

302. Definition of Terms - Specific Definitions.

Wind Energy System, hybrid system: An energy system that uses more than one technology to produce energy or work (for example a wind-solar system).

Wind Energy System, small: 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.

Wind Energy System, tower: With regard to wind energy system, the structure on which the wind system is mounted.

Wind Energy System, tower height: With regard to wind energy system, the height above grade of the fixed portion of the tower, excluding the wind turbine itself.

Wind Energy System, turbine: The parts of the wind system including the blades, generator and tail.

702. Agricultural Residential District A-1.

702.01. Intent of the Agricultural Residential District A-1. This district is designed to accommodate farming, forestry and limited residential use. While it is recognized that certain rural areas may logically be expected to develop residentially, it is the intent however to discourage the random scattering of residential, commercial or industrial uses in this district.

702.03. Special exceptions (A-1 zone).

1. Public entertainment.
2. Schools.
3. Saw mills.
4. Pallet manufacturing.
5. Wood yards.
6. Feed mills.
7. Truck business.
8. Churches and related facilities.
9. Signs as provided in Section 907.

10. Planned unit developments.
11. Short-term tourist rental of dwelling.
12. Machinery sales and service.
13. Storage of biosolids as provided in Section 917.

14. Small Wind Energy Systems as provided in Section 918.

707. General Commercial District B-2.

707.01. Intent of General Commercial District B-2. This district covers those areas intended for the conduct of any retail business. Those with extended hours of operation and generating high volumes of traffic are permitted in this zone.

707.03. Special Exceptions.

1. Bulk storage and sale of sand, gravel and rock;
2. Automobile sales, used;
3. Building and excavating contractor facilities with outside storage;
4. Automobile laundry or car wash, provided that a paved area shall be located on the same lot for the storage of vehicles awaiting entrance to the washing process;
5. Building materials dealer, not including handling of bulk materials such as sand and gravel;
6. Farm machinery display, sales and services;
7. Machinery sales and services;
8. Arenas, auditoriums or stadiums;
9. Automotive repair garage, mechanical and body, provided all operations are conducted in a building which shall not have any opening other than a stationary window within one hundred (100) feet of a residential, agricultural or public lands district and which shall not store or otherwise maintain any parts or waste material outside such building;
10. Tire recapping, provided all operations are conducted in a building which shall not have any opening other than a stationary window within one hundred (100) feet of a residential, agricultural or school district and which shall not store or otherwise maintain any parts or waste material outside such building;

11. Adult entertainment establishments in accordance with Section 915;
12. Tattoo establishments;
13. Auction house;
14. Self-service mini-storage and warehouse facilities;

15. Small Wind Energy Systems as provided in Section 918.

708. Industrial District M-1.

708.01. Intent of Industrial District M-1. This district is to allow production, wholesale, storage or distribution of products.

708.03. Special exceptions:

1. Salvage yards;
2. Quarries;
3. Paper mills.
4. Wholesale and retail modular homes.

5. Small Wind Energy Systems as provided in Section 918.

918. Small Wind Energy Systems.

918.01. Intent. 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.

918.02. 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 Virginia's net metering laws (Code of Virginia (COV) § 56-594), serve as an independent source of energy, or serve in a hybrid system.

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

- (1) Small wind energy towers shall maintain a galvanized steel finish, unless Federal Aviation Administration 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.

- (2) Small wind energy systems shall not be artificially lighted unless required by the (FAA) or appropriate authority.**
- (3) No tower should have any sign, writing, or picture that may be construed as advertising.**
- (4) Noise levels associated with small wind energy systems shall not exceed the noise levels required in the Amherst County Noise Ordinance, Section 10, Article II, as measured at the closest property line. However, the level may be exceeded during short-term events such as utility outages and/or severe windstorms.**
- (5) 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.**
- (6) 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. This notification will take place by having the electric utility provider sign the special exception application.**
- (7) The applicant will provide information demonstrating that the system will be used primarily to reduce on-site consumption of electricity from the power grid.**
- (8) The tower height shall not exceed a maximum height of one hundred (100) feet.**
- (9) The minimum distance between the ground and any protruding blades utilized on a small wind energy system shall be fifteen (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 ten (10) feet above the height of any structure within one hundred and fifty (150) feet of the base. The supporting tower shall also be enclosed with a six (6) foot tall fence with a lockable gate or the base of the tower shall not be climbable for a distance of twelve (12) feet.**
- (10) 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.

- (11) 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.
- (12) 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.

918.04. Review Process. The landowner will adhere to the special exception process as provided by Section 1003.03.

918.05. Federal and State Requirements.

- (a) *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.
- (b) *Compliance with FAA Regulations:* Wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- (c) *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.
- (d) *Compliance with Regulations Governing Energy Net Metering:* Wind energy systems connected to the utility grid must comply with the Virginia Administrative Code 20 VAC 5-315, Regulations Governing Energy Net Metering.

918.06. Setbacks.

The wind energy system shall be set back two (2) times the height of the tower height plus blade length from the property line. The wind energy system tower, including blade length shall be set back at a minimum distance equal to the height of the tower and blade length from all residential structures. 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.

918.07. 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 (6) months. Any wind energy system that is not operated for a continuous period of twenty-four (24) months shall be considered abandoned and the owner of the system shall remove the turbine within ninety (90) days of receipt of notice from the County instructing the owner to remove the abandoned wind energy system.