

715.00 FINAL SMALL WIND ENERGY ORDINANCE 11/24/2008

The purpose of this article is to regulate the placement, construction and modification of small wind energy systems while promoting the safe, effective and efficient use of small wind energy systems and not unreasonably interfering with the development of independent renewable energy sources.

715.01 Definitions. For the purpose of this Section, the following definitions shall apply.

Hybrid System. An energy system that uses more than one technology to produce energy or work (for example a wind-solar system)

Micro Wind System. A building-mounted wind system that has a manufacture's rating of 10 kW or less and projects no more than fifteen (15) feet above the highest point of the roof and shall not be considered a small wind energy system in terms of area and setback requirements.

Tower. With regard to wind energy system, the structure on which the wind system is mounted

Tower Height. With regard to wind energy system, the height above grade of the fixed portion of the tower, excluding the wind turbine itself.

Turbine. The parts of the wind system including the blades, generator and tail.

Small Wind Energy System. A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics that has a maximum power of at most 50kW, which will be used primarily to reduce on-site consumption of utility power.

715.02 Applicability. The requirements set forth in this division shall govern the siting of small wind energy systems used to generate electricity or perform work which may be connected to the utility grid pursuant to the Virginia's net metering laws (Code Of Virginia, §56-594), serve as an independent source of energy, or serve in a hybrid system.

715.03 Siting requirements. The requirements for siting and construction of all small wind energy systems regulated by this division shall include the following:

- (a) Small wind energy towers shall maintain a galvanized steel finish, unless FAA standards require otherwise, or if the owner is attempting to conform the tower to the surrounding environment and architecture, in which case it may be painted to reduce visual

obtrusiveness. A photo simulation may be required at the request of the Board of Supervisors.

- (b) Small wind energy systems shall not be artificially lighted.
- (c) No tower or micro system should have any sign, writing, or picture that may be construed as advertising.
- (d) Small wind energy systems shall not exceed 60 decibels, as measured at the closest property line. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.
- (e) A small wind energy system shall be located on a parcel that, at minimum, is two acres in size.
- (g) The applicant shall provide evidence that the proposed height of the small wind energy system tower does not exceed the height recommended by the manufacturer or distributor of the system.
- (h) The applicant shall provide evidence that the provider of electric utility service to the site has been informed of the applicant's intent to install an interconnected customer-owned electricity generator, unless the applicant intends, and so states on the application, that the system will not be connected to the electricity grid. This notification will take place by having the electric utility provider sign the special use permit application. This signature does not construe approval for net metering by the electric utility.
- (I) The applicant will provide information demonstrating that the system will be used primarily to reduce on-site consumption of electricity.
- (j) The tower shall be a monopole with a galvanized steel or other such neutral finish not to exceed a maximum height of 100 feet.
- (k) The minimum distance between the ground and any protruding blades utilized on a small wind energy system shall be 15 feet, as measured at the lowest point of the arc of the blades. The lowest point of the arc of the blade shall also be 10 feet above the height of any structure within 150 feet of the base. The supporting tower shall also be enclosed with a 6-foot tall fence or the base of the tower shall not be climbable for a distance of 12 feet.
- (l) The applicant shall provide proof of adequate liability insurance for a small wind energy system. Whether or not the applicant is participating in the net metering program, the applicant will be required to meet the insurance coverage requirements set forth in 20 VAC 5-315-60 (Virginia Administrative Code).
- (m) The small wind energy system generators and alternators should be constructed so as to prevent the emission of radio and television signals and shall comply with the provisions of Section 47 of the Federal Code of Regulations, Part 15 and subsequent revisions governing said emissions.

715.04

Review Process. The landowner will adhere to the special use permit process as provided by Section 802.00 of these Regulations.

- 715.05 Federal and State Requirements.
- 715.05-1 Compliance with Uniform Statewide Building Code. Building permit applications for wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the Uniform Statewide Building Code and certified by a licensed professional engineer shall also be submitted.
- 715.05-2 Compliance with FAA Regulations. Wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- 715.05-3 Compliance with National Electric Code. Building permit applications for wind 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.
- 715.05-4 Compliance with Regulations Governing Energy Net Metering. Wind energy systems connected to the utility grid must comply with the 20 VAC 5-315: Regulations Governing Energy Net Metering.
- 715.05-5 Blue Ridge Parkway. If it is determined that a proposed small wind energy system could impact the view shed of the Blue Ridge Parkway, then Parkway Officials shall be notified of the application for their comment.
- 715.06 Setbacks. The wind energy system shall be set back a distance at least equal to one hundred ten (110) percent of the height of the tower plus the blade length from all adjacent property lines and a distance equal at least to one hundred and fifty (150) percent of the tower height plus blade length from any habitable dwelling on neighboring property. These setbacks may be reduced by notarized consent of the owner of the property on which the requested wind energy system is to be erected and the adjacent landowner whose property line or dwelling falls within the specified distance. Additionally such adjacent landowner must execute a deed of easement for the benefit of the property on which the wind energy system is to be erected prohibiting construction of any new structure on such adjacent property within the specified easement. Wind energy systems shall meet all setback requirements for primary structures for the zoning district in which the wind energy system is located in addition to the requirements set forth above. Additionally, no portion of the small wind energy system, including guy wire anchors, may extend closer than ten (10) feet to the property line.
- 715.07 Removal of Defective or Abandoned Wind Energy Systems. Any wind energy system found to be unsafe by the building official shall be repaired by the owner to meet federal, state and local safety standards or removed within six months. Any wind energy system that is not operated for a continuous

period of 24 months shall be considered abandoned and the owner of the system shall remove the turbine within ninety days of receipt of notice from the county instructing the owner to remove the abandoned wind energy system.

602.00 AGRICULTURAL AND LIMITED USES DISTRICT - A-1

602.03 Special Exceptions. In the A-1 District, special exception use permits may be granted for one or more of the following uses:

602.03-12 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

603.00 AGRICULTURAL AND GENERAL USES DISTRICT - A-2

603.03 Special Exceptions. In the A-2 District, Special Exceptions may be issued for one or more of the following uses:

603.03-22 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

603B.00 AGRICULTURAL TRANSITIONAL DISTRICT - A-T

603B.03 Special Exceptions. In the A-T District, Special Exceptions may be issued for one or more of the following uses:

603B.03-19 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

604.00 RESIDENTIAL GENERAL DISTRICT - R-1

604.03 Special Exceptions. In the R-1 District, Special exceptions may be issued for the following uses:

604.03-6 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

604B.00 RESIDENTIAL MIXED DISTRICT - R-2

604B.03 Special Exceptions. In Residential Mixed R-2, Special exceptions may be issued for the following uses:

604B.03-6 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

605.00 GENERAL BUSINESS DISTRICT B-1

605.03 Special Exceptions. In General Business, special exceptions may be granted for one or more of the following uses:

605.03-23 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations

607.00 GENERAL INDUSTRIAL DISTRICT - I-1

607.03 Special Exceptions. In General Industrial I-1, special exceptions may be granted for one or more of the following uses:

607.03-12 Wind Energy Systems and Micro Wind Systems per requirements in Section 715.00 of these Regulations