

## DELTA COUNTY ZONING ORDINANCE

### DELTA COUNTY, MICHIGAN

Beginning on pg. 38 of the Delta County Zoning Ordinance:

#### Section 503-1 SITE PLANS FOR ANEMOMETER TOWER, ON-SITE WIND ENERGY SYSTEM AND UTILITY GRID WIND ENERGY SYSTEM

In addition to the requirements for a site plan found in Sections 502, 503 and 504 of this Ordinance, site plans and supporting documents for anemometer towers over 100' high, on-site wind energy systems over 100' high, and utility grid wind energy systems shall include the following additional information:

- A) Documentation that sound pressure level, construction code, tower, interconnection (if applicable) and safety requirements have been reviewed and the submitted site plan is prepared to show compliance with these issues.
- B) Proof of the applicant's liability insurance for the project.
- C) A copy of that portion of all the applicant's lease(s) with the land owner(s) granting authority to install the anemometer tower and/or utility grid wind energy system; legal description of the property(ies), lease units; and the site plan shows the boundaries of the leases as well as the boundaries of the lease unit boundary.
- D) The phases or parts of construction, with a construction schedule.
- E) The location, height and dimensions of all existing and proposed structures and fencing.
- F) The location, grades and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road.
- G) All new infrastructure above ground related to the project.
- H) Two copies of the Manufacturers' Material Safety Data Sheet(s) which shall include the type and quantity of all materials used in the operation of all equipment including, but not limited to, all lubricants and coolants.

Beginning on pg. 48 of the Delta County Zoning Ordinance:

Section 701-5 UTILITY GRID WIND ENERGY SYSTEM, ON-SITE WIND ENERGY SYSTEM OVER 100

FEET HIGH AND ANEMOMETER TOWERS OVER 100 FEET HIGH

An utility grid wind energy system, on-site wind energy system over 100 feet high and anemometer towers over 100 feet high shall meet the following standards in addition to the general conditional use standards:

A) Property Setback:

1. Anemometer tower over 100 feet setback shall be the greater distance of the following:

a. A distance equal to 1.1 times the height of the tower including the top of the blade in its vertical position from the road right-of-way;

b. A distance equal to 1.1 times the height of the tower including the top of the blade in its vertical position from the lease unit boundary.

2. Utility grid and on-site wind energy systems over 100 feet setback shall be the greater distance of the following:

a. A distance equal to 1.1 times the height of the tower including the top of the blade in its vertical position from the road right-of-way;

b. A distance equal to 1.1 times height of the tower including the top of the blade in its vertical position from the lease unit boundary.

c. A distance equal to 1,000' from existing dwellings on participating parcels and 1,320' from existing dwellings on non-participating parcels.

3. An Operations and Maintenance Office building, a substation, or ancillary equipment shall comply with any property setback requirement of the respective zoning district.

B) Sound Pressure Level: The sound pressure level shall not exceed either 55 dB(A) measured at the property lines or the lease unit boundary, whichever is farther from the source of the noise, or 45 dB(A) measured at an existing dwelling, whichever measurement is less. This sound pressure level shall not be exceeded for more than three minutes in any hour of the day. If the ambient sound pressure exceeds 55 dB(A), the standard shall be ambient dB(A) plus 5 dB(A).

C) Safety: Shall be designed to prevent unauthorized access to electrical and mechanical components and shall have access doors that are kept securely locked at all times when service personnel are not present. All spent lubricants and cooling fluids shall be properly and safely removed in a timely manner from the site of the wind energy system. A sign shall be posted near the tower or Operations and Maintenance Office building that will contain emergency contact information. Signage placed at the road access shall be used to warn visitors about the potential danger of falling ice. The minimum vertical blade tip clearance from grade shall be 20 feet for a wind energy system employing a horizontal axis rotor.

D) Post-Construction Permits: Construction codes, towers and interconnection standards shall comply with all applicable state construction and electrical codes and local building permit requirements.

E) Pre-Application Permits:

1. Utility Infrastructure: Shall comply with Federal Aviation Administration (FAA) requirements, the Michigan Airport Zoning Act (Public Act 23 of 1950, as amended), the Michigan Tall Structures Act (Public Act 259 of 1959, as amended), and local jurisdiction airport overlay zone regulations. The minimum FAA lighting standards shall not be exceeded. All tower lighting required by the FAA shall be shielded to the extent possible to reduce glare and visibility from the ground. The tower shaft shall not be illuminated unless required by the FAA. Utility grid wind energy systems shall comply with applicable utility, Michigan Public Service Commission and Federal Regulatory Commission interconnection standards.

2. Environment:

a. The site plan and other documents and drawings shall show mitigation measures to minimize potential impacts on the natural environment including, but not limited to wetlands and other fragile ecosystems, historical and cultural sites, and antiquities, as identified in the Environmental Analysis.

b. Comply with application parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994) including but not limited to:

1. Part 31 Water Resources Protection.

2. Part 91 Soil Erosion and Sedimentation Control.

3. Part 301 Inland Lakes and Streams.

4. Part 303 Wetlands.

5. Part 323 Shoreland Protection and Management.

6. Part 325 Great Lakes Submerged Lands.

7. Part 353 Sand Dunes Protection and Management as shown by having obtained each respective permit with requirements and limitations of those permits reflected on the site plan.

F) Performance Security: Performance security, pursuant to Section 523 of this Ordinance shall be provided for the applicant making repairs to public roads damaged by the construction of the wind energy system.

G) The following standards apply only to utility grid wind energy systems:

1. Visual Impact: Utility grid wind energy system projects shall use tubular towers and all utility grid wind energy systems in a project shall be finished in a single, non-reflective matte finished color. A project shall be constructed using wind energy systems of similar design, size, operation and appearance throughout the project. No lettering, company insignia, advertising or graphics shall be on any part of the tower, hub or blades. Nacelles may have lettering that exhibits the manufacturer's and/or owner's identification. The applicant shall avoid state or federal scenic area and significant visual resources listed in Delta County's Master Plan.

2. Avian and Wildlife Impact: Site plan and other documents and drawings shall show mitigation measures to minimize potential impacts on avian and wildlife, as identified in the Avian and Wildlife Impact Analysis.

3. Shadow Flicker: Site plan and other documents and drawings shall show mitigation measures to minimize potential impacts from the shadow flicker, as identified in the Shadow Flicker Impact Analysis.

4. Decommissioning: A Planning Commission approved decommissioning plan indicating:

a. The anticipated life of the project,

b. The estimated decommissioning costs net of salvage value in current dollars,

c. The method of ensuring that funds will be available for decommissioning and restoration,

d. The anticipated manner in which the project will be decommissioned and the site restored.

5. Complaint Resolution: A Planning Commission approved process to resolve complaints from nearby residents concerning the construction or operation of the project. Two complete copies and sufficient executive summaries for Planning

Commission members of a description of the complaint resolution process developed by the applicant to resolve complaints from nearby residents concerning the construction or operation of the project. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint. The process shall not preclude the local government from acting on a complaint. During construction the applicant shall maintain and make available to nearby residents a telephone number where a project representative can be reached during normal business hours.

6. Electromagnetic Interference: No utility grid wind energy system shall be installed in any location where its proximity to existing fixed broadcast, retransmission or reception antennae for radio, television, or wireless phone or other personal communication systems would produce electromagnetic interference with signal transmission or reception unless the applicant provides a replacement signal to the affected party that will restore reception to at least the level present before operation of the wind energy system. No utility grid wind energy system shall be installed in any location within the line of sight of an existing microwave communications link where operation of the wind energy system is likely to produce electromagnetic interference in the link's operation unless the interference is insignificant.

H) Procedural Requirements: Prior to making any order authorizing a conditional use permit, the Planning Commission may obtain the opinion and recommendation of a third party consultant. The Planning Commission shall proceed pursuant to Section 105 of the Ordinance and the opinion and recommendation of the third party consultant shall be made part of the written record.

#### Section 701-6 ADDITIONAL CONDITIONAL SITE PLAN REQUIREMENTS FOR UTILITY GRID WIND ENERGY SYSTEMS

In addition to the requirements for a conditional use permit found in Sections 701, 701-1 701-2, 701-3, 701-4, 701-5 of this Ordinance, site plans and supporting documents utility grid wind energy systems shall include the following additional information:

A) Two complete copies and sufficient executive summaries for Planning Commission members of a noise modeling and analysis report and the site plan shall show locations of equipment identified as a source of noise which is placed, based on analysis, so that the wind energy systems will not exceed the maximum permitted sound pressure levels. The noise modeling and analysis shall conform to IEC 61400 and ISO 9613. After installation of the utility grid wind energy system, sound pressure level measurements shall be done by a qualified professional according to the procedures in the most current version of ANSI S12.18. All sound pressure levels shall be measured with a sound meter that meets or exceeds the most current version of ANSI S1.4 specifications for a Type II sound meter.

Documentation of the sound pressure level measurements shall be provided to the County within 60 days of the commercial operation of the project.

B) A visual impact simulation showing the completed site as proposed on the submitted site plan. The visual impact simulation shall be from four viewable angles.

C) Two complete copies and sufficient executive summaries for Planning Commission members of an Environmental Analysis by a qualified professional to identify and assess any potential impacts on the natural environment including, but not limited to wetlands and other fragile ecosystems, historical and cultural sites and antiquities. The applicant shall take appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis, and shall show those measures on the site plan. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

D) Two complete copies and sufficient executive summaries for Planning Commission members of an Avian and Wildlife Impact Analysis by a qualified professional to identify and assess any potential impacts on wildlife and endangered species. The applicant shall take appropriate measures to minimize, eliminate or mitigate adverse impacts identified in the analysis and shall show those measures on the site plan. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts.

E) Two complete copies and sufficient executive summaries for Planning Commission members of a shadow flicker analysis at occupied structures to identify the locations of shadow flicker that may be caused by the project and the expected durations of the flicker at these locations from sunrise to sunset over the course of a year. The site plan shall identify problem areas where shadow flicker may affect the occupants of the structures and show measures that shall be taken to eliminate or mitigate the problems.