

**MEMORANDUM IN SUPPORT OF PETITION FOR TEXT AMENDMENT TO  
ZONING ORDINANCE**

**PETITION #11-P1473**

**INTRODUCTION:**

The purpose of this Petition for Text Amendment to Zoning Ordinance (“Petition”) is to assist the Lee County Zoning Office in establishing standards and conditions for reviewing and granting applications for wind energy conversion systems (“WECS”) to best protect participating landowners, non-participating landowners, residents of Lee County and others who fall under the viewshed of such WECS. Since the time of the adoption by the County of the current WECS ordinance, there now exists a much more comprehensive body of knowledge about the construction, operation and maintenance of WECS that any responsible Zoning Office should incorporate into its requirements for granting special or conditional uses to owners and operators of such systems, in order to protect the quality of life, and to promote the health, safety and welfare of the public.

*Health:* With regard to health factors that should be taken into account in a WECS ordinance, Dr. Nina Pierpont, M.D., PhD is a noted expert at Johns Hopkins University. She has studied the health impacts of wind turbines on nearby residents and has been able to compile data from recent projects. Her study concludes that the noise, vibration and shadow flicker from wind turbines affects the vestibular organs of the brain. This can lead to sleep problems and sleep deprivation, headaches, dizziness, unsteadiness, nausea, exhaustion, anxiety, anger, irritability, depression and tinnitus.

In addition, Michael A. Nissenbaum, M.D. with Northern Maine Medical Center also has studied the health effects of people living near wind turbines. He found that 93% reported sleep deprivation, 53% had increased headaches, 20% had onset dizziness, and 73% suffered from stress related issues.

For purposes of health, the experts have concluded that setbacks from residences must be at least 2 kilometers (1 ¼ miles).

*Property Values:* Michael McCann, a property appraiser with substantial experience in wind farm sites has provided information that when wind turbines are constructed, there is at least a 25% loss to home values. In Bureau County, Mr. McCann found a 15.2% loss of farm values. The Property Value Protection Plan contained in our Petition covers non-participating landowners within 3 miles of a turbine, gives a homeowner within 1.5 miles the option to sell at the pre-turbine price to be paid his property value loss; gives a homeowner within 1.5 to 3 miles the right to receive his property value loss, and does not require a sale of the property.

*Tax Revenues:* The County needs to be aware that tax revenues that wind turbine operators estimate to be generated are speculative. 35 ILCS 200/10-1 et seq controls revenues for wind turbines. In the first year, the law allows less than \$8,000 per MW tax, and the portion of the law allowing taxation as real estate ends in 2016. The law also allows for depreciation. Some possible alternatives to consider are a payment in lieu of tax agreement (“PILOT”), or a Host Agreement. A PILOT agreement would need to be handled with care.

*Decommissioning:* The Petition contains provisions whereby the residents of the County will not be stuck with the cost of removal of wind turbines at the end of their useful life, or if they are abandoned. The ZBA should be aware that cost estimates for removal almost always deduct salvage value. There may be no local company that is willing to front the millions of dollars of costs. Also, the salvage value of materials is highly volatile. Mr. Thomas Hewson, with Energy Ventures Analysis, Inc. has studied the salvage value for turbines and concludes that it has plummeted by 75%.

*Current ZBA Review of Existing Ordinance.*

We are aware that the Ad Hoc Committee reviewed a document entitled “Ag-1 Special Use Condition for Wind Energy System” which apparently was distributed to the Ad Hoc Committee on November 4, 2010, but which was not contained in the on-line Lee County Zoning Code as of 12/7/2010. We are uncertain as to the official status of that document and whether it was formally adopted by the County. It is also unclear as to what formal recommendation the Ad Hoc Committee made to the ZBA based upon its review of that document.

We also are aware that the ZBA is currently examining the Ogle County WECS Ordinance. We ask the ZBA to take note that an Amendment to the Ogle County WECS Ordinance is under review, and that the concerns are that: (i) it does not contain adequate setbacks, (ii) it does not have an adequate Property Value Protection Plan, (iii) there is no Host Agreement requirements and its provisions for a Payment in Lieu of Taxes is subject to challenge and may be void; (iv) its decommissioning plan does not require a bond; (v) there is no requirement for a shadow flicker analysis, and (vi) the noise study, while a good start, requires some additional modifications.

Our Petition addresses these issues and is intended to protect the residents and resources of Lee County. This memorandum addresses the contents of the Lee County Zoning Ordinance 10-15-15 as available on-line and it addresses the highlights of the proposed Petition.

**PETITION – SECTION B: DEFINITIONS**

The current WECS Ordinance of Lee County does not contain a section for definitions specifically relating to WECS.

Our Petition contains a set of definitions that pertain directly to the specialized nature of WECS and alleviates uncertainty in the descriptions of the elements of construction, operation and maintenance of a WECS.

**PETITION – SECTION C: FILING OF A WECS CONDITIONAL USE APPLICATION:**

The current Zoning Ordinance requires only that a building permit and a “WECS permit” shall be obtained from the Zoning Officer in order to construct a WECS. An applicant presumably needs only to supply an application that meets the requirements of a regular special use application, even though a WECS has a far wider range of impact than other special uses, and has extremely specialized components. Alarming, it asks only for a certification from the applicant’s engineer as to the sufficiency of the WECS design.

Our Petition is much more complete and protects the County, first by establishing a substantial application fee which will allow the County to properly review the application, and secondly by allowing the County to engage its own outside consultants to review any specialized components of the application.

#### PETITION – SECTION D: CONTENTS OF WECS CONDITIONAL USE APPLICATION:

Section D, along with Section E: Design and Installation Requirements are really the meat of the Petition.

The current WECS Ordinance of Lee County contains only nine (9) items and is vague in its requirements for defining the “location” of the WECS, structures and utility lines. The current WECS Ordinance asks only for a schematic of electrical systems and the manufacturer’s specifications and instructions for the WECS. This is quite vague and could seemingly allow an applicant to provide nothing more than the manufacturer’s equivalent of a “quick set-up instruction chart”. The current Ordinance sets no standards pertaining to information that must be included in such schematics and specifications.

Our Petition asks for very specific information as to the location, design, operation and deconstruction of a WECS. The sheer amount of acreage contained in a typical WECS application will impact landowners and residents far beyond what is contained in a traditional special use application, and the residents of Lee County should be able to review an application that contains information on how the applicant will protect them with regard to more than just the construction of the tower itself. The residents deserve to know exactly how they will be protected with regard setbacks, noise, road maintenance, property values and interference, among other things. In particular please note the following:

#### 1. Petition Article D1. Host Agreement

The current Ordinance does not ensure any kind of payment from the owner of the WECS, other than what might be available under the property tax laws. Recall that turbine companies will typically argue that the tower, nacelle and rotors are personal property and are therefore exempt from real estate taxes. Even if they are considered part of real property, turbines could potentially become exempt as pollution control devices. 35 ILCS 200/10-610 does not apply to wind energy devices that are owned by an person or entity that is otherwise exempt from taxation under the Property Tax Code. The law allows for depreciation, thus tax revenue (if any) will decrease. That shortfall will not be made up unless the Zoning Ordinance provides for a Host Agreement or an Agreement for Payment in Lieu of Taxes.

The Petition allows for a negotiation between the applicant and County for a Host Agreement. The Host Agreement would incorporate provisions to allow for the County to be reimbursed for its expenses and would allow for the negotiations to incorporate provisions to take advantage of whatever kind of tax credits, carbon credits and other kinds of environmental or economic incentives that might be in effect at the time of the application.

#### 2. Petition Article D4. Site Plan

The current Ordinance addresses the location of the WECS, information only as to the property on which the WECS is located, and minimal information as to above-ground utility lines within a radius of only 2 times the height of the tower. This is inadequate to address impacts on residences, structures, utilities, roads, drainage, and wetland and conservation areas and adjacent and nearby properties.

The Petition contains provisions whereby the applicant must provide details about the property in the neighborhood of the proposed site, and must provide notices to certain properties and landowners who would be impacted by the operation of the WECS.

3. Petition Article E2. Setbacks

The existing Ordinance currently requires only a 350 feet setback across the board, whether it is from a property line, road, railroad right of way or power line. The towers can be up to 400 feet in height, and a 350-foot setback is clearly inadequate to protect a house or power line from a toppled tower, a flung blade or ice throw. In addition, turning blades and blinking lights can be distracting and harmful to residents living within the shadow and noise range of the towers. Suitable setbacks need to address those health and safety concerns.

The Petition takes into account the current height of a typical tower, puts a limit on the height, and then establishes setbacks that will protect various kinds of property including dwellings, other structures, roads, power lines, public lands and conservation areas.

4. Petition Article E8. Shadow Flicker

The current Ordinance does not acknowledge shadow flicker at all.

The Petition provides that an applicant conduct an actual analysis of shadow flicker and a plan to mitigate shadow flicker prior to obtaining a special use permit. It also places a limit on the amount of shadow flicker that can be imposed on non-participating landowner.

5. Petition Article E9. Environmental Impact

The current Ordinance does not acknowledge that a WECS may have impacts on the natural environment, and cultural and historical sites. A WECS covers a huge amount of acreage and therefore, unlike a traditional special use, a WECS affects many more people than just an immediately adjacent neighbor. It changes viewsheds for miles around the site.

The Petition requires that an applicant conduct an analysis of the WECS on wetlands, fragile ecosystems, and historical and cultural sites, and to have a plan for mitigation prior to obtaining a special use permit.

6. Petition Article E10. Avian and Wildlife Impact

The current Ordinance does not acknowledge that a WECS may have significant impacts on birds and other wildlife.

The Petition requires that an applicant conduct an analysis of such potential impacts and take measures to mitigate adverse effects before a special use is granted.

7. Petition Article E13. Federal and State Requirements Compliance

The current Ordinance requires that a WECS meet only one set of Federal Aviation Administration regulations. This does not address other federal and state laws, ordinances and regulations that may apply now or in the future to WECS.

The Petition requires a WECS owner to comply with any governmental agency that has authority to regulate a WECS.

8. Petition Article E18. Noise Level

The current Ordinance gives only a blanket reference to the Illinois Pollution Control Board requirements.

The Petition takes into account the fact that Lee County's rural areas are extremely quiet historically, and thus noise is highly disturbing if turbines are sited near residences. The noise is incessant, and has been described as being louder inside a house than outside. There are some reports that residents can feel the vibration of the blades.

Therefore, the Petition provisions require an actual noise impact analysis prior to granting a special use permit. In addition, the Petition sets a limit for nighttime background levels based upon noise levels in place before the turbines are constructed.

9. Petition Article E19. Property Value Protection Plan

The current Ordinance gives no protection to a non-participating landowner who finds himself a neighbor to a WECS. Instead, the current Ordinance gives all the benefits to a participating landowner and gives burdens to the innocent neighbors.

The Petition gives a non-participating landowner an opportunity to have his land value made whole in the very likely event that his property values decrease due to the presence of a WECS.

10. Petition Article E20. Complaint Resolution

The current Ordinance addresses only public nuisance and places the responsibility on the Zoning Administrator for determining whether dilapidation, obsolescence, fire hazards and the like exists to the extent that it creates a public nuisance.

The Petition gives private parties, rather than only the Zoning Administrator, a process by which to raise complaints and puts the responsibility onto the WECS owner or operator to address the problems, rather than leaving it all up to the Zoning Administrator.

11. Petition Article E21. Safety/Climb Prevention

The current Ordinance requires only a 6 foot fence, a vague reference to anti-climbing devices, and some signage that would apply to an “attractive nuisance.”

The Petition gives far more definite protection to visitors to WECS sites. It specifies a minimum of 15 feet anti-climbing range and lockable doors. Signage requirements appear in their own Section E11 and require more than “no trespassing” wording. The Petition provides for specific warnings as to high voltage and emergency contact information.

12. Petition Article E23. Signal and Electromagnetic Interference

The current Ordinance does not address electromagnetic interference and signal interference. This does not adequately protect users of cell phones, televisions, satellite communications or microwave users.

The Petition addresses these issues and provides a procedure for complaints caused by such interference.

13. Petition Article E26. Operation and Maintenance.

The current Ordinance places on the Zoning Administrator or a representative, the burden of inspecting the WECS installation and determining its structural stability. This is wholly inadequate. While Zoning Administrator may be an expert in zoning matters, the provisions unfairly expect the Zoning Administrator to be an expert in WECS structures. If, instead, the Zoning Administrator asks a professional representative to perform an inspection, it does not allow the County to recover the cost of the inspection from the WECS Owner.

The Petition properly places the burden of obtaining an inspection certificate squarely on the WECS owner.

PETITION ARTICLE F: DECOMMISSIONING OR ABANDONMENT OF THE WECS

The current Ordinance vaguely acknowledges that a WECS may be abandoned and allows the Zoning Administrator to order the demolition or removal of the WECS. It is, however, inadequate as to requiring an escrow or bond to cover the cost upfront, and could leave the County with a decaying eyesore or a big bill for removal.

The Petition requires a WECS applicant to prepare a cost estimate for decommissioning and to escrow funds in an account specifically for such purpose before a building permit is issued.

CONCLUSION

Given the outdated and inadequate provisions of the current Ordinance, we respectfully request that the Zoning Board of Appeals recommend that the County approve and adopt the Petition for Text Amendment.