

CHAPTER 1134. ALTERNATIVE ENERGY SOURCES

1134.01. Purpose.

Alternative energy regulations are established to achieve the following:

- (a) To provide standards for the placement, design, and operation of solar and wind energy facilities.
- (b) To facilitate efficient and effective renewable energy development while preserving public health, safety, and welfare.

1134.02 Wind Energy Systems (WES).

Wind energy systems shall be permitted in all zoning districts and adhere to the following standards.

- (a) Building-mounted wind energy systems shall be permitted in all zoning districts where structures are allowed, and shall meet the following requirements:
 - (1) Height. Wind energy systems mounted to a principal or accessory building may not exceed a height 10 feet above the highest point of the roof, excluding chimneys, antennae, and similar roof-mounted objects.
 - (2) Systems must be located at least 10 feet apart and quantity is limited to 2 per building.
 - (3) Historic District. Roof-mounted SES located within the City of Delaware Historic District shall be placed on the roof such that the components would not be visible from the public rights-of-way.
 - (4) Permit required. All building-mounted WES shall be required to receive a Certificate of Building and Zoning Compliance prior to installation and include the location of the proposed WES, wiring and any associated equipment or provision as required by the Ohio Building Code.
- (b) Ground-mounted wind energy systems shall be permitted as a Conditional Use and shall meet the following requirements:
 - (1) Height. The tower of a tower-mounted wind energy system shall not exceed 150 feet in height as measured at grade to top of the tower. Wind energy systems shall be built to comply with all applicable Federal Aviation Administration regulations. The tower of wind energy system shall be designed and installed so as not to provide step bolts or a ladder readily accessible to the public for a minimum height of ten (10) feet above the ground.
 - (2) Siting. Freestanding wind energy systems mounted on a pole or tower shall be set back minimum distance equal to the height of the wind energy system from any principal building, property lines, aboveground transmission lines, and other wind energy systems.
 - (3) Signage. Appropriate warning signage (e.g. "Danger, High Voltage") shall be placed where it is clearly visible by persons standing near the tower base or other ground-mounted electrical equipment.
 - (4) Visual Impact.
 - A. The applicant shall demonstrate through project site planning and proposed mitigation that a wind energy system's visual impact will be minimized for surrounding neighbors and the community. This may include, but not be limited to information regarding site selection, wind energy system

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- design or appearance, buffering, and screening of ground mounted electrical and control equipment.
- B. The color of wind energy systems shall be painted with a non-reflective, unobtrusive color that blends in with the surrounding environment.
 - C. Wind energy systems shall not be artificially lit unless such lighting is required by the Federal Aviation Administration. If lighting is required, the applicant shall provide a copy of the Federal Aviation Administration determination to establish the required markings and/or lights for the wind energy system.
- (5) Sound. Operation of wind energy systems shall not exceed sound levels set forth in Section 509.10 of the Codified Noise Ordinance of the City of Delaware.
- A. Utility Connections.
 - i. All electrical and control equipment shall be safely and appropriately enclosed from unintentional access by means such as lockable equipment cabinetry, enclosed tower with lockable access door, or similar.
 - ii. Wiring between wind energy systems and point of interconnection shall be underground.
 - iii. Wind energy systems proposed to be connected to the power grid through net metering shall adhere to Ohio Revised Code Section 4928.67 or any future corresponding statutory provision.
- (6) Permit required. All ground-mounted WES shall be required to receive a Certificate of Building and Zoning Compliance prior to installation and include:
- A. A site plan drawn to scale showing property lines and physical dimensions of the applicant's property.
 - B. Location, dimensions, and types of existing structures on the property.
 - C. Location of the proposed wind energy system, foundations, guy wires and associated equipment or provision as required by the Ohio Building Code.
 - D. Fall Zone depicted as a radius around the center of the tower for a tower mounted wind energy system.
 - E. The right-of-way or future right-of-way according to the City of Delaware Thoroughfare Plan of any public road that is contiguous with the property.
 - i. All overhead utility lines.
- (7) Decommissioning. Wind energy systems shall be removed within six months after they have reached the end of their useful life, which is determined if no electricity is generated for a continuous period of 12 months. Time extensions are allowed when good faith efforts to repair can be demonstrated.

1134.03 Solar Energy Systems (SES).

- (a) Building-mounted solar energy systems shall be permitted in all zoning districts where structures are allowed, and shall meet the following requirements:
- (1) Height. No portion of any pitched roof-mounted solar energy system may extend below the roof line or above the highest point of the roof. Flat roof-mounted panels shall not exceed 9 feet in overall height or extend more than 5 feet above the building parapet, whichever results in less height.
 - (2) Design: Shall be designed and located to prevent reflective glare toward any inhabited on adjacent properties as well as adjacent street rights-of-way. All solar panels shall be configured in a contiguous square or rectangular shape and aligned with existing roof edges.
 - (3) Permit required: All building-mounted SES shall be required to receive a Certificate of Building and Zoning Compliance prior to installation and include the location of the proposed SES, wiring and associated equipment or provision as required by the Ohio Building Code.
- (b) Ground-mounted solar energy systems shall be permitted as accessory uses in all residential zoning districts and permitted as a principal use in the A-1 Agricultural District, I-1 Light Industrial District, and I-2 General Industrial zoning districts. Ground-mounted SES are not permitted in commercial zoning districts.
- (1) Accessory use ground-mounted solar energy systems shall be installed either to the side or rear of a principal building to the extent practicable, except in the I-1 Light Industrial District, and I-2 General Industrial zoning districts.
 - (2) Footprint.
 - A. Accessory Use: The sum of the footprint for accessory use ground-mounted SES located in residential zoning districts shall not exceed 50% of the footprint of the principal structure, with a maximum of 900 square feet on any lot. On lots where the principal structure has a footprint of less than 1,200 square feet, up to 600 square foot accessory SES shall be permitted, but the maximum footprint of all accessory SES shall not exceed 600 square feet. Accessory use ground-mounted SES shall not have a maximum footprint in the A-1 Agricultural District, I-1 Light Industrial District, and I-2 General Industrial zoning districts.
 - B. Principal use: Principal-Use ground-mounted SES shall not count towards the maximum lot coverage for the district.
 - (3) Height. Accessory use ground-mounted SES shall be installed at a maximum height of fifteen feet. Principal use ground-mounted SES shall not exceed 20-feet.
 - (4) Setbacks. No ground-mounted solar energy system shall encroach on the front, rear or side setback of the applicable zoning district.
 - (5) Screening. Ground-mounted SES shall be reasonably screened from the ordinary public view of the surrounding streets and properties to the maximum extent practicable by a minimum of four-foot-high landscaping, or other means, except to the extent that such screening is either impracticable or would result in ineffective solar access on the lot in question.
 - A. Fencing. Principal-use SES shall be secured with perimeter fencing to restrict unauthorized access.
 - B. Design. Any SES shall be designed and located to prevent reflective glare toward any adjacent residential lot on adjacent properties as well as adjacent street rights-of-way.

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- C. Any power transmission lines connecting a ground-mounted or freestanding SES to any other structure on the property shall be buried underground.
- D. Ground Cover. Ground-mounted SES shall include the installation of perennial ground cover vegetation maintained for the duration of operation until the site is decommissioned. SES mounted upon existing impervious surfaces must comply with on-site storm water requirements.
- E. Permit required. All ground-mounted SES shall be required to receive a Certificate of Building and Zoning Compliance prior to installation and include the location of the proposed SES on the property, height, tilt features, the primary structure, accessory structures, and setbacks to property lines, wiring and associated equipment or provision as required by the Ohio Building Code.

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