

Article 24 Wind Turbines

24.01 Purpose:

The purpose of this amendment is to establish general guidelines for the location of wind turbine generators (sometimes referred to herein as “WTG”) and anemometer towers in Miami County, Ohio. This amendment is consistent with the stated primary purpose of the Miami County Zoning Resolution. The County recognizes in some specific instances, under carefully controlled circumstances, it may be in the public interest to permit the placement of wind turbine generators in certain areas of the County. The county also recognizes the need to protect the scenic beauty of the County from unnecessary and unreasonable visual interference, noise radiation, and that wind turbine generators may have negative health, safety, welfare, and aesthetic impacts upon adjoining and neighboring uses. As such, this amendment seeks to:

1. Protect residential and agricultural areas from the potential adverse impact of wind turbine generators.
2. Permit wind turbine generators in selected areas by on-site residential, commercial, or industrial users; subject to the terms, conditions, and provisions hereof.
3. Ensure the public health, welfare, and safety of the County’s residents in connection with wind turbine generators.
4. Avoid potential damage to real and personal property from the wind turbine generators or anemometer towers or the failure of such structures and related operations.

24.02 Procedure

Any proposed construction, erection, or siting of a wind turbine generator or anemometer shall be permitted only by issuance of a Conditional Use Permit in accordance with section 22 of this Resolution, as amended hereof unless said WTG meets the requirements of section 24.04.

24.03 Definitions

Definitions: for the purposes of the regulation of residential, commercial, and industrial use of wind turbine generators.

Accessory Structure: 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 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 or accessory buildings, or otherwise intrude onto a neighboring property.

Cowling: A streamlined removable metal that covers the turbine's nacelle.

Nacelle: A separate streamlined metal enclosure that covers the essential mechanical components of the turbine.

Primary Structure: For each property, the structure that one or more persons occupy the majority of the 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.

Wind Power Turbine Owner: The person or persons who own 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 Wind Power Generating Facility (WPGF) foundation.

24.04 Residential Wind Turbines

The County recognizes the importance of clean, sustainable, and renewable energy sources. To that end, Miami County permits the use of residential wind turbines under the following regulations to ensure the safety and welfare of all County residents is met.

1. Wind turbines shall be a *permitted use* in all districts under the following conditions.
 - A. The maximum height of any turbine shall be 100 feet. For purposes of this particular zoning item, maximum height shall be considered the total height of the turbine system including the tower, and the maximum vertical height of the turbines blades. Maximum height therefore shall be calculated 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 will need to establish a “clear fall zone” from all neighboring property lines and structures, as well as any structures on the parcel intended for the turbine. A turbine 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, and would not strike any structures including the primary dwelling, and any accessory buildings or uses.

C. Aesthetics: The following provisions shall be applied to the aesthetics issue of wind turbines.

1. The turbine, including the prop blades, turbine, cowling, and tower shall be painted or coated white, gray, or sky blue. Logos or other identification markers other than those of the manufacturer and model type shall not be permitted anywhere on the turbine.

D. Maintenance

1. Wind turbines must be maintained in good working order. Turbines that become inoperable for more than 6 months must be removed by the owner within thirty (30) days of issuance of zoning violation. Removal includes all apparatuses, supports, and or other hardware associated with the existing turbine.

2. Permits

- A. A permit shall be required before construction can commence on an individual wind turbine system.
- B. As part of the permit process, the applicant shall inquire with the Miami County Planning and Zoning Department as to whether or not additional height restrictions are applicable due to the units location in relation to either the Dayton International Airport or Piqua Airport-Hartzell Field.
- C. Applicant shall then provide the Miami County 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 turbine, as well as any applicable FAA restrictions that may be applicable to the turbine.

2. An engineering report that shows:
 - a. The total size and height of the unit.
 - b. The total size and depth of the unit's mounting pad.
 - c. An average decibel rating for the particular model.
 - d. A list and or depiction of all safety measures that will be on the unit including anti-climb devices, and lightning protection.
 - e. Data specifying the kilowatt size and generating power of the particular unit.
 - f. Evidence of "clear fall zone" with manufacturer's recommendations.
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 properties.
4. Color of the unit as well as the location and size of the manufacturer's identifying logos shall be included in the plan
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.