

## ARTICLE X

### SOLAR FACILITIES

#### § 125-70 Statement of intent.

The purpose of this section is to establish requirements for construction, operation, and decommissioning of solar facilities; to provide standards for the placement, design, construction, monitoring, modification, and removal of solar facilities; address public safety, minimize impacts on scenic, natural, and historic resources; and provide adequate financial assurance for decommissioning.

#### § 125-71 Applicability.

This article shall apply to all solar facilities constructed after the effective date of this article, including any physical modifications to any existing solar facilities that materially alter the type, configuration, or size of such facilities or other equipment.

#### § 125-72 Zoning districts.

- A. Small-scale solar facilities may be installed by-right in all zoning districts to provide electricity to individual structures; provided a site plan (as applicable) has been submitted to Page County for review and approval; all Federal, State and Local regulations have been followed; and the system is located upon the property or structure being served.
- B. Medium-scale solar facilities may be installed by-right roof-mounted or ground-mounted in agricultural, commercial, and industrial zoning districts to provide electricity to individual structures; provided a site plan (as applicable) has been submitted to Page County for review and approval; all Federal, State and Local regulations have been followed; and the system is located upon the property or structure being served.
- C. Any commercial or industrial solar facility installed upon a roof top shall submit a site plan and an engineering study to Page County for review.
- D. Utility-scale solar facilities shall be permitted Special Use Permit (SUP) only.

#### § 125-73 Small-scale and medium-scale requirements and standards.

- A. The design and installation of all solar energy facilities shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), or other similar certifying organizations and shall comply with all fire and safety requirements.
- B. Small and medium-scale energy facilities shall comply with all applicable federal, state and county regulations, ordinances and codes.
- C. A medium-scale solar facility shall submit a site plan to the zoning administrator and any medium-scale facility installed upon a roof top shall also submit an engineering study to the building official's office for review.
- D. All small or medium-scale solar energy facilities shall comply with the following performance standards:

- (1) The ground mounted solar energy facility shall setback a minimum of 50 feet when the adjacent parcel has an existing residence, all other ground mounted solar energy facilities shall setback as required by the zoning district.
  - (2) If the solar energy facility is ground-mounted or not flush-mounted on a principal or accessory building, the panel height shall not exceed 15 feet.
  - (3) The lowest surface of any ground mounted panel shall be a maximum of ten (10) feet above the finished grade.
  - (4) All wiring not on the solar arrays shall be underground except where necessary to connect to the public utility.
  - (5) All broken or waste solar modules shall be removed from the site within 60 days of being taken out of service. Panels or pieces thereof from the property shall be disposed of outside of Page County and through a viable recycling method and in accordance with federal and state law.
- E. Medium-scale solar energy facilities when adjacent to a parcel with an existing residence shall be screened from the ground-level view of adjacent properties by a buffer zone at least 25 feet wide that shall be landscaped with native and non-invasive plant materials, except to the extent that existing vegetation or natural land forms on the site provide such screening as determined by Page County. Trees shall be a minimum of 6 feet in height at time of planting and in staggered rows of ten (10) foot on center. In the event, existing vegetation or landforms providing the screening are disturbed, new plantings shall be provided which accomplish the same. The effectiveness of screening shall be maintained as the plant materials mature. Unhealthy and dead plants shall be replaced within one (1) year of being provided written notice by the County of the violation. Opaque architectural fencing may be used to supplement other screening methods but shall not be the primary method.
- F. Removal of abandoned medium-scale solar generating equipment.
- (1) A performance bond reflecting the costs of anticipated removal shall be posted and maintained by the owner to assure the removal of any unused and abandoned medium-scale solar energy facility.
  - (2) Any medium-scale solar energy facility will be considered unused and abandoned if either (1) the facility has not operated for a period of twelve (12) consecutive months after initially beginning operation, or (2) construction ceases for a period of nine (9) consecutive months. The owner of an unused facility shall remove the entire system within six months of receipt of notice from the zoning administrator notifying the owner of the equipment removal requirement. Removal includes removing any underground structures or supports and electrical transmission wire and disposing in accordance with local, state, and federal codes and regulations.

**§ 125-74 Utility-Scale Solar Facility Applications and procedures.**

- A. In addition to other requirements of the Page County Zoning Ordinance and Special Use Permit requirements, applications for a utility-scale solar facility shall include the following information:
- (1) Pre-application meeting. Schedule a pre-application meeting with Page County to discuss the location, scale, and nature of the proposed use and what will be expected during the process.
  - (2) Comprehensive Plan Review. A 2232 review by the County is required by the *Code of Virginia* (§15.2-2232) for utility-scale solar facilities. This Code provision provides for a review by the Planning Commission of public utility facility proposals to determine if their general or approximate location, character and extent are substantially in accord with the Comprehensive Plan or part thereof.

- (3) Special Use Permit (SUP) application. A complete SUP application including:
- (a) Documents demonstrating the ownership of the subject parcel(s).
  - (b) Proof that the applicant has authorization to act upon the owner's behalf.
  - (c) A letter of commitment from the utility company who will interconnect to the facility and a statement of line capacity before and after interconnection.
  - (d) List of all adjacent property owners, their tax map numbers, and addresses.
  - (e) A description of the current use and physical characteristics of the subject parcels.
  - (f) A description of the existing uses of nearby properties.
  - (g) A narrative identifying the applicant, owner and operator of the proposed project, a brief history of the applicant's solar project developments, including all previous and current solar projects, any legal challenges or claims in which they were named or identified, and the name of any proposed corporate entity under which they intend to operate, if different. The narrative shall further describe the proposed solar facility project, including an overview of the project and its location, approximate rated capacity of the solar facility project, the approximate number of panels, representative types, expected footprint of solar equipment to be constructed, and type and location of interconnection to electrical grid.
  - (h) Aerial imagery which shows the proposed location of the solar facility, fenced area, driveways, and interconnection to electrical grid with the closest distance to all adjacent property lines and dwellings along with main points of ingress/egress.
  - (i) Payment of the application fee and any additional review costs, advertising, or other required staff time.
  - (j) The applicant shall consult with the Department of Wildlife Resources and provide a written recommendation regarding wildlife corridors.
- (4) Site plan. A site plan prepared by a Virginia licensed engineer, that shall include the following:
- (a) A description of the subject parcels.
  - (b) Property lines and setback lines. A land survey by a Virginia licensed surveyor is required.
  - (c) Existing and proposed buildings and structures; including preliminary locations of the proposed solar panels and related equipment; the location of proposed fencing, driveways, internal roads, and structures; and the location of points of ingress/egress.
  - (d) The location and nature of proposed buffers and screening elements, including vegetative and constructed buffers.
  - (e) A landscaping maintenance plan which takes into account the requirements set forth in §125-75(G) and §125-75(I).
  - (f) Existing and proposed access roads, drives, turnout locations, and parking.
  - (g) Location of substations, electrical cabling from the solar facility systems to the substations, ancillary equipment, buildings, and structures including those within any applicable setback.
  - (h) Twenty sets (11"× 17" or larger), one reduced copy (8½"× 11") and one electronic copy of the site plan, including elevations and landscape plans as required.
- (5) Decommissioning plan. A draft proposed decommissioning plan shall be submitted with the application. A completed decommissioning plan, certified by an engineer, shall be submitted,

and approved prior to, or along with, site plan approval, detailing how the applicant proposes to decommission the facility, which shall include the following information:

- (a) The anticipated life of the project;
  - (b) A cost estimate for the decommissioning of the facility that shall be prepared by a Virginia licensed professional engineer or contractor who has expertise in the removal of large-scale solar facilities. The decommissioning cost estimate shall detail the current cost in dollars and projected costs over the life of the project without any reduction for salvage value. The cost estimate shall be recalculated every five (5) years and the surety shall be updated accordingly.
  - (c) How the estimate was determined;
  - (d) The manner and method of ensuring that funds will be available for decommissioning;
  - (e) The proposed methods and steps required for removal of structures, materials, buildings, roads, cabling, electrical components, operational equipment, and any other associated facilities at the end of the anticipated life of the project;
  - (f) Steps to restore the Site to conditions prior to the commencement of the project, including soil stabilization and revegetation (if applicable); and
  - (g) Impacts, if any, on the surrounding properties when decommissioned.
- (6) Traffic study modeling the construction and decommissioning processes. The Virginia Department of Transportation will be responsible for reviewing the study.
  - (7) An estimated construction schedule.
  - (8) 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 (3) miles of the proposed project.
  - (9) Community impact assessment by a County approved third party, including but not limited to, a comprehensive economic impact, agricultural and tourism revenue, employment and taxation, shall be required and shall assess the various project tax and revenue options, including but not limited to, Code of Virginia §58.1-2636, §58.1-3660, §15.2-2288.8, and §15.2-2316.6 through 2316.9.
  - (10) A visual impact analysis demonstrating project siting and proposed mitigation, if necessary, so that the solar facility minimizes impact on the visual character of the County. The impact analysis shall include, but not necessarily be limited to:
    - (a) Accurate, to scale, photographic simulations showing the relationship of the solar facility and its associated amenities and development to its surroundings, including projected vegetative growth. The photographic simulations shall show such views of solar structures from locations such as property lines and roadways, as deemed necessary by the County in order to assess the visual impact of the solar facility.

(b) The total number of simulations and the perspectives from which they are prepared shall be established by Page County after the pre-application meeting.

(11) Additional information may be required as determined by the Zoning Administrator, such as a scaled elevation view of the property and other supporting drawings, photographs of the proposed site, photo or other realistic simulations or modeling of the proposed project from potentially sensitive locations as deemed necessary by Page County 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.

**§ 125-75 General Regulations and Standards.**

- A. The design and installation of solar energy facilities shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), or other similar certifying organizations and shall comply with all fire and safety requirements.
- B. Utility-scale solar facilities shall be constructed and operated in substantial compliance with the approved Site Plan, with allowances for changes required by the Virginia Department of Environmental Quality (DEQ) Permit by Rule (PBR) process.
- C. The maximum height of the lowest edge of the photovoltaic panels shall be 10 feet as measured from the finished grade. The maximum height of photovoltaic panels, primary structures, battery storage facilities and accessory buildings shall be 15 feet as measured from the finished grade at the base of the structure to its highest point, including appurtenances. The Board of Supervisors may approve a greater height based upon the demonstration of a significant need where the impacts of increased height are mitigated.
- D. PV solar panels and any associated equipment shall not be located on slopes 15 percent or greater and no site shall be graded more than 50 percent of the site surface area.
- E. Wetlands, waterways, and floodplains shall be inventoried, delineated, and avoided, with exception of encroachments permitted by State Code and regulations.
- F. Utility-scale solar facilities, including fencing, shall be significantly screened from the ground-level view of adjacent properties by a buffer zone at least 100 feet wide that shall be landscaped with native and non-invasive plant materials consisting of an evergreen and deciduous mix (as approved by County staff), except to the extent that existing vegetation or natural landforms on the site provide such screening as determined by Page County. Trees shall be a minimum of 6 feet in height at time of planting and in staggered rows of ten (10) foot on center. In the event, existing vegetation or landforms providing the screening are disturbed, new plantings shall be provided which accomplish the same. The effectiveness of screening shall be maintained as the plant materials mature. Unhealthy and dead plants shall be replaced within one (1) year of being provided written notice by the County of the violation. Opaque architectural fencing may be used to supplement other screening methods but shall not be the primary method.
- G. The facilities shall be enclosed by security fencing on the interior of the buffer area (not to be seen by other properties) not less than nine (9) feet in height. The fence shall not be topped with razor/barbed wire. A performance bond reflecting the costs of anticipated fence maintenance shall be posted and

maintained. Failure to maintain the security fencing shall result in revocation of the SUP and the facility's decommissioning.

- H. Ground cover on the site shall be pollinator-friendly native and non-invasive vegetation and maintained in accordance with the Landscaping Maintenance Plan in accordance with established performance measures. A performance bond reflecting the costs of anticipated landscaping maintenance shall be posted and maintained. Failure to maintain the landscaping shall result in revocation of the SUP and the facility's decommissioning. Incorporation of non-invasive plant species that require no pesticides, herbicides, and fertilizers or the use of pesticides and fertilizers with low toxicity, persistence, and bioavailability is recommended. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.
- I. The facility shall provide at least one access corridor for wildlife to navigate through the Solar Facility per 50 acres of acreage coverage. Proposed wildlife corridor(s) shall be shown on the site plan submitted to the County and shall be a minimum of 25 feet in width. Areas between fencing shall be kept open to allow for the movement of migratory animals and other wildlife.
- J. The design of support buildings and related structures shall use materials, colors, textures, screening and landscaping that will blend the facilities to the natural setting and surrounding structures.
- K. The owner or operator shall maintain the solar facility in good condition. Such maintenance shall include, but not be limited to, painting, structural integrity of the equipment and structures, as applicable, and maintenance of the buffer areas and landscaping. Site access shall be maintained to a level acceptable to the County. The project owner shall be responsible for the cost of maintaining the solar facility and access roads, and the cost of repairing damage to private roads occurring as a result of construction and operation. The applicant shall be required to submit an incident response plan to Page County.
- L. A utility-scale solar facility shall be designed and maintained in compliance with standards contained in applicable local, state and federal building codes and regulations that were in force at the time of the permit approval.
- M. A utility-scale solar facility shall comply with all permitting and other requirements of the Virginia Department of Environmental Quality.
- N. The applicant shall provide proof of adequate liability insurance for a solar facility prior to beginning construction and before the issuance of a zoning or building permit from Page County. The applicant shall provide proof of said liability insurance policy upon request by the County.
- O. 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. Any exceptions shall be enumerated on the Site Plan and approved by Page County.
- P. No signage of any type may be placed on the facility other than notices, warnings, and identification information required by law.
- Q. All facilities must meet or exceed the standards and regulations of the Federal Aviation Administration ("FAA"), State Corporation Commission ("SCC") or equivalent, and any other agency of the local, state or federal government with the authority to regulate such facilities that are in force at the time of the application.

- R. The estimated cost of decommissioning shall be guaranteed by the deposit of funds, in an amount equal to the estimated cost of decommissioning, in an escrow account at a federally insured financial institution approved by the County.
- (1) The applicant shall deposit the required amount into the approved escrow account before any building permit is issued to allow construction of the solar facility.
  - (2) The escrow account agreement shall prohibit the release of the escrow funds without the written consent of the County. The County shall 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.
  - (3) The amount of funds required to be deposited in the escrow account shall be the full amount of the estimated decommissioning cost without regard to the possibility of salvage value.
  - (4) A Virginia licensed Engineer shall recalculate the estimated cost of decommissioning every five years. If the recalculated estimated cost of decommissioning exceeds the original estimated cost of decommissioning by ten percent (10%), then the owner or occupant shall deposit additional funds into the escrow account to meet the new cost estimate. If the recalculated estimated cost of decommissioning is less than ninety percent (90%) of the original estimated cost of decommissioning, then the County may approve reducing the amount of the escrow account to the recalculated estimate of decommissioning cost.
  - (5) The County may approve alternative methods to secure the availability of funds to pay for the decommissioning of a utility-scale solar facility, such as a performance bond, letter of credit, or other security approved by the County. In the event a bond is approved as an alternative security, such bond shall be posted prior to the commencement of construction, and maintained thereafter, in an amount to be reassessed every five (5) years based on estimated decommissioning costs. The applicant shall provide proof of such bonding after each reassessment, and shall provide a copy thereof to the County Administrator or their designee.
- S. At such time that the project is anticipated to become abandoned, or within two (2) years of anticipated decommissioning, the owner or operator shall notify the County Administrator, or their designee.
- T. Within six months of the utility scale solar facility being declared abandoned by either the owner/operator, or Page County, the owner or operator shall complete the decommissioning of the utility scale solar facility. This time limitation may be extended at the request of the owner or operator, upon approval by the Board of Supervisors.
- U. If the owner or operator fails to either notify the County Administrator or a designee that the utility scale solar facility has been abandoned, or fails to decommission the abandoned utility scale solar facility, the County may, in addition to any other remedies available under the law, cause the utility scale solar facility to be decommissioned and recover against the funds or bond posted pursuant to §125-75(S) the costs of such decommissioning.
- V. Knox boxes and keys shall be provided at locked entrances for emergency personnel access. Warning

signage shall be placed on high voltage electrical equipment and utility-scale facility entrances.

- W. Any other condition approved by the Page County Board of Supervisors as part of the special use permit process.

**§ 125-76 Decommissioning.**

- A. Any utility-scale solar facility which has reached the end of the term of the special use permit and not been granted an extension shall be deemed abandoned.
- B. Any utility-scale solar facility which has not operated for a period of twelve (12) consecutive months after initially beginning operation shall be deemed abandoned, unless granted an extension, in writing, by the County Administrator or their designee.
- C. Any utility-scale solar facility project for which construction ceases for a period of nine (9) consecutive months prior to beginning operation, shall be deemed abandoned, unless granted an extension, in writing, by the County Administrator or their designee..
- D. The owner or operator shall notify Page County by certified mail and in person of the proposed date of discontinued operations in accordance with §125-75(T).
- E. Decommissioning shall include removal of all solar 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 or forestial uses. The site shall be graded and re-seeded to restore it to as natural a pre-development condition as possible or replanted with pine seedlings to stimulate pre-timber pre-development conditions as indicated on the Preliminary Site Plan. Any exception to site restoration, such as leaving access roads in place or seeding instead of planting seedlings must be requested by the land owner in writing, and this request must be approved by the Board of Supervisors (other conditions might be more beneficial or desirable at that time).
- F. Land disturbance activities as a result of removal of solar facilities shall adhere to all local, state, and federal requirements.
- G. Decommissioning shall be performed in compliance with the approved decommissioning plan. The Board of Supervisors may approve any appropriate amendments to or modifications of the decommissioning plan.
- H. Hazardous material, panels or pieces thereof from the property shall be disposed of through a viable recycling method and in accordance with federal and state law. No material may be disposed of, recycled, or otherwise processed in Page County without the express written consent of the County Administrator. A receipt of disposal shall be submitted to the County Administrator or their designee within sixty (60) days of such disposal.

**§ 125-77 Coordination of local emergency services.**

Applicants for new medium and utility-scale solar facilities shall coordinate with the County's emergency services staff to provide annual materials, education and/or training to the departments serving the property with emergency services in how to safely respond to on-site emergencies.



**§ 125-78 Conditions.**

- A. The Board of Supervisors shall consider conditions when addressing a proposed utility-scale solar facility, including, but not limited to, the following:
- (1) A condition(s) that requires (i) dedication of real property of substantial value or (ii) substantial cash payments for or construction of substantial public improvements, the need for which is not generated solely by the granting of a special use permit, so long as such conditions are reasonably related to the project, and authorized by the Code of Virginia.
  - (2) If the solar facility does not receive a building permit within twenty-four 24 months of approval of the Special Use Permit, the Permit shall be terminated.
  - (3) If the solar facility is declared to be unsafe by Page County, the facility must be in compliance within fourteen (14) days or the Special Use Permit shall be terminated, and system removed from the property.
  - (4) The owner and operator shall give the County written notice of any change in ownership, operator, or Power Purchase Agreement within thirty (30) days.
  - (5) Any third-party assessment shall be paid for by the applicant but the third-party assessor must be approved by Page County.
  - (6) The applicant should sponsor a neighborhood meeting prior to the scheduled public hearing with the Planning Commission to give the community an opportunity to hear from the applicant and ask questions regarding the proposed project.
  - (7) Location standards for utility-scale solar facilities. The location standards stated below for utility-scale solar facilities are intended to mitigate the adverse effects of such uses on adjoining property owners, the area, and the County. Consideration shall be given to the following:
    - (1) Limiting the maximum acreage coverage of a utility-scale solar facility.
    - (2) Limiting the percent of acreage coverage. The layout of equipment, improvements, structures, substation, and battery storage, along with the maximum calculated percent of acreage coverage shall be shown on the approved site plan.
    - (3) Proximity from a town boundary;
    - (4) Proximity of the primary or secondary service areas around a town, as delineated in the Comprehensive Plan;
    - (5) Proximity to residential districts or subdivisions.
    - (6) Proximity of another existing or permitted utility-scale solar facility.
    - (7) Proximity of electric transmission lines.
    - (8) Battery energy storage systems, if required, shall be installed with industry best practices

including a Battery Management System (BMS) with 24/7 monitoring and automated fire suppression.

- (9) Limitations on sites of soils categorized as Prime Farmland and Farmland of Statewide Importance.
- (10) To preserve forest resources, consideration shall be given to forested areas as identified and defined in the Comprehensive Plan and by a Virginia State certified forester. In order to protect scenic corridors and view sheds, consideration shall be given to federal highways US 340 and 211, US 340 Business and US 211 Business.
- (11) Proximity to historic and cultural resources as defined and listed in the Comprehensive Plan.
- (8) The Board shall determine minimum setbacks required of all panels, equipment, substations, switchyards, and other ancillary structures, any rivers, creeks, and streams, property lines of parcels with existing dwellings, and property lines of all other property without existing dwellings. These setbacks established by the Board do not apply to internal lot lines that are included in the project.

**§ 125-79 – 125-85      Reserved**