ARTICLE 22. SMALL WIND ENERGY ORDINANCE

22-1 Title

This section shall be known as the Small Wind Energy Ordinance of Nelson County, Virginia.

22-2 Purpose

It is the purpose of this ordinance to promote the safe, effective and efficient use of small wind energy systems for electrical generation.

22-3 Definitions

Flicker: The moving shadow created by the sun shining on the rotating blades of the wind turbine.

Shadow: The outline created on the surrounding area by the sun shining on the small wind energy system.

Small Wind Energy System: A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics which has a rated capacity of not more than 20 kW and which is intended to primarily reduce on-site consumption of utility power.
Tower: The monopole or lattice structure that supports a wind turbine.
Tower Height: The height above grade of the fixed portion of the tower, excluding the wind turbine itself.
Tower Height, Extended: The vertical distance from ground level to the tip of the wind turbine blade when it is at its highest point.
Tower, Lattice: A self-supporting three- or four-sided, open steel frame tower used to support a wind turbine.
Wind turbine: The blades and associated mechanical and electrical conversion components mounted on top of the tower whose purpose is to convert kinetic energy of the wind into rotational energy used to generate electricity.

22-4 Permitted Use

A small wind energy system shall be permitted in all zoning districts, subject to certain requirements as set forth below:

(1) Number of towers:
- (a) Parcels less than one acre ñ tower(s) not permitted.
- (b) Parcels 1-2 acres in size ñ one (1) tower permitted
- (c) Parcels greater than 2 acres and less than 5 acres in size ñ one (1) tower permitted.
- (d) Parcels 5 acres or greater in size ñ one (1) tower permitted. Conditional Use Permit required for additional tower(s).

(2) Tower Height: The maximum tower height shall be:
- (a) Parcels 1-2 acres in size – 45 feet
- (b) Parcels greater than 2 acres and less than 5 acres in size ñ 60 feet
- (c) Parcels 5 acres or greater in size ñ100 feet

(3) Setback: A small wind energy system shall be set back a minimum distance equal to one-hundred and ten (110) percent of the extended tower height from property lines, public and private roads, and overhead utility lines.

(4) Electrical Interconnections. All electrical interconnection or distribution lines shall be underground and comply with all applicable codes and public utility requirements.

(5) Signal Interference. No small wind energy system shall cause interference with television or other communication signals.

(6) Shadowing/Flicker: Small wind energy systems shall be sited in a manner that does not result in significant shadowing or flicker impact on adjoining properties. The applicant has the burden of proving that this effect does not have significant adverse impact on neighboring or adjacent uses.

(7) Signs: All signs, both temporary and permanent, are prohibited on the small wind energy system, except as follows:

(a) Manufacturerís or installerís identification on the wind turbine.

(b) Appropriate warning signs and placards.

(8) Visual Impacts: It is inherent that small wind energy systems may pose some visual impacts due to the tower height needed to access the wind resources. The purpose of this section is to reduce the visual impacts, without restricting the ownerís access to the wind resources.

(a) The applicant shall demonstrate through project site planning and proposed mitigation that the small wind energy systemís visual impacts will be minimized for surrounding neighbors and the community. This may include, but not be limited to information regarding site selection, turbine design or appearance, buffering, and screening of ground mounted electrical and control equipment. All electrical conduits shall be underground.

(b) The color of the small wind energy system shall be a non-reflective, unobtrusive color that blends in with the surrounding environment.

(c) A small wind energy system shall not be artificially lit unless such lighting is required by the Federal Aviation Administration (FAA). If lighting is required, the applicant shall provide a copy of the FAA determination to establish the required markings and/or lights for the small wind energy system.

(9) Access:

(a) All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.

(b) The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of 12 feet above the ground.

(10) Code Compliance: A building permit is required for all small wind energy systems. The small wind energy system shall comply with all applicable sections of the Virginia State Uniform Building Code. 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).

22-5 Noise

Small wind energy systems shall comply with Chapter 8, Article II, Noise Control, of the Nelson County Code.

22-6 Utility Notification.

No interconnected customer-owned wind generator shall be installed until evidence has been

given that the utility company has been informed of the customerís intent. Off-grid systems shall be exempt from this requirement.

22-7 Permit Requirements.
(1) Zoning Permit
A zoning permit approved by the Planning and Zoning Director shall be required for the installation of a small wind energy system.

(2) Documents:

The zoning permit application shall be accompanied by a plot plan which includes the following:
(a) Property lines and physical dimensions of the property
(b) Location, dimensions, and types of existing major structures on the property
(c) Location of the proposed wind system tower
(d) The right-of-way of any public and private road that is contiguous with the property
(e) Any overhead utility lines
(f) Wind system specifications, including manufacturer and model, rotor diameter, tower height
(g) Tower foundation blueprints or drawings
(h) Tower blueprint or drawing
(i) The proposed color of the small wind energy system.

(3) Zoning Permit Procedure.
(a) An owner shall submit an application to the Planning and Zoning Director for zoning permit for a small wind energy system. The application must be on a form approved by the Planning and Zoning Director and must be accompanied by three copies of the plot plan identified in 22-7 (2) above.
(b) The Planning and Zoning Director shall issue a permit or deny the application within one month of the date on which the application is received.
(c) The Planning and Zoning Director shall issue a zoning permit for a small wind energy system if the application materials show that the proposed small wind energy system meets the requirements of this ordinance.
(d) If the application is approved, the Planning and Zoning Director will return one signed copy of the application with the permit and retain the other copy with the application and forward the third copy to the Building Official.
(e) If the application is rejected, the Planning and Zoning Director will notify the applicant in writing and provide a written statement of the reasons why the application was rejected. The applicant may reapply for a zoning permit if the deficiencies specified by the Planning and Zoning Director are resolved or appeal the Planning and Zoning Directorís decision to the Nelson County Board of Zoning Appeals pursuant to Appendix A, Article 14 of the Code of the County of Nelson, 1989 as amended.
(4) Expiration.
A zoning permit issued pursuant to this Article shall expire if:
(a) The small wind energy system is not installed and functioning within 24 months from the date the permit is issued; or,
(b) The small wind energy system is out of service or otherwise unused for a continuous 12-month period.

22-8 Abandonment.
(1) A small wind energy system that is out of service for a continuous 12-month period will be

deemed to have been abandoned. The Planning and Zoning Director may issue a Notice of Abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The owner shall have the right to respond to the Notice of Abandonment within 30 days from notice receipt date. The Planning and Zoning Director shall withdraw the Notice of Abandonment and notify the owner that the notice has been withdrawn if the owner provides information that demonstrates the small wind energy system has not been abandoned.

(2) If the small wind energy system is determined to be abandoned, the owner of a small wind energy system shall remove the wind generator from the tower at the ownerís sole expense within 3 months of receipt of Notice of Abandonment. If the owner fails to remove the wind generator from the tower, the Planning and Zoning Director may pursue a legal action to have the wind generator removed at the ownerís expense.

Additional amendments to Current Zoning Ordinance:
Article 3. Conservation District C-1
3-1 Uses ñ Permitted by right
3-1-17 Small wind energy system, per requirements in Article 22 of these regulations
3-1-a Uses ñ Permitted by Conditional Use Permit Only
3-1-13a Additional small wind energy system(s), per requirements in Article 22 of these regulations
3-1-14a Lattice structure used to support a wind turbine.
Article 4. Agricultural District A-1
4-1 Uses ñ Permitted by right
4-1-26 Small wind energy system, per requirements in Article 22 of these regulations
4-1-a Uses ñ Permitted by Conditional Use Permit Only
4-1-25a Additional small wind energy system(s), per requirements in Article 22 of these regulations
4-1-26a Lattice structure used to support a wind turbine.
Article 5. Residential District R-1
5-1 Uses ñ Permitted by right
5-1-16 Small wind energy system, per requirements in Article 22 of these regulations
5-1-a Uses ñ Permitted by Conditional Use Permit Only
5-1-1a Additional small wind energy system(s), per requirements in Article 22 of these regulations
5-1-1b Lattice structure used to support a wind turbine.
Article 6. Residential District R-2
6-1 Uses ñ Permitted by right
6-1-17 Small wind energy system, per requirements in Article 22 of these regulations
6-1-a Uses ñ Permitted by Conditional Use Permit Only
6-1-1a Additional small wind energy system(s), per requirements in Article 22 of these regulations
6-1-2a Lattice structure used to support a wind turbine.
Article 8. Business District B-1
8-1 Uses ñ Permitted by right
8-1-23 Small wind energy system, per requirements in Article 22 of these regulations
8-1-a Uses ñ Permitted by Conditional Use Permit Only
8-1-7a Additional small wind energy system(s), per requirements in Article 22 of these regulations
8-1-8a Lattice structure used to support a wind turbine.
Article 8A. Business District B-2

8A-1 Uses ñ Permitted by right
8A-1-13 Small wind energy system, per requirements in Article 22 of these regulations
8A-1-b Uses ñ Permitted by Conditional Use Permit Only
8A-1-1b Additional small wind energy system(s), per requirements in Article 22 of these regulations
8A-1-2b Lattice structure used to support a wind turbine.

Article 8B. Service Enterprise District SE-1
8B-1 Uses ñ Permitted by right
8B-1-23 Small wind energy system, per requirements in Article 22 of these regulations
8B-1-b Uses ñ Permitted by Conditional Use Permit Only
8B-1-1b Additional small wind energy system(s), per requirements in Article 22 of these regulations
8B-1-2b Lattice structure used to support a wind turbine.

Article 9. Industrial District M-2
9-1 Uses ñ Permitted by right
9-1-29 Small wind energy system, per requirements in Article 22 of these regulations
9-1-a Uses ñ Permitted by Conditional Use Permit only
9-1-8a Small wind energy system(s), per requirements in Article 22 of these regulations
9-1-9a Lattice structure used to support a wind turbine.

Article 18. Limited Industrial M-1
18-1 Uses ñ Permitted by right
18-1-6 Small wind energy system, per requirements in Article 22 of these regulations
18-3 Uses ñ Permitted by Conditional Use Permit only
18-3-7 Small wind energy system(s), per requirements in Article 22 of these regulations
18-3-8 Lattice structure used to support a wind turbine.