

# Sumter City-County Planning Commission

September 25, 2024

## OA-24-06, Solar Projects (County)

### I. THE REQUEST

**Applicant:** Sumter County

**Request:** Request to amend the Sumter County Zoning and Development Standards Ordinance, specifically, *Article 5, Section 5.b.3.f. Primary Photovoltaic Solar Energy Systems (NAICS 221114)* to revise setback standards and to make other minor clarifications in the established special exception review criteria.

### II. BACKGROUND

The original special exception language for Primary Photovoltaic Solar Energy Systems was developed in 2023 (OA-23-01) with final adoption on December 12, 2023. Since adoption, County Council has asked Planning Staff to revisit the Article 5 special design criteria to refine the established setback standards to account for situations not previously anticipated. The attached draft changes are the result of consultation with County Council Land Use Committee to address those issues.

### III. DRAFT ORDINANCE AMENDMENT

- See Exhibit 1 for full strike-through and additions/changes.

### IV. STAFF RECOMMENDATION

Staff recommends **approval**. The proposed changes to the existing regulations further address context sensitive incorporation of large scale solar into rural areas while ensuring optimum utilization of the site development area.

### V. PLANNING COMMISSION –SEPTEMBER 25, 2024

# **OA-24-06, Utility Scale Solar Amendments**

**Strike-Thru**

**Amend Article 5.b.3 as follows:**

**5.b.3. Special Design Review Criteria for Applicable Items in Article 5.b.2:**

- f. Primary Photovoltaic Solar Energy Systems (NAICS 221114). Applies to all Primary Photovoltaic Solar Energy Systems as defined in Article 10.b.1.

1. Project Setbacks - All ground-mounted photovoltaic solar energy system projects shall observe the following minimum setbacks:

a. From Roadways:

- i. All Public Roads with an SCDOT Functional Classification of Principal Arterial or Minor Arterial – 300 ft. from property line.
- ii. All Other Public Roads: 200 ft. from property line.
- iii. Private Roads – 50 ft. from the platted right of way line.

For private roads with an un-platted right of way, this setback shall be interpreted to require a 50 ft. setback on both sides of the established edge of the roadbed. For development on private roads with un-platted right of way – projects shall be developed to maintain private road access for all properties that are accessed via the established thoroughfare.

- b. When abutting adjacent residentially used parcels regardless of zoning district: 200 ft. from property line.

Individual residential property owners may wave the 200 ft. setback requirement to reduce the setback to 100 ft. It shall be the responsibility of the developer/applicant to acquire the necessary approvals from adjacent residential property owners. Said waiver shall be in the form of a legally binding notarized agreement. A copy of the executed agreement shall be provided with the formal application for use approval.

- c. When abutting adjacent undeveloped parcels in Residential Zoning Districts: 200 ft. from property line.

- d. When abutting adjacent non-residentially used parcels in the Agricultural, Conservation, Commercial and Industrial Zoning Districts: 100 ft. from property line

- e. When a project area is comprised of multiple abutting tax parcels, there shall be no setback required between parcels that are part of the internal leased project area.

- ~~1.f. All ground-mounted photovoltaic solar energy systems shall be setback a minimum of 300 ft. from all property lines. This~~ The above referenced setbacks shall be interpreted to apply to all improved areas associated with the project(s). This provision excludes any security fencing and permanent stormwater management facilities, however; fences and stormwater management facilities shall be located behind the buffers required in 5.b.3.c.10. the ~~The 300 ft~~ established. setback shall apply to all arrays, storage areas, ~~permanent stormwater management facilities~~, battery storage, inverters,

and transformers. The poles and aerial lines necessary to deliver electricity to the power grid may be located in the setback so long as all necessary buffering is maintained as required in section 5.b.3.c.10.

2. All access roads and storage areas shall be established on a fire code compliant 30-foot~~20 ft.~~ minimum easement to a public right-of-way.
3. All ground-mounted photovoltaic solar energy systems shall be enclosed by a perimeter security fence that is wildlife friendly and of a height that meets the National Electric Code (NEC) without the use of barbed wire. Said fencing shall be installed behind required buffers and shall not be visible from public rights of way.

In addition to the use of wildlife friendly fencing, solar developments shall be designed to provide unfenced wildlife passageways of a size, scale, and number appropriate for a given development size in order to allow large mammals such as deer, coyotes, and bears to traverse the area.

4. All ground-mounted photovoltaic solar collectors shall be limited to a maximum height of 15 feet when oriented at maximum tilt. The provision shall not include the interconnection poles, substation equipment, or other devices necessary for the electricity to be delivered to the public utility station.
5. On-site electrical interconnections and power lines shall be installed underground wherever reasonably practical.
6. The applicant has the burden of proving that glare produced from a primary photovoltaic solar energy system will not have a significant adverse impact on aviation interests, motor vehicle traffic, or neighboring properties. Submission of a glare assessment prepared by a qualified professional is required.
7. For all locations within 5 nautical miles of the center point of the runway for Shaw Airforce Base, Poinsett Electronic Combat Range (ECR) and the Sumter County Airport:
  - a. The applicant shall provide documented proof of having notified the Shaw Air Force Base/Poinsett ECR Military Base Commander, or the commander's representative and/or the Sumter County Airport Director, of a Photovoltaic Solar Energy System proposal.
  - b. The applicant shall allow 21 days for written comments to be provided from these agencies. Any written comments received shall be submitted with the Special Exception use application.

8. It shall be demonstrated that the Photovoltaic Solar Energy System will not unreasonably interfere with the view of, or from, significant sites of public interest such as public parks and historic sites and resources.
9. Written documentation of an agreement with an electric utility provider for interconnection of the completed facility shall be submitted at time of Special Exception application. In lieu of a final executed interconnection agreement, documentation from the electric utility provider that such a request is in process and under consideration may be accepted at the discretion of the Sumter City-County Zoning Board of Appeals. Once constructed, the project shall provide a copy of the signed certification of completion from the electric utility prior to issuance of the certificate of occupancy for the system.
10. **Landscape Buffering:** a minimum 50 ft. wide landscape buffer containing evergreen vegetation screening is required to obscure solar energy system from public rights of way and residential uses on adjacent parcels. Buffers shall meet the following minimum criteria:
  - a. *Existing Vegetation:* Existing mature trees and shrubs shall be retained in the required ~~300 ft.~~ setback areas. Dead trees and shrubs may be removed in the setbacks area. Said vegetation shall be supplemented to ensure an opaque year-round evergreen vegetative visual screen of at least 6 ft. in height over three growing seasons and not less than 20 ft. in height at maturity.
  - b. *Additional Plantings:* Where existing vegetation is insufficient for required screening, a planting plan shall be developed and submitted that creates a year-round evergreen vegetative visual screen of at least 6 ft. in height over three growing seasons and not less than 20 ft. in height at maturity. The planting plan shall utilize a variety of evergreen species to avoid the creation of a monoculture vegetative buffer.
  - c. *Maintenance:* All new plantings must include an irrigation system that shall be maintained until all plant materials are fully established and thriving; dead or diseased plant materials shall be replaced within 60 days of notification by the County. It shall be the developer's responsibility to ensure all buffer plants remain healthy and thriving. Failure to replace dying, diseased or plants failing to thrive constitutes a violation of the Ordinance and may result in enforcement action in accordance with Article 1 of the Ordinance.
11. For primary photovoltaic energy systems developed in the Agricultural Conservation (AC) and Conservation (CP) zoning districts – sites shall be designed and developed using native ground cover/vegetation and other best management practices as outlined in the Technical Guidance for the Development of Wildlife & Pollinator Habitat at Solar Farms (South Carolina Solar Habitat Act – March 2021) document or similar best practices document.

## 12. Decommissioning Plan:

- a. Satisfactory completion of a Decommissioning Plan, per Appendix D. The Decommissioning Plan shall be recorded at the Sumter County Register of Deeds and be included with any leasing documents/agreements with the property owner.

## 13. Decommissioning Surety:

- a. A form of surety equal to 125% of the entire cost to decommission the primary photovoltaic solar energy facility, as approved, is required. Decommissioning costs shall be estimated by an engineer licensed to practice in the State of South Carolina and approved by the Sumter County Administrator and Sumter County Attorney.

*Note: Salvage/recycling value of system elements/components may be taken into account as part of decommissioning cost estimates.*

- b. The surety is required to cover the full costs of decommissioning the primary photovoltaic solar energy facility. Decommissioning costs shall include all work as described in the recorded Decommissioning Plan.
- c. The surety shall be in the form of cash, cashier's check, certified check, certificate of deposit, negotiable U.S. Treasury securities, performance bond, irrevocable letter of credit, or other instrument readily convertible into cash at face value. If utilizing a bond to cover the required surety, the bond shall have a rating of AAA.
- d. The surety may be made directly to Sumter County or be placed in escrow within a financial institution designated as an official depository of Sumter County.
- e. Following initial submittal of the surety, the cost calculation shall be reviewed every five (5) years and adjusted accordingly based upon an updated estimate provided by an engineer licensed to practice in the State of South Carolina. Updated estimates must be reviewed and approved by the Sumter County Administrator and Sumter County Attorney. In the case of cost increase, the surety instrument used must be updated to reflect 125% of the entire cost to decommission the primary photovoltaic solar energy facility.
- f. Failure to comply with any of the requirements outlined in Article 5.b.3.c.13 shall result in the immediate termination and revocation of all prior approvals and permits; further, Sumter County shall be entitled to make immediate demand upon, and/or retain any proceeds of, the surety, which shall be used for decommissioning and/or removal of the primary photovoltaic solar energy facility, even if such facility is operational.

# **OA-24-06, Utility Scale Solar Amendments**

**Clean Copy**



**Amend Article 5.b.3 as follows:**

**5.b.3. Special Design Review Criteria for Applicable Items in Article 5.b.2:**

f. Primary Photovoltaic Solar Energy Systems (NAICS 221114). Applies to all Primary Photovoltaic Solar Energy Systems as defined in Article 10.b.1.

1. Project Setbacks - All ground-mounted photovoltaic solar energy system projects shall observe the following minimum setbacks:

a. From Roadways:

- i. All Public Roads with an SCDOT Functional Classification of Principal Arterial or Minor Arterial – 300 ft. from property line.
- ii. All Other Public Roads: 200 ft. from property line.
- iii. Private Roads – 50 ft, from the platted right of way line.

For private roads with an un-platted right of way, this setback shall be interpreted to require a 50 ft. setback on both sides of the established edge of the roadbed. For development on private roads with un-platted right of way – projects shall be developed to maintain private road access for all properties that are accessed via the established thoroughfare.

b. When abutting adjacent residentially used parcels regardless of zoning district: 200 ft. from property line.

Individual residential property owners may wave the 200 ft. setback requirement to reduce the setback to 100 ft. It shall be the responsibility of the developer/applicant to acquire the necessary approvals from adjacent residential property owners. Said waiver shall be in the form of a legally binding notarized agreement. A copy of the executed agreement shall be provided with the formal application for use approval.

c. When abutting adjacent undeveloped parcels in Residential Zoning Districts: 200 ft. from property line.

d. When abutting adjacent non-residentially used parcels in the Agricultural, Conservation, Commercial and Industrial Zoning Districts: 100 ft. from property line

e. When a project area is comprised of multiple abutting tax parcels, there shall be no setback required between parcels that are part of the internal leased project area.

f. The above referenced setbacks shall be interpreted to apply to all improved areas associated with the project(s). This provision excludes any security fencing and permanent stormwater management facilities, however; fences and stormwater management facilities shall be located behind the buffers required in 5.b.3.c.10. The established. setback shall apply to all arrays, storage areas, battery storage, inverters, and transformers. The poles and aerial lines necessary to deliver electricity to the power

grid may be located in the setback so long as all necessary buffering is maintained as required in section 5.b.3.c.10.

2. All access roads and storage areas shall be established on a fire code compliant 20 ft. minimum easement to a public right-of-way.
3. All ground-mounted photovoltaic solar energy systems shall be enclosed by a perimeter security fence that is wildlife friendly and of a height that meets the National Electric Code (NEC) without the use of barbed wire. Said fencing shall be installed behind required buffers and shall not be visible from public rights of way.

In addition to the use of wildlife friendly fencing, solar developments shall be designed to provide unfenced wildlife passageways of a size, scale, and number appropriate for a given development size in order to allow large mammals such as deer, coyotes, and bears to traverse the area.

4. All ground-mounted photovoltaic solar collectors shall be limited to a maximum height of 15 feet when oriented at maximum tilt. The provision shall not include the interconnection poles, substation equipment, or other devices necessary for the electricity to be delivered to the public utility station.
5. On-site electrical interconnections and power lines shall be installed underground wherever reasonably practical.
6. The applicant has the burden of proving that glare produced from a primary photovoltaic solar energy system will not have a significant adverse impact on aviation interests, motor vehicle traffic, or neighboring properties. Submission of a glare assessment prepared by a qualified professional is required.
7. For all locations within 5 nautical miles of the center point of the runway for Shaw Airforce Base, Poinsett Electronic Combat Range (ECR) and the Sumter County Airport:
  - a. The applicant shall provide documented proof of having notified the Shaw Air Force Base/Poinsett ECR Military Base Commander, or the commander's representative and/or the Sumter County Airport Director, of a Photovoltaic Solar Energy System proposal.
  - b. The applicant shall allow 21 days for written comments to be provided from these agencies. Any written comments received shall be submitted with the Special Exception use application.
8. It shall be demonstrated that the Photovoltaic Solar Energy System will not unreasonably interfere with the view of, or from, significant sites of public interest such as public parks and historic sites and resources.

9. Written documentation of an agreement with an electric utility provider for interconnection of the completed facility shall be submitted at time of Special Exception application. In lieu of a final executed interconnection agreement, documentation from the electric utility provider that such a request is in process and under consideration may be accepted at the discretion of the Sumter City-County Zoning Board of Appeals. Once constructed, the project shall provide a copy of the signed certification of completion from the electric utility prior to issuance of the certificate of occupancy for the system.
  
10. **Landscape Buffering:** a minimum 50 ft. wide landscape buffer containing evergreen vegetation screening is required to obscure solar energy system from public rights of way and residential uses on adjacent parcels. Buffers shall meet the following minimum criteria:
  - a. *Existing Vegetation:* Existing mature trees and shrubs shall be retained in the required setback areas. Dead trees and shrubs may be removed in the setbacks area. Said vegetation shall be supplemented to ensure an opaque year-round evergreen vegetative visual screen of at least 6 ft. in height over three growing seasons and not less than 20 ft. in height at maturity.
  - b. *Additional Plantings:* Where existing vegetation is insufficient for required screening, a planting plan shall be developed and submitted that creates a year-round evergreen vegetative visual screen of at least 6 ft. in height over three growing seasons and not less than 20 ft, in height at maturity. The planting plan shall utilize a variety of evergreen species to avoid the creation of a monoculture vegetative buffer.
  - c. *Maintenance:* All new plantings must include an irrigation system that shall be maintained until all plant materials are fully established and thriving; dead or diseased plant materials shall be replaced within 60 days of notification by the County. It shall be the developer's responsibility to ensure all buffer plants remain healthy and thriving. Failure to replace dying, diseased or plants failing to thrive constitutes a violation of the Ordinance and may result in enforcement action in accordance with Article 1 of the Ordinance.
  
11. For primary photovoltaic energy systems developed in the Agricultural Conservation (AC) and Conservation (CP) zoning districts – sites shall be designed and developed using native ground cover/vegetation and other best management practices as outlined in the Technical Guidance for the Development of Wildlife & Pollinator Habitat at Solar Farms (South Carolina Solar Habitat Act – March 2021) document or similar best practices document.
  
12. **Decommissioning Plan:**

- a. Satisfactory completion of a Decommissioning Plan, per Appendix D. The Decommissioning Plan shall be recorded at the Sumter County Register of Deeds and be included with any leasing documents/agreements with the property owner.

**13. Decommissioning Surety:**

- a. A form of surety equal to 125% of the entire cost to decommission the primary photovoltaic solar energy facility, as approved, is required. Decommissioning costs shall be estimated by an engineer licensed to practice in the State of South Carolina and approved by the Sumter County Administrator and Sumter County Attorney.

*Note: Salvage/recycling value of system elements/components may be taken into account as part of decommissioning cost estimates.*

- b. The surety is required to cover the full costs of decommissioning the primary photovoltaic solar energy facility. Decommissioning costs shall include all work as described in the recorded Decommissioning Plan.
- c. The surety shall be in the form of cash, cashier's check, certified check, certificate of deposit, negotiable U.S. Treasury securities, performance bond, irrevocable letter of credit, or other instrument readily convertible into cash at face value. If utilizing a bond to cover the required surety, the bond shall have a rating of AAA.
- d. The surety may be made directly to Sumter County or be placed in escrow within a financial institution designated as an official depository of Sumter County.
- e. Following initial submittal of the surety, the cost calculation shall be reviewed every five (5) years and adjusted accordingly based upon an updated estimate provided by an engineer licensed to practice in the State of South Carolina. Updated estimates must be reviewed and approved by the Sumter County Administrator and Sumter County Attorney. In the case of cost increase, the surety instrument used must be updated to reflect 125% of the entire cost to decommission the primary photovoltaic solar energy facility.
- f. Failure to comply with any of the requirements outlined in Article 5.b.3.c.13 shall result in the immediate termination and revocation of all prior approvals and permits; further, Sumter County shall be entitled to make immediate demand upon, and/or retain any proceeds of, the surety, which shall be used for decommissioning and/or removal of the primary photovoltaic solar energy facility, even if such facility is operational.