

CHAPTER 480
Wind and Solar Energy Regulations
(Added March 11, 2010)

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WIND ENERGY

SECTION 480.01 PURPOSE.

The purpose of this section is to accommodate generation/small wind energy systems in appropriate locations, while minimizing any adverse visual, safety and environmental impacts of the system. In addition, this regulation provides a conditionally-permitted process for small wind energy systems to ensure compliance with the provisions of the requirements and standards established herein.

SECTION 480.02 CERTIFICATION.

- A. The foundation, tower, and compatibility of the tower with the rotor and rotor-related equipment shall be certified in writing by a structural engineer registered in Ohio or the state of manufacture that they conform to good engineering practices and comply with the appropriate provisions of the Ohio Building code.

SECTION 480.03 HEIGHT.

The wind energy system is measured as the vertical distance from the ground level to the tip of a wind generator blade when the tip is at its highest point, and shall not exceed the following maximum height requirements.

- A. Wind towers
 - 1. Properties less than ½ acre in size – maximum 45 feet
 - 2. Properties between ½ acre and one acre in size – maximum 80 feet
 - 3. Properties greater than 1 acre to 2-1/2 acres – maximum 100 feet
 - 4. Properties greater than 2-1/2 acres to 5 acres – maximum 120 feet

- 5. Properties greater than 5 acres in size – maximum 170 feet
- 6. Properties within 10,000 feet of an airport must comply with FAA height standards and regulations.

B. Building-mounted units

- 1. Wind turbines may be affixed to the building or the roof, providing that:
 - a. The total height of the wind turbine is less than 20 feet above the highest point of the building
 - b. The base of the wind turbine cannot be seen from the road right-of-way

C. Towers *(amended 7/11/17)*

- 1. A wind turbine may be attached to an existing tower, providing that the tower is designed to accommodate the wind turbine and in compliance with Section 480.05.

SECTION 480.04 NOISE.

The wind energy system shall not exceed the sound level (decibels) specified in Schedule 480.04A when measured at the property line.

SCHEDULE 480.04A – Maximum Permitted Sound Levels (Decibels)	
Octave band, cycles/second	Sound level measured at the property lines cannot exceed the following:
0-75	72
75-100	67
150-300	59
300-600	52
600-1200	40
1200-2400	46
2400-4800	34
Over 4800	32

Octave band, cycles/second sound level measured at the property lines. All towers shall be painted a non-contrasting gray, blue, white, green, or similar color, minimizing its visibility, unless otherwise required by the Federal Aviation Administration (FAA). The applicant has the responsibility of determining the applicable FAA regulations and securing the necessary approvals. Copies of letters must be included as part of the application process.

SECTION 480.05 LOCATION AND SETBACKS.

A wind energy system shall only be located in the rear yard portion of any lot with a principle building. Exception is when the wind system is attached to a building the base of which cannot be viewed from any roadway.

A. Tower setbacks

1. Shall be located at least 1.1 times its height from any public road right-of-way
2. Shall be located at least 1.1 times its height from any overhead utility lines, except those lines directly servicing the subject property.
3. Shall be located at least 1.1 times its height from all property boundaries.
4. May be located as close as 20 feet to the property boundaries of the installation site, providing that:
 - a) The tower is a tilt-down or crank-up monopole design, which must pull down or retract towards the installation site and away from all adjoining properties
 - b) The tower does not utilize guy wires.
 - c) The total height cannot exceed 80 feet.

B. Guy Wire Anchors setbacks

1. If guy wires are utilized as part of the tower design, then the guy wire anchors shall be placed at least 50 feet from any abutting property boundaries.
2. The minimum distance a wind turbine may be from the property boundaries, if it is located on a building, must equal a distance that is equal to the total height of the wind turbine from the ground.

SECTION 480.06 SAFETY FEATURES.

- A. The small wind energy system turbine shall be required to have an automatic over speed control to render the system inoperable when the winds are in excess of the speed the system is designed to accommodate.
- B. The small wind energy system shall be required to have a manually operable method to render the system inoperable in the event of a structural or mechanical failure of any part of the system.

SECTION 480.07 LIGHTING.

As required by law, a tower shall not be illuminated and lighting fixtures or signs shall not be attached to the tower. If lighting is required by the FAA regulations, white strobe lights shall not be permitted at night unless FAA permits no other alternatives. No lighting shall be constructed, placed, or maintained in a manner that will constitute a nuisance to any surrounding property and shall in no way impair safe movement of traffic on any street or highway.

SECTION 480.08 ADVERTISING.

No advertising is permitted anywhere on the facility, with the exception of signage being utilized for product identification and warnings.

SECTION 480.09 WARNINGS.

- A. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
- B. The small wind energy system shall be required to have a manually operable method to render the system inoperable in the event of a structural or mechanical failure of any part of the system.

SECTION 480.10 MAINTENANCE.

- A. The design and location of the wind energy system shall ensure that all maintenance can be conducted from the installation site.
- B. When a system reaches the end of its useful life and can no longer function or has not operated on a functional basis for a period of twelve (12) consecutive months the owner of the system is solely responsible for removal of the system and all costs, financial or otherwise within 120 days of notification by the Zoning Inspector.

SECTION 480.11 BLADE CLEARANCE.

The clearance or the distance between the blades of a wind turbine and the ground shall be no less than 15 feet.

SECTION 480.12 LIABILITY.

The property owner shall demonstrate proof of liability insurance to the Zoning Inspector prior to permit issuance.

SECTION 480.13 FENCING.

- A. The base of the tower must be designed so it is not climbable for a distance of 15 feet, as measured from the ground.
- B. All access doors to wind turbines and electrical equipment shall be locked to prevent entry by non-authorized persons.

SECTION 480.14 ELECTRICAL INTERFERENCE.

The small wind energy system shall not cause any radio, television, microwave, or navigation interference. If a disturbance problem is identified, the applicant shall correct the problem within 30 days of being notified of the problem.

SOLAR ENERGY SYSTEMS
(Amended 3/10/20)

SECTION 480.15 PURPOSE.

Small solar systems shall be permitted in all zoning districts in accordance with the requirements of this section.

SECTION 480.16 ALLOWABLE NUMBER OF PANELS.

Any number of solar panels may be in operation on a single site in accordance with this section.

SECTION 480.17 HEIGHT.

- A. Solar panels shall comply with the maximum permitted height of the zoning district.
- B. Attachment to existing buildings, the solar panels shall comply with the maximum permitted height of the zoning district.

SECTION 480.18 LOCATION.

A solar energy system shall meet the same setbacks as accessory uses for the district in which it is located from side and rear property lines, not from structures. Solar energy systems shall not be located in the front yard but may be attached to the front of a structure.