

ARTICLE 13 – SOLAR FARMS

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13.1. PURPOSE

The purpose of this section is to facilitate the construction, installation, and operation of Solar Farms (also known as Solar Energy Systems (SESs)) in Scotland County. The provisions of this section shall not be deemed to nullify any provisions of local, state or federal law.

13.2. APPLICABILITY

This Article applies to the construction of any new SES within the jurisdiction of Scotland County.

13.3. DEFINITION

A solar collection system that generates electricity from sunlight to a wholesale electricity market through a regional transmission organization and an inter-connection with the local utility power grid and/or for direct distribution to a number of properties and consumers. Solar shall consist of a minimum of three (3) individual photovoltaic modules (solar panels), which are an assembly of solar cells to generate electricity.

13.4. DEVELOPMENT REQUIREMENTS FOR SOLAR FARMS AS A SPECIAL USE IN THE R-A, I-1 AND I-2 DISTRICTS

- a) Solar farms and their appurtenant components shall conform to the principal building setbacks of the underlying zoning district which they are located.
- b) Individual modules/panels shall be a maximum of 25 feet in height as measured from the

grade at the base of the structure to the apex of the structure.

- c) A site plan, drawn and stamped by a North Carolina licensed surveyor or engineer, shall be submitted showing the following:
 - (1) The location and dimensions of all proposed areas for the placement of solar panels, screening/fencing and related improvements;
 - (2) Any pre-existing structures on the same lot, and principal structures on other properties that would affect the placement of solar panels;
 - (3) Parking and access areas;
 - (4) Location of any proposed solar access easements;
 - (5) Any proposed new structures.
- d) Solar farms shall be fully screened from adjoining properties and adjacent roads by an evergreen buffer capable of reaching a height of 10 feet within 3 years of planting.
- e) Solar panels shall be mounted onto a pole, rack, or suitable foundation in accordance with manufacturer's specifications, in order to ensure the safe operation and stability of the system.
- f) Multiple mounting structures shall be spaced apart at the distance recommended by the manufacturer to ensure safety and maximum efficiency.
- g) It is the responsibility of the owner to remove all obsolete or unused systems within 12 months of cessation of operation.
- h) The farm and components shall meet all requirements of the North Carolina State Building Code.
- i) The solar array shall be fenced in and access controlled. The site must be accessible 24/7 for emergency service.

13.5. MODIFICATION TO EXISTING SOLAR FARMS

Modifications to an existing SES that increases the SES area by more than 5% of the original footprint or changes the solar panel type (e.g., photovoltaic to solar thermal) shall be subjected to this section.

13.6. AVIATION NOTIFICATION

- a) A map analysis showing a radius of five (5) nautical miles from the center of the SES with any airport operations within this area highlighted shall be submitted with permit application.
 - 1) For consideration of potential impacts to low altitude military flight paths, notification of

intent to construct the SES shall be sent to the NC Commanders Council at least 45 days prior to permit application submission. Proof of delivery of notification and date of delivery shall

be submitted with permit application. **Mail to: Commanding General MCIEAST; Attn: Mr. Bill Meier (NC Commanders Council) or successor; Marine Corps Installations East G-7 (MCIEAST); PSC Box 20005; Camp Lejeune, NC 28542. Email: Subject: NC Commanders' Council Notification of Solar Development Project in "County or County Name" Address: Meier CIV William A [William.meier@mcw.usmc.mil], Ayers CIV Bryan C [bryan.ayers@usmc.mil].** Notification shall include:

- i. Location of SES (i.e., map, coordinates, address, or parcel ID).
- ii. Solar technology (i.e., polycrystalline PV, monocrystalline PV, Cadmium Telluride PV, evacuated tube solar thermal, flat plate solar thermal, etc.).
- iii. Approximate number of solar modules/panels.
- iv. System mounting (i.e., fixed-tilt on flat roof, fixed-tilt ground-mount, 1-axis tracking ground-mount, etc.).
- v. The maximum height of the array from the ground or roof surface.
- vi. The maximum height of any new utility poles.
- vii. Power capacity of the system, in both DC and AC Watts where applicable.
- viii. Acreage of array and acreage of total project.
- ix. How will the project connect? (i.e., net meter, to existing distribution line, to new distribution line, to transmission line).
- x. Will a substation be constructed? If so, provide location and size.
- xi. Is the site within five nautical miles of aviation operations? If so, provide the required SGHAT analysis results.

(1) The latest version of the Solar Glare Hazard Analysis Tool (SGHAT) shall be used to evaluate the solar glare aviation hazard. The full report for each flight path and observation point, as well as the contact information for the Zoning Administrator, shall be sent to the authority indicated below at least forty-five (45) days prior to permit application submission. Proof of delivery of notification and date of delivery shall be submitted with permit application.

(2) Airport operations at airports in the National Plan of Integrated Airport Systems (NPIAS)² within 5 nautical miles of the center of SES: provide required information to the Federal Aviation Administration's (FAA) Airport District Office (ADO) with oversight of North Carolina.

- (3) Airport operations at airport not in the NPIAS, including military airports, within 5 nautical miles of the center of SES: provide required information to the NC

Commanders Council for military airports and to the management of the airport for non-military airports. Send to: www.faa.gov/airports/planningcapacity/npias-reports/. (As of October 2016, this is the Memphis ADO, but this is subject to change)

- (4) Any applicable SES design changes (e.g. module tilt, module reflectivity, etc.) after initial submittal shall be rerun in the SGHAT tool and the new full report shall be sent without undue delay to the contacts specified in f(1) and (f)(2) for accurate records of the as-built system.

13.7. DECOMMISSIONING

A Decommissioning Plan signed by the party responsible for decommissioning and the landowner (if different) addressing the following shall be submitted with permit application. The Decommissioning Plan shall follow the provision as outlined in North Carolina Session Law 2019-132 and a bond shall be required. The required bond amount is established by the County but in no case shall be less than \$10,000 per acre.