

ARTICLE III. SOLAR ENERGY SYSTEMS

Sec. 46-44. Authority and short title.

This article is adopted pursuant to Chapter 153A, Article 18, as amended by Chapter 160D, North Carolina General Statutes and such other statutory authority as may be cited herein, and shall be known and may be cited and referenced as the Halifax County Solar Energy Systems Ordinance.

(Res. of 7-8-19(1))

Sec. 46-45. Purpose.

The purpose of this article is to facilitate the construction, installation, and operation of solar energy systems (SESs) in Halifax County in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands, endangered species habitats, conservation lands, and other sensitive lands. It is the intent of this article to encourage the development of SESs that reduce reliance on foreign and out-of-state energy resources, bolster local economic development and job creation, support the diversification of the state's energy portfolio, strengthen energy and grid security, reduce greenhouse gas emissions, reduce local air and water pollution, and aid North Carolina in meeting its renewable portfolio standard. This article is not intended to abridge safety, health or environmental requirements contained in other applicable codes, standards, or ordinances. The provisions of this article shall not be deemed to nullify any provisions of local, state or federal law.

(Res. of 7-8-19(1))

Sec. 46-46. Definitions.

Solar energy system (SES) means the components and subsystems required to convert solar energy into electric or thermal energy suitable for use. The area of the system includes all the land inside the perimeter of the system, which extends to any fencing. The term applies, but is not limited to, solar photovoltaic (PV) systems, solar thermal systems, and solar hot water systems. A system fits into one of three system types: level 1 SES, level 2 SES, and level 3 SES.

Level 1 solar energy system (level 1 SES) includes the following:

- (1) An SES that is roof-mounted on an otherwise code-compliant structure.
- (2) A ground-mounted SES covering an area of one acre or less, but no more than 50 percent of the footprint area of the primary structure on the parcel, if any.
- (3) An SES covering a permanent parking lot or other hardscape area.
- (4) A building integrated SES (i.e., shingle, hanging solar, canopy, etc.).

Level 2 solar energy system (level 2 SES) means a ground-mounted system not included in level 1 that meets the area restriction of the particular zoning district specified below:

- (1) R-A (residential agricultural): SES \leq 1/2 acres.
- (2) HB (highway business): SES \leq 10 acres.

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- (3) LI (light industrial): SES of any size.
 - (4) HI (heavy industrial): SES of any size.
 - (5) EHI (enhances heavy industrial): SES of any size.
 - (6) O&I (office and institutional): SES ≤ 10 acres.
 - (7) AP (airport district): SES ≤ 10 acres.

Level 3 solar energy system (level 3 SES) means any SES that does not satisfy the parameters for a level 1 or level 2 solar energy system.

(Res. of 7-8-19(1))

Sec. 46-47. Applicability.

This article applies to the construction of any new SES within the planning jurisdiction of Halifax County.

This article shall not apply to any SES that was permitted prior to the effective date hereof, provided, however, that modifications to any SES that increase the SES area by more than five percent of its original footprint, or changes to the type of solar panel used in any SES (e.g. a change from photovoltaic to solar thermal panels) shall be subject to the applicable provisions of this article.

Maintenance or repair to an SES is not subject to this article.

(Res. of 7-8-19(1))

Sec. 46-48. Compliance with other codes, rules and regulations.

This article does not supersede, supplant or preempt other applicable local, state or federal ordinances, codes, statutes, rules or regulations related to the site, design, construction and use of solar energy systems, including the issuance of all related permits. Such matters include, but are not limited to, county building codes (including applicable building, electrical and plumbing permits), avoidance of wastewater systems as required by the state department of health and human services, storm water permits as may be required by the state department of environmental and natural resources, regulations related to historic districts and sites, and FAA regulations related to SESs that are proximate to airport facilities.

In addition to compliance with this article, an SES must be constructed in accordance with established county building codes.

(Res. of 7-8-19(1))

Sec. 46-49. Zoning permits required.

The type of zoning permit required under the Halifax County Zoning Ordinance is displayed in Table 1: Permit Requirements. A separate ~~conditional~~special use permit application shall be required for each non-contiguous parcel. Compliance or proposed compliance with this article alone does not establish a prima facie case of compliance with the separate standards that must be met for a ~~conditional~~special use permit (formerly known as a "conditional use permit").

Table 1: Permit Requirements

Types of Zoning Permit Required: P = Permitted Use; D = Applicable Development Standards; <u>CUPSUP</u> = <u>Conditional Special</u> Use Permit																
Zoning District	RA	R-12	R-8	R-6	LR	GC	TC	HB	LB	NSD	LI	HI	EHI	O&I	AP	PUD
Solar Energy Facilities																
Roof-mounted, parking lot cover, or building integrated (Level 1)	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<i>Ground-mounted:</i>																
Up to 50% of the footprint of the primary structure (Level 1)	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
≤1/2 acre (Level 2)	<u>CUPSUP</u>	D	D	D	D	D	D	D	<u>CUPSUP</u>							
≤10 acres (Level 2 or 3)	<u>CUPSUP</u>	D	D	D	D	D	D	D	<u>CUPSUP</u>							
>10 acres (Level 2 or 3)	<u>CUPSUP</u>	D	D	D	D	D	<u>CUPSUP</u>	D	<u>CUPSUP</u>							

(Res. of 7-8-19(1))

Sec. 46-50. Parcel line setbacks and other structure location requirements.

- (a) The parcel line setbacks for a level 1 SES are those applicable to the zoning district where the SES is to be located. Provided, a ground-mounted level 1 SES must comply with the district front yard limitations and setbacks, or otherwise not impair sight distance for safe access to or from the property or other properties in the vicinity. Provided further, a level 1 SES is not subject to screening requirements typically applied to accessory utility systems (HVAC, dumpsters, etc.).
- (b) For level 2 and 3 SESs, all structures and security fencing shall meet the following setbacks:
- (1) ~~Any setback required in the applicable zoning district;~~ One hundred-fifty-foot setback from the front property line or road right of way and a fifty-foot setback from side and rear property lines; however, all electrical substations/components and battery backup applications shall be located at least two hundred feet from any property line, residence, church, school, businesses or other similar structures.
 - (2) ~~Seventy-five-Two hundred-~~foot setback from adjacent residences, churches, schools, businesses or other similar structures;
 - (3) Fifty-foot minimum setback from adjacent water bodies, wetlands, or any other additional setback required by the Army Corps of Engineers, the state department of environmental and natural resources or any other jurisdictional authority;
 - (4) A setback with a radius of one-quarter mile from the point where the centerline of Interstate 95 intersects with the centerline of NC Highway 903, NC Highway 561, NC Highway 481, NC Highway 125 and U.S. Highway 158.

(c) The solar array of a proposed level 2 or 3 SES facility shall not be located nearer than one mile from the solar array of another level 2 or 3 SES facility that is already under development or in operation.

(Res. of 7-8-19(1))

Sec. 46-51. Height limitations.

The height limitations of an SES will be measured from the highest natural grade below each solar panel. For a level 1 SES the maximum height allowed shall be that allowed in the applicable zoning district. For a level 2 or 3 SES the height limitation shall be 25 feet.

(Res. of 7-8-19(1))

Sec. 46-52. Other level 1 solar energy system requirements.

A level 1 SES is a permitted use in all zoning districts provided it meets the applicable height, setback and related district standards.

(Res. of 7-8-19(1))

Sec. 46-53. Other level 2 and 3 solar energy system requirements.

For a level 2 or 3 SES, the following requirements are in addition to the applicable setback, height and zoning district standards:

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- (a) All exterior sides of the security fence shall be screened with a landscape buffer that meets one of the following criteria:
- (1) Existing on-site mature vegetation at a minimum height of ten feet and depth of 50 feet remains between the security fence and adjacent property including rights-of-way; or
 - ~~(2) A single row of evergreens in combination with mature vegetation, installed at a height of five feet achieving opaqueness and a minimum height of ten feet in five years; or~~
 - ~~(23)~~ A double row of off-set evergreens absent existing mature vegetation, installed at a height of five feet achieving opaqueness and a minimum height of ten feet in five years; or
 - ~~(34)~~ A berm combined with evergreen vegetation installed at a height of five feet achieving opaqueness and a minimum height of ten feet in five years.
- (b) Level 2 and 3 SESs shall be developed in accordance with an approved site plan that includes the following information:
- (1) The location of the solar farm facility (including the arrangement of any existing or proposed buildings, structures, or panels);
 - (2) The distance from any proposed solar farm facility or structure to the surrounding property lines;
 - (3) Any existing or proposed signs, fencing, lighting, construction and permanent parking areas, driveways, landscaping, vegetative screening or required buffers. All parking must be located outside of the state highway right-of-way;
 - (4) Horizontal and vertical (elevation) to-scale drawings with dimensions of proposed solar collector structures.
- (c) Solar energy components must have a UL listing and must be designed with anti-reflective coating(s).
- (d) Landscape buffers, ground cover, security fences, gates, and signage must be maintained in good condition until the solar farm is dismantled and removed from the site. Grass, weeds, and other ground cover must not exceed 12 inches in height at any time.
- (e) *Decommissioning.*
- (1) A decommissioning plan shall be required as part of the ~~conditional~~special use permit application. The decommissioning plan shall be prepared by a third party engineer not associated with the engineer or engineering firm that prepared or sealed the site plan. It must be signed by the party responsible for decommissioning and all landowners of property included in the SES. The party responsible for decommissioning shall be either the SES owner or the landowner(s). The following items are required to be addressed or included in the decommissioning plan:
 - a. A description of any agreement (e.g. lease) with all landowners regarding decommissioning;
 - b. The identification of the landowner(s), the SES owner, and the party responsible for decommissioning;
 - c. The type of solar panels and other SES components that will be installed on the site;
 - d. The estimated cost, calculated by the third party engineer, for the removal of the SES components, including solar panels, buildings, cabling, electrical components, roads, fencing, and all other associated facilities, including those below grade. The cost of grading and re-seeding of disturbed earth following removal of the SES components shall be included in the estimated decommissioning cost. The estimated market value of scrap or recyclable materials ~~shall not~~may be considered in calculating the decommissioning cost.

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- (2) Prior to the issuance of the zoning permit, the decommissioning plan shall be recorded by the applicant in the county register of deeds office.
 - (3) Prior to the commencement of construction, the party responsible for decommissioning shall provide performance security in the form of a bond, cash escrow, or irrevocable letter of credit in favor of the county in an amount equal to one and a quarter times the professionally estimated decommissioning cost. Such performance security, whether bond or letter of credit, shall be issued on terms and conditions equivalent to those required for performance bonds under G.S. Ch. 44A, Art. 3. No bond will be approved without written evidence of authorization from the North Carolina Commissioner of Insurance for the surety to issue performance bonds in this state. Should the responsible party elect to use an irrevocable letter of credit, it shall be issued by a federally chartered bank with a branch office in northeastern North Carolina in favor of Halifax County. The form of the bond or letter of credit shall be subject to ~~the~~ prior approval in the sole discretion of the planning director. The surety or institution issuing the performance security shall provide the county at least 90 days advance notice of any renewal, cancellation, termination, or expiration of the performance security. The performance security shall remain in full force and effect until the SES site is restored to a condition comparable to that which existed prior to the issuance of the ~~conditional~~ special use permit. Failure of the responsible party to maintain the performance security in continuous full force and effect shall constitute grounds for revocation of the ~~conditional~~ special use permit or zoning permit.
 - (4) The decommissioning plan and estimated cost of removal shall be updated every five years or upon change of land ownership or SES ownership. All updates to the plan shall be recorded in the county register of deeds office. The performance security shall be adjusted accordingly within 30 days from the date of recording of the updated decommissioning plan.
 - (5) The responsible party shall have 12 months to complete decommissioning of the facility if no energy is generated for a continuous period of 12 months. For purposes of this section, this 12-month period shall not include delay resulting from force majeure.
 - (6) The decommissioning performance security shall be drawn in an amount equal to the last estimated removal costs of the SES in the event the responsible party fails to decommission the SES pursuant to the requirements of this article.
 - (7) Notwithstanding the terms and conditions of any agreement between the landowner, the SES owner or any third party designated as the party responsible for decommissioning, the landowner shall be ultimately responsible for proper decommissioning if the responsible party fails to decommission the SES in accordance with this article.
 - (8) SES components will not be received or handled at any solid waste disposal or recycling facility owned, operated or under contract with Halifax County.
- (f) *Abandonment.* A level 2 or 3 SES that ceases to produce energy on a continuous basis for 12 months will be considered abandoned unless the SES owner provides substantial evidence (updated every six months after 12 months of no energy production) to the planning director of the intent to maintain and reinstate the operation of that facility. Upon a determination of abandonment, the planning director shall notify the responsible party (or parties) that they must remove the SES and decommission the site in accordance with this article. If the responsible party (or parties) fails to comply, the planning director may remove the SES, sell any removed materials, make demand on the performance security, initiate judicial proceedings or take any other enforcement action available against the responsible party or the landowner to recover the cost of proper decommissioning of the site. Pursuant to G.S. 153A-121(a) an abandoned level 2 or 3 SES, regardless of its physical condition, is hereby declared to be a public nuisance subject to abatement by any lawful means.

(g) The responsible party (or parties) shall provide written notice to the Planning Director regarding any change in the name, corporate identity, address or other contact information for the owner and/or operator of a level 2 or 3 SES. Such notice shall be given within 60 days of any such change. Failure to abide by this requirement shall constitute grounds for revocation of the special use permit or zoning permit issued for the SES.

(Res. of 7-8-19(1))

Sec. 46-54. Administration; rules, procedures, forms.

The planning director, with the concurrence of the county manager, is authorized to promulgate rules, procedures and forms for the efficient implementation, administration and enforcement of this article, provided such rules, procedures and forms are consistent with the substantive provisions of this article. All rules, procedures and forms shall be maintained in written form, readily available to the public. Failure to comply with the rules, procedures and forms promulgated under this authority shall be grounds for denial or revocation of any zoning or other land use permit issued in connection with a solar energy system.

(Res. of 7-8-19(1))