

FINDINGS OF FACT AND RECOMMENDATION  
OF THE McLEAN COUNTY ZONING BOARD OF APPEALS

This is the findings of fact and the recommendation of the McLean County Zoning Board of Appeals to the McLean County Board concerning an application of McLean County Wind Energy LLC by Invenergy Wind Development North America LLC, in case SU-17-11. It is requesting a special use to allow a Wind Energy Conversion System consisting of up to 117 wind turbine generators that are up to 500 feet in height, as well as access roads, transformers, power lines, communications lines, interconnection lines, substation, construction lay-down yards, and other ancillary facilities or structures, on 12,830 acres in the Agriculture District. The application also requests that the time period to apply for building permits for the Wind Energy Conversion System be extended to three years, rather than two years as provided by the McLean County Zoning Ordinance in the Agriculture District; on property in Sections 16, 17, 19-23, 26-32, 34 and 35 of Chenoa Township, Sections 13-15, 23, 24, 26, 27 and 34-36 of Gridley Township, Sections 8, 17-20, 26, 28, 29, 31, 32, and 36 of Lawndale Township, Sections 4, 6, 10, 11, 13-15 and 22-26 in Lexington Township, and Sections 1-3 in Money Creek Township. The Project is generally located east of County Highway 29, south of U.S. Highway 24, west of County Roads 3570E and 3600E, and north of State Highway 165.

The Agricultural Nuisance Disclaimer in the Zoning Ordinance that is required to be signed by people applying for special uses to build non-farm residences in the Agriculture District was discussed:

“Properties within the Agriculture District are located in an area where land is used for commercial agricultural production. Owners, residents, and other users of property in the Agriculture District or neighboring property may be subjected to inconvenience, discomfort, and the possibility of injury to property and health arising from normal and accepted agricultural practices and operations, including but not limited to noise, odors, dust, the operation of machinery of any kind, including aircraft, the storage and disposal of manure, the application of fertilizers, soil amendments, herbicides and pesticides. Therefore, owners, occupants, and users of property within the Agriculture District should be prepared to accept such inconveniences, discomfort, and possibility of injury from normal agricultural operations, and are hereby put on official notice that the State Right-to-Farm Law may bar them from obtaining a legal judgment against such normal agricultural operations.”

After due notice, as required by law, the Zoning Board of Appeals held a public hearing in this case on January 2 and 4, 2018 at the Astroth Community Education Center, Room 2400- Auditorium, Heartland Community College, 1500 W. Raab Road, Normal, IL, and on January 9, 10, 23, 24, 25, 29 and 30, 2018 in Room 400 of the Government Center, 115 East Washington Street, Bloomington, IL and hereby report their findings of fact and their recommendation as follows:

**ANALYSIS OF STANDARDS** - After considering all the evidence and testimony presented at the hearing, this Board makes the following analysis of the standards contained in the McLean County Code regarding the recommendation by the Zoning Board of Appeals as to whether the County Board should grant or deny the proposed special use.

**STANDARDS FOR RECOMMENDING:**

- 1. The proposed special use will not be detrimental to or endanger the health, safety, morals, comfort, or welfare of the public.** This standard is met. The applicant is proposing to build a Wind Energy Conversion System (WECS) consisting of up to 117 wind turbine generators that are up to 500 feet in height. The project will likely end up with 100

turbines, with a total power output of up to 250 megawatts (MW), and will power approximately 69,000 homes according to the application. A noise analysis was submitted with the application. Three different types of General Electric turbines will be used; General Electric (GE) 2.5 MW-127 turbines with standard blades, GE 2.5 MW-127 turbines with low-noise trailing edge (LNTE) blades, and GE 2.3 MW-116 turbines with LNTE blades. The dominant component of wind turbine noise is caused by the blade passing through the air. The trailing edge of an LNTE blade is shaped to make the airflow off the blade less turbulent, which reduces emitted noise. The figures in the application specify the type and location of each turbine to comply with noise regulations. If the applicant changes the project layout or turbine type, chooses alternative turbine sites, and/or employs a mix of standard and LNTE blades different than modeled in the application, the noise analysis shall be updated accordingly. The applicant shall furthermore update its noise analysis to add into the model the 2 decibels that were reduced at the 1,000 hertz level and provide that analysis to the County. The Zoning Board recommends that no building permit should be issued for a turbine until the applicant demonstrates compliance with the 41 decibel limit through modeling which reinserts the 2 decibels.

The proposed WECS meets the setback requirements of the Zoning Ordinance. The turbines will be set back 1.1 times the height of the turbine from all side and rear property lines of non-participating property owners, from the edge of any public road right-of-way, third party transmission lines and communication towers as measured from the tip of the blade. The turbines will be set back 1,500 feet from occupied residences.

A professional engineer shall certify, as part of the building permit application, that the foundation and tower design of the WECS is within accepted professional standards. After construction is complete, a professional engineer will verify that they are built according to the approved plans.

The applicant has submitted an air space study with correspondence with the Federal Aviation Administration (FAA), a microwave study, a communications tower study, an AM and FM radio report, a land mobile and emergency services report, a mobile phone carrier report, an off-air TV analysis, a sample land owner agreement, and an economic impact study. The applicant will resolve any complaints of television reception interference and return them to at least the level of service that occurred before the turbines were installed. If problems occur with emergency services transmissions, the applicant states that their meteorological towers or turbines can serve as platforms for base stations or repeaters.

The application includes a decommissioning plan and decommissioning obligation cost evaluation. The cost estimate per turbine is \$52,809. The applicant will need to post adequate financial assurance with the County and has indicated that if the project is decommissioned, they will remove all facilities as required under the Agricultural Impact Mitigation Agreement (AIMA) including the turbine foundations to a depth of 5 feet below grade.

The applicant has submitted a review of ecological resources and mapped the wetlands in the project area. The applicant has submitted a cultural inventory review and noted areas to be avoided by turbines; but there has been no communication from the Illinois Historical Preservation Agency (IHPA). The applicant has submitted a bat acoustic survey including a field study. The applicant has submitted an eagle nest survey including one field study up to

10 miles from the subject properties. The applicant will need to verify that this 10-mile eagle nest survey has been or will be completed for an additional two years. The applicant has submitted a small bird use survey including a field study.

Article VI Section 350-43.OO (2) (Use Standards for WECS) requires implementation of Illinois Department of Natural Resources (IDNR) recommendations based on pre-siting study results, unless credible evidence is presented against the recommendation. The Zoning Board of Appeals found that the applicant did not present credible evidence against IDNR recommendations. IDNR made the following six recommendations concerning the proposed wind farm:

Recommendation #1: The Department recommends the County consider imposing a requirement for the applicant to curtail turbine operations below wind speeds of 5.0 meters per second during the period from July 15 through October 15 to conserve endangered, threatened, and non-listed bats. This measure will likely prevent the prohibited taking of endangered or threatened bats, and will reduce the mortality of non-listed bats by approximately fifty percent.

Recommendation #2: The Department recommends the County consider imposing a requirement to conduct three years of mortality monitoring to statistically quantify bird and bat mortality by species due to turbine operations.

Recommendation #3: The Department recommends the County consider imposing a requirement for the applicant to perform and report fish & mussel surveys 100 meters up and downstream of any proposed physical disturbance of a perennial stream channel or drain prior to disturbance of the channel. This includes bridge or culvert improvements to facilitate transportation of turbine components.

Recommendation #4: The Department recommends the County consider imposing a requirement for the applicant to perform and report trapping surveys for the Mudpuppy Salamander in perennial portions of tributaries of the Vermilion and Mackinaw Rivers within the facility. Such surveys should be conducted in December, January, and February, and no later than March, to determine whether and to what extent this species breeds within the proposed facility.

Recommendation #5: The Department recommends the County consider imposing a requirement for the applicant to avoid siting turbines within 500 feet of a perennial stream.

Recommendation #6: The Department recommends the County consider assuring no wind turbines are sited within one-half mile of the Mackinaw River Land & Water Reserve, or the Mackinaw River main channel, which comprise the Mackinaw River INAI Site.

Recommendation #7: The Department recommends the County consider imposing a requirement for the applicant to perform trapping surveys for the Franklin's Ground Squirrel in suitable habitat within the boundaries of the facility.

The McLean County Regional Comprehensive Plan approved on November 17, 2009, proposes that the project area remain in agricultural land use and states that wind energy developments are an opportunity for preserving local farmland and agricultural heritage. The Plan goes on to state in reference to the two windfarms that had already been approved at the time, "Besides adding significant tax dollars, both projects will assist local farmers as some

take advantage of annual turbine rental fees for allowing the energy firms to erect turbines on private property”.

2. **The proposed special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for purposes already permitted or substantially diminish property values in the immediate area.** This standard is met. The surrounding property that is currently used for crop production will continue to be desirable for such use. Land surrounding the wind turbines will continue to be farmed. The proposed wind farm is compatible with agricultural operations in the project area, and these agricultural operations will not likely be negatively impacted.

The application meets the setback requirements of the Zoning Ordinance. The Zoning Board of Appeals recommends the noise analysis needs to be re-done to add into the model the 2 decibels that were deleted at the 1,000 hertz level to attain compliance with Illinois Pollution Control Board (IPCB) standards. The applicant will need to make adjustments to turbine locations to comply with this change in the model to comply with IPCB nighttime standards. With this change, the application demonstrates that the project will comply with noise standards of the IPCB. The noise analysis and the turbine setback requirements from occupied residences show that the project will not injure nearby residents.

The applicant is requesting to be allowed to apply for a building permit up to three years after County Board approval rather than two years as allowed. This is a reasonable request and has been approved for other wind farms in the County. Site approval for each wind turbine within the project area needs to be approved by the Federal Aviation Administration (FAA) before construction can begin. Lighting on turbines shall meet the FAA lighting requirements. The application states that no more intensive lighting will be installed than is required to meet minimum FAA lighting requirements.

The applicant is proposing to build several turbines within 1½ miles of the municipal boundaries of Chenoa, Gridley and Lexington, and has indicated that they are seeking appropriate authorization from each municipality. Turbines located in this area will need to be approved by the appropriate municipality before a construction permit will be issued.

The County received a pre-siting study, addressing all relevant species, submitted to (IDNR). IDNR submitted six recommendation with which the applicant will need to comply.

3. **The proposed special use will not impede the orderly development of the surrounding property for uses permitted in the district.** This standard is met. The Agriculture District is very restrictive for establishing non-agricultural uses. Nearby land that is suitable for crop production will continue to be suitable for such use. In the limited areas where residences are located, turbines will be set back 1,500 feet from occupied residences. The application includes a decommissioning plan and decommissioning obligation cost evaluation. The cost estimate per turbine is \$52,809. The applicant will post adequate security with the County to ensure compliance with the decommissioning plan.

There are two airstrips in the project area: The Thacker Airstrip is in section 16 of Chenoa Township and the Schertz Aerial Service Airstrip is in section 35 of Lexington Township. In discussions with agents for these two airstrips, the applicant will remove turbine numbers 22 and 80 and will move turbine number 23 approximately 850 feet to the east,

turbine 74 approximately 300 feet to the west and convert it to a 2.3 megawatt turbine and move turbine number 78 approximately 1,200 feet to the northwest.

In response to testimony, the applicant agreed to move turbine number 1 approximately 100 feet to the southwest, turbine number 35 approximately 25 feet to the southwest and turbine number 65 approximately 2,000 feet to the east-northeast.

The application indicates that all turbines have been located to minimize adverse effects to crop dusting operations since farmers in the project area rely on aerial applications of pesticides for their crops.

4. **Adequate utilities, access roads, drainage and/or other necessary facilities have been or will be provided.** This standard is met. The applicant will protect the existing drainage near the project and repair any damage made to drain tile or any other drainage improvements. The applicant is proposing to build gravel access roads to each tower. Drainage problems have developed along and through some of these access roads in the already built Twin Groves Wind Farm. It is necessary to install vegetated strips along the upstream side of access roads that are prone to washing out, particularly where the access roads cross waterways. To minimize erosion along access roads, waterways should be improved before access roads are installed, or the crossing will not be installed in a way that minimizes erosion. The applicant needs to provide specific contact information for problems/issues made available from the applicant to the public.
5. **Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.** This standard is met. The applicant has been working with the County and townships to obtain road use agreements to maintain the public roads and provide adequate access during the construction process. A signed road use agreement with the County for use of County roads will need to be approved before the County Board takes action on this application. A written road use agreement with the applicable township road commissioners will need to be obtained before construction permits are issued.
6. **The establishment, maintenance and operation of the special use will be in conformance with the intent of the district in which the special use is proposed to be located.** This standard is met. The intent of the Agriculture District states, "Provide for the location and govern the establishment and operation of land uses which are compatible with agriculture and are of such a nature that their location away from residential, commercial and industrial areas is most desirable."
7. **The proposed special use, in all other respects, conforms to the applicable regulations of the Agriculture District.** This standard is met.

After considering all the evidence and testimony presented, this Board finds that the application meets all the standards as found in the McLean County Code, provided compliance with the following stipulations:

1. A written road use agreement shall be obtained with the County before the County Board approves this application.

2. A written road use agreement shall be obtained with the applicable township road commissioners before construction permits are issued.
3. Development shall follow the plans and documents submitted with the application and with Zoning Regulations including Article VI Section 350-43.OO (2) (Use Standards for WECS).
4. Vegetated strips shall be installed along the upstream side of access roads that are prone to washing out, particularly where the access roads cross waterways. To minimize erosion along access roads, waterways should be improved before access roads are installed, or the crossing will not be installed in a way that minimizes erosion.
5. To improve safety for the Thacker and Schertz Aerial Airstrips, the applicant will remove turbine numbers 22 and 80 and will move turbine number 23 approximately 850 feet to the east, turbine 74 approximately 300 feet to the west and convert it to a 2.3 megawatt turbine and move turbine number 78 approximately 1,200 feet to the northwest.
6. The applicant shall provide specific contact information for problems/issues made available from the applicant to the public. The applicant shall notify the Director of Building and Zoning when ownership is transferred and inform him who will be the contact.
7. Financial assurance acceptable to the County shall be provided to the County according to the decommissioning plan submitted with the application. Beginning 12 years after the start of commercial operation, the WECS owner shall provide financial assurance to the County for removal costs of at least \$52,809 per turbine or \$5,280,950 for total decommissioning costs.
8. If decommissioning is triggered, all facilities will be removed as required under the Agricultural Impact Mitigation Agreement (AIMA) including the turbine foundations to a depth of 5 feet below grade.
9. The applicant shall complete the following stipulation as recommended by IDNR:

Recommendation #1: The Department recommends the County consider imposing a requirement for the applicant to curtail turbine operations below wind speeds of 5.0 meters per second during the period from July 15 through October 15 to conserve endangered, threatened, and non-listed bats. This measure will likely prevent the prohibited taking of endangered or threatened bats, and will reduce the mortality of non-listed bats by approximately fifty percent.

Recommendation #2: The Department recommends the County consider imposing a requirement to conduct three years of mortality monitoring to statistically quantify bird and bat mortality by species due to turbine operations.

Recommendation #3: The Department recommends the County consider imposing a requirement for the applicant to perform and report fish & mussel surveys 100 meters up and downstream of any proposed physical disturbance of a perennial stream channel or drain prior to disturbance of the channel. This includes bridge or culvert improvements to facilitate transportation of turbine components.

Recommendation #4: The Department recommends the County consider imposing a requirement for the applicant to perform and report trapping surveys for the Mudpuppy Salamander in perennial portions of tributaries of the Vermilion and Mackinaw Rivers within the facility. Such surveys should be conducted in December, January, and February,

and no later than March, to determine whether and to what extent this species breeds within the proposed facility.

Recommendation #5: The Department recommends the County consider imposing a requirement for the applicant to avoid siting turbines within 500 feet of a perennial stream.

Recommendation #6: The Department recommends the County consider assuring no wind turbines are sited within one-half mile of the Mackinaw River Land & Water Reserve, or the Mackinaw River main channel, which comprise the Mackinaw River INAI Site.

Recommendation #7: The Department recommends the County consider imposing a requirement for the applicant to perform trapping surveys for the Franklin's Ground Squirrel in suitable habitat within the boundaries of the facility.

10. An eagle nest survey including one field study up to 10 miles from the subject properties was completed. The applicant will need to verify that this 10-mile eagle nest survey has been or will be completed for an additional two years.
11. General Electric (GE) 2.5 MW-127 turbines with standard blades, GE 2.5 MW-127 turbines with low-noise trailing edge (LNTE) blades, and GE 2.3 MW-116 turbines with LNTE blades shall be installed in this project according to the project layout submitted with the application. If the applicant changes the project layout or turbine type, chooses alternative turbine sites, and/or employs a mix of standard and LNTE blades different than modeled in the application, the noise analysis shall be updated accordingly. The applicant shall furthermore update its noise analysis to add into the model the 2 decibels that were reduced at the 1,000 hertz level and provide that analysis to the County. No building permit shall be issued for a turbine until the applicant has demonstrated compliance with the 41 decibel limit through modeling which reinserts the 2 decibels.
12. The applicant shall complete consultation with the Illinois Historical Preservation Agency (IHPA) before construction can begin.
13. The applicant shall rectify any television and internet connection problems in the project area and return them to at least the level of service that occurred before the turbines were installed.
14. No lighting shall be installed that is more intensive than the minimum required by the FAA.
15. Turbines located within 1½ miles of the municipal boundaries of Chenoa, Gridley and Lexington shall be approved by the appropriate municipality before a construction permit will be issued.
16. The applicant will coordinate and provide aid to local fire districts to promote safety and emergency response procedures.

Therefore, this Board recommends that a special use be granted on the property described above for a Wind Energy Conversion System consisting of up to 117 wind turbine generators that are up to 500 feet in height, as well as access roads, transformers, power lines, communications lines, interconnection lines, substation, construction lay-down yards, and other ancillary facilities or structures in the Agriculture District. This Board also recommends to allow the time period to

apply for building permits for the Wind Energy Conversion System be extended to three years, rather than two years, provided there is compliance with the above stipulations:

**ROLL CALL VOTE** - The roll call vote was seven members for the motion to recommend granting, none opposed and Member Judd was absent.

Respectfully submitted by the McLean County Zoning Board of Appeals

  
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Chair

  
\_\_\_\_\_  
Date

James Finnigan, Chair  
Rick Dean  
Julia Turner  
Drake Zimmerman  
Michael Kuritz  
Brian Bangert  
Chris Carlton, Alternate Member