
Sec. 17-607. Supplemental standards for certain land uses.

Solar energy facility, large.

(a) *Ground-mounted:*

- (1) Aggregate cap: Commencing on November 17, 2021, and continuing until amended by the board of supervisors, no more than one thousand eight hundred (1,800) acres, in aggregate, may be approved for large solar energy facilities by special use permit.
- (2) Per-site cap: Except as provided immediately below, no more than fifty (50) acres may be approved for an individual large solar energy facility permitted by special use permit on land zoned A-1, A-2, RV, RR-1, PG, B-1, and B-2. This 50-acre per-site cap does not apply to ground-mounted large solar energy facilities proposed to be located in planned development zoning districts, industrial zoning districts, or public service districts. Newly proposed large solar facilities shall be located in near proximity to the demonstrated need based on intended customers. Newly proposed large solar facilities shall be placed no closer to a pre-existing large solar facility than necessary to serve those intended customers. Need may be demonstrated by indicia such as, but not limited to, subscriber interest shown at the community meeting.
- (3) Exception: Up to twenty-five (25) percent of the one thousand eight hundred (1,800) acre aggregate cap, or four hundred fifty (450) acres, may be occupied by large solar facilities that are comprised of more than fifty (50) acres per site, up to a maximum per-site acreage of one hundred fifty (150) acres.
- (4) The acreage "occupied" by a large solar facility shall be as shown on the site plan approved by the board as part of the special use permit.
- (5) Setbacks for a large solar energy facility requiring a special use permit:
 - a. When two (2) acres to thirty (30) acres of land, inclusive, are occupied by a solar energy facility, all above-ground infrastructure shall be no less than one hundred (100) feet from property lines and no less than two hundred (200) feet from existing dwellings, reduceable by notarized consent from an adjoining property owner. Setbacks are not required among and between participating landowners' parcels.
 - b. When more than thirty (30) acres of land are occupied by a solar energy facility, all above-ground infrastructure shall be no less than one hundred fifty (150) feet from property lines and shall be no less than two hundred fifty (250) feet from any existing dwellings, reduceable by notarized consent from an adjoining property owner. Setbacks are not required among and between participating landowners' parcels.
 - c. Transformers shall be set back one hundred fifty (150) feet from property lines.
- (6) Setbacks for a large solar energy facility installed over impervious surfaces, shall be set back ten (10) feet from public and private roads and streets.
- (7) Community meeting:
 - a. No more than six (6) months prior to the submittal of a special use permit application for a large solar energy facility, the applicant shall hold a meeting to inform the community about the proposed facility. This meeting shall be open to the public.
 - b. Notice of the date, time, and location of the meeting; a contact name and phone number of the project representative; and a summary of the proposed facility shall be delivered by first-class mail to all property owners located within one (1) mile of the parcel boundary of the proposed

facility, as noted in the Rockingham County tax records. Such notice shall be mailed not less than fourteen (14) working days prior to the community meeting.

- c. The meeting shall be held within the one (1) mile radius or at the nearest location open to the public with adequate parking and seating facilities which may accommodate persons with disabilities.
 - d. The meeting shall give members of the public the opportunity to review application materials, ask questions of the applicant, and provide feedback including an indication of willingness to be a subscriber or customer of the proposed facility, if appropriate.
 - e. Upon conclusion of the community meeting, a certified mailing list of property owners notified, a sign-in sheet from the meeting, and a written summary of the meeting shall be included with the application.
- (8) Vegetated buffer: If needed to mitigate off-site visual impact, as determined by the Board of Supervisors at the time of issuance of a special use permit or rezoning, a vegetated buffer of year-round effectiveness shall be installed and maintained within the setback area by the solar facility operator or landowner as follows:
- a. All plants shall be climate-hardy.
 - b. No monoculture shall be permitted; at least five (5) different species of shrubs and six-foot-high trees shall be installed, with preference given to indigenous trees and shrubs.
 - c. Selected species shall have mixed leaf- and branch-types of varying mature heights.
 - d. Two or three of the same species shall be grouped to ensure a naturalized effect. Uniform, staggered rows of plantings are not permitted.
 - e. Existing vegetation in the setback area shall be supplemented with new plantings, and all existing, invasive species shall be removed prior to new plantings being installed.
 - f. Land within the setback, not in trees and shrubs, shall have a stabilizing ground cover.
 - g. Any fencing shall be located interior to the vegetated buffer.
 - h. Trees and shrubs are not required where utility easements cross the setback.
 - i. Ongoing maintenance:
 - 1. All vegetation (trees, shrubs, and ground covers) in the setback areas shall be maintained from installation through decommissioning. Ground covers shall provide continuous coverage for the life of the project.
 - 2. The solar facility operator and landowner shall manage non-invasive species and remove invasive species for the life of the project.
 - 3. Trees and shrubs shall be replaced if needed to maintain intended, camouflage effect.
- (9) Ground cover: Ground cover shall be installed and maintained throughout the site, including the setback area, as follows:
- a. Ground cover shall be climate-hardy, non-invasive, and pollinator-friendly species, with preference given to indigenous plants.
 - b. Shade-tolerant plants shall be installed under the solar panels.
 - c. Ground covers shall meet erosion and sediment control and stormwater management regulations effective at the time of site plan approval.

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- d. Ongoing maintenance: The solar facility operator and landowner shall manage non-invasive species and remove invasive species for the life of the project.
- (10) Vegetated buffers and ground covers shall be addressed in the SUP application and on the site plan.
- (11) Wildlife corridors: The establishment of wildlife corridors shall be as determined by the Virginia Department of Wildlife Resources.
- (12) Historic sites: No facility shall be located on a property in the Virginia Department of Historic Resources (VDHR) Landmarks Registry, National Registry, or within the Core Area and Field of Fire Area as designated in the Cross Keys and Port Republic Battlefields Preservation Plan.
- (13) Viewshed: A viewshed simulation, from points selected by the county, shall be included in the SUP application.
- (14) Tree cover: No facility shall be permitted on land that has been clear-cut or heavily timbered in the five (5) years immediately preceding the date of the application.
- (15) Glare and appearance.
- a. All large solar energy facility structures, racks, and associated facilities shall have a non-reflective finish or appearance. Solar collectors shall be designed to maximize absorption and minimize glare outward toward adjoining properties and upward toward aircraft. Vehicles travelling on adjoining interstate and state-maintained roads shall also be protected from potential glare, including tractor trailer cabs.
- b. The design of support buildings and related structures shall use materials, colors, textures, and landscaping that will camouflage the large solar energy facility from surrounding residences.
- (16) Decommissioning.
- a. Decommissioning plan: A decommissioning plan shall be developed by the applicant, owner, or operator prior to the approval of a site plan being issued for a large solar energy facility. If the large solar energy facility is completely inactive or has substantially discontinued the delivery of electricity to a grid for a continuous six-month period it shall be considered an inactive solar energy facility. The applicant, owner of the real estate, or owner or operator of the facility shall provide notice to Rockingham County in writing once the property becomes an inactive large solar energy facility. The decommissioning of the site shall commence within six (6) months of receipt of such notice by Rockingham County. The decommissioning plan shall include:
1. Anticipated life of the solar energy facility;
 2. The estimated future cost of the decommissioning and repurposing, expressed in current dollars, by a Virginia State-licensed professional engineer;
 3. Method used to determine the estimate;
 4. The manner in which the project will be decommissioned; and
 5. The name and physical address of the person or entity responsible for the decommissioning plan.
- b. Repurposing: All material removed from the site shall be transferred to a reclamation or repurposing facility that specializes in recycling, reclaiming, or repurposing solar facility materials.
- c. Surety: Unless the large solar energy facility project is owned by a public utility within the Commonwealth of Virginia, the gross costs of decommissioning shall be secured by an adequate surety in a form agreed to by the county attorney, including but not limited to cash or a letter of credit, bond or other guarantee issued by an entity whose debt is rated as investment grade by

either Standard and Poor's or by Moody's, and posted prior to the project receiving its certificate of completion, or equivalent, from Rockingham County to operate the use. If an adequate surety is required, the cost estimates of the decommissioning shall be updated at least every five (5) years by the applicant, owner, or operator, and provided to the county. "Gross costs" shall not include a deduction for salvage value.

- d. Applicant, facility owner and property owner obligation: Within six (6) months after the cessation of use of the large solar energy facility for electrical power generation or transmission, the applicant or its successor, at its sole cost and expense, shall decommission the large solar energy facility in accordance with the decommissioning plan approved by the county. If the applicant or its successor fails to commence decommissioning in a timely manner so that decommissioning may be completed within six (6) months of the facility becoming an inactive large solar energy facility, the property owner shall conduct the decommissioning in accordance with the plan and may use bonded resources to do so, as approved and released by the county. Following completion of decommissioning of the entire large solar energy facility, the bond shall be released and, if the county has called upon the bond and taken control of bond resources, any remaining resources held by the county shall be distributed to the property owners in proportion to their ownership interests.
- e. Applicant, owner default; decommissioning by the county.
 - 1. If the applicant, its successor, and the property owners fail to decommission the solar energy facility within six (6) months, the county shall have the right, but not the obligation, to commence decommissioning activities and shall have access to the property, access to the full amount of the decommissioning surety, and the rights to the solar energy equipment and materials on the property. The applicant, and property owners, or successors, shall be responsible for reimbursing the county for all costs and expenses of decommissioning in excess of the decommissioning surety, and all such excess amounts shall attach to the real estate as a tax lien until paid in full.
 - 2. Any excess decommissioning surety funds shall be released to the then owners of the property after completion of decommissioning.
 - 3. Prior to the issuance of any permits, the applicant and the property owners shall deliver a legal instrument to the county granting the county the right to access the property and the solar energy facility equipment and materials so the county can complete the decommissioning, should it choose to do so, upon the applicant's and property owners' default. Such instrument shall bind the applicant and property owners and their successors, heirs, and assigns. Nothing herein shall limit other rights or remedies that may be available to the county to enforce the obligations of the applicant, operator, or property owner, including remedies under the county's zoning powers.
- f. Equipment, structure, and building removal: Unless otherwise approved by the county, all physical improvements, materials, and equipment related to solar energy generation, both surface and subsurface components, regardless of depth underground, shall be removed in the removal process.
- g. A reclamation plan shall be required as a part of the decommissioning plan and included for site plan approval for all large solar facilities. The reclamation plan shall be included in the cost estimate for the decommissioning bond. The reclamation plan shall include, at a minimum:
 - 1. All above-ground and underground infrastructure shall be removed and recycled or reused, unless a written request is received from the then current property owner proposing the retention of any infrastructure, and the request is approved by the county:

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2. Final land surface conditions (grass, trees, cropland, pasture, etc.), including the status of on-site gravel roads, if to remain;
 3. Final contours and grades; and
 4. Permanent best management practices (BMPs) to remain or to be removed, based on final surface condition, with supportive calculations.
- h. Partial decommissioning: Any reference to decommissioning the large solar energy facility shall include the obligation to decommission all or a portion of the facility, whichever is applicable with respect to a particular situation. If decommissioning is triggered for a portion, but not the entire solar energy facility, then the partial decommissioning shall be completed in accordance with the decommissioning plan and this section for the applicable portion of the large solar energy facility.
- (b) *Roof-mounted:*
- (1) Separate flush or frame-mounted solar energy facilities installed on the roof or structure shall not:
 - (2) Project vertically more than one (1) foot above the peak of the sloped roof to which it is attached; or
 - (3) Project vertically more than five (5) feet above a flat roof installation.
 - (4) The combined height of a roof-mounted facility and the primary structure to which it is attached shall not exceed the maximum height for the zoning district in which it is located.
 - (5) It shall be demonstrated that the placement of the facility shall not adversely affect safe access to the roof, pathways to specific areas of the roof, and safe egress from the roof.
 - (6) Any glare generated by the system must be mitigated or directed away from adjoining property or road when it creates a nuisance or safety hazard.
 - (7) An ocular-impact study shall be performed for airports within five (5) miles of the project site and for public roads within sight of the system. The analysis shall be performed using FAA solar glare hazard analysis tool (SGHAT) to demonstrate compliance with FAA standards for measuring ocular impact.
- (c) *Appearance.*
- (1) The solar energy facility shall be maintained in the color or finish that was originally applied by the manufacturer.
 - (2) All signs, other than the manufacturer's identification, installer's identification, appropriate warning signs, or owner's identification shall be prohibited.
- (d) *Removal.*
- (1) At such time that a solar energy facility is scheduled to be abandoned or discontinued, the owner of the facility shall notify the county by certified U.S. mail of the expected date of abandonment or discontinuation of operations.
 - (2) Within three hundred sixty-five (365) days of the date of abandonment or discontinuation, the owner of the system shall physically remove all components of the solar energy facility. If not removed within the allotted time, the county may have it removed at the expense of the property owner.