ARTICLE 22. SOLAR ENERGY ORDINANCE

22A-1 *Title.*

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

22A-2 *Purpose.*

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

22A-3 *Definitions.*

Small solar energy system. An energy conversion system, operating as a principal land use, consisting of photovoltaic panels, support structures, and associated control, conversion, and transmission hardware occupying less than one acre of total land area.

Large solar energy system. An energy conversion system, operating as a principal land use, consisting of photovoltaic panels, support structures, and associated control, conversion, and transmission hardware occupying one acre or more of total land area. Also known as solar energy arrays or solar energy farms.

22A-4 *General Provisions* shall be addressed for all large solar energy systems, and for small solar energy systems as applicable.

(1) Safety and Construction

(a) Design
The applicant shall submit documentation that the design of any buildings and structures associated with or part of the solar energy project complies with applicable sections of the Virginia Uniform Statewide Building Code (USBC) (13VAC5-63). This requirement includes all electrical components of the solar energy project.

(b) Construction and installation
In the construction and installation of a large solar energy system, the owner or operator shall install all electrical wires associated with the large solar energy system underground unless the applicant can demonstrate the necessity for aboveground installations as determined by the Board of Supervisors.

(c) Noise

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

(d) Ocular impact study.
When required by the FAA, an ocular impact study shall be performed for airports within five miles of the project site, for public roads within sight of the system, and from scenic highways and overlooks. The analysis shall be performed using FAA Solar Glare Hazard Analysis Tool (SGHAT) to demonstrate compliance with FAA standards for measuring ocular impact.

(2) Bonding
Prior to the issuance of a Building Permit for a solar energy system, the applicant shall:

(a) Submit to the Planning and Zoning Director an itemized cost estimate of the work to be done to completely remove the entire solar energy system plus twenty-five percent (25%) of said estimated costs as a reasonable allowance for administrative costs, inflation, and potential damage to existing roads or utilities.

(b) Submit a bond, irrevocable Letter of Credit, or other appropriate surety acceptable to the County in the amount of the estimate plus twenty-five percent (25%) as approved by the Planning and Zoning Director which shall:

(1) Secure the cost of removing the system and restoring the site to its original condition to the extent reasonably possible; and
(2) Include a mechanism for a Cost of Living Adjustment after ten (10) and fifteen (15) years.

(c) The applicant will ensure the bond, irrevocable Letter of Credit, or other surety shall remain in full force and effect until the Planning and Zoning Department has inspected the site and verified that the solar energy system has been removed. At which time, the Planning and Zoning Department shall promptly release the bond, irrevocable Letter of Credit, or other surety.

(3) Decommissioning

(a) Decommissioning plan
As part of the project application, the applicant shall submit a decommissioning plan, which shall include the following: (1) the anticipated life of the project; (2) the estimated decommissioning cost in current dollars; (3) how said estimate was determined; (4) the method of ensuring that funds will be available for decommissioning and restoration; (5) the method that the decommissioning cost will be kept current; and (6) the manner in which the project will be decommissioned and the site restored.

(b) Discontinuation, Abandonment, or Expiration of Project

(1) Thirty (30) days prior to such time that a solar energy system is scheduled to be abandoned or discontinued, the owner or operator shall

notify the Director of Planning and Zoning by certified U.S. mail of the proposed date of abandonment or discontinuation of operations. Any solar project that has been inoperable or unutilized for a period of 12 consecutive months shall be deemed abandoned and subject to the requirements of this section.

(2) Within 365 days of the date of abandonment or discontinuation, the owner or operator shall complete the physical removal of the solar energy project and site restoration. This period may be extended once (up to 12 months) at the request of the owner or operator, upon approval of the Board of Supervisors.

(3) Decommissioning of discontinued or abandoned solar energy systems shall include the following:

(A). Physical removal of all solar energy equipment and above-ground appurtenant structures from the subject property including, but not limited to, buildings, machinery, equipment, cabling and connections to transmission lines, equipment shelters, security barriers, electrical components, roads, unless such roads need to remain to access buildings retrofitted for another purpose, or the landowner submits a request to the Board of Supervisors that such roads remain.

(B). Below-grade structures, such as foundations, underground collection cabling, mounting beams, footers, and all other equipment installed with the system shall be completely removed: however, these structures may be allowed to remain if a written request is submitted by the landowners and a waiver is granted by the Board of Supervisors.

(C). Compacted soils shall be decompacted as agreed to by the landowner.

(D). Restoration of the topography of the project site to its pre-existing condition using non-invasive plant species and pollinator-friendly and wild-life friendly native plants, except that any landscaping or grading may remain in the after-condition if a written request is submitted by the landowner and a waiver is granted by the Board of Supervisors.

(E). Proper disposal of all solid or hazardous materials and wastes from the site in accordance with local, state, and federal solid waste disposal regulations.

(4) A zoning permit issued pursuant to this article shall expire if the solar energy system is not installed and functioning within 24 months from the date this permit is issued.

(5) The Planning and Zoning Director may issue a Notice of Abandonment to the owner of a small solar 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 solar energy system has not been abandoned

22A-5 *Small Solar Energy Systems*

(1) Use

A small solar energy system shall be permitted by-right in A-1, B-1, B-2, M-1, and M-2, and by Special Use Permit in C-1, R-1, and R-2 in accordance with "Article 12: General Provisions," subject to certain requirements as set forth below:

(a). Setbacks. All equipment and accessory structures associated with the small solar energy system shall meet the required setbacks for primary uses of the zone that the parcel is in. In B-1 and B-2 zones equipment must be at least 75' from the center of the road and 15' from all other lines.

(b). Ground-mounted systems shall not exceed fifteen (15) feet in height when oriented at maximum tilt.

(c). Site control. The applicant shall submit documentation of the legal right to install and use the proposed system at the time of application.

(d). Solar energy systems shall meet or exceed all applicable federal and state standards and regulations.

(e). Signs. No signs or advertising of any type may be placed on the small solar energy system unless required by any state or federal agency.

(f). The applicant shall submit documentation that the design of any buildings and structures associated with or part of the solar energy system complies with applicable sections of the Virginia Uniform Statewide Building Code (USBC) (13VAC5-63). This requirement includes all electrical components of the solar energy system.

(g). Any glare generated by the system must be mitigated or directed away from an adjoining property or from any road when it creates a nuisance or safety hazard.

(2) Permit Requirements

(a) Zoning Permit:

A zoning permit approved by the Planning and Zoning Director shall be required for the installation of a small solar energy system.

(b) Documents:

The zoning permit application shall be accompanied by a minor site plan in accordance with Article 13 “Site Development Plan” and shall include the following:

(1) Property lines, physical dimensions, and acreage of the property

(2) Location, dimensions, and types of existing major structures on the property

(3) Location of the proposed solar equipment

(4) The right-of-way of any public and private road that is contiguous with or crossing
the property

(5) Any overhead utility lines

(6) Solar system specifications, including manufacturer and model.

(7) Foundation blueprints or drawings

(8) Array blueprint or drawing

(9) The proposed appearance of the small solar energy system.

(c) Zoning Permit Procedure:

(1) An applicant shall submit an application to the Planning and Zoning Director for a zoning permit for a small solar 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 site plan and be signed by the owner.

(2) 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.

(3) The Planning and Zoning Director shall issue a zoning permit for a small solar energy system if the application materials show that the proposed small solar energy system meets the requirements of this ordinance.

(4) 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.

(5) If the application is denied, the Planning and Zoning Director will notify the applicant in writing and provide a written statement of the reasons why the application was denied. 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 Director’s 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.

22A-6 *Large Solar Energy Systems*

(1) Use

A large solar energy system shall be permitted by a Special Use Permit in A-1, C-1, M-1, B-1, and B-2, and by-right in M-2, provided that:

The primary use of the system is electrical generation to be sold to the wholesale electricity markets and not used primarily for the onsite consumption of energy by a dwelling or commercial building.

In addition to the requirements of a Major Site Plan in Article 13, "Site Development Plan," and Article 12, "General Provisions," applications for a large solar energy system shall include the following information:

(a). Project description

A narrative identifying the applicant and describing the proposed solar energy system, including an overview of the project and its location; approximate rated capacity of the solar energy system; the approximate number, representative types and expected footprint of solar equipment to be constructed; and a description of ancillary facilities, if applicable.

(b). Site plan.

The site plan shall conform to the preparation and submittal requirements of Article 13, "Site Development Plan," including supplemental plans and submissions, and shall include the following information:

(1) Property lines and setback lines.

(2) Existing and proposed buildings and structures, including location(s) of the proposed solar equipment.

(3) Existing and proposed access roads, drives, turnout locations, and parking.

(4) Location of substations, electrical cabling from the solar systems to the substations, accessory equipment, buildings, and structures, including those within any applicable setbacks.

(5) Additional information may be required, as determined by the Zoning Administrator, such as a scaled elevation view and other supporting drawings, photographs of the proposed site, photo or other realistic simulations or modeling of the proposed solar energy project from potentially sensitive locations as deemed necessary by the Zoning Administrator to assess the visual impact of the project, landscaping and screening plan, coverage map, and additional information that may be necessary for a technical review of the proposal.

(6) Documentation shall include proof of control over the land or possession of the right to use the land in the manner requested. The applicant may redact sensitive financial or confidential information.

(7) The application shall include a decommissioning plan and other documents required by Section 22A-4 of this ordinance.

(2) Location, Appearance and Operation of a Project Site

(a) Visual impacts
The applicant shall demonstrate through project siting and proposed mitigation, if necessary, that the solar project minimizes impacts on the visual character of a scenic landscape, vista, or scenic corridor.

(b) Ground-mounted systems shall not exceed fifteen (15) feet in height when oriented at maximum tilt.

(c) Signage.
Warning signage shall be placed on solar equipment to the extent appropriate. Solar equipment shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar energy project. All signs, flags, streamers or similar items, both temporary and permanent, are prohibited on solar equipment except as follows: (a) manufacturer's or installer's identification; (b) appropriate warning signs and placards; (c) signs that may be required by a state or federal agency; and (d) signs that provide a 24-hour emergency contact phone number.

(d) Setbacks.
All equipment, accessory structures and operations associated with a large solar energy system shall be setback at least one-hundred feet (100') from all property lines and at least two hundred feet (200') from any residentially zoned properties; unless the Board of Supervisors is satisfied that different setbacks are adequate to protect neighboring properties.

(1) Setbacks shall be kept free of all structures and parking lots.
(2) Setbacks shall not be required along property lines adjacent to other parcels which are part of the solar energy system; however, should properties be removed from the system, setbacks must be installed along all property lines of those properties remaining within the project and which are adjacent to a parcel which has been removed.

(e) Buffering.
A 20' wide vegetative buffer yard for the purpose of screening shall be provided and maintained adjacent to any residential property line or roadway. If able to demonstrate that existing vegetation can meet this requirement, **e**xisting

vegetation can be used to satisfy buffer requirements. The buffer location must be indicated on the site plan.

(1) This buffer should be made up of plant materials at least three feet tall at the time of planting and that are reasonably expected to grow to a minimum height of eight feet within three years.

(2) Non-invasive plant species and pollinator-friendly and wildlife-friendly native plans, shrubs, trees, grasses, forbs and wildflowers must be used in the vegetative buffer.

(3) The buffer must be maintained for the life of the facility.