

Wind Turbine Energy Systems For Generating Electricity (All Districts)

I. Purpose

It is the purpose of this regulation to promote the safe, effective and efficient use of wind turbine energy systems installed to reduce the on-site consumption of utility supplied electricity.

II. Definitions

- A. Wind Turbine Energy System: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which is intended to primarily reduce on-site consumption of utility power.
- B. Tower Height: The distance from the rotor blade tip at its highest point to the ground.
- C. Clear Fall Zone: An area surrounding the wind turbine unit into which the turbine and/or its components might fall that shall remain unobstructed and confined within the property lines of the parcel where the turbine is located.

III. CONDITONAL PERMITTED USE :

Wind turbine energy systems shall be a permitted use in all zoning classifications where structures of any sort are allowed; subject to certain requirements as set forth below:

- A. Minimum Lot Size : Minimum of 2 acre
- B. Tower Height: Tower height shall not exceed $\frac{3}{4}$ of the property width at the tower build line or 100 ft whichever is more restrictive shall apply.
- C. Rotor Safety: Each wind turbine shall be equipped with automatic controls to limit the rotational speed of the blade within the design limits of the rotor; a manual shut-off switch shall be included with the installation. The minimum distance between the ground and any rotating assembly utilized on an wind turbine shall be 12 feet as measured at the lowest point
- D. Set-back: No part of the wind turbine energy system structure, including guy wire anchors, may extend closer than twenty (20) feet to the property boundaries of the installation site. A minimum set-back of the height of the tower plus the length of one blade from any structure and neighboring property lines is also required creating a clear fall zone.
- E. Noise: Wind turbine energy systems shall not exceed 60 dBA, as measured at the property boundaries of the installation site. The level, however, may be exceeded during short term events such as utility outages and/or severe wind storms.
- F. Private Use / Commercially Produced Energy System: The wind turbine energy system must have been approved under any wind certification program recognized by the American Wind Energy Association, in compliance with the Ohio Building code and certified by a licensed professional engineer and shall also be submitted to the Zoning Inspector. A Zoning permit must be issued prior to any construction.

- G. Zoning Permit Requirements: Zoning permit applications for wind turbine energy systems shall be accompanied by:
- 1 Approved Standard site plan showing the wind turbine structure and locations of the tower, base, footings, property lines and **all** structures within 150 ft. Evidence of “clear fall zone” must be provided on the site plan.
 - 2 Approved Engineered drawings showing the size, height and construction of the structure, as well as the size and depth of the unit’s mounting pad.
 - 3 An engineering report or documentation from the manufacturer of the average decibel rating of the model.
 - 4 A list or depiction of all safety measures that will be on the unit including anti-climb devices and lightning protection.
 - 5 Data specifying the kilowatt size and generating power of the unit.
 - 6 A maintenance schedule, as well as dismantling plan, for the removal of an inoperable unit.
- H. Compliance with FAA Regulations: Wind turbine energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- I. Compliance with National Electric Code: Zoning permit applications for wind turbine energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is frequently supplied by the manufacturer.
- J. Utility Notification: No wind turbine energy system shall be installed until evidence has been given that the utility company has been informed of the customer’s intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
- K. Electrical Wires: All electrical wires associated with a wind turbine energy system, other than wires necessary to connect the wind generator to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires shall be located underground .
- L. Lighting: A wind tower and generator shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.
- M. Appearance, Color & Finish: The wind generator and tower shall remain painted or finished the color or finish that was originally applied by the manufacturer, unless approved in the Zoning Permit.
- N. Signs: All signs, other than the manufacturers or installers identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a wind turbine energy system visible from any public road shall be prohibited.
- O. Shadow/Flicker: Wind turbine energy systems shall be sited in a manner that does not result in significant shadowing or flicker impacts. The applicant has the burden of proving that this effect does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation.
- P. Maintenance: Wind turbines must be maintained in good working order. Wind Turbine Energy Systems that become inoperable for more than 6 months must be removed from property within 90 days of an issuance of zoning violation at the property owner’s expense or other body identified in the dismantling plan.

- Q. Repair and Removal of Wind Turbines: Any wind turbine found to be nonoperational or operating not per the manufacture's specifications shall immediately cease operation upon notification by the Township, and shall be repaired by the owner to meet the safety standards set forth by the manufacture, the State and the Township or be removed with in 90 Days