

Sec. 30-114. - Solar energy systems.

Applies to all primary and accessory solar energy systems as defined in section 30-311. Flexible energy techniques incorporated into building/structure(s), and/or employed onto a roof and ground-mounted structure(s) shall comply with the following designs and development standards:

- (1) Site plans shall be prepared by a licensed land surveyor, landscape architect, or engineer. Plans must be sealed (except for residential accessory uses, which are subject to zoning setbacks).
- (2) System specific power lines shall be located underground to the extent practical.
- (3) Electric solar system components shall have an Underwriters Laboratories (UL) listing.
- (4) Solar collectors shall be designed with anti-reflective coating to minimize glare. Textured glass coupled with the anti-reflective coating further minimizes solar glare. Textured glass is optional. Mirrors are prohibited.
- (5) Architectural design consideration shall be used when integrating solar panels into any exterior wall, window, or component.
- (6) A system(s) discontinued for more than 12 months is considered abandoned and shall be removed at property owner's expense.
- (7) *Solar panel installation:*
 - a. *Roof-mounted*
 1. Sealed structural details with mounting specifications and roof dead load capacity certification by a licensed engineer is required.
 2. A roof panel layout and structural connection details.
 - b. *Ground-mounted*
 1. Setbacks:
 - i. Level 1 SES- N/A
 - ii. Level II SES- five feet from property line
 - iii. Level III SES- 50 feet from the property line.
 2. *Height maximum standards:* 20 feet above the ground when oriented at maximum tilt.
 3. Panel elevation illustration indicating heights.
 4. Sealed structural details with foundation plans certified by a licensed engineer (residential installation must comply with manufacture's installation instructions).
 5. Solar layouts, larger than a quarter of an acre, shall be screened by vegetative landscaping on sides adjacent residential properties per section 30-121, Table VI.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.1. - Solar energy systems level 1 and 2 permitting process.

Applicants shall apply to the planning department and meet the following requirements:

- (1) Complete and submit a solar energy systems application.
- (2) Submit three, scaled 11-inch by 17-inch or larger, site plans by a licensed land surveyor, landscape architect, or engineer. The site plan must contain: developer and property owner's name, address, and phone number; road(s) layout; tax map number, scale, date, vicinity map, north arrow, identification of existing and proposed structures, include dimensions (i.e. equipment location, fencing), property boundaries with dimensions, and identify adjacent property owners

land uses (i.e. residential, commercial, farmland, or wooded), all public road(s), bodies of water (i.e. lakes, ponds, and streams) with minimum 40 foot buffer shown, flood hazard areas, wetlands, adjacent ditches, and easements, proposed surface covers (i.e. grass, gravel, etc.), and area and size of any land disturbance.

- (3) Submit sealed structural plans certified by a licensed engineer that shows: wiring/thermal diagram, vertical illustrations with maximum height, roof diagram for roof-mounted panels (individual residential PV Solar Systems are exempt and must be installed per manufacturer's installation instructions).
- (4) Level I SES approval is subject to:
 - a. Interconnection utility agreement (grid-tied systems).
 - b. Restrictive covenants affidavit (if applicable).
 - c. FAA letter (applicable within airport districts).
- (5) Level II SES approval is subject to:
 - a. Stormwater NPDES permit from SCDHEC or the county.
 1. Land disturbance of one-acre or more requires a SWPPP prepared by either a licensed landscape architect, engineer, or tier B land surveyor. Project may be required to comply with Article 17, Municipal Separate Storm Sewer System (MS4) Area Stormwater Management Protection Overlay District.
 - b. Interconnection utility agreement (grid-tied systems).
 - c. Fire department review and approval.
 - d. Restrictive covenants affidavit (if applicable).
 - e. Approved site plan.
 - f. FAA letter (applicable within airport districts).

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.2. - Solar farm facilities/Level III SES.

The establishment and operation of solar farm facilities shall comply with the following design and development standards:

- (1) Site plans shall be prepared by a licensed land surveyor, landscape architect, or engineer. Plans must be sealed.
- (2) All easements servicing the farm must be shown on a site plan prepared by a licensed land surveyor, landscape architect, or engineer and addressed by E-911 Addressing per Chapter 27, Article XX.
- (3) *Setbacks.* All ground-mounted solar farms must be set back at a minimum of 50 feet from the edge of all the property lines and public right-of-way, or the minimum yard setbacks as indicated for the zoning district within which the project is located, whichever is greater.
- (4) Noise levels shall not exceed 50 decibels (dba) from the property line.
- (5) *Height.* Solar structures shall not exceed 20 feet in height per Table II.
- (6) *Screening.* The perimeter adjacent to residential properties shall be screened by landscaping and/or berm. A berm is a vegetated earthen wall at least five feet in height. Screening is not required along properties adjacent to non-residential uses.
- (7) All lighting shall be shielded or directed in a downward position to prevent noxious glare. A light fixture is required at the ends of all vehicle access turnarounds.

- (8) Fencing shall be at least six feet in height to secure the perimeter. The fence must be secure at all times.
- (9) *Signage.* A warning sign concerning voltage must be placed at the main gate to include the address, and name of the solar operator and a local phone number for the solar farm operator in case of an emergency. The sign must be no smaller than two feet by three feet and legible from the road.
- (10) System specific power lines must be located underground to the extent practical.
- (11) Solar collectors shall be designed with anti-reflective coating to minimize glare. Textured glass coupled with the anti-reflective coating further minimizes solar glare. Textured glass is optional. Mirrors are prohibited.
- (12) Electric solar system components must have an Underwriters Laboratories (UL) listing.
- (13) All active solar systems shall meet all requirements of the county building codes department.
- (14) Submit and maintain an updated facility decommission plan. The latest facility decommission plan shall be recorded in the county clerk of court's office. The plan must contain:
 - a. Condition(s) for decommissioning a facility;
 - b. Timeline for restoring the property to its near original condition;
 - c. Party(ies) responsible for decommissioning the facility; and,
 - d. Agreement with landowner regarding decommissioning.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.3. - Solar farm permitting process.

Applicants shall apply to the planning department and meet the following requirements:

- (1) Complete and submit a solar farm application.
- (2) Submit three, scaled 11-inch by 17-inch or larger, site plans by a licensed land surveyor, landscape architect, or engineer. The site plan must contain: developer and property owner's name, address, and phone number; road(s) layout; tax map number, scale, date, vicinity map, north arrow, identification of existing and proposed structures, include dimensions (i.e. equipment location, fencing), property boundaries with dimensions, and identify adjacent property owners land uses (i.e. residential, commercial, farmland, or wooded), all public road(s), bodies of water (i.e. lakes, ponds, and streams) with minimum 40 foot buffer shown, flood hazard areas, wetlands, adjacent ditches, and easements, proposed surface covers (i.e. grass, gravel, etc.), and area and size of any land disturbance.
- (3) Submit sealed structural plans with foundation details certified by a licensed engineer, wiring diagram, and vertical illustration of panels with maximum height.
- (4) Approval is subject to:
 - a. Stormwater NPDES permit from SCDHEC or the county.
 1. Land disturbance of one-acre or more requires a SWPPP prepared by either a licensed landscape architect, engineer, or tier B land surveyor.
 - b. Fire department review and approval.
 - c. Utility company agreement.
 - d. Lease agreement.
 - e. South Carolina Public Service Commission Approval (Nameplate of 75 or more megawatts).

- f. FAA letter (solar farm within airport districts).
- g. E911 Addressing approval.
- h. Restrictive covenants affidavit.
- i. Approved site plan.
- j. Facility decommission plan.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.4. - Nonconformity.

Solar farms in existence prior to this article are grandfathered. Grandfathering is applicable as long as the current design and use remains unchanged. Changes, additions, and expansions shall comply with this article.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.5. - Fees.

Fees for solar energy systems are the following: Refer to section 30-296 under certificate of zoning compliance of the county planning and zoning fee schedule.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.6. - Penalties for violation.

Penalties for violation shall be noted under section 30-274.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.7. - Applicability.

- (a) This section applies to the construction of any new SES within the jurisdiction of the county.
- (b) A SES established prior to the effective date of this section shall remain exempt:
 - (1) *Exception:* Modifications to an existing SES that increases the SES area by more than five percent cumulatively, for a period of five years, of the original footprint or changes the solar panel type (e.g. photovoltaic to solar thermal) shall be subject to this section.
- (c) Maintenance and repair are not subject to this section.
- (d) This section does not supersede regulations from local, state, or federal agencies. Some important examples of such regulations include, but are not limited to:
 - (1) *Building/Electrical Permits Required.* Nothing in this section modifies already established building standards required to construct a SES.
 - (2) *Onsite Wastewater System Avoidance.* Nothing in this section modifies already established department of health and human services requirements. A SES shall not be constructed over onsite waste water systems (e.g. septic systems) unless approved by the department of health and human services.
 - (3) *Stormwater Permit Required.* Nothing in this section modifies the requirements or exempts any SES of complying with the various stormwater jurisdictions and regulations established by the

state department of health and environmental control. Florence County Code of Ordinances requires the acquisition of stormwater permits for construction projects that impact stormwater runoff.

- (4) *Historic Districts.* Nothing in this ordinance modifies already established state historic preservation office requirements.

(Ord. No. 09-2016/17, § 1, 4-20-17)

Sec. 30-114.8. - Solar energy system permitted use.

The type of permit required for an SES is displayed in Table 1: Permit Requirements.

Table 1: Solar Energy System Use Table									
Types of Permits required: P= Permitted Use; N= Not Permitted Use; (a), (b)									
Zoning District	R-1	R-2/R-3	R-4/R-5	B-1/B-2	B-3	B-4	B-5	B-6	RU-1/RU-1A/RU2
Solar Energy Systems (SES)									
Roof-mounted, parking lot cover, or building integrated (Level 1 SES)	P	P	P	P	P	P	P	P	P
Ground-mounted:									
up to 50% of the footprint of the primary structure (Level 1 SES)	P	P	P	N	P	N	P	P	P
≤ 1/2 acre (Level 2 SES)	N	N	P	N	N	N	P	P	P
≤10 acres (Level 2 SES)	N	N	N	N	P	N	P	P	P
>10 acres (Level 2 SES)	N	N	N	N	N	N	P	P	P
>15 acres (Level 3 SES)	N	N	N	N	N	N	P	P	P

Notes to Table 1

- (a) Where permitted, ground mounted SES's shall not exceed 20 feet in height. This excludes utility poles and any antennas constructed for the project.

(b) See section 30-28. Table I: Schedule of permitted and conditional uses and off-street parking requirements for residential districts and section 30-29. Table II: Schedule of permitted and conditional uses and off-street parking for business and rural districts.

(Ord. No. 09-2016/17, § 1, 4-20-17; Ord. No. 12-2018/19, § 1, 12-13-18)