5.1.66 Energy Facility.

A. *Minimum Development Requirements for Energy Facilities.*

1. The maximum height of the lowest edge of all ground-mounted photovoltaic panels is ten feet as measured from the finished grade. The maximum height of panels, buildings, structures, and other components of a solar facility is 20 feet, as measured from the highest natural grade below each element. This limit does not apply to utility poles, substations, roof-mounted solar facilities, or the interconnection to the overhead electric utility grid.

2. Accessory solar energy facilities, whether roof- or ground-mounted, are subject to the applicable structure setbacks of the zoning district in which the facility is located. The setback standards do not apply to parcels under common ownership.

3. Ground-mounted accessory solar energy facilities located outside the Rural Areas (RA) zoning district are limited to 500 square feet of fenced area, or 400 square feet of panel zone when placed over existing pervious areas.

4. By-right solar energy facilities in the Rural Areas (RA) zoning district are subject to the following separation standards from other by-right solar energy facilities.

Project A Fenced Area	Project B Fenced Area			
	Less than 1 acre	1 acre to 4.99 acres	5 acres to 9.99 acres	10 acres to 21 acres
Less than 1 acre	No separation	No separation	No separation	No separation
1 acre to 4.99 acres	No separation	300 feet	500 feet	1,000 feet
5 acres to 9.99 acres	No separation	500 feet	1,000 feet	1,500 feet
10 acres to 21 acres	No separation	1,000 feet	1,500 feet	2,000 feet

5. By-right ground mounted solar energy facilities in the Rural Areas (RA) zoning district are limited to a maximum of 21 acres of fenced area on any parcel in existence at the time of adoption of this ordinance. Any solar energy facility with a panel zone of one acre or greater must be fenced.

6. Any solar energy facility with greater than one acre of fenced area within five nautical miles of a licensed airport must provide the Chief Operation Officer of the airport with both (i) written notice to stating the system's location, technology to be used, and total land coverage; and (ii) a glint/glare study.

7. Ground-mounted solar energy facilities with greater than 21 fenced acres, are subject to the following setbacks:

   a. 100 feet from adjacent parcels, not under common ownership, and all public rights-of-way; and

   b. 300 feet from dwellings on adjacent parcels, not under common ownership.

8. No energy facility may be located within riparian buffers, nontidal wetlands, and floodplains, each as defined in Chapter 17 of the Albemarle County Code.

9. Energy facilities must maintain sufficient separation between rows of photovoltaic panels or battery energy storage facilities to provide fire access and meet clear zone requirements.

10. All ground-mounted solar energy facilities with a fenced area of two acres or greater must obtain Gold Certified Virginia Pollinator Smart status within three years of issuance of a building permit. Gold Certified Virginia Pollinator status must be maintained for the life of the facility.

11. Energy facilities with a fenced area of at least ten acres must be screened from public streets and abutting parcels not under common ownership. Screening provided must meet the screening level provided by a triple staggered row of evergreen trees and screening shrubs planted 15 feet on center with screening shrubs making up not more than 33 percent of the plantings and equally dispersed. The director of community development may approve any plan providing equal or greater screening. All new plantings must include a variety of species from the County's approved list.

12. Energy Facilities must be constructed, maintained, and operated in accord with all applicable codes and standards, including (but not limited to): applicable fire, electrical, and building codes adopted by the County; the National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems, 2023 Edition and subsequent additions; and the Underwriters Laboratories (UL) 9540A Ed. 4-2019, Standard for Test Method for Evaluating Thermal Runway Fire Propagation in Battery Energy Storage Systems and subsequent editions.

13. Battery energy storage facilities must have the following setbacks:

    a. 100 feet from adjacent parcels not under common ownership, and all public rights-of-way; and

    b. 300 feet from dwellings on adjacent parcels not under common ownership.

14. Any fencing on the interior of the buffer/screening area of ground-mounted energy facilities may not be at a height of less than 61 inches or greater than 96 inches (inclusive of razor/barbed wire). Fences of 61 inches or less in height may not include razor/barbed wire. Such fenced areas must provide wildlife corridors through the facility. All such fencing must allow for movement and migration of small wildlife species.

15. Energy facilities are not permitted within any large forest block with a score of 4.1 or greater as shown on "Map 2: Ranking the Conservation Value of Large Forest Blocks" in the Biodiversity Action Plan.

16. By-right projects must not disturb more than ten acres in the aggregate of habitat cores, forest blocks, or corridors connecting habitat areas, as these features are identified in the Comprehensive Plan/Biodiversity Action Plan, except that the Board of Supervisors may permit disturbance of more than ten acres by special exception. When considering impacts to habitat areas, on both special exception and special use permit applications, the Board of Supervisors should consider the Comprehensive Plan/Biodiversity Action Plan, the Virginia Department of Conservation and Recreation Natural Heritage Data Explorer, or other County-designated resources for this purpose, as well as determine the particular mix of species and composition of affected habitat areas.

17. By-right projects must not disturb either (a) more than 10 acres of prime farmland (as determined/identified by the United States Department of Agriculture's Natural Resources Conservation Service) and/or (b) areas used for an agricultural activity within the five years preceding an application, unless portions of the parcels used for the facility will continue to be used for an agricultural activity.

18. Notwithstanding any exemption in County Code Chapter 17, all ground-mounted energy facilities whose total land disturbance area, including the horizontal projected areas underneath panels, is at least 10,000 square feet, must comply with County Code Chapter 17.

19. Notwithstanding section 32.2, a site plan is not required for an energy facility, but the energy facility is subject to the requirements of section 32. An applicant must submit all schematics, plans, calculations, drawings, and other information required by the director of community development to determine whether the facility complies with section 32. In making this determination, the director of community

development may impose reasonable conditions authorized by section 32 in order to ensure compliance.

20. Any new associated electrical transmission lines, whether connecting internal portions of the project or connecting to a switchyard, substation, or point of interconnection, and whether above or below ground, must be located in a manner to minimize intrusiveness and mitigate their impact to surrounding parcels.

21. Except for any outdoor lighting required by federal law:

    a. Outdoor lighting is permitted only during maintenance periods.

    b. Regardless of the lumens emitted, each outdoor luminaire must be fully shielded to the standard of section 4.17.

B. *Special Use Permit Process.*

1. The County may engage independent consultant(s) to review any special use permit application for an energy facility and all associated documents for completeness and compliance with applicable County, state, and federal laws. Any costs associated with the review must be paid by the applicant, and are in addition to any other required fees.

2. As part of its review of special use permit applications for energy facilities, the Commission will also conduct a Comprehensive Plan review under Virginia Code § 15.2-2232 and will specify whether the facility is in substantial accord with the County's Comprehensive Plan.

C. *Construction, Operational, and Decommissioning Requirements for Solar Energy Generating Facilities and Battery Energy Storage Facilities.*

Non-accessory ground-mounted solar energy facilities must meet the following requirements both during the construction phase and throughout their operational life:

1. Coordination of Local Emergency Services. Prior to completion of construction, the owner or operator of a facility must provide materials, education, and/or training to the County's emergency services departments on how to safely respond to on-site emergencies, and develop, implement, periodically update, and perform exercises on an emergency response plan. County emergency personnel must be provided with a key or code to access the site in case of an on-site emergency.

2. County Inspection of Facility. The owner or operator of a facility must allow designated County representatives or employees access to a facility for inspection purposes. The County will provide the facility operator with 24-hours' notice prior to an inspection when practicable. The owner of a facility must reimburse the County the costs of any required independent inspections.

3. Maintenance of Facility. The owner or operator of an energy facility must monitor and maintain the facility in good condition. Such monitoring and maintenance must include (but is not limited to): painting, evaluating the structural integrity of equipment, foundations, structures, fencing and security barriers, as applicable, maintenance of the buffer areas, landscaping, and cleaning of equipment. Any cleaning products used to maintain photovoltaic materials must be biodegradable. Site access must be maintained at a level acceptable to the County.

D. *Decommissioning and Site Rehabilitation.*

1. Solar facilities that have reached the end of their operation or have not been in active and continuous service for a period of six months must be removed at the owner's or operator's expense. However, the County may extend this period upon a satisfactory showing that the project is being repowered, or a force majeure event is requiring longer repairs.

2. The owner or operator of a facility must notify the director of community development by certified mail of the proposed date of discontinued operations and plans for removal.

3. Decommissioning must be performed in compliance with an approved decommissioning plan. The applicant, owner, lessee, or developer of the real property must submit a decommissioning plan for approval by the director of community development, prior to the issuance of a Zoning Permit. The director of community development may waive the requirement of a decommissioning plan based on the size of the solar facility. The director of community development may approve any appropriate amendments to, or modifications of, the decommissioning plan.

4. Decommissioning must include removal of all electric systems, buildings, cabling, electrical components, security barriers, roads, foundations, pilings, and any other associated facilities, so that any agricultural ground upon which the facility and/or system was located is again tillable and suitable for agricultural uses. The site must be graded and re-seeded to restore it to as natural a condition as possible, except that the director of community development may approve a written request that access roads or other land surface areas not be restored if other conditions are determined to be more beneficial or desirable at that time.

5. Any topsoil graded during reclamation must be returned during reclamation of land.

6. Any exception to site restoration, such as leaving driveways, entrances, or landscaping in place, or substituting plantings, must be requested by the owner in writing, and is subject to approval of the director of community development.

7. Hazardous material from the site must be disposed in accordance with federal and state law.

8. When a decommissioning plan is required, the estimated cost of decommissioning must be guaranteed by the deposit of sufficient funds in an escrow account at a financial institution approved by the County.

    a. The applicant must deposit the required amount into the approved escrow account before any building permit is issued to allow construction of the solar facility.

    b. The escrow account agreement must prohibit the release of the escrow funds without the written consent of the County. The County will consent to the release of the escrow funds upon the owner's or occupant's compliance with the approved decommissioning plan. The County may approve the partial release of escrow funds as portions of the approved decommissioning plan are performed.

    c. The full amount of the estimated decommissioning cost, excluding salvage value, must be deposited in escrow.

    d. The owner or occupant must recalculate the estimated cost of decommissioning every five years. If the recalculated estimated cost of decommissioning exceeds the original estimated cost of decommissioning by at least ten percent, the owner or occupant must deposit additional funds into the escrow account to meet the new cost estimate. If the recalculated estimated cost of decommissioning is less than 90 percent of the original estimated cost of decommissioning, the County may approve reducing the amount of the escrow account to the recalculated estimate of decommissioning cost.

    e. The County may approve alternative methods to secure available funds to pay for the decommissioning of a solar facility, such as a performance bond, letter of credit, or other security approved by the County.

9. If the owner or operator of the solar facility fails to remove the facility in accordance with this section or the facility's approved decommissioning plan, the County may collect the surety and the County or its agent(s) may enter the site and perform any work necessary to complete the decommissioning.

(Ord. 25-18(2), 7-16-2025)