

- 2-1. Please provide the scientific backup data supporting the statement that “people who live a mile or so” of wind facilities must endure “continual noise” “like an old boot in a dryer.” Provide the supporting noise studies and the db equivalent of an “old boot in a dryer.”

The actual statement I made included the qualification of “within a mile,” and that distance was meant to cover the combined effects of turbine noise, shadow flicker, and strobe due to wind turbines, which can occur at different radii but all “within a mile.” My direct testimony will provide scientific support for the noise phenomenon, and I will include graphic documentation of its reality.

- 2-2. Please provide scientific backup or documents of wind turbines disruption of satellite TV, specifically the wind turbines involved and the individuals whose satellite TV was disrupted. Please provide data supporting the statement that the Project would disrupt satellite TV for individuals a mile or so from the project. State which homes specifically would be affected.

Perhaps I should have just stated interference with broadcast television reception, which is a well documented problem here and abroad. There are numerous references to the phenomenon, and I would be happy to supply a dozen or more. The Applicant has already acknowledged these problems may exist. The following weblink contains a March, 2004 BBC report, "The Impact of Large Buildings and Structures (Including Wind-Farms) on Terrestrial Television Reception"-- see:
<http://www.bbc.co.uk/reception/factsheets/docs/buildings.pdf> . "Wind turbines affect reception up to a maximum distance of 5 km" is one of the key sentences in the report.

- 2-3. Please provide scientific backup that the Project would create disorienting shadows which flicker down from the turbine for peoples homes a mile or so from the project. State which homes specifically you reference.

When turning with the sun behind them, turbine blades cast moving shadows across the landscape and houses, described as a strobe effect within houses, which can be difficult to block out. Some people lose their balance or become nauseated from seeing the movement. As with car or sea sickness, this is because the three organs of position perception (the inner ear, eyes, and stretch receptors in muscles and joints) are not agreeing with each other: the eyes say there is movement, while the ears and stretch receptors do not. People with a personal or family history of migraine, or migraine-associated phenomena such as car sickness or vertigo, are more susceptible to these effects. See also my direct testimony, which will be provided on or before April 20, 2005.

In Lincoln Township, WI, two years after installation, 33% of residents 800 ft to 1/4 mile from the turbines found shadow flicker to be a problem, 40% 1/4 to 1/2 mile away, 18% 1/2 to 1 mile away, and 3% 1 to 2 miles away (230 people sampled). See the attached excerpts from the Final Report of the Township's Wind Turbine Moratorium Committee.

Because of the height of Synergics' proposed turbines, and the enormous diameter of their rotor, the project will produce the shadow flickering phenomenon at great distances from the turbines. For me to accurately calculate the extent of area, and thus neighboring properties, which likely would be impacted by shadow flicker cast from Synergics' huge wind turbines requires that the Applicant share its wind data collected for this site (see:

<http://www.windpower.org/en/tour/env/shadow/shadowc.htm>). Unfortunately, the Applicant has decided that the meteorological information collected about the wind resource of this site is "proprietary" and has refused to comply with my previous data request asking for wind measurement information.

- 2-4. Please provide scientific backup that people a mile or so from the Project would endure strobe lights in their homes. State which homes specifically you reference.

Lincoln Township, Wisconsin systematically surveyed the phenomenon—see the attached excerpts from the Final Report of the Township's Wind Turbine Moratorium Committee. I will also provide testimony from residents near the Somerset Wind, PA windplant. The burden of proof of no harm due to wind turbine shadow flicker should rest with the Applicant.

- 2-5. Please provide the study supporting the statement that “all property located anywhere near their field of view [of windturbines] will be devalued.” Please outline the boundaries of “anywhere near their field of view.” Please state which properties specifically will be devalued by the Project and the basis for the statement.

There is substantial evidence of negative property value impacts due to windplants. See my direct testimony. See also the attached excerpts from the Final Report of the Township's Wind Turbine Moratorium Committee. The applicant should develop a viewshed analysis to assess the visibility of its project.

- 2-6. Please provide the calculation supporting the statement that “more than 2400 forty story turbines would be required to produce the annual energy of one modest coal plant” (emphasis added). Please define the size of a “modest” coal plant and the output of a “forty story turbine”.

See my direct testimony, to be provided on or before April 20, 2005.

- 2-7. Please provide the study supporting the statement that “windpower costs consumers three times the price of fossil fuel generation.” Explain how that study applies to the Project.

David Simpson, *Tilting at Windmills: The Economics of Windpower*, April 2004. The David Hume Institute, Hume Occasional Paper No. 65—“At the present time the cost of generating electricity is approximately twice that of the cheapest alternative source.”(Page 9).

Phil Ruffles (Chairman of the Study Steering Group), *The Costs of Generating Electricity*. The Royal Academy of Engineering, March 2004, London. — “Comparing CCGT [gas] with onshore wind, the cost of wind was 2.5 times the cost of gas.”

“Wind farms are an expensive and inefficient way of generating sustainable energy, according to a [government sponsored] study from Germany, the world's leading producer of wind energy.” This was the lead sentence in a London Guardian article, *Report Doubts Future of Wind Power* (February 26, 2005). The article further quotes Angela Kelly of the group named Country Guardian: “Wind power is three times more expensive than conventional electricity.”

An outcome of this PSC hearing should be to clarify how much Synergics would charge for its product.

- 2-8. Please provide the study supporting the statement that the wind projects will produce “virtually no tax revenue.”

An inquiry with the Tax Assessors Office of Tucker County in December 2004 found that the Mountaineer Wind Energy Center has not paid any local property taxes since 2001, when the project was built (fide March 25, 2005; Linda Cooper, President, Citizens for Responsible Wind Power).

For the first two wind plants operating in Somerset County, Pennsylvania, which have 14 large wind turbines (8 are 1.3 MW and 6 are 1.5 MW), the average per turbine tax payment in 2003 was only \$528, a combined property tax payment of \$7,388 on machines that cost nearly \$20-million to install. This information was presented in a slide that was part of a talk given by Jeff Payne at the Pennsylvania Renewable Energy Conference at the Seven Springs Mountain Resort on August 31, 2004; the source of the property tax payment information for the 2 operating windplants in 2003 was listed as “fide Commission Tokar-Ickes”.

In addition, see my response to question 2-24. FPL Group paid no state taxes between 2001 and 2003 – see: <http://www.ctj.org/pdf/c3.pdf> .

2-9. Please list the “coal executives” that are investing in wind facilities.

I don't know their names. Representatives from AES Corporation, which operates a coal-burning powerplant at Cumberland, Maryland, “executed” an “equity investment” agreement with US WindForce (which has several approved and planned projects in West Virginia and Maryland), lending its financial backing to wind energy development in the region. US WindForce appears to be the most ambitious developer of wind energy in the Alleghenies. Following is a weblink to the announced collaboration with AES, an international owner of mostly fossil fueled powerplants. Perhaps it would be more accurate to describe entities such as AES, FPL Energy, and WE as “energy corporations,” although the vast majority of their power production comes from fossil fuels, primarily coal (<http://www.aes.com/aes/index?page=news&reqid=609530&print=Y>).

- 2-10. Please provide the calculations to support the statement that wind turbines will not reduce air pollution caused by toxic emissions from coal plants.

See my direct testimony, which will be provided on or before April 20, 2005.

- 2-11. Please provide the scientific basis for the conclusion that every wind project needs to a "four acre clearcut" per turbine.

I never claimed that "every" wind project had a 4-acre clearcut; my comment was clearly prefaced with the qualification that it applied to "typical" projects.

However, all of the most-recently constructed wind projects constructed in the region had a similar pattern of forest impacts – including the Mountaineer Wind Energy Facility on Backbone Mountain (which is located only a few miles south of Synergics' project area), the Waymart windplant in northeastern Pennsylvania, and the Meyersdale windplant in Somerset County, PA – they all involved extensive forest clearing surrounding each wind turbine. The 4-acre size of clearing per turbine is based on aerial photography interpretation and measurements, and the following weblinks provide the results:

<http://johnrsweet.com/Personal/Wind/windpix1.html> [see second and 3rd images]

<http://johnrsweet.com/Personal/Wind/windpix4.html>

See also my response to question 2.16 below.

Synergics' disingenuous data response to my question about this issue with the Meyersdale windplant, implying that the woods were cleared by the property owners there without any direction from Meyersdale Wind, is part of the reason to doubt that Synergics would restrict its own clear cutting to .65 acres/per turbine.

- 2-12. Please provide the scientific basis and calculations that the construction of wind turbines would have a similar air pollution effect as constructing a bicycle path around the Washington Beltway.

Here I was being generous. See my response to questions 2-6. The actual analogy was that wind energy in the uplands of the East will have the same impact on global warming and air pollution as the building of a bicycle path around the DC Beltway would have on reducing the amount of automobile traffic in the region. The proposed Synergics windplant would have the effect of clearing about 100 feet of dirt in preparation for the bicycle path.

- 2-13. Please provide the calculations or basis of support for the statement in the handout sent to Garrett County residents stating that the purpose of the wind energy industry is not to produce energy but for a few people to get rich at the expense of many, without delivering much of a product.

See my testimony when it is distributed on or before April 20, 2005. The average taxpayer will have to replace the loss to the federal treasury of the wind industry's production tax credits, without getting any meaningful reduction in global warming and air pollution. On the other hand, relatively few investors in wind companies like Synergics will receive significant financial gain because of taxpayer subsidized benefits to Synergics. Perhaps I should have no sense of irony that Synergics waited until the state passed a Renewable Portfolio Standards bill and until Congress renewed the production tax credits for wind to apply for a CPCN.

- 2-14. Please provide scientific basis for the statement that residents will “lose their TV reception” as a result of the wind project. With respect to the Roth Rock project please list the residents who will lose their TV reception.

See response to question 2-2. I will press Synergics for a remedy if this phenomenon occurs at Roth Rock. Anyone who lives up to 5 km away from the windplant may experience problems.

- 2-15. Please provide documents or studies that support the statement that local tax revenue from wind projects has not been the experience elsewhere. Please state how this applies to the Project.

See my response to question 2-8.

- 2-16. Please provide the backup or scientific study to support the statement concerning the "extent of dynamiting required" for wind projects and the amount of land that is required by the developer to be cleared for each turbine.

Soil depth is extremely shallow atop Backbone Mountain, and the thick sandstone bedrock can be very difficult to excavate by equipment. To create the enormous hole for holding the poured concrete needed to support each huge wind turbine, it is common practice to use dynamite to blast apart bedrock. The American Wind Energy Association's Wind Energy Fact Sheet entitled "Facts about wind energy and noise" states that:

"Foundation blasting: May occasionally be required if the wind plant is being installed in hilly or mountainous terrain where bedrock is close to the surface and cannot be broken up by other means."

http://www.awea.org/pubs/factsheets/WE_Noise.pdf

In addition to my response to question 2-11, the extent of area needed for construction and maintenance purposes has been estimated in the college reference "Wind Energy Systems"(2001) by Dr. Gary L. Johnson. This online publication states "For example, a self supported multimegawatt turbine...requires only a hectare or so (2-4 acres) around its base for maintenance." - see: Chapter 9, Section 2 – Site Preparation;

<http://www.eece.ksu.edu/~gjohnson/> .

- 2-17. Please provide the study or backup for the statement that property values “throughout the entire region” will be devalued. Please outline what exactly is meant by the “entire region” and the listing of properties to be devalued by the Project, and the basis therefore.

Perhaps I should have used the word “in” the region. Given the experiences at Meyersdale and Berlin, Pennsylvania, which I will document in my direct testimony, I think it reasonable that most properties within a several mile radius of Synergics' proposed windplant, and especially those having good views of the turbines, as well as those close enough to experience the various nuisances which may be caused by them, will experience a significant decline from current value. See my direct testimony. Also see Excerpts from the Final Report of the Township of Lincoln Wind Turbine Moratorium Committee, which documents that “sales within 1 mile of the windmills prior to their construction were 104 percent of the assessed values, and properties selling in the same area after construction were at 78 percent, a decrease of 26%. Also a 1996 Danish report, *Social Assessment of Wind Power-Visual Effect and Noise from Windmills-Quantifying and Valuation*, contained a survey of 342 people living close to wind turbines. The survey found 13% of the people considered wind turbines a nuisance and would be willing to pay 982 DKK per year to have them leave. A survey of home sale prices showed a 16,200 DKK lower price near single turbines and a 94,000 DKK lower price near windplants versus similar homes located in other areas.

Finally I should add here that the Applicant's claim that this project will not affect property values adversely - indeed may even enhance them - defies common sense and an understanding of how the value of picturesque rural property is determined.

- 2-18. Please provide a study or other scientific basis that the Meyersdale project is indicative of the projects on Backbone Mountain and the peer reviewed scientific study that impacts at Meyersdale would be similar to that at Roth Rock.

Both the Meyersdale windplant site and the project area proposed by Synergics involve a forested prominent ridgetop; both sites have similar ridge shape, orientation and elevation differences to east and west sides; both sites have Class 3-5 wind; both sites have residences located within a mile of the ridgetop. In addition, the Meyersdale windplant installed 20 1.5 MW wind turbines manufactured by NEG Micon, which involve 72-m rotor diameters and have the nacelle mounted on an 80-m hub height; whereas Synergics plans to install 24 1.65 MW wind turbines with 80-m hub height and 82-m rotor diameter, and these may be built by the same manufacturer. The burden of proof that the impacts at the proposed Roth Rock would not be similar to the Meyersdale windplant rests with the Applicant.

- 2-19. Please provide the study or other scientific basis that the proposed Project will "bring hardship to neighbors." Please list specifically the neighbors.

See my testimony when it is distributed on or before April 20, 2005. In addition, it should be incumbent on the Applicant to identify those Garrett County residents who may be adversely affected by noise pollution or loss of visual amenities resulting from an industrial-scale wind energy facility built in their neighborhood.

- 2-20. Please provide the study or other calculations or support for the statement that investment in wind projects is nearly "risk free."

See response to question 2.24 below. Maryland's and surrounding jurisdiction's RPS laws virtually guarantee wind companies doing business in the PJM region a non-competitive customer. Of the various "renewable sources" of power, the only practical industrial source of renewable energy in the foreseeable future is wind, principally because hydroelectric energy is not going to expand in the state. Landfill gas is relatively limited in quantity and availability. The cost of electricity produced by wind is regulated by "market forces" outside the regulatory authority of the PSC—within fairly generous bounds set by the RPS standards. "Market rates" means whatever the market will bear (in this case an artificial market). "Market rates" contrasts with "regulated rates" which are those set by regulators like the MDPSC. One of the issues I intend to press in this hearing is the cost of wind-generated electricity to utilities because of this lack of competition.

The PTC that Synergics has indicated is essential to the viability of its project will also produce sizable revenues for at least ten years. The double declining accelerated capital depreciation schedules Congress has provided to companies like Synergics will provide considerable opportunities for tax avoidance. Such government support will provide a stable, predictable, fairly long term investment scheme—all perfectly legal—to minimize risk. What companies like Synergics require to make the strategy work is a lot of land. If that commodity is brought on line, any other risks to the company would doubtless be handled through insurance. Insurance is available to wind energy companies to protect them even if their turbines do not supply sufficient power to meet contractual obligations.

- 2-21. Please provide a copy of the statement of DNR that its role is “to support the future of windpower in the state.”

See the Direct Testimony of John Sherwell on behalf of the MDDNR Power Plant Research Program, December 6, 2002, in the matter of Clipper Wind's application to the MDPSC for a Certificate of Public Convenience and Necessity, Case No. 8938, page 6: “These studies are intended to improve the understanding of avian risk associated with windpower and lay down a foundation of knowledge to support future windpower development in the state.” Dr. Sherwell could have used the word “evaluate” here, or even the word “assess.” That he chose “support” was consistent with much of the DNR's Power Plant presentation at that hearing, which “supported” virtually every request and claim the wind developer made, including allowing as many as 199 birds to be killed per turbine in any given night.

- 2-22. Please provide calculations or other support for the statement that wind power does not reduce reliance on fossil fuels in the PJM area.

The statement at the bottom and top of p. 1 & 2 of letter to Deep Creek Property Owners Association does not mention "reliance" or "PJM." See also my direct testimony, which will be provided on or before April 20, 2005.

- 2-23. Please provide the study or other scientific basis for the statement that wildlife other than birds and bats have hardship created by wind projects. Please list species.

Synergics' application materials provide an answer to this question in documenting the presence on and near the Project area of several terrestrial wildlife species considered by the MD DNR to be rare, threatened or endangered within our state. Harm to rare species resulting from the habitat clearing and permanent fragmentation of high elevation ridgetop sites due to windplant development is possible for several terrestrial animal species that are considered regionally rare, including Timber Rattlesnake, Long-tailed Shrew, Porcupine, Allegheny Woodrat, and New England Cottontail. In addition, plants are protected under Maryland's wildlife laws and regulations, and several species are known for the site Synergics has chosen to place an industrial wind energy facility (see Application). Consequently, windplant development of forested ridgetops in the Central Appalachians may cause harm – and hardship – for many species of wildlife (and plants) that are not birds or bats.

See also my answer to question 2-11.

Furthermore, it is well known that numerous species of plants and animals in our region have distributions which are largely confined to high-elevation areas. Many have isolated and often disjunct occurrences that may represent relictual populations of species generally found farther north, and which persist in the south due to the cooler micro-climatic conditions possible at the highest elevations. Given future climate change, the persistence of many of these relict populations may depend upon the availability of and access to the special micro-climatic conditions that exist at higher elevations. Therefore, development of high elevation ridgetops that results in degradation or destruction of important refugia would present a hardship for such wildlife and plants.

In addition, forest fragmentation impacts due to the Applicant's project would likely cause hardship to wildlife and plants. The Applicant's own consultant has prognosticated that the primary ecological concern about future wind energy development in the eastern United States would be due to this development's fragmentation of forest habitat:

The Searsburg [Vermont] wind power station is the first such facility in the heavily forested eastern part of North America. Other projects will follow and the experience at Searsburg should be noted. Fragmentation of forests via wind turbine erection can impact interior nesting birds in an adverse manner. The size and number of wind power developments in the future are also of concern with respect to habitat loss and fragmentation. This may become the primary ecological consideration in future wind power developments in these habitats. [source: Kerlinger, P. 2002. An Assessment of the Impacts of Green Mountain Power Corporation's Wind Power Facility on Breeding and

Migrating Birds in Searsburg, Vermont, July 1996–July 1998. (<http://www.nrel.gov/docs/fy02osti/28591.pdf>)]

The scientific literature extensively documents concerns for wildlife due to the harm caused by forest fragmentation. Forest fragmentation essentially has two components: the loss or reduction of habitat, and the breaking of remaining habitat into smaller, more isolated patches. Among the negative effects of fragmentation on particular species are: the elimination of some species due to chance events; increase in isolation among species populations due to a reduction of their ability to move about the landscape; reduction in local population sizes sometimes leading to local extinctions; and disruption of ecological processes. For the forest as a whole, roads and maintenance of roads and infrastructure are known to have a number of negative effects, ranging from barriers to immigration and emigration, corridors for introduction of native predators and competitors, as well as avenues allowing the spread of non-native, invasive species.

Consequently, the clearing of wide corridors for miles along the crests of forested mountain ridges to construct and operate utility-scale wind turbines will likely be a major future contributor to forest fragmentation and loss of forest interior habitat within our region. Forest interior can be defined as the type of habitat that exists more than 100 meters from a clearing. Forest interior is the optimum habitat condition for the survival of certain species and it is the type of habitat most easily destroyed by development.

Following are sources of information about forest fragmentation and the importance of maintaining large blocks of forest interior habitat:

Noss, R.F, and B. Csuti 1997. Habitat Fragmentation. In G. Meffe, C.R. Carroll and contributors, *Principles of Conservation Biology*, 2nd Edition. pp. 269-304. Sunderland, MA: Sinauer Associates, Inc.

DeVelice, R.L. and J.R. Martin 2001. "Assessing the extent to which roadless areas complement the conservation of biological diversity". *Ecological Applications*. 11:1008-1018

Groves, C.R. 2003. *Drafting a Conservation Blueprint: A Practitioners Guide To Planning For Biodiversity*. Island Press.

- 2-24. Please provide the study or other basis for the statement that wind projects are "insulated from market forces."

Any seller becomes "insulated from market forces" when a government dictates that buyers must buy the seller's product or service. That is precisely what happens when a state law, such as a "renewable portfolio standard" or other governmental requirement mandates that a certain portion of an electric utility's electricity must be produced from a "renewable" or any particular source such as wind energy. The government-preferred seller no longer has to compete with others offering products or services that would satisfy the SAME Buyer's requirement but at a lower price.

See also the response to question 2-20.

- 2-25. With over 6,740 MW of installed wind capacity in 30 states, please provide the study, calculations and list of projects specifically which support the statement that windpower is the "poster child for irresponsible capital investment."

Two examples illustrate the fact that current federal tax policies are steering capital investments to expensive projects that produce small amounts of low value electricity. Of course the money used by windplant owners is, in effect, taken from electric customers, shifting the tax burden from the owners to ordinary taxpayers.

1. Tax breaks provide up to 2/3 of a wind project's value. On December 15, 2004, an official from the firm of Milbank, Tweed, Hadley & McCloy, LLP, pointed out to the American Bar Association's Renewable Energy Committee that 2/3 of the value of a wind energy project comes from two federal tax breaks.[i]

2. FPL Group. Parent of FPL Energy, paid no income tax in 2002 and 2003. A September 22, 2004, report by Citizens for Tax Justice (CTJ)[ii] claims that the FPL Group paid no federal income tax in 2002 or 2003, despite having a profit of \$2.2 billion during those years. FPL Group is the parent of FPL Energy, which organization made large investments in wind energy deployment during those years and now claims to be the nation's leading wind energy producer. It is the parent company of Meyersdale Wind and the Mountaineer Wind Energy Center, which have provided virtually no local taxes to date.

The CTJ claim appears to be supported by the financial statements in the FPL Group annual report.[iii] Investments in wind during 2002-2003 would have qualified FPL Energy for large accelerated depreciation deductions from taxable income and significant wind production tax credits. Those deductions and credits could have been used by the FPL Group, assuming that FPL Energy was a part of an FPL Group consolidated tax filing.

Given these substantial government-induced subsidies (and I believe probable increases for rate payers) that will benefit a relatively few investors who seek tax avoidance opportunities at the expense of average tax and rate payers; and given the relatively small amounts of electricity (I believe it is meaningless in the larger effort to reduce the effects of global warming and air pollution) that will be produced; and given the various nuisances likely to be generated in the vicinity of the facility; and given the evident violation that will occur to Garrett County's Heritage Plan; and given the likely adverse impacts on wildlife, I think my terminology was generous to industrial windplants targeted for prominent wooded ridges along the Allegheny Highlands.

In addition, the wind industry continues to make claims it either cannot or will not substantiate, such as the number of "homes" a windplant will "power;" the capacity factor of its turbines; the meteorological data that the estimate of the capacity factor projection is based upon; the true amount of its turbine leases; the

number of local jobs it will deliver; the amount of local taxes it will provide; among others. The burden of *proof* (not just assertions) for all these claims lies with the wind developers, not with those who question their claims. Perhaps there are laws and regulatory measures which would severely penalize wind developers for making claims they did not deliver upon once their facility was built, but, if so, I don't know of them. This is one of the issues I intend to pursue in this hearing.

[i] Presentation on December 15, 2004, by Mr. Ed Feo to the Renewable Energy Resources Committee of the American Bar Association:

<http://www.abanet.org/environ/committees/renewableenergy/teleconarchives/121504/>

[ii] Citizens for Tax Justice, "Bush Policies Drive Surge in Corporate Tax Freeloading; 82 Big U.S. Corporations Paid No Tax in One or More Bush Years," September 22, 2004. <http://www.ctj.org/corpfed04an.pdf> A more detailed 68-page report on the organization's analysis can be found at

<http://www.ctj.org/corpfed04an.pdf>

[iii] http://www.fplgroup.com/reports/contents/annual_reports.shtml

2.26. Please provide a list of members of "Friends of Backbone Mountain."

There are about 200 members of the organization, the overwhelming majority of whom either reside in Garrett County or own property there. A few are people who live elsewhere and visit the area frequently because of its natural beauty. Many of the members live within the viewshed of the project and many do not. The actual names should not be relevant to this proceeding.

Date: Thu, 4 Dec 2003 18:32:08 -0600

Excerpts from the Final Report of the Township of Lincoln Wind Turbine Moratorium Committee

After the wind turbines went online in Kewaunee County, Wisconsin, the Lincoln Township Board of Supervisors approved a moratorium on new turbine construction. The purpose of the moratorium was to delay new construction of wind turbines for eighteen months, giving the township the opportunity to assess the impacts of the 22 turbines installed by Wisconsin Public Service Corporation (WPSC) and Madison Gas and Electric (MG&E), which went online in June, 1999.

The following document summarizes some of the problems the Moratorium Committee faced in trying to address problems the township hadn't faced prior to turbine construction and some of the resulting changes the committee proposed as a result of its study. Verification of this information can be obtained from Lincoln Township officials.

Agenda

The Moratorium Committee met 39 times between January 17, 2000, and January 20, 2002, to 1) study the impact of wind factories on land, 2) study the impact on residents and 3) review conditional use permits used to build two existing wind factories in Lincoln Township.

Survey

The committee conducted a survey on the perceived impacts of the wind turbines that was sent out to all property owners residing in the township. Each household received one vote. The results were presented on July 2, 2001, to the town board, two years after the wind factory construction.

Question: Are any of the following wind turbine issues currently causing problems in your household?

a. Shadows from the blades

residents w/i
800 ft. - 1/4 mi.

residents w/i
1/4 mi. - 1/2 mi.

33% yes

41% yes

Here are additional write-in comments from the survey:

- * "We get a 'strobe effect' throughout our house and over our entire property (40 acres)."
- * "Shadows are cast over the ground and affect my balance."
- * "We installed vertical blinds but still have some problems."
- * "They catch my eye and I look at them instead of the road. They are dangerous."
- * "Strobe light, headaches, sick to the stomach, can't shit (sic) everything up enough to stop the strobe coming into the house."

An additional comment from Lincoln Township Supervisor John Yunk:

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

* "The strobing effect is so terrible that turbines should not be any closer than 1 mile from schools, roads and residences . . . They should never be set on East-West."

Dr. Jay Pettegrew, researcher, neurologist and professor for the University of Pittsburgh, testified before the Bureau County Zoning Board of Appeals that strobe effect could cause drivers to have seizures, which could result in fatal traffic accidents. At the very least, drivers could become disoriented and confused, he said. He testified that the turbine spacing (sited on top of hills instead of in a single field in orderly rows) would increase the likelihood of seizures.

It is important to know that according to Lincoln Township Chairperson Arlin Monfils, the wind developers publicly stated that strobe and shadow effect would not occur once the turbines were operating. In reality, strobe and shadow effects were problem enough that residents vehemently complained and the power company anted up for awnings, window treatment blinds and small trees to block the light at certain times of the day. Strobe and shadow effects take place for about 40 minutes during sunrise or sunset if the angle of the sun and the light intensity create the right conditions. Mr. Jeff Peacock, Bureau County highway engineer, has recommended denying permits for 8 turbines due to safety concerns, including strobe effect.

Diane Heling, whose property is adjacent to the WPSC turbines, said the utility purchased blinds for her home, but especially in the spring and fall when there are no leaves on the trees, the strobing is at its worst in her home. "It's like a constant camera-flashing in the house. I can't stand to be in the room," Mrs. Heling said. Her neighbor, Linda Yunk, whose property is adjacent to the WPSC turbines, describes the strobe effect as unsettling. "It's like somebody turning something on and off, on and off, on and off . . . It's not a small thing when it happens in your house and when it affects your quality of life to that extent," Mrs. Yunk said.

b. TV reception

residents w/i
800 ft. - 1/4 mi.

residents w/i
1/4 mi. - 1/2 mi.

33% yes

37% yes

Additional write-in comments from survey:

* "Ever since they went up our reception is bad."

* "At times you can see shadowing on the TV that imitates the blades' moves, also poor reception."

* "Minimum of 50' antenna tower proposed but no guarantee that would be high enough. Such a tower is unacceptable."

* "At times we get black and white TV. Two channels come in hazy!!"

c. Blinking lights from on top of the towers

residents w/i
800 ft. - 1/4 mi.

residents w/i
1/4 mi. - 1/2 mi.

9% yes

15% yes

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

Additional write-in comments from survey:

- * "Blinking red lights disrupt the night sky. They make it seem like we're living in a city or near a factory."
- * "At night it is very irritating because they flash in the windows."
- * "We have to keep drapes closed at night."
- * "Looks like a circus, live in the country for peace and quiet."

d. Noise

residents w/i
800 ft. - 1/4 mi.

residents w/i
1/4 mi. - 1/2 mi.

44% yes

52%yes

Additional write-in comments from survey:

- * "Sounds like a gravel pit crushing rock nearby."
- * "Sometimes so loud it makes it seem like we live in an industrial park. The noise dominates the 'sound scape.' It's very unsettling/disturbing especially since it had been so peaceful here. It is an ongoing source of irritation. Can be heard throughout our house even with all the windows and doors closed."
- * "The noise can make it impossible to fall asleep. It makes an uneven pitch not like the white noise of a fan. Can be heard through closed windows making it hard to fall asleep anytime of the year."
- * "You can hear them at times as far as two miles away."
- * "It is the annoyance of never having a quiet evening outdoors. When the blades occasionally stop its (sic) like pressure being removed from my ears. You actually hear the quiet, which is a relief."

The most illustrative description of turbine noise was that of reverberating bass notes from a neighbor's stereo that penetrate the walls and windows of a home. Now imagine having no recourse for asking anyone to turn down that noise, whether it's during the day or in the middle of the night.

As the result of so many noise complaints, WPSC paid for a noise study. However, residents are still upset that the study was inadequate in that it measured decibel levels for a maximum of five days per season, sometimes only for a few minutes at some sites, and included days when rain and high winds blotted out the noise from the turbines. In addition, many measurements were taken when the turbines were not running. WPSC claimed it did not have the funds for a more comprehensive study, according to resident Mike Washechek, whose home is victim to some of the worst noise caused by the turbines, due to its location downhill and downwind from the WPSC turbines.

e. Other problems

On the survey, several residents showed concern over the perceived problem of increased lightning strikes in the area.

Additional write-in comments from survey:

- * "... bring lightning (sic) strikes closer to our home."

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

* "More concern over seeing more lightening (sic) than in the past -- before generators were erected."

According to Township Chairperson Monfils, the wind developers declared prior to construction that lightning would not affect the turbines; however, lightning later struck and broke a blade that had to be replaced. In addition, Mrs. Yunk said that one month after the turbines went online, in July, 1999, a lightning and thunderstorm sent enough electricity through the power grid that Mrs. Yunk and Mrs. Heling both lost their computers to what the service technician called a "fried electrical system" -- even though both computers were surge protected. The reason that Mrs. Yunk attributes the electrical surge to lightning striking a turbine on that particular night is that on the night of the storm, her relative, Joseph Yunk, whose television set was also "fried" that same evening, reported seeing lightning move from one of the turbines along the power grid to the nearby homes, which is a common occurrence with wind factories since nearby strikes to either turbines, external power systems or the ground can send several tens of kilovolts along telephone and power lines. Replacements for the computers and television were paid by the residents.

e. Other problems (continued)

On the survey, several residents showed concern over hazardous traffic conditions during and after construction of the turbines. Additional write-in comments from survey:

* "People driving and stopping."

* "While they were being installed the destroying of the roads, noise, and extra traffic have been negative."

* "More traffic and have to back out of driveways (live on hill, hard to see)."

* "More traffic. I used to feel safe walking or riding bike (sic)."

In addition, Mrs. Yunk said that especially when the turbines first went up, other drivers would be looking up at them and they would "dead stop in front of you." She said she narrowly avoided colliding with a car that had stopped abruptly in front of her.

Question: In the last year, have you been awakened by sound coming from the wind turbines?

residents w/i
800 ft. - 1/4 mi.

residents w/i
1/4 mi. - 1/2 mi.

67% yes

35% yes

Additional write-in comments from survey:

* "Enough to go to the doctor because I need sleeping pills. Sometimes it absolutely drives you 'nuts.' "

* "I wake up with headaches every morning because of noise. Causes my (sic) to have very restless sleep at night!"

* "We have no way of knowing long-term affects (sic). Growing concerns with stray voltage and its affect (sic) on health. We've had frequent headaches, which we didn't have before. Especially in the morning, after sleeping at night. We need answers!"

* "Not awakened but found it hard to fall asleep!!!"

Question: How close to the wind turbines would you consider buying or building a home? The results for all survey respondents in the study, including those living over 2 miles away are as follows:

- * 61% would not build or buy within 1/2 mile of turbines
- * 41% would have to be 2 or more miles away from turbines in order for them to build or buy
- * 74% would not build or buy within 1/4 mile of turbines

These are people who know first-hand about the problems caused by the wind factories. They have lived with the turbines for three years. Again, 74% responded that they would not build or buy within 1/4 mile of turbines. Common sense dictates that if a 38-story skyscraper is built next to any home and it obstructs the view, that home would not be as valuable on the market as an equivalent home sited away from such an obstruction. Common sense also dictates that if the skyscraper had moving parts that contribute to or have the potential to contribute to blinking lights, strobing, noise, stray voltage, ice throws, and health problems, that home would not be as valuable as it had been previously. The above numbers from Lincoln Township corroborate that common sense.

Additional write-in comments from surveys:

- * "Ugly, would not buy in this area again."
- * "25+ miles. They can be seen from this distance."
- * "Would never consider it. Plan on moving if we can sell our house."
- * "No where near them never ever!! Not for a million dollars."

A sampling of some of the overall write-in comments from the survey is as follows:

- * "I live approximately 1 1/2 miles from the windmills. On a quiet night with the right wind direction, I can hear the windmill noise. People living within a 1/4 mile should probably be compensated for the noise and the nuisance."
- * "The noise, flashing lights, interrupted TV reception, strobe effect and possible effect of stray voltage has created a level of stress and anxiety in our lives that was not present before the turbines' installation. From the beginning there has been a lack of honesty and responsibility."
- * "Let other counties or communities be the guinea pigs with the long-term effects or disadvantages of having the windmills. All the landowners who put the windmills up have them on property away from their own homes but on the fence lines and land near all other homeowners."
- * "Our whole family has been affected. My husband just went to the doctor because of his stomach. He hates them. We have fights all the time about them. It's terrible. Why did you put them so close to our new home and expect us to live a normal life. If it isn't the shadows it's the damn noise. The only people that think they are so great and wonderful are those who really don't know."
- * "When we were dating back in the 1970's we always said that someday we were going to build a home here. It was great and then you guys did this . . . This should have never happened. If only you would have taken the time and study this more. Everyone was thinking about themselves and money. No one cared about anything else."

WPSC's buyout offer

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

During the two years of the Moratorium Committee work, Wisconsin Public Service Corporation made offers to buy houses and property to six property owners around the WPSC wind factory site. Offers were made to property owners who vocalized complaints about the wind factory's effects on their quality of life after construction. According to Lincoln Township Supervisor John Yunk, some of these residents were identified on the Noise Complaint Log record kept by the township. Over 90 complaints were logged in one year.

According to the Moratorium Committee report, WPSC publicly stated the buyout was to establish a buffer zone around the wind factory. The Noise Complaint Log was discontinued by WPSC after the buyout offer.

According to the Moratorium Committee report, WPSC's intention was to bulldoze the houses and subsequently keep the property from being developed for rural residences. Owners were allowed only one month to consider the offer.

According to the Moratorium Committee report, "This tactic did not sit well with the Committee. In response the Committee drafted and approved a resolution condemning the WPSC ploy, and requesting that WPSC meet with the town board to develop a better solution for the township."

WPSC officials met with the town board and concerned citizens at the August 6, 2001, regular board meeting, reiterated their policy to purchase property and destroy the homes, and stated that they had no intention of meeting with the town board or changing their policies at the request of the town board.

Mrs. Heling was offered the buyout, but she said she and her family were allowed only one month to make the decision and only six months to move. In addition, the buyout offer was based solely on an appraisal by someone hired by WPSC. Mrs. Heling said WPSC refused to consider independent appraisals. Mrs. Heling said she couldn't obtain another property within six months, so she and her family rejected the buyout.

* The Gabriel household was set back 1000 feet from the nearest turbine. The family took the buyout. The county no longer receives property taxes on that raised homestead. The family no longer lives in the area.

* The Kostichka household was set back 1200 feet from the nearest turbine. The family took the buyout. The county no longer receives property taxes on that raised homestead. The family no longer lives in the area.

* Four remaining homeowners are suing WPSC.

The most recent development is that one homeowner contacted Township Supervisor Yunk during the week of September 11, 2002, and asked what the process would be to request MG&E to buy out her home. She said she has a new baby and two other young children and that she does not want to live in her house any longer because she is too scared about the effects on her family by electronic radiation, stray voltage and other electricity associated with the turbines.

Property values

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

The following information will directly refute the "Market Analysis: Crescent Ridge Project, Indiantown & Milo Townships, Bureau County, Illinois" report submitted by Michael Crowley to this board. Mr. Crowley, a paid consultant to the Crescent Ridge developers, alleges in his report that property values won't be affected in Bureau County, based on his analysis, in part, of property values in Kewaunee County.

However, Town of Lincoln zoning administrator Joe Jerabek compiled a list of properties that have been sold in the township, and their selling prices. The list compared the properties' selling price as a function of the distance to the wind factories, using real estate transfer returns and the year 2001 assessment roll.

Conclusions were as follows:

* "Sales within 1 mile of the windmills prior to their construction were 104 percent of the assessed values, and properties selling in the same area after construction were at 78 percent, a decrease of 26 points."

* "Sales more than 1 mile away prior to construction were 105 percent of the assessed values, and sales of properties 1 mile or more after the construction of the turbines declined to 87 percent of the assessed value, an 18 point decline."

Furthermore, not taken into account in Mr. Jerabek's conclusion are the homes that were bought out and bulldozed by WPSC.

Also not taken into account is the fact that of the homes that sold within one mile of the turbines since their construction, four of them were owned within the Pelnar family as the family members shuffled houses. One brother sold to another brother. One brother purchased his father's home. The father built a new home. And a sister purchased land from one brother and built a home. It is important to note that two of the family members are turbine owners themselves.

Subsequent to the zoning administrator's report, homes have gone on the market that are still for sale.

* 1 home, sited across the road from the wind factory, was constructed after the turbines were built and has been on the market for over 2 years.

* 2 homeowners adjacent to the turbines are contemplating selling to WPSC, which may bulldoze the homes, according to neighbor Scott Srnka.

* 1 homeowner is in the process of finding out if MG&E will buy out her home.

* 1 homeowner, Mrs. Heling, who previously was offered the WPSC buyout, said she would sell if she thought she could get fair value for her home and if it would sell quickly enough that she wouldn't be paying on two properties at once. She said she doesn't believe that can happen, so she has not put up her home for sale.

* 1 homeowner, Mrs. Yunk, who lives across from the WPSC turbines, said she and her husband have decided that after having lived in their home for 28 years, they will be putting it up for sale to move to property farther away from the turbines. She said they are worried about selling their current property because of its proximity to the turbines. They will have to find a buyer who doesn't mind the turbines, she said.

Stray voltage

Another issue addressed by the Moratorium Committee is that of stray voltage and earth-current problems that may be exacerbated by the wind factories. This issue was brought to the attention of the Lincoln Town Board by the committee and concerned residents. An ordinance was passed by the Town Board to study the potential effects and to declare a moratorium on any further turbine development. The Committee agreed that any study of earth currents and stray voltage issues must include an analysis of the distribution system, analysis of the wiring from the utility's grid to the wind turbines, and an analysis of the grounding system used for the wind turbines. They also drafted a request for proposals to identify an expert that could help pinpoint the issues surrounding stray voltage and earth currents. The issue has yet to be resolved.

In the meantime, farmers and their livestock in Lincoln Township have been suffering. There are over four farms that are battling -- among other problems -- herd decline due to diseases that were not present in the herds prior to turbine construction, but are present now, according to farmer Scott Srnka. These problems are not limited to non-participating leaseholders. Farms with turbines have been affected as well, as evidenced by the trucks, which have grown more and more frequent, hauling away animal carcasses, Mr. Srnka said.

Mr. Srnka is a former supporter of the WPSC wind power project that is across the road from his family farm. His dairy herd is about 175 cows on 800 acres of land. Mr. Srnka said, "Thirteen turbines were proposed for my land, but we decided to wait. Thank goodness we did or we'd be out of farming."

Mr. Srnka has traced the decline of milk production and increase of cancer and deformities in his formerly award-winning herd to an increase of electrical pollution on his farm after turbine construction. He also has seen the same chronic symptoms that are in his herd in his family.

Animal health problems in the Srnkas' formerly award-winning herd include cancer deaths, ringworm, mange, lice, parasites, cows not calving properly, dehydration, mutations such as no eyeballs or tails, cows holding pregnancy only 1 to 2 weeks and then aborting, blood from nostrils, black and white hair coats turning brown, mastitis, kidney and liver failure.

Within a few months in the first year after the turbines were erected, 8 cows died of cancer. No previous cases of cancer were detected ever before in the Srnka herd, which is a closed herd, according to Mr. Srnka.

>

Mr. Srnka also detected a change in well water on his property, and there has been a definite change in taste, he said, which has contributed to the decrease in water consumption by his herd. In the past his cows consumed 30 gallons of water a day, but that figure declined to 18 to 22 gallons of water a day after turbine construction. As a result, cows became dehydrated and terminally ill.

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

Video: What the Zoning Board of Appeals members saw was a brief, unedited video interview with Mr. Srnka in his dairy barn, taken this spring. In it there were some of the cows in his herd and Mr. Srnka talking about some of the rewiring that he has had to install to try to combat problems of electrical pollution. Mr. Srnka said that he has had to resort to insulating the farm through electrical wiring to put his farm, in effect, on what he calls its own island.

Dr. Pettegrew, testifying before the Bureau County Zoning Board of Appeals, said he would be remiss as a doctor if he didn't tell the board that he thought the weaknesses and illness he saw in the cows in the video were most likely caused by EMFs or electrical pollution. Dr. Pettegrew also said the risk would be greater in Indiantown and Milo for animals and humans to become ill than in Wisconsin because the proposed turbines would be taller and would produce more electricity.

Back to what Mr. Srnka has personally experienced.

Mr. Srnka and neighbors report serious health effects on not just dairy cows. Health problems in residents include

- * sleep loss
- * diarrhea
- * headaches
- * frequent urination
- * 4 to 5 menstrual periods per month
- * bloody noses: Mr. Srnka had cows bleed to death from uncontrollable bleeding from the nostrils
- * inability to conceive

Sometimes even short-term visitors to the farms or homes contract the symptoms, including construction workers on the Srnka property who broke out in nosebleeds after only a few hours. One of the workers left and refused to return. The Srnkas are so concerned with health effects that they "aren't going to have kids anymore because we're so afraid."

At the time of his testimony before the Bureau County ZBA in October, Mr. Srnka said he had spent upwards of \$50,000 of his own money to try to remedy the electrical pollution in his home and on his farm. Mr. Srnka stated that in his opinion, there were three other farms in the area facing enough problems with their herds in the aftermath of the turbines going online that those three farms are "almost ready to sell out."

Representatives of WPSC have denied that there are stray voltage or earth currents affecting Mr. Srnka's family or livestock and will not compensate him for his family health bills, electrical system upgrades, loss of herd or decrease in milk production.

How did the situation become so grave when wind factory developers swore there would be no problems?

Even if a wind developer may claim that the wind factories, substations and power grids will not contribute to stray voltage or electrical pollution because 1) insulated cable will be used, 2) all cable will be buried feet beneath the surface, and 3) cables are laid in thick

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

beds of sand -- these statements should be viewed with suspicion because of poor project track records, according to Larry Neubauer, a master electrician with Concept Electric Inc., in Appleton, Wisconsin. Mr. Neubauer, who has customers who are dairy producers, who are homeowners with stray voltage problems, and who are farmers with turbines on their property, said that currents from each ground on the cables and project substations, as well as the regional transmission lines that receive electrical energy and that are electrically tied together, do not harmlessly dissipate into the soil. Energy disperses in all directions through the soil and these currents seek out other grounded facilities, such as barns, mobile homes and nearby residences. Only in California is it illegal to use the ground as an electricity conductor. In the rest of the country, including Wisconsin and Illinois, power companies are allowed to dump currents into the ground, according to Mr. Neubauer.

Residential properties that are in a direct line between substations and the ground conduits are particularly at high risk since electricity takes the path of least resistance. Mr. Neubauer said that burying the cables, as the Illinois Wind Energy, LLC, project intends to do, "makes it worse," citing the short lifespans of buried cables, frosts that wreak havoc on the cables, and the problems of locating trouble spots that cannot be seen without digging up the cables.

Two of Mr. Neubauer's clients, who were interviewed in October, are dairy farmers who have spent over \$250,000 and \$300,000 trying to rewire their farms to reduce stray voltage. That cost does not include herd loss or losses from diminished milk production. Mr. Russ Allen owns 550 dairy cows in DePere, Wisconsin. His farm is in a direct line between nearby WPSC turbines and a substation. Mr. Russ said he was losing one or two cows a day during the three years prior to his installing electrical equipment to help reduce currents on his farm. About 600 cows died, he said. Mr. Russ said he has so much electrical current on his farm that he laid a No. 4 copper wire around his farm for 5,000 feet. The wire is not attached to any building or additional wires; yet it can light up a lightbulb from contact with the soil alone. Mr. Russ has scheduled a media day on October 24 to draw awareness to the problems of stray voltage and he said to encourage everyone in Bureau County to attend.

"What scares me more is that I know . . . they're pumping current through people. They're pumping current through kids," Mr. Allen said.

It is important to note that Mr. Noe and his electrical engineer, Mr. Pasley, deny that there will ever be EMFs or stray voltage resulting from the proposed Indiantown/Milo turbines. Just as WPSC has dismissed any problems in the face of mounting evidence, Mr. Noe testified that he will never implement electrical pollution studies and that he thinks they would be a waste of money.

Moratorium Committee findings

As a result of the aforementioned concerns and problems with wind factories in Lincoln Township, the Moratorium Committee recommended, in brief, the following changes from the original conditional use permit:

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

* **Insurance.** The town is named as an additional insured and the town is held harmless in any litigation.

* **Fees.** Wind developers pay for all costs associated with the permitting process, including hearing costs plus attorney fees -- up front.

* **Wells.** Residents' wells are protected against damage from any type of foundation construction, not only blasting, within a 1-mile radius of each turbine. This includes the requirement that wind developers will pay for independent testing of wells within 1 mile of the project for flow rate and water quality. Developers also must pay for remediation and fix problems within 30 days of complaints.

It is important to note that no well water studies of properties adjacent to the proposed Indiantown/Milo project are planned to assure that all well wells retain the same quality of water before and after turbine construction.

* **TV reception.** Wind developers will pay for testing of television reception prior to construction and pay to correct degradation of TV signals. Wind developers will expand the potential problem area to a 1-mile radius for all complaints -- period.

It is important to note that despite claims that television reception would not be affected, the wind factory developers in Lincoln Township had to pay for power boosters and reception equipment to counteract the effects of the turbines. The residents also had to fight with the utilities when an additional local station was added and the utilities refused to pay for any more TV reception improvements for the duration of the 30-year turbine contract. Residents had to fight to get the power company to add the station. Three years later, residents are still unhappy about how the turbines continue interfere with their reception, in many cases observable in unclear stations and in the color flashes that coincide with the turning of the blades, according to Mrs. Heling.

It also is importation to note that no television reception testing is planned prior to turbine construction in Indiantown or Milo townships and that Mr. Noe said steps taken to correct reception problems would have to be reasonable.

* **Noise.** 50 decibels for noise is too great. Noise shall not exceed 40 to 45 decibels, though 35 decibels was recommended unless there is written consent from affected property owners. It is important to note that the noise study submitted by Illinois Wind Energy, LLC, uses theoretical generalizations about topography and noise conduction and does not use the same height or turbine models proposed for Indiantown and Milo.

As a side note, according to Walgreens Drug Store Web site, the "most sensitive" earplugs they sell only block out noise at 30 decibels.

* **Tower removal.** Turbines and all relegated aboveground equipment shall be removed within 120 days after the date the generators reach the end of their useful lives, the date the turbines are abandoned, the termination of the landowner lease, or revocation of the permit. An escrow account will be established or bonding provided by the wind developers to ensure tower removal.

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

* **Tourism.** Wind developers are banned from promoting the project as a tourist destination, will not provide bus or tourist parking and will not provide promotional signs located at the projects or elsewhere.

It is important to note that despite the ordinance prohibiting promotion of the wind turbine project, WPSC was caught red-handed by Township Supervisor Yunk last month in August filming a promotional video with child actors riding bicycles in front of the turbines. Mr. Yunk ordered the film crew to leave, but they refused and continued filming. The township has found that once the turbines were constructed, it has been practically impossible to enforce the ordinance or gain cooperation from WPSC or MG&E.

* **Road damage.** Wind developers will pay for the total cost to return the towns' roads to town standards, not just pay for damaged areas. Any road damage caused by the wind developers during the repair, replacement, or decommissioning of any wind turbines will be paid for by the wind developers. An independent third party will be paid by the wind developers to pre-inspect roadways prior to construction.

It is important to note that Township Chairperson Monfils said that it's not a matter of "if" there will be road damage. There will be road damage. The wind factory developers in Lincoln Township said originally that they would fix the roads if there were damage. But when it came time to fix the roads, the township had to "scrap with them to get it done," according to Mr. Monfils. He said the developers disputed the costs and he had to battle with them two or three times to get repairs paid.

* **Periodic review.** Every year the project will undergo a periodic review for the purpose of determining whether wind developers have complied with the permit and whether wind projects have had any unforeseen adverse impacts. Any condition modified or added following the review will be of the same force and effect as if originally imposed. Wind developers will send a representative at least once a year to report the operating status of the projects and to receive questions and comments from the governing body and township residents.

It is important to note that even with the review, Lincoln Township residents reported being dissatisfied with the developers' response to their complaints. Mrs. Yunk said the developers were readily available prior to construction, but afterward were scarce. She said she fielded calls from residents who could not reach developers and residents who were given the run-around, being told they needed to contact other people within the organization. She said residents' concerns and problems were deflected by the developers, who said residents had to prove that problems did not exist previously and residents had to prove that without a doubt the problems were the result of the turbines.

* **Health and safety.** If a serious adverse unforeseen material impact develops due to the operation of any of the turbines that has a serious detrimental effect on the township or a particular resident, the township has a right to request the cessation of those turbines in question until the situation has been corrected.

Attachment to Jon Boone's responses to Synergics' Data Request # 2
for questions 2-3 and 2-17

* **Setbacks.** The minimum suggested setback from the nearest residences or public buildings is 1000 feet, though 1500 feet was recommended. Setbacks from adjacent property lines will be no less than the tower height plus the length of an extended blade. Minimum distance between turbines will never be less than 800 feet.

* **Strobing effect,** blade shadows and stray voltage earth currents are some other issues to be addressed.

In effect, with these guidelines, Lincoln Township is making construction of new turbines unattractive to further development. They are finding it almost impossible to remedy problems with the current turbines and restore a former quality of life to residents. However, they are trying to ensure no more mistakes will be made.

As Mrs. Yunk plainly said, "Anyone that thinks there aren't going to be problems resulting from the turbines has got another guess coming." She said that she and other residents felt like the bad guys for opposing the turbine project and warning other residents that the project would spell disaster. She said she hates now that what they feared has come true; there isn't any self-satisfaction in being able to say, "I told you so."

The board must weigh heavily the situation of Kewaunee County and the voices and experiences of residents who have no vested interest in wind development in Bureau County. They have no vested interest in telling anything but the truth. They are telling it like it is, and unfortunately, like it was.

For additional information

Dale Massey, Lincoln Township clerk: 920-837-7298

Prepared by Elise Bittner-Mackin, former Chicago Tribune reporter