

§ 148-155. Solar energy facilities.¹ [Added 6-14-2018]

A. Purpose. The purpose of this section is to provide for the siting, development, and decommissioning of solar energy projects in Northumberland County, subject to reasonable conditions that promote and protect the public health, safety and welfare of the community while promoting development of renewable energy resources.

B. Definitions. For definitions and word usage, see § 148-3A.

C. Solar energy facility, small system:

- (1) Shall require administrative plan approval by the County Zoning Administrator. Plan approval does not indicate compliance with the Building Code or the Electric Code.
- (2) For ground-mounted projects, the applicant shall supply a site plan showing existing structures, property lines and setback lines.
- (3) For ground-mounted projects, the applicant is required to obtain a zoning permit and comply with local and state building codes, with setbacks being the same as the principal structure in the underlying zoning district.
- (4) Noise requirements shall be no more stringent than noise requirements for other types of development.
- (5) Does not require a decommissioning plan.
- (6) A conditional use permit is required for any residential solar energy facility that exceeds 25 kW or 1500 sq. ft. of total land area.

D. Solar energy facility, medium-scale, and solar energy facility, utility-scale:

[Amended 3-10-2022]

- (1) Shall require conditional use approval by the Board of Supervisors in all zoning districts, except R-1 Residential General and R-2 Residential Waterfront, where the use is prohibited. (This prohibition does not pertain to small agricultural generators as defined by § 56-594.2, Code of Virginia.)
- (2) Shall require a minimum setback of ~~25~~ 50 feet, with a 200-foot setback from the edge of the right-of-way of any state-maintained road. The Board of Supervisors can reduce the 200-foot setback as adjusted by the conditions of the particular site.
- (3) Shall comply with all applicable federal and state laws, including but not limited to building and electrical codes and erosion and sediment control as well as stormwater regulations.
- (4) Shall submit a preliminary emergency operations plan (EOP) to be approved

by the Chief of Emergency Services before seeking a conditional use permit, and a final as-built facility-specific EOP to the Chief of Emergency Services and the Sheriff's office, which are to be approved before the facility is operational. A fire protection plan is a required component of the EOP. The EOP is to be revised when any substantial changes are made to the facility, or if the ownership of the facility changes.

- (5) Training for first responders, fire departments, rescue squads, and Sheriff shall be conducted on-site prior to the facility becoming operational.
- (6) Shall notify the Chief of Emergency Services at least 48 hours before site becomes operational.
- (7) Shall purchase and install a Knox-Box® on the outside of the perimeter fence near the entrance with the latest revision of the EOP, facility map, MDS sheets and emergency contact information as well as a key to the facility gate. A placard shall be mounted to the perimeter fence with the emergency contact phone number. The Northumberland County Chief of Emergency Services or his designee shall have access to the Knoxbox for emergency access.
- (8) Solar panels should, to the extent practical, be nonreflective.
- (9) Shall require a project description that is a narrative identifying the applicant, owner and operator, and describing the proposed solar energy project, including an overview of the project and its location; approximate rated capacity of the solar energy project; the approximate number, representative types and expected footprint of solar equipment to be constructed; and a description of ancillary facilities, if applicable.
- (10) Shall require a solar siting agreement (Virginia State Code § 15.2-2316.7) to be negotiated between the project applicant and the county, as well as a public hearing on the siting agreement if the solar facility exceeds five megawatts.
- (11) Shall negotiate various means of compensation to the county to offset the impacts of solar facility development, if the solar facility is less than five megawatts.
- (11) Shall require an environmental inventory and impact statement regarding any site and viewshed impacts, including direct and indirect impacts to national and state forests, national or state parks, wildlife management areas, conservation easements, recreational areas, or any known historic or cultural resources within three miles of the proposed project.
- (12) Shall require a site plan which shall include the following information:
 - (a) Property lines and setback lines.

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

(c) Existing and proposed access roads, drives, turnout locations, and parking; however, this requirement shall not exceed VDOT requirements for other types of projects in the underlying zoning district.

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

(e) Fencing or other methods of ensuring public safety.

(f) Areas of land disturbance, and location of the 100 foot Chesapeake Bay 100 Foot Resource Protection Area.

(g) 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.

(13) Shall require a Landscape Agreement and Surety

Landscape buffers are required that minimize impacts year-round on the view from an existing public right-of-way (ROW), properties or objects listed on the Virginia Landmarks Register, the National Register of Historic Places, and adjacent parcels. Required buffers shall be placed or preserved between the solar facility and adjoining properties and adjacent public or private rights-of-way:

1. The use of existing vegetation is encouraged and shall be allowed in place of required new plant material provided the vegetation to be used adequately screens the solar panels from view from the right of way and adjacent parcels, is a minimum of twenty-five (25) feet in width, and is located entirely on the applicant's property. The applicant shall submit a landscape plan drawn by a professional landscape architect showing the location, size, and type of the existing plant material in the buffer area that is being used to meet the screening requirement. The plan shall include supplemental plantings wherever needed to ensure year-round screening. Should the buffer be damaged or destroyed at any time during the operation of the solar energy facility, additional vegetation shall be planted to restore the required vegetative buffer based on the approved or an amended plan.

2. Where adequate vegetative screening does not exist, buffers shall consist of a continuous landscaping strip of not less than twenty-five (25) feet in width planted with a mix of large (minimum 4 feet in height at planting) deciduous trees, large (minimum 4 feet in height at planting) evergreen trees, and shrubs forming a continuous screen. Individual site characteristics such as topography and solar panel height may increase the minimum height of vegetation material required, which will be addressed as a condition of the conditional use permit. At least seventy-five (75) percent of the plantings shall be evergreen. The required screening shall be placed within the twenty-five (25) feet closest to the perimeter of the site area. The applicant shall submit a landscape plan drawn by a professional landscape architect showing the location, size, and type of the plant material in the buffer area that is being used to meet the screening requirement and demonstrate compliance with this section.
 3. The vegetative buffer planting shall be planted within six (6) months after receiving the conditional use permit.
 4. The zoning administrator shall require a surety prior to site plan approval in an amount sufficient and with conditions satisfactory to secure to the county compliance with the landscaping requirements set forth above. The landscaping surety will be held for the life of the project and will be released upon completion of decommissioning.
 5. The buffer shall be maintained for the life of the facility. Dead, diseased, or dying plants shall be replaced within the next planting season unless the remaining healthy vegetation provides the required screening.
- (14) Shall require the grass inside and outside of the solar energy facility be mowed each year in the month of May and in the month of October.
- (15) Shall require proof of adequate liability insurance for a solar energy facility and a copy of the lease agreement to the zoning administrator, prior to beginning construction and before the issuance of a zoning or building permit.
- (16) Noise requirements for solar facilities shall be no more stringent than noise requirements for other types of development in the County.
- (17) Lighting fixtures as approved by the county shall be the minimum necessary for safety and/or security purposes to protect the night sky by facing downward and to minimize off-site glare. No facility shall produce glare that would constitute a nuisance to the public during construction or general operation. Any exceptions shall be enumerated on the concept plan and approved by the zoning administrator.
- (18) Decommissioning plan.
- (a) The application shall include a decommissioning plan.

(b) A decommissioning plan 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; and
- [4] The manner in which the project will be decommissioned.

(c) The decommissioning plan shall be updated and filed with the County every after two years of operation to account for changed circumstances, including inflation, by a Virginia Licensed Engineer of the county's choosing, with the cost to revise the plan being borne by the project applicant. Thereafter, the decommissioning plan shall be updated and filed with the County every five years.

(d) The owner or owners of a solar facility shall notify the County whenever the facility is inactive for one year, at which time the owner shall have twelve months to decommission the facility.

(e) The owner or owners of a solar facility shall remove all electrical components to include, but not limited to, solar arrays, inverters, cabling (both below and above ground), and fencing. The owner or owners shall return the site to permanently stabilized land with vegetative cover.

(f) The decommissioning plan is to be submitted to the zoning administrator at the time of final site plan submittal.

(g) The operator (or property owner) shall submit a report to the building and zoning department showing the amount of electricity generated each month of the prior year annually from the date the solar facility becomes operational.

E. Bonding requirements. Solar energy facility, utility-scale, shall require a surety bond in the amount required for full decommissioning of the solar facility as stated in the decommissioning plan. After each decommissioning plan review, if the cost to decommission has increased, the surety bond shall be increased by the same amount shown in the newly revised decommissioning plan. Salvage value of the solar energy equipment decommissioned is not to be included as part of the surety bond, as the bond itself should cover the full cost of decommissioning. The surety bond shall be approved by the BOS or its designee, and is required to be submitted with the final site plan.