was a bureaucratic response. They were told that the public health department had 10 years of experience regarding wind turbines. The Plan Commission asked them to share those 10 years of information by officially requesting the public records. In fact the records request asked for all and any information

[1] http://dnr.wi.gov/environmentprotect/gtfgw/documents/Final_Report.pdf Page Numbered 15
[2] www.health.state.mn.us/divs/eh/.../windturbines.pdf

regarding wind turbines and public health and safety, including any and all information on environmental noise and public health and safety.

The Plan Commission received the public documents from the State of Wisconsin Public Health Department. The only inclusions were current email correspondence from health officials in Calumet County, Fond du Lac County and one from Green Bay, a copy of the Minnesota Health Dept. report listed above from May of 2009 and a letter from another town. We were surprised and disappointed that this was the extent of 10 years of information and that the Wisconsin Department of Public Health considered that this was an adequate record on which to base such a dismissive conclusion. (To note: copies of these documents are available, of course, to those interested).

Dr. Jevon McFadden, a federal CDC employee, assigned to the Wisconsin Public Health Department, was chosen as the wind siting council members' expert for health effects in regard to wind turbines and wind siting by the PSC. Dr. McFadden's presentation on May 17, 2010 was a perfect case of how two people, given the same information, can arrive at different interpretations[3].

Dr. McFadden stated that he had contacted public health agencies in Maine, Minnesota and Canada that supported his findings. Following are their conclusions, which were somewhat marginalized in Dr. McFadden's presentation:

Maine Center for Disease Control and Prevention, from "Wind Turbines," by Dora Anne Mills, MD, MPH, Maine Public Health Director, State Health Officer, and Director - Maine CDC, June 21, 2009. https://maine.gov/dhhs/boh/wind-turbines.shtml

> "In my reading of peer-reviewed medical and public health literature, mostly from Europe and Canada, I found no evidence of adverse health effects from the noise generated by wind turbines except for those associated with annoyances from the audible noises.
>
> These effects, however, are mitigated or disappear with proper placement of the turbines from nearby residences.
>
> So, although the noise qualities are different, it seems as though what was found to be true of airports and highways is true of wind turbines: It is primarily a matter of distance.
>
> However, there is no one proper distance for all wind turbines.
>
> Research indicates that a number of factors determine proper placement, including the height of the wind turbine, the surrounding topography, wind conditions, and wind direction.

[3] http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=132106

As with airports, annoyance levels are difficult to assess and vary from person to person.

Careful measurements of different noise frequencies in a variety of weather conditions should assure proper placement of wind turbines that protect against annoyances and resulting effects."

Minnesota Department of Health, "Public Impacts of Wind Turbines," May 22, 2009: www.health.state.mn.us/divs/eh/.../windturbines.pdf

"Wind turbines generate a broad spectrum of low-intensity noise. At typical setback distances higher frequencies are attenuated. In addition, walls and windows of homes attenuate high frequencies, but their effect on low frequencies is limited. Low frequency noise is primarily a problem that may affect some people in their homes, especially at night. It is not generally a problem for businesses, public buildings, or for people outdoors.

The most common complaint in various studies of wind turbine effects on people is annoyance or an impact on quality of life. Sleeplessness and headache are the most common health complaints and are highly correlated (but not perfectly correlated) with annoyance complaints. Complaints are more likely when turbines are visible or when shadow flicker occurs. Most available evidence suggests that reported health effects are related to audible low frequency noise. Complaints appear to rise with increasing outside noise levels above 35 dB(A). It has been hypothesized that direct activation of the vestibular and autonomic nervous system may be responsible for less common complaints, but evidence is scant.

The Minnesota nighttime standard of 50 dB(A) not to be exceeded more than 50% of the time in a given hour, appears to underweight penetration of low frequency noise into dwellings. Different schemes for evaluating low frequency noise, and/or lower noise standards, have been developed in a number of countries.
For some projects, wind velocity for a wind turbine project is measured at 10 m and then modeled to the height of the rotor. These models may under-predict wind speed that will be encountered when the turbine is erected. Higher wind speed will result in noise exceeding model predictions.

Low frequency noise from a wind turbine is generally not easily perceived beyond ½ mile. However, if a turbine is subject to aerodynamic modulation because of shear caused by terrain (mountains, trees, buildings) or different wind conditions through the rotor plane, turbine noise may be heard at greater distances.

Unlike low frequency noise, shadow flicker can affect individuals outdoors as well as indoors, and may be noticeable inside any building. Flicker can be eliminated

by placement of wind turbines outside of the path of the sun as viewed from areas of concern, or by appropriate setbacks.

Prediction of complaint likelihood during project planning depends on: 1) good noise modeling including characterization of potential sources of aerodynamic modulation noise and characterization of nighttime wind conditions and noise; 2) shadow flicker modeling; 3) visibility of the wind turbines; and 4) interests of nearby residents and community.

To assure informed decisions:
Wind turbine noise estimates should include cumulative impacts (40-50 dB(A) isopleths) of all wind turbines. Isopleths for dB(C) - dB(A) greater than 10 dB should also be determined to evaluate the low frequency noise component. Potential impacts from shadow flicker and turbine visibility should be evaluated.

Any noise criteria beyond current state standards used for placement of wind turbines should reflect priorities and attitudes of the community."

A letter from Health Canada (Canada's federal health department):

"Sent by e-mail to EA@gov.ns.ca 1
Safe Environments Program
Regions and Programs Branch, Health Canada
1505 Barrington Street, Suite 1817
Halifax, NS B3J 3Y6

August 6, 2009
ATL-2008/09-006 / OF6-3-107

Steve Sanford
Environmental Assessment Officer
Nova Scotia Department of Environment
Environmental Assessment Branch
P.O. Box 442
Halifax, NS B3J 2P8
Subject: Health Canada's response to the Digby Wind Power Project Addendum, Digby, Nova Scotia1

Dear Mr. Sanford:
Thank you for your letter July 9, 2009, requesting Health Canada's review of the above-mentioned Project with respect to issues of relevance to human health. Health Canada has reviewed the report, and has the following comments with respect to noise.

- Section 2.1 (Site Layout Review) and Table 1 (Summary of Effects and Significance Prediction Comparison of Site Layouts) – The revised layout adopted by the proponent appears to yield sound levels that should normally be below Health Canada's acceptable

threshold value of 45 dBA for sleep disturbance at the exterior of the building of the nearest sensitive receptor (WHO, 1999). However, if a 5 dBA to 8 dBA increase in sound due to the proximity of the ocean were assumed and an additional +/- 3dBA were included to account for model uncertainties, noise levels may exceed 45 dBA. Thus, predicted sound levels, even under assumed worst-case conditions, may underestimate measured levels by 5 dBA or greater. For example, at another wind farm in Nova Scotia, maximum sound levels were estimated to be 49 dBA using ISO9613-2[2], however, measured values were as high as 54 dBA when wind speeds were 5 m/s blowing on-shore from the ocean (Howe, Gastmeier Chapnic Limited, 2006[3]).

- Health Canada advises that noise monitoring be undertaken under varying climatic conditions in order to ensure that noise levels do not exceed the acceptable level, and if exceedences are identified, that appropriate mitigation be implemented to reduce the noise level to an acceptable level.

1 Stantec. 2009. Digby Wind Power Project Addendum. Addendum to Environmental Assessment Registration Document. Prepared for SkyPower Corp. July 3, 2009.
2 ISO (International Standards Organization) ISO9613-2. 2003. Acoustics -- Attenuation of sound during propagation
outdoors -- Part 2: General method of calculation.
3 Howe Gastmeier Chapnik Limited (HCG Engineering). 2006. Environmental Noise Assessment Pubnico Point Wind
Farm, Nova Scotia. Natural Resources Canada Contract NRCAN-06-00046.

- Section 3.2.2 (Effect of Water on Noise Levels) – The report states that "*it has generally been considered that the increased background wind noise will cause some masking of the sound levels from the turbines*" and "*if there is an enhanced stability, the wind that causes background sound may not increase as much as that which causes sounds from the turbines*". These statements can be misleading as turbine noise is likely to be audible to the nearest receptors in the form of continuous low-level or intelow frequencies at approximately 50 Hertz. As such, Health Canada advises the following:
  - Please omit statements about noise masking as they can be misleading; and
  - Please ensure that nearby residents are informed that turbine noises may be audible in terms of a low-level continuous or intermittent swooshing, as well as at low frequencies around 50 Hertz.

- Section 3.2.3 (Noise Mitigation) – The report states that "*noise monitoring [will be conducted] on a routine basis or complaint basis*". In addition to the plan for monitoring and complaint resolution, which is intended to help mitigate any adverse community reaction, it is advisable to also implement a communication strategy. Accurate information with respect to potential acoustical effects related to the operation of the turbines is an essential part of any effective communication strategy.
  - Please ensure that any communication effort presents factual information with respect to expected noise levels, including information pertaining to the audibility of operational noises (low-level continuous, intermittent swooshing or low frequency noise), and also includes the potential effects of specific noise levels on human health (see the following comment below).

- Appendix B (Addressing Concerns with wind Turbines and Human Health) – The final

sentence in Appendix B states that "*there is no peer-reviewed scientific evidence indicating that wind turbines have an adverse impact on human health*". In fact, there are peerreviewed scientific articles indicating that wind turbines may have an adverse impact on human health. For example, Keith et. al. (2008), identified annoyance as an adverse impact on human health that can be related to high levels of wind turbine noise. In addition, there are several articles by Pedersen (and others) related to wind turbine annoyance (as referenced below). The relationship between noise annoyance and adverse effects on human health is also further investigated in the manuscript by Michaud et. al (2008).

- Health Canada advises that this statement be revised to indicate that there are peerreviewed scientific articles indicating that wind turbines may have an adverse impact on human health.

References:

Keith, S. E., D. S. Michaud, and S. H. P. Bly. 2008. A proposal for evaluating the potential health effects of wind turbine noise for projects under the Canadian Environmental Assessment Act. Journal of Low Frequency Noise, Vibration and Active Control, 27 (4): 253-265.
Michaud, D.; S.H.P. Bly, and S.E. Keith. 2008. Using a change in percentage highly annoyed with noise as a potential health effect measure for projects under the Canadian Environmental Assessment Act. Canadian Acoustics, 36(2): 13-28.
Pedersen E. and Halmstad, H.I. 2003. Noise annoyance from wind turbines – a review. Swedish Environmental Protection Agency, Report 5308.
Pedersen, E. and Persson Waye, K. 2008. Wind turbines – low level noise sources interfering with restoration? Environmental Research Letters, 3: 1-5.
Pedersen, E. and Persson Waye, K. 2007. Wind turbine noise, annoyance and selfreported health and wellbeing in different living environments. Occup. Environ. Med. 64: 480-486.
Pedersen E. and Persson Waye, K. 2004. Perception and annoyance due to wind turbine noise – a dose-response relationship. J. Accoust. Soc. Am. 116: 3460-3470.
World Health Organization (WHO). 1999. Guidelines for Community Noise. Eds. B. Berglund, T. Lindvall, D. H. Schwela. WHO: Geneva.
Van den Berg, F. Pedersen E., Bouma, J. and Bakker, R. 2008. Project WINDFARMperception. Visual and acoustic impact of wind turbine farms on residents. FP6-2005-Science-and-Society-20 Project no. 044628: 1-99.

If you have any questions, please feel free to contact me at the contact information below.

Sincerely,

Allison Denning,
Regional Environmental Assessment Coordinator
Health Canada, Atlantic Region
Tel: (902) 426-5575
Fax: (902) 426-4036
Allison_Denning@hc-sc.gc.ca
cc: Tom Ferris, Manager, Safe Environments Program, Health Canada

Anne-Marie Lafortune, Senior Environmental Health Assessment Advisor, Health Canada
Derek McDonald, Canadian Environmental Assessment Agency"

It is clear, in all three of these cases, that these agencies accountable for public health have reached conclusions that Dr. McFadden chose not to include in his presentation (although he clearly implied that his presentation was consistent with their positions) and that contradict his conclusions. These agencies all recognize the concerns with wind turbine noise and state that this noise needs to be taken into account in placing wind turbines and needs to be monitored to ensure that acceptable levels are maintained. I think that the Wind Siting Council and the Public Service Commission should've been more cautious in using Dr. McFadden's selective and misleading presentation to conclude that turbine noise is not a health concern.

In conclusion, wind developers will come and go. The lasting effects of their work will be the Wisconsin Legislators' legacy. Please consider conducting a quality survey of the residents in the projects you have already permitted, so that we can learn from that experience and be responsible in the future siting of wind projects in Wisconsin.

Respectfully Yours,

Cathy Bembinster
Healthy Wind, Wisconsin
18002 W. Cty Rd C
Evansville, WI 53536

To: The Joint Committee for the Review of Administrative Rules.
From: Kevin Kawula, Natural Area Restorationist, Owner and Operator of Lone Rock Prairie Nursery, Rock County Parks Volunteer, Town of Spring Valley Planning and Zoning Committee Secretary, Rock County Conservationists Board Member, Concerned Citizen. 13133 W. Dorner Rd., Brodhead WI, 53520 (608) 876-4255
Re: Public Hearing to Suspend PSC 128

I am asking the Joint Committee for the Review of Administrative Rules to suspend PSCW Wind Siting Rule 128 as written.

PSC 128 does not go far enough to protect the citizens of Wisconsin from wind turbines sited too closely to non-participating peoples' homes, nighttime industrial wind turbine noise, has no accountability measures to ensure industrial wind developers fulfill CO2 emission reduction claims or provide so-called green jobs, and provides no repeat no protection for Wisconsin wildlife which is bearing the brunt of industrial wind turbines physical impacts on the environment.

The Wind Siting Council, which was supposed to help advise the PSC Commissioners with creating PSC 128, had no 'Environmental' or 'Citizen' representation that did not have a conflict of interest or tie to the wind industry or the PSC. I volunteer to fill that void. I have 18 years experience in natural area restoration, am an independent small business owner, and know full well what industrial wind turbines are capable of doing and not doing.

Industrial wind turbines kill bats by the score, and birds by the dozen. They lead to torn up fields with compacted soils and ruined hydrology. They lead to shadow flicker that hurts, and can be felt with the eyes closed. They create buzzing and queeziness in the head and body.

Suspend the rules, and start planning overnight trips to the Horicon - Fond Du Lac area. Don't tell the wind developers, get a nice place to stay in town, or if you hear somebody here today, set up a slumber party. I understand the Wirtz's home might still be available.

The industrial wind turbines in Wisconsin (around 330) will kill over 12,000 bats though barotraumas this year, because wind developers insist on nighttime wind generation for income. People can't sleep and wildlife suffers and dies.

I am hoping if the JCRAR would, as the first Committee to date, take up the nighttime challenge, suspend PSC128, and give Wisconsin a fighting chance against a heartless industry.

I am attaching a copy of my testimony to the PSCW regarding their wind siting rules, which points out in further detail the lack of safety, lack of scientific proof, inequity in wind generation income, and a complete absence of environmental accpountability or responsibility.

Respectfully Submitted

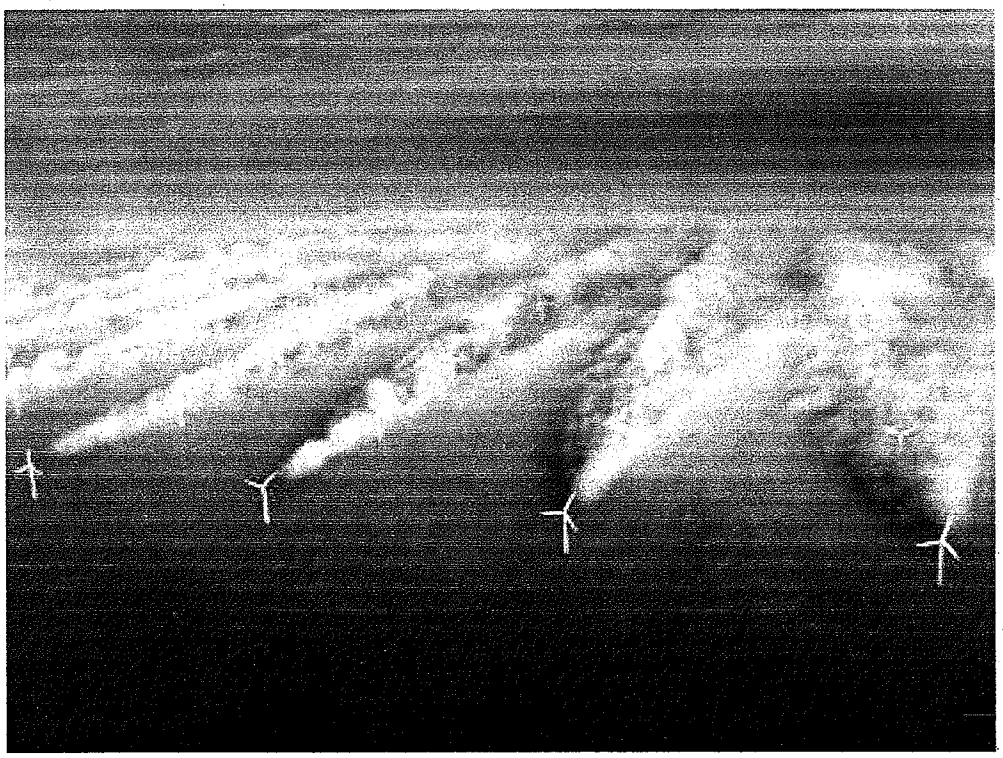
Kevin A. Kawula

Kevin Kawula

To: The Public Service Commission of Wisconsin
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 Draft Wind Siting Rules, Straw Proposal Amendment Ballot, and Addressing the absence of a Wildlife Representative on the Wind Siting Council.

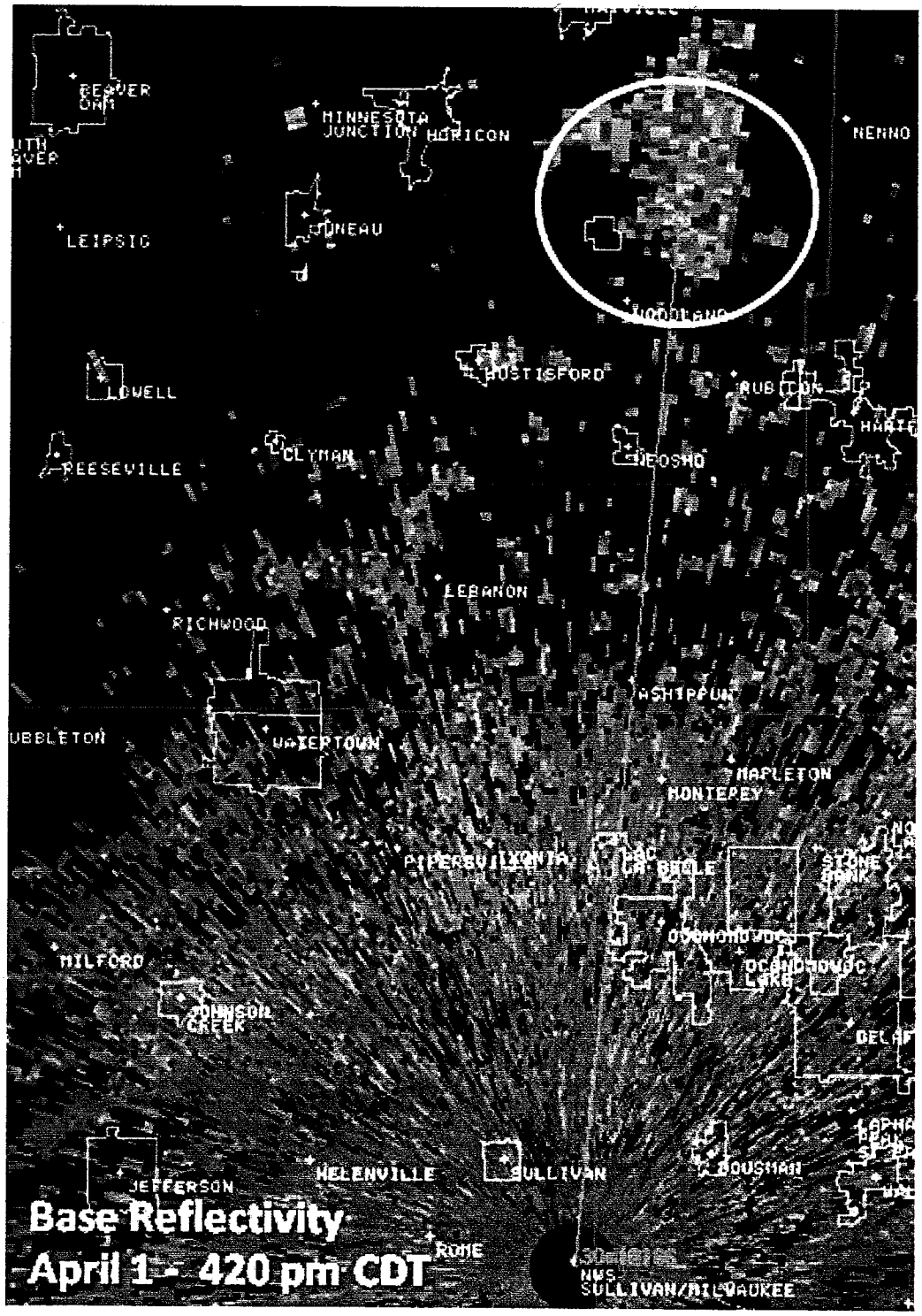
I would like to address the Draft Rules and Straw Proposal at the same time.

What neither the Draft Rules or the Straw Proposal accomplish, is address the inherent 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 a reaction. Please look at the image below. Will the effects of these industrial wind turbines be captured within 1,000 feet?



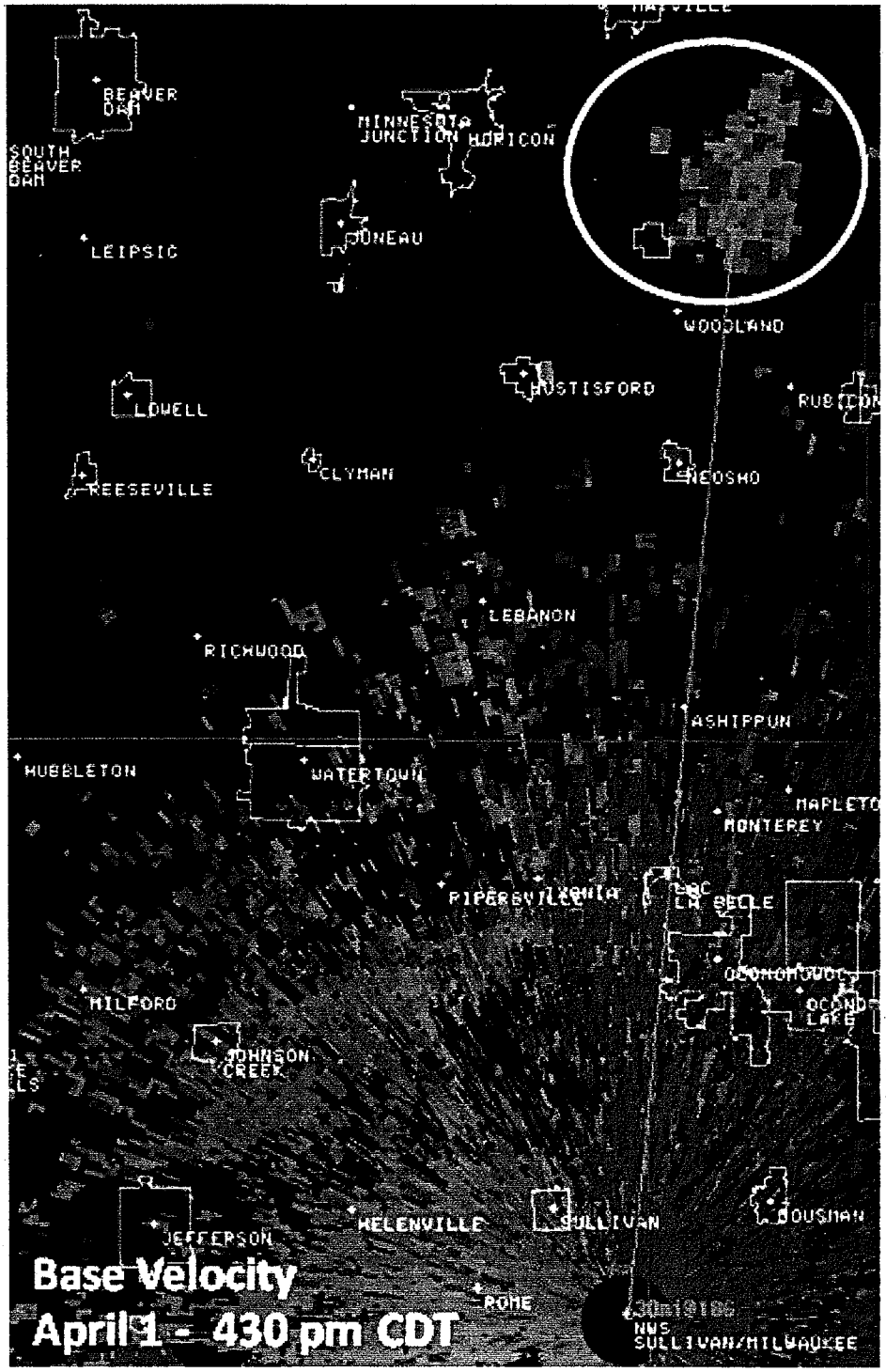
Denmark Wind Project at Sea, Turbulence and Wake expressed in clouds and mist.

These physical effects are also captured by weather radar, but the false reading/interpretation of these radar images as storms or tornados, may be over looking the very real and physical 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.

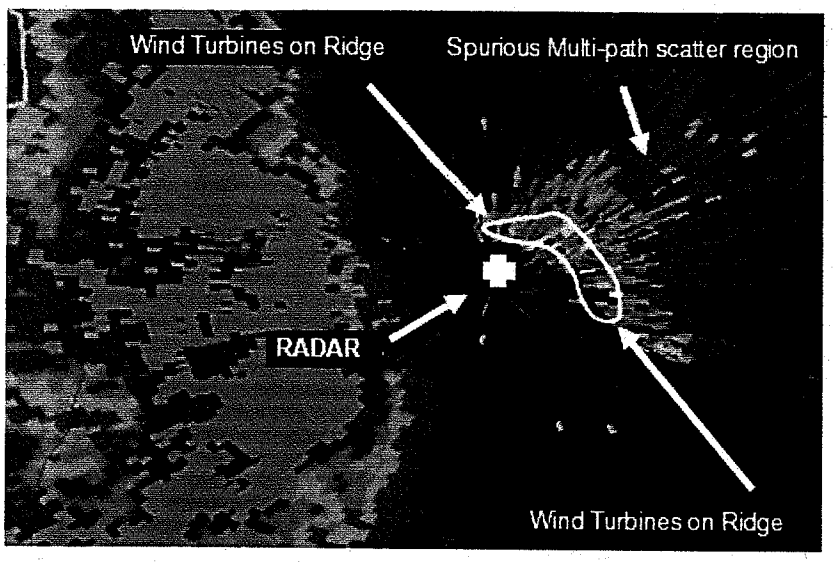


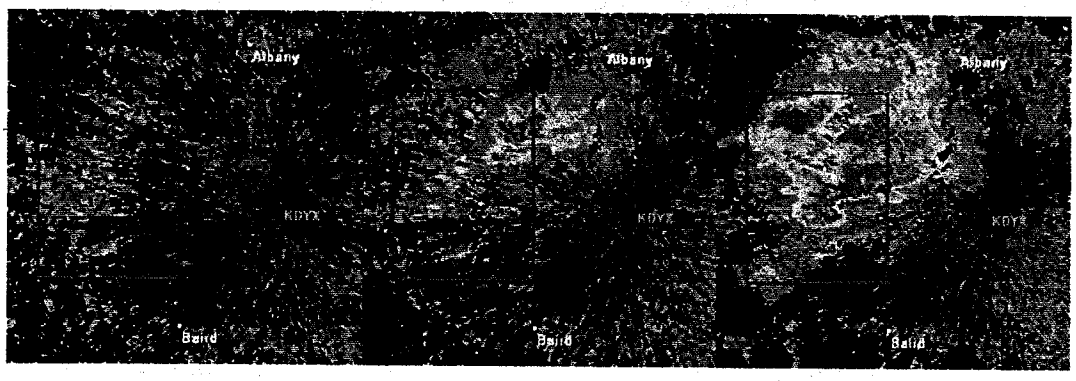
#1 - A small part of the electromagnetic energy radar beam sent from the radar is reflected back by the rotating turbines. The radar processes this "returned energy" as an

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.



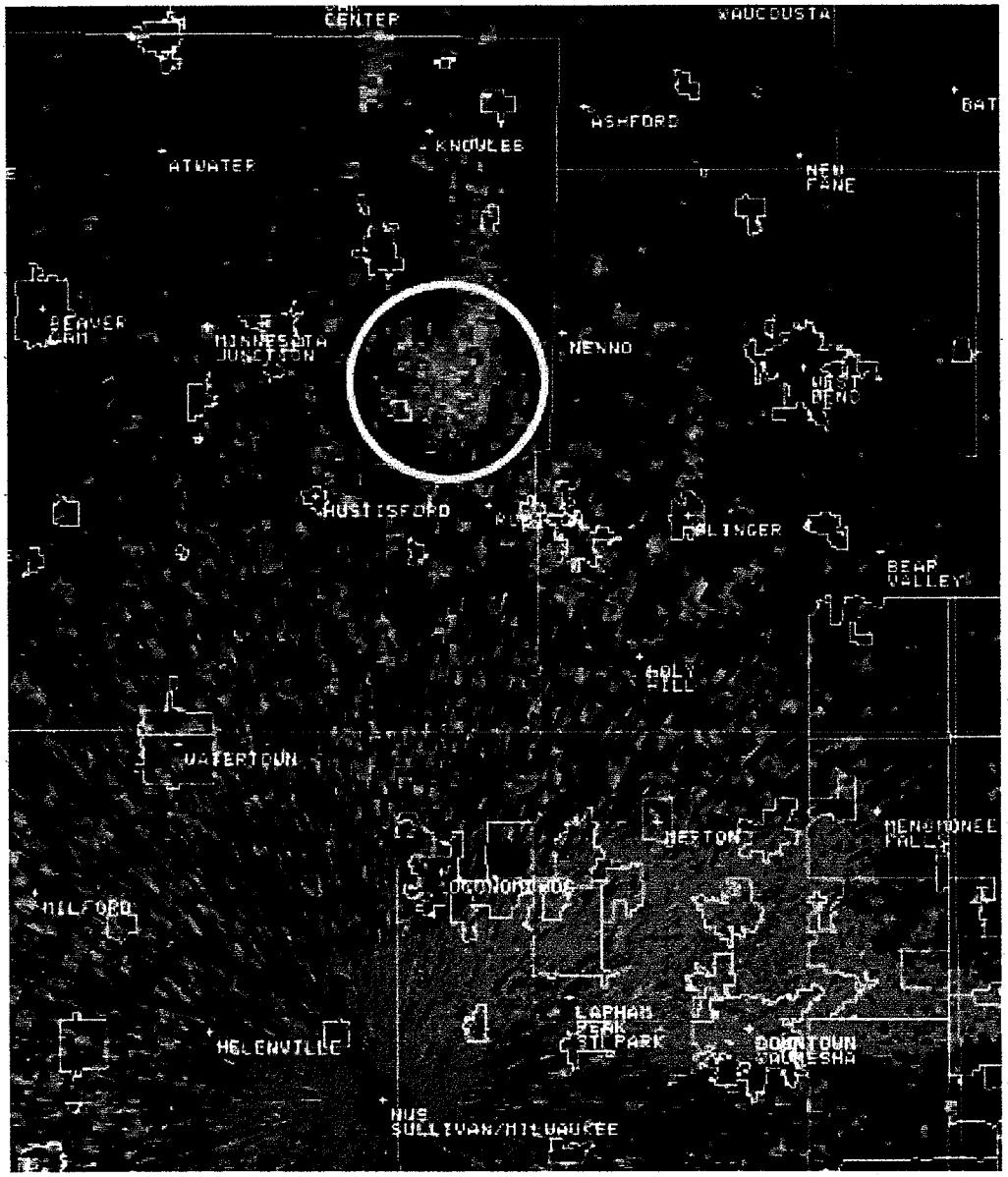
* Thunderstorm or winter storm characteristics could be masked or misinterpreted, reducing warning effectiveness in the vicinity of, and downrange of the wind farm.
* False signatures contaminating Doppler velocity data in the vicinity and downrange of the wind energy facility could reduce forecaster's situational awareness, particularly during hazardous/severe weather events.
* Data masking or contamination if thunderstorms develop over the wind farm may negatively impact warning effectiveness.
  False precipitation estimates could negatively impact flash-flood warning effectiveness.



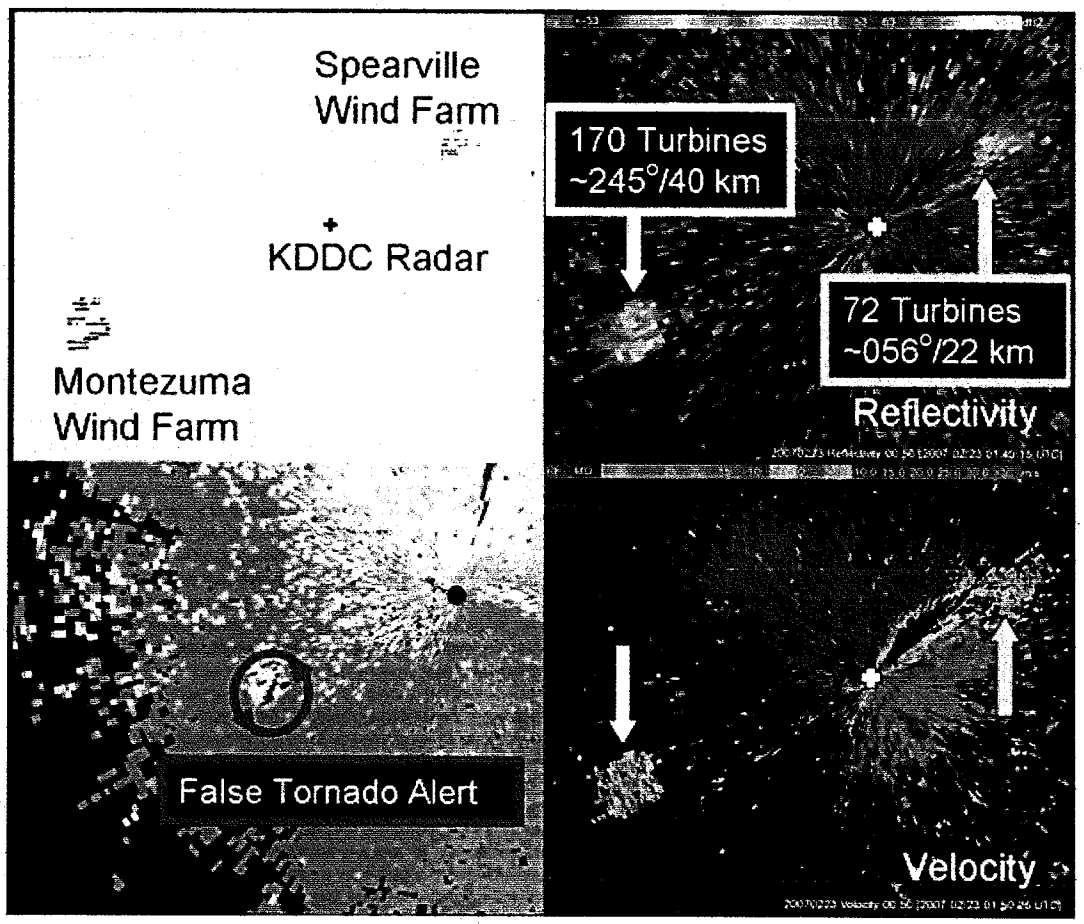


#5 - Sequence (left to right) of 0.5 deg reflectivity images showing thunderstorms developing over a wind farm (purple rectangle) 10-16 nm (18–30 km) west of Dyess AFB, TX WSR-88D. Left: thunderstorms have not yet developed, high reflectivity values due to wind turbines alone. Middle and Right: storm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

#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.



#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/)



These physical impacts cannot be captured with a safety/noise/shadow flicker setback of 1,000 feet. 1,000 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. Homes and non-participating residences receive less respect and consideration than do other industrial wind turbines.

The proper compromise setback to allow industrial wind development is 2,640 feet.

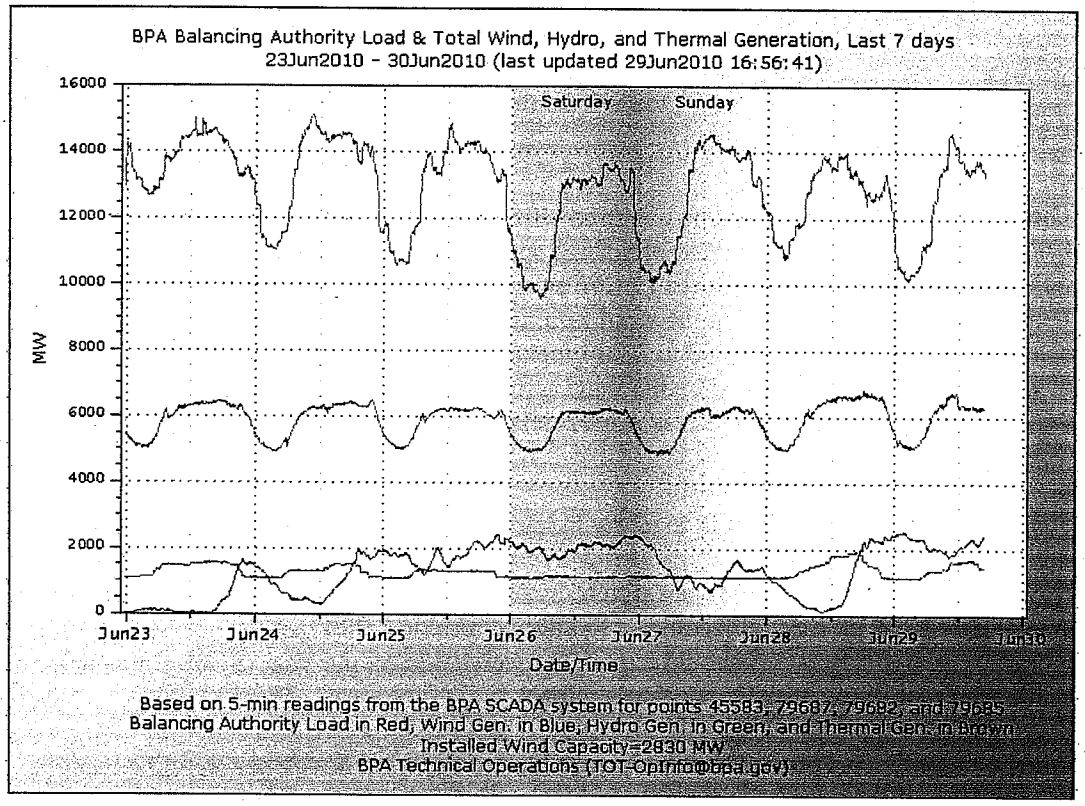
Hosting or easement properties can sign to have the turbines as close as 1,000 feet. A person who signs an easement contract to allow a turbine 1,000 feet from their residence (Good Neighbor Easement) should expect to receive $8,760 per year ($1.00 for each hour of the year) for living with the turbine's impact.

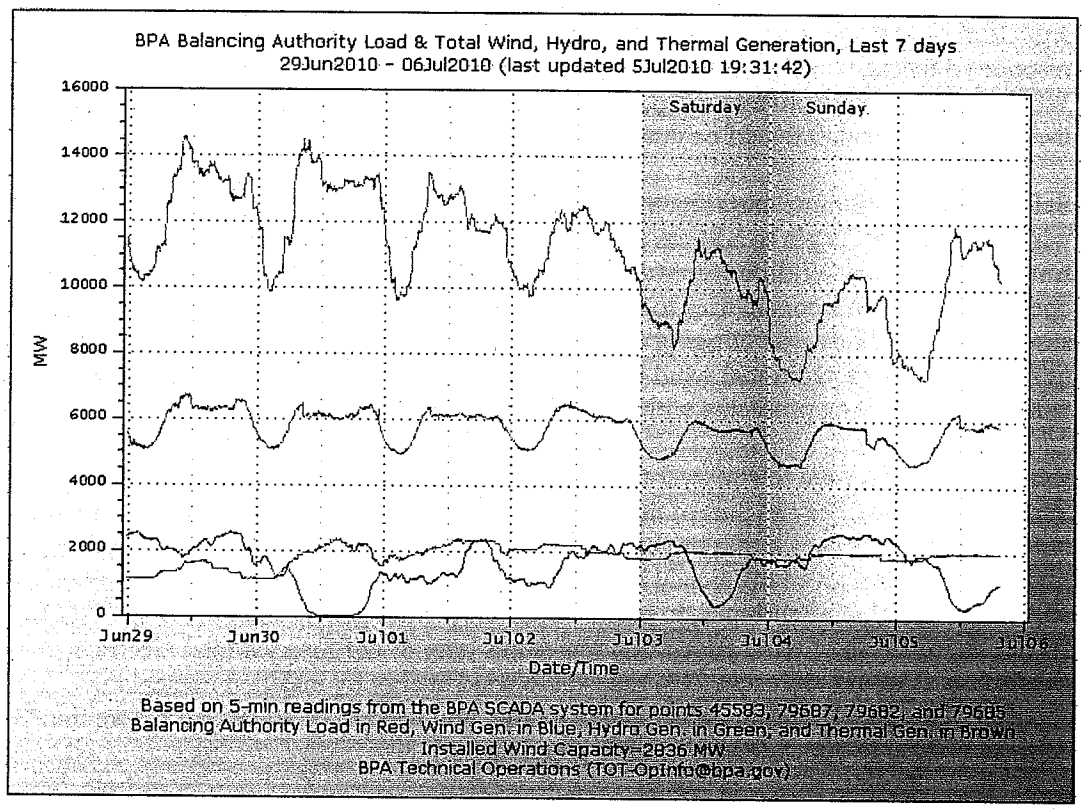
Wind turbine project properties which lease land to the wind developer should expect to receive 10% of the generation income for each - (1.5MW wind turbine operating at 25%

capacity for an average yearly production of 3,750,000 KWh, [via public meetings with Wes Slaymaker, EcoEnergy LLC/EcoMagnolia LLC/EcoAvalon LLC working with, WPPI-Evansville Water and Light, Evansville Wisconsin] valued at 10 cents per KWh with Green Credits [via Focus on Energy Program, Implementation of Community Based Wind Power Businesses in Wisconsin, Page 47, Under 'Revenues' "PPA Rate (Inc. Green Tag) | $0.10000"]) turbine hosted less nighttime generation (up to 50% of annual wind turbine generation, see below), or approximately $18,750 per turbine per year. 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. The following charts are from the Bonneville Power Authority, available on line at:
www.transmission.bpa.gov/Business/Operations/Wind/baltwg.aspx





BPA Thermal generation (in Brown) never goes below 1,200MW, has a daily rise in output, and then returns to baseload output. The Wind Generation (in Blue) does not appear to have that much impact at all on thermal generation except when it does not generate during the daytime load cycle. It is the non-impact of Wind at night on Thermal Generation that the Commission needs to address with nighttime curtailment unless proven to reduce emissions.

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 needthermal generation? 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 July 6th 2010, 19 days (23.2%) gained wind generation from their 4am starting levels through 2pm-4pm, while 40 days (48.8%) lost wind generation from 4am through the 2pm-4pm peak load time. 18 days (21.95%) saw an initial loss of wind generation and then a gain, while 3 days (3.65%) saw an initial gain and then a loss of wind generation. One day was positive, negative, and then positive again, and one day information for the morning was missed. It is the wind generation loss, initial loss days, initial gains and then loss days (the majority 61 vs. 19 or 74.4% of

the days vs. 23.2%), which the Commission needs 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 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 a 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. The Commission 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 the Commission and Governor Doyle Really want Wisconsin to end up looking like this 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 the Wind Siting Council, The Commission, 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?

Perhaps now with physical evidence of the dead bats, the images of physical impacts from photos and radar, and the absence of clear proof that coal burning is reduced in our electrical generation mix by adding wind turbines, the PSCW will consider adding a true voice(s) for our wildlife and environmental concerns.

I would like to recommend Shari Koslowsky, Conservationist with the DNR, at sharikoslowsky@wisconsin.gov (608) 261-4382, to consult with the Wind Siting Council before their final recommendations are presented to the Commission.

The Commission should not rush to a judgment for a September 1st decision. This Commission and Governor Doyle won't want to be remembered as the people who turned Wisconsin into the 'Gulf Coast' of midwest industrial wind development.

Respectfully submitted, Kevin Kawula, 13133 W. Dorner Rd., Broadhead, Wi, 53520

To: Joint Committee for the Review of Administrative Rules (JCRAR)
From: Douglas Zweizig, Ph.D., Vice Chair, Wind Siting Council
Re: Clearinghouse Rule #10-057; PSC Wind Siting Rules proposed Chapter 128
Date: February 9, 2011

My name is Douglas Zweizig.

I am a retired UW—Madison professor from the School of Library and Information Studies. I conducted national survey research studies, and I directed doctoral students in the conduct of original research. I'm also a member of my Town's Plan Commission, and I serve as Vice-Chair of the PSC's Wind Siting Council.

I am here today to request the Joint Committee for Review of Administrative Rules to set aside PSC 128 (CR 10-057).

I am one of the authors of the Wind Siting Council's minority report to the Public Service Commission. (See Appendix E of http://psc.wi.gov/mediaRoom/documents/WSC%20Final%20Report%20and%20Cover%20Letter%208-9-2010.pdf) That minority report details grave concerns about the basis for the wind siting rules that are before us today. I am here to request that the rules be suspended because they were produced without a thorough or responsible audit of the negative impacts of industrial-scale wind turbines.

The rules as written will not protect the health, safety and welfare of impacted Wisconsin residents and communities. As you may know, the majority of the Wind Siting Council members had a direct or indirect financial interest in pushing for rules that favored the wind industry. The rules reflect this, resulting in setbacks that are too short, limits on noise and shadow flicker that are too lax, and nearly non-existent remedies for citizens with complaints.

In Act 40, the legislature required an independent and qualified researcher "with expertise regarding the health impacts of wind energy systems" to be a member of the Wind Siting Council.

Instead, the Public Service Commission appointed a junior physician staff member of the state Division of Public Health who was just out of medical school. He openly and publicly admitted he had no expertise in the issue of health effects and wind turbines. He had collected no data and had made no observations himself on the health effects of wind energy systems.

His research consisted of reviewing existing literature using very narrow criteria. This resulted in a whitewashed report to the Council which ignored not only the first-hand experience of Wisconsin residents who are clearly having trouble living with wind turbines, but also disregarded even the most basic recommendations of the World Health Organization on nighttime noise limits necessary for healthful sleep. (www.euro.who.int/__data/assets/pdf_file/0017/43316/E92845.pdf) The most common health complaint from wind project residents is not mysterious: turbine vibration and noise interrupts their sleep. Health problems associated with chronic sleep deprivation from nighttime noise are well known. The PSC should be directed to carry out the quality of study called for in Act 40.

The main argument against more protective guidelines is an economic one. Wind energy proponents tell you the very setbacks that will protect the health of Wisconsin residents are "job killers." You have been told over and over that wind energy systems will create jobs and provide a clean, effective source of energy with no negative consequences.

Of course, we are all interested in increased jobs for Wisconsin, but those who claim that short setbacks will not only do no harm but will also result in over 7,000 wind-related jobs in our state should be required to prove it, not just claim it.

The MacIver Institute recently attempted to document Wisconsin jobs related to wind energy and were able to identify only 31 jobs that were specifically tied to wind energy-related products. (http://maciverinstitute.com/2010/08/facts-about-green-job-creation-elusive-as-the-wind/) What's the truth here? Shouldn't we know?

In the name of questionable job creation, you are asked to accept siting rules that clearly disregard negative impacts to human health, wildlife, and property values in order to promote unsubstantiated claims of improved air quality and job growth.

If the PSC is to create wind siting rules for the entire state, then provisions for accountability must be part of those rules.

The rules must ensure the following things: that wind development does no harm to people, property values, wildlife, or habitat; that it provides an economical power source; and that it reduces output from coal-fired power plants in our state.

As Vice-Chairman of the Wind Siting Council, I am here to say the rules as put forth by the PSC do not meet these requirements and to ask that you suspend them.

I would be glad to answer any questions you may have.

Douglas Zweizig
6037 North Finn Road
Evansville, WI 53536
(608) 882-4335
Town of Union (Rock County) Plan Commission
dougzweizig@hotmail.com

My name is Marilyn Nies. My husband and I signed a contract with a wind developer 3 ½ years ago. Since then we attended an informational meeting on wind power. We were shocked to hear about stray voltage. It never occurred to us when we signed the contract that our six year old daughter has three separate heart conditions. One of them is an electrical impulse disorder. What could happen to her if the electricity were to ground out in our pond and she is in there. I know it sounds farfetched but when we were at a Brown County board meeting Dr. Jevon Mc Fadden said "We know some individuals are more susceptible than others, for instance people with heart conditions".

No scientific studies have been done to prove or disprove whether living this close to turbines is safe. We are going to have to live with this for 35-40 years. What is it going to hurt to put a halt on things for a year or two and get the studies done? That is fraction of the time we have to live with this. The wind companies keep saying is there is no evidence of harm. Of course not, nobody has looked! The PSC siting panel says "go to the doctor, get a base line". Why do we have to be guinea pigs! There are tubines in other locations where the studies could be done.

We were lied to by the wind company. We were told the turbines would be 1000' minimum from our house. Now all the sudden the PSC siting committee comes up with the recommendation of 1.1 times the turbine height for us fools that signed our rights away. That is only a 10% safety factor. So on a calm day if this thing tipped over it would only be 44' from my house! Now what would happen if it were windy? We had a tornado go through this area in August, I am certain turbine blade debris fly further than 44'. Worse yet, what if my kids were outside playing? To top it all off the World Health Organization recommends 1/2 mile or 2640'. How come the PSC siting panel knows more than the WHO?
(http://www.healthywindwisconsin.com/Health%20Impact%20and%20Setback%20G....pdf)

To make matters worse we have been avidly pursuing with the wind company to get out of our contract. Using our daughter's heart conditions and we were lied to as our reasoning. They don't care, they will not let us out of our contract. Then they had the nerve to say "Remember your confidentiality clause!"

The Brown County, Manitowac, and Kewaunee boards have all come out and said these do not belong here (front page of the Press Gazette newspaper). We have a

sensitive karst rock topography here along the ledge. Everywhere they break through the karst rock the manure is going to follow the path of least resistance and enter our drinking water. NOBODY is listening! If we truly need that much electricity put up another nuclear plant.

Marilyn Nies
8122 Morrison Road
Greenleaf, WI 54126
920-265-1934

WES Engineering Inc.

706 S. Orchard St
Madison, WI 53715

February 9, 2011

Representatives of Wisconsin
Joint Committee for Review of Administrative Rules

Re: PSC 128 Wind Siting Rules

Wisconsin legislative members reviewing wind turbine siting rules PSC 128:

I own and operate a Wisconsin based business with 4 employees that is involved in wind and renewable energy technology. I moved here 5 years ago in part due to progressive policy on renewables and the prospects for work, as well as the quality of life for myself and my family. WES Engineering assists schools and businesses who are interested to install wind turbines to offset some or all of their energy use or sell energy to a utility. These clients are very committed to improving the air quality in Wisconsin and demonstrating leadership in reducing the carbon footprint of their entities.

I am expressing my support for the adoption of the PSC 128 wind siting rules as written. These reasonable regulations and setbacks for wind turbines in Wisconsin will allow Wisconsin businesses like mine to design and construct wind energy projects around the State where there are good wind resources. These projects employ many Wisconsin businesses in design, construction and operations. The projects also include benefits for the local communities, including revenues, employment and energy generated from a Wisconsin resource without any carbon emissions, water usage, or other harmful emissions. There are operating wind projects in Wisconsin with satisfied neighbors and communities, the Montfort project west of Dodgeville has operated nearly ten years with few complaints, and 20 large wind turbines.

I realize wind turbines can have negative impacts on neighboring properties, but believe the PSC rules are some of the most stringent in the Midwest and offer a compromise that allows wind turbine projects to continue while also affording more protection for neighbors. Many tall structures in Wisconsin have similarly been seen at times as a blight that should not be allowed (cell towers and transmission towers), but each persists in WI and the rest of the world as necessary components of a modern world.

This country was made great and important in the world through technological advancement and industry, not always the best for peace and quiet living, but certainly the best to maintain our world leadership position. let's keep some reasonable regulations allowing wind turbines to be sited in the State.

Thank you for your time.

Sincerely,

Wes Slaymaker, P.E.

President
WES Engineering Inc.
www.WESengineering.com
wes@WESengineering.com
608-259-9304

Feb. 8, 2011

It is my understanding that there is no big demand for this energy as of yet. Our current supply of nuclear is only running at 60% so why be in such a hurry? Why not take some time and get it right first? Find something better, something you can depend on or store for when the energy is needed. Why be in such a hurry to destroy peoples lives, community and health. I don't understand, when there is a product on the market, say a drug, a vehicle or childs toy that may have a safety issue it is immediately pulled off the shelf and not returned unless it is fixed or proven to be safe. Why should these million dollar turbines be any different. They have not be placed so close to homes in the past to know how dangerous they may be to peoples health, to animals or our water supply. There have been many many complaints that should be looked into before the project goes any further.

Please I ask that you take the time and do more research before so many peoples lives are put in schambles.

Feb. 8, 2011.

...you who can't make it to the hearing on Wed., it is ...t notarized written testimony will be accepted. If ...ke to submit written testimony, I can notarize them ...e them brought down to Madison on Wed.

... like have your testimony notarized, please include ...g at the end of your testimony:

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Testimony of Alexander DePillis to JCRAR, 09 February, 2011

Hello and thank you for the opportunity to speak. I've been involved in wind siting for a long time, and will speak on ~~two issues:~~ local control ~~and criteria that go into a wind siting standard.~~

I started working in Wisconsin in 1992, developing wind and solar power products and projects. I served in the state Division of Energy for eight years, as the renewable energy engineer. During that time I, along with a representative from the Public Service Commission and the DNR, drafted a model ordinance to give local governments a starting point. I subsequently worked for two wind power companies, working mostly in the early stages of developing wind projects. Now I consult on wind power and solar hot water projects.

Back when I worked at the Division of Energy, my colleagues and I developed the model ordinance because we saw a clear need. Some one, a homeowner or a wind power company, would ask for land-use permission, and the local government would be flummoxed. It wasn't anything like what they had dealt with before. It was a little like a communications tower, if they had ever dealt with that, but there was a state law they never heard of that said they had to deal with it differently. (That's state statute 66.0401).

The uncertainty, exacerbated by delays and moratoriums and subcommittees, led to some ugly political dynamics. And more importantly, no good resolution.

Convening a group to deliberate and come up with some official standards was 10 years overdue. It finally gave local governments a blueprint for how to deal with these wind power proposals, both small and large. Their jurisdiction is defined and their citizens are protected with minimum standards.

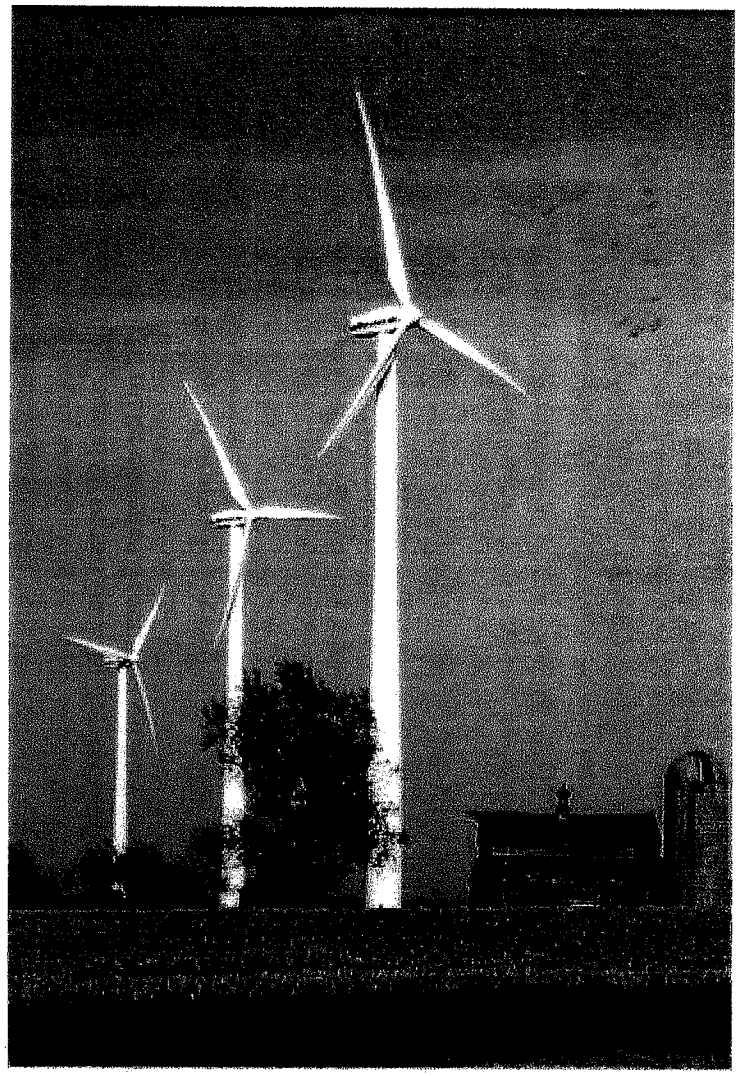
Very dedicated people on the Wind Siting Council gave their very best effort to come up with a detailed, reasonable rule. They had tons of public input. The original legislation even has a built-in review by the DNR, and requires the Siting Council to report back to the legislature. I urge you to respect the effort and the process and wait to make changes depending on how well the new rule works.

Finally, let's acknowledge that you've pretty much heard it all. All the arguments. What's different now, though, compared to two or three years ago when this rule was being developed, is Wisconsin is hurting for jobs. I very much hope this rule will stand, and allow this form of economic development to proceed in Wisconsin.

Case Study: Minnesota

107-MW Minnesota wind project

- $500,000/yr in lease payments to farmers
- $611,000 in property taxes in 2000 = 13% of total county taxes
- 31 long-term local jobs and $909,000 in income from O&M (includes multiplier effect)



My name is Megan Falk. I am the daughter of Ann Wirtz. Our family lived in the Forward Wind Project in Dodge County.

We moved to this country home when I was in kindergarden. I had no health problems the entire time I was raised there, until after the wind turbines went up.

I have always been and still remain an honor roll student. I've also been involved in many different sports including basketball, volleyball and soccer. I even played on the varsity teams as a freshman. Overall I was a very involved and busy individual.

After the wind turbines ~~were~~ began to spin in 2008 everything changed for me. I started having stomach aches that I had never felt before. The frequency increased as well as the severity of them. Initial trips to my pediatrician eventually left me to be referred to a specialist. By this time I was loosing alot of my strength and weight. My energy level was at an all time low and it became difficult to stick to my busy schedule.

Everyday I was feeling worse and I was starting to pass blood regularly. Eventually I had a colonoscopy and it was found that I had ulcers all the way through my intestines. At that time I was diagnosed with Crohn's disease.

Shortly after we found out that Crohn's can be triggered by environmental stress.

But I wasn't the only person in my family affected by the wind turbines. My mom could never sleep once they were there. She was absolutely exhausted all the time. The stress and anxiety for her was overwhelming. Even having friends stay the night left them complaining of headaches each time.

In Dept. of 2009 my family left our home. We moved to the Village of Oakfield. We couldn't sell our house and we were desperate to leave.

Since moving my mom has been able to sleep well again. I too have gotten better. Another colonoscopy since leaving has shown my ulcers are gone. It has taken me quite some time to get my strength back. We are living proof that living close to wind turbines is not healthy. My family has been forced to sacrifice alot because of this and looking out for our health.

The closest wind turbine was approximately 1350 ft from our home. Because of this we are no longer able to call it our home it is just a house we were forced from as we drive by it today.

Megan Falk

324 Oakview Cr.
Oakfield, WI 53065

(920) 517-8142
megan-falk23@hotmail.com

Thank you for letting me speak

I am Elizabeth Eberz Town of Marshfield

Blue Sky / Green Field

I would like to tell you, a few of many noise issues my family had experienced. My son had to have major surgery, told him to stay over night, had to get up early. Next morning he told me he couldn't sleep. It was like an airplane above the house. Knows the sound because he works close to the airport at Appleton, but he said at work to goes away. My granddaughts like to have sleep-overs but can not because of the noise. Have a garden, can only go out on calm days. If windy, only an half an hour, the pressure builds up in my head. It feels like it would explode.

On Sept. 18th. at 3:00 a.m. called We Energies to report the loud noise that woke me up. Steve Peirce from We Energies called me back about 9:00, said if they couldn't get it fix today it would be turned off. This turbine is 2,000 ft from my home. Also Ken Kraus reported it, the turbine is on his land. Talked to Town of Marshfield committe about the noise, but was not on the Sept report. Went to ~~Town~~ Town of Marshfield monthly meeting, to get it put on the Sept report. After 3 mos. of trying, to get back on report, We Energies told John Bord, Town Chairman, that they have no records of the calls

and are sorry.

So if they have no record of the call why did Steve Pingo call me back to tell me what they are going to do.

Could you please tell me as a committee, what do you make your decision on? If you base them on reports from We Energies, not knowing it not correct, how can you make the right decision?

I would like to know who we can contact if the noise is not reported, also other issues that come up.

Because with lack of sleep; the noise not going away ~~it~~ it feels like I am at the edge of a cliff and nobody cares.

Sincerely,
Elizabeth Eberts

1-920-795-4133

Telephone Numbers

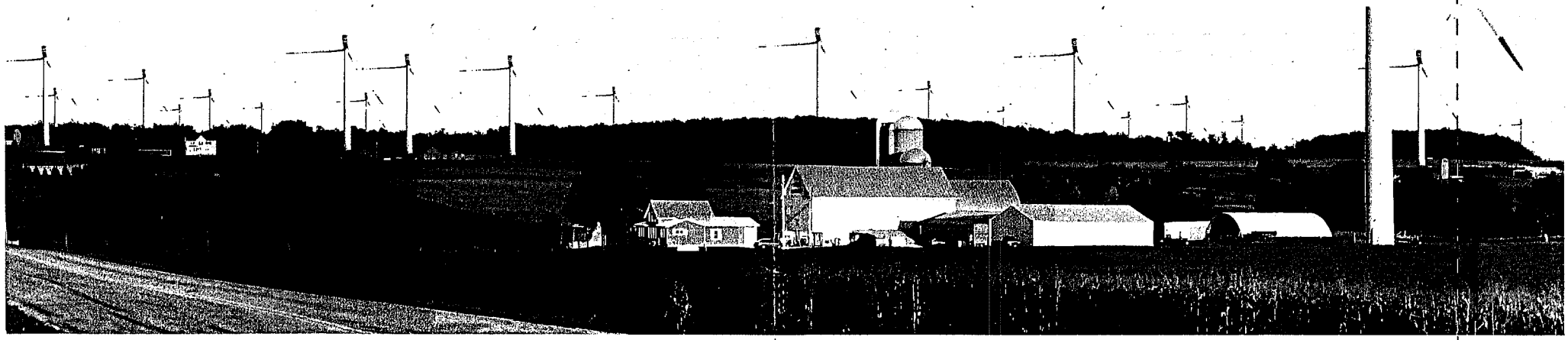
W.E. 1-877-380-0522

StevePingo - 1-920-980-3324 (from We Energies)

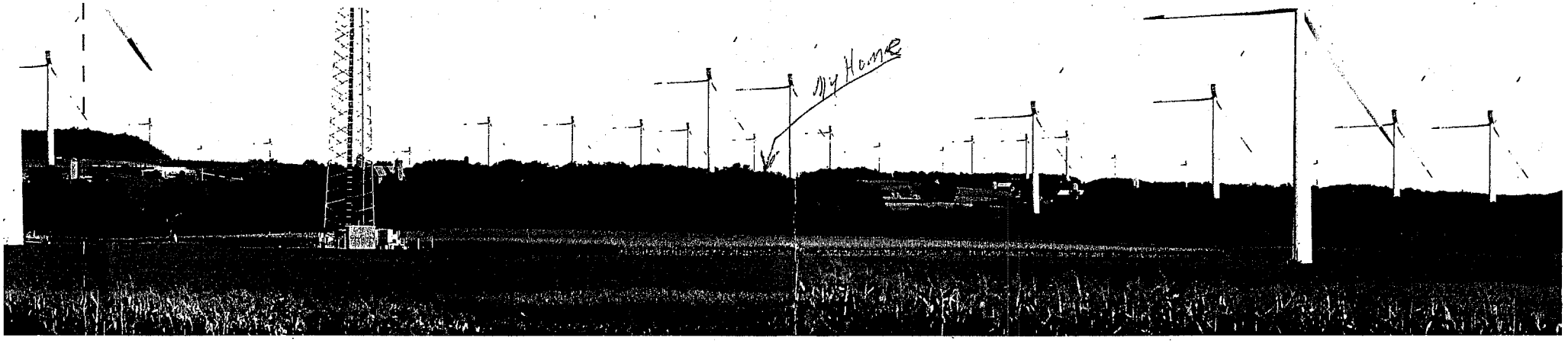
Ken Kraus - 1-920-795-4557 (Side Supervisor Town of Marshfield)

John Bord - 1-920-753-2100 (Town Chairman Town of Marshfield)

Northern End of Brothertown



Southern End of Brothertown

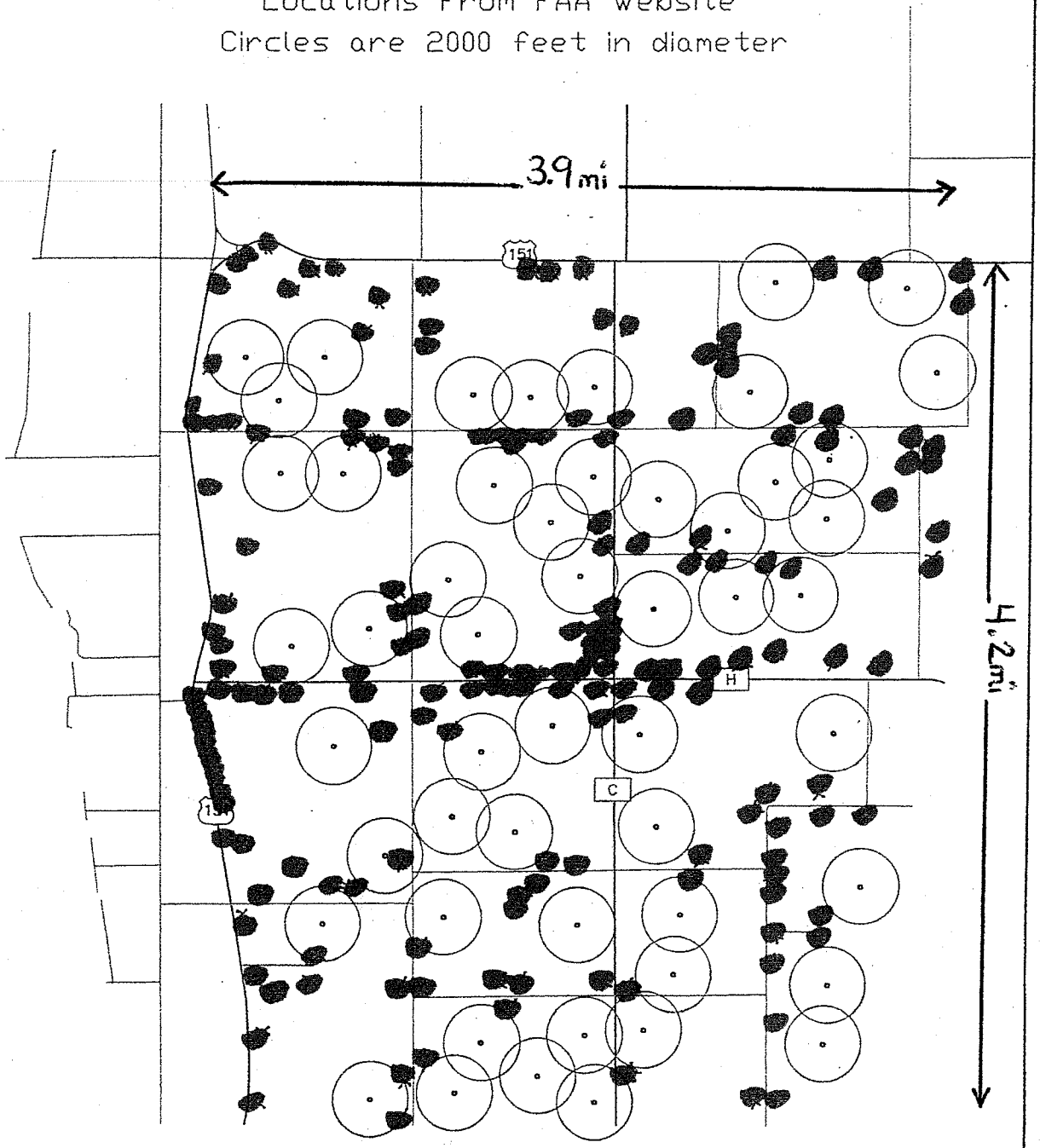


52 turbines
190 residences

Average of 3.7 residences per turbine

How Can This Be Safe?

Proposed Brothertown, WI Industrial Wind Factory Layout
Locations From FAA Website
Circles are 2000 feet in diameter



Disclaimer: to the best of our knowledge these proposed turbines are accurate.
They are mapped according to the latitude and longitude locations from the FAA website.