



LUC Model Language (October 2008)

Small Wind Farms Projects less than 5MW – XXXX Township

DEFINITIONS:

Accessory Structures: Structures such as sheds, storage sheds, pool houses, unattached garages, and barns.

Anemometer: An instrument that measures the force and direction of the wind.

Clear Fall Zone: An area surrounding the wind turbine unit into which the turbine and -or turbine components might fall due to inclement weather, poor maintenance, faulty construction methods, or any other condition causing turbine failure that shall remain unobstructed and confined within the property lines of the primary parcel where the turbine is located. The purpose of the zone being that if the turbine should fall or otherwise become damaged, the falling structure will be confined to the primary parcel. ~~and will not fall onto dwellings, any inhabited buildings, and will not intrude onto a neighboring property.~~

Cowling: A streamlined removable ~~metal that covers~~ **cover that encloses** the turbine's nacelle.

Decibel: A unit of relative loudness equal to ten times the common logarithm of the ratio of two readings. For sound, the decibel scale runs from zero for the least perceptible sound to 130 for sound that causes pain.

Nacelle: ~~A separate streamlined metal enclosure that covers~~ **Sits atop the tower and contains** the essential mechanical components of the turbine **to which the rotor is attached.**

Primary Structure. For each property, the structure that one or more persons occupy the majority of time on that property for either business or personal reasons. Primary structures include structures such as residences, commercial buildings, hospitals, and day care facilities. Primary structures exclude structures such as hunting sheds, storage sheds, pool houses, unattached garages, and barns.

Professional Engineer. A qualified individual who is licensed as a Professional Engineer in the State of Ohio.

Megawatt (MW): A unit of power, equal to one million watts.

Small Wind Project: Any wind project less than 5MW which includes the wind turbine generator and anemometer.



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Wind Power Turbine Owner. The person or persons who owns the Wind Turbine structure.

Wind Power Turbine Tower. The support structure to which the turbine and rotor are attached.

Wind Power Turbine Tower Height. The distance from the rotor blade at its highest point to the top surface of the **ground at the** Wind Power Generating Facility (WPGF) foundation.



Section XXXX Small Wind Projects Farms less than 5MW

Wind Projects Farms of 5MW or more shall be required to submit an application with the Ohio Power Siting Board (OPSB) at the Public Utilities Commission of Ohio (PUCO) and are required to meet OPSB regulations. Small Wind Projects Farms less than 5MW and used solely for Agriculture will be exempt from these zoning regulations as an Agricultural Use. Any proposed construction, erection, or siting of a small wind project farm less than 5MW including the wind turbine generator or anemometer or any parts thereof shall be a Permitted Use in all XXXX Township Zoning Districts the U-1, B, and M Districts and by issuance of a Conditional Use Permit in the R Districts only if the following conditions are met (both as Permitted and Conditional Use):

- A. The maximum height of any turbine shall be 125 ft. For purposes of this Resolution, maximum height shall be considered the total height of the turbine system including the tower, and the maximum vertical height of the turbine's blades. Maximum height therefore shall be calculated by measuring the length of a prop at maximum vertical rotation to the base of the tower.
- B. Setbacks: the following shall apply in regards to setbacks.
 1. Any turbine erected on a parcel of land shall be setback 1.1 times the height of the tower, or established "clear fall zone", from all road right-of-way lines and neighboring property lines. structures, as well as any inhabited structures on the parcel intended for the turbine. A turbine shall will need to be erected and placed in such a manner that if it were to fall, whatever direction the fall occurs would be contained solely on the property where the turbine is located at. and would not strike any structures including the primary dwelling, and any inhabited structures.
- C. Maintenance
 1. Wind turbines must be maintained in good working order. The owner shall within 30 days of permanently ceasing operation of a wind turbine tower, provide written notice of abandonment to the Zoning Inspector. An unused tower wind turbine or small wind project farm may stand no longer than 12 months following abandonment. All costs associated with the demolition of the wind turbine tower and associated equipment shall be borne by the owner. A wind turbine tower is considered abandoned when it ceases transmission of electricity for 30 consecutive days. Wind turbines that become inoperable for more than 12 24 months must be removed by the owner within thirty (30) days of issuance of zoning violation. Removal includes removal of all apparatuses, supports, and or other hardware associated with the existing wind turbine.



D. Decibel Levels

1. Decibel levels shall not exceed those provided by the manufacturer as requested in II Permits, 2., e. All units shall operate not more than 5 decibels above the established ambient decibel levels at property lines. This information shall be included in the engineering report described below in Section II of this document. This information shall be obtained from the manufacturer of the turbine, and all decibel readings, if necessary, shall be taken from the nearest neighboring property lines. Those turbines not meeting this requirement will be issued a zoning violation and be required to shut down immediately until the required decibel levels are met.

~~Township should consider adding: Decibel levels shall not exceed 30 dB (as determined by the Township) at any adjoining property line.~~

The LUC is looking towards using language regarding decibel levels from the PUCO Draft Rules on Wind Projects above 5MW.

E. Wiring and electrical apparatuses:

1. All wires and electrical apparatuses associated with the operation of a wind turbine unit shall be located underground and meet all applicable local, state, and federal codes including the County Building Regulations and Residential Building Code of Ohio.

F. Warning Signs:

1. Appropriate warning signs to address voltage shall be posted (where and meeting sign requirements).

G. Building Permits:

1. All Small Wind ~~Projects Farms~~ and parts thereof shall obtain all applicable Building Permits from the State of Ohio and County Building Regulations where required.

II. Permits

- A. A permit shall be required before construction can commence on an individual wind turbine ~~project system~~.



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- B. As part of the permit process, the applicant shall inquire with the County Building Regulations as to whether or not additional height restrictions are applicable due to the unit's location in relation to any local airports.
- C. Applicant shall then provide the Township Zoning Inspector with the following items and or information when applying for a permit:
1. Location of all public and private airports in relation to the location of the **wind** turbine.
 2. ~~An engineering report that shows:~~
 - a. The total size and height of the unit
 - b. **If applicable**, the total size and depth of the unit's **foundation structure** ~~concrete mounting pad~~, as well as soil and bedrock data.
 - c. A list and or depiction of all safety measures that will be on the unit including anti-climb devices, grounding devices, and lightning protection, braking systems, guy wiring & anchors.
 - d. Data specifying the kilowatt size and generating capacity **in kilowatts** of the particular unit.
 - e. The maximum decibel level of the particular unit. This information **shall** ~~must~~ be obtained from the manufacturer of the turbine unit.
 - f. ~~Ambient noise levels at property lines.~~
 - g. Hazardous materials containment and disposal plan.
 3. A site drawing showing the location of the unit in relation to existing structures on the property, roads and other public right-of-ways, and neighboring **property lines** ~~properties.~~
 4. Evidence of an established setbacks of 1.1 times the height of the wind turbine and "clear fall zone." ~~with manufacturer's recommendation must be attached to the engineering report.~~
 5. A maintenance schedule as well as a dismantling plan that outlines how the unit will be dismantled shall be required as part of the permit.

~~Other items for Consideration:~~



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- Color
 - Conditions for cause for removal for broken parts, disrepair, etc.
 - Liability Insurance Requirement

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