

ARTICLE VII. SOLAR ENERGY FACILITIES

Sec. 18-191. Title.

This article may be known and may be cited as "Ordinance Regulating the Operation and Maintenance of Solar Energy Facilities in Wayne County, NC."

Sec. 18-192. Purposes and objectives.

The purposes and objectives for which this article is passed are as follows:

- (1) To preserve the dignity and aesthetic quality of the environment in Wayne County.
- (2) To preserve the physical integrity of land in close proximity to residential areas.
- (3) To protect and enhance the economic viability and interests of the citizens and residents of Wayne County who have made substantial financial investments in homes, businesses, and industry in Wayne County.
- (4) To facilitate the construction, installation, and operation of solar energy facilities (SEF) in the county in a manner that minimizes the adverse impacts to forestry, agricultural, commercial and residential lands. 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.
- (5) To minimize impacts to Seymour Johnson Air Force Base and other airport operations including the reduction of bird and wildlife impacts to aircraft operations.
- (6) To protect the health, safety and welfare of the general public.

Sec. 18-193. Definitions.

For the purpose of this article, certain terms and words are hereby defined; words used in the present tense shall include the future; words used in the singular number shall include the plural number; and the plural the singular; and the word "shall" is mandatory and not discretionary.

Abandonment means to give up, discontinue, withdraw from. Any solar energy facility that ceases to produce energy on a continuous basis for 12 months will be considered abandoned.

Building means any structure having a roof supported by columns or walls, and designated or intended for the shelter, support, enclosure or protection of persons, animals or chattels.

Decommissioning plan means a document that details the planned shut down or removal of a solar energy facility from operation or usage.

Fence means a continuous barrier extending from the surface of the ground to a uniform height of not less than six feet from the ground at any given point, constructed of dirt, wood, stone, steel, or other metal, or any substance of a similar nature and strength.

Gate means a door or other device attached to a fence which, when opened, provides a means of ingress and egress of persons and things for which it was intended, and which, when closed, forms a continuous barrier as a part of the fence to which it is attached.

Improved area means an area containing solar panels, electrical inverters, storage buildings and access roads.

Opaque fence means a continuous opaque, unperforated barrier extending from the surface of the ground to a uniform height of not less than six feet from the ground at any given point, constructed of dirt, wood, stone, steel, or other metal, or any substance of a similar nature and strength which will hide the solar energy facility.

Public road means any road or highway which is now or hereafter designated and maintained by the North Carolina Department of Transportation as part of the State Highway System, whether primary or secondary, hard-surfaced or other dependable roads which provide access to residential areas. Setbacks for improved areas shall be measured from the road right-of-way.

Residence means a building used as a dwelling for one or more families or persons.

Residential area means any area within one-quarter mile of a solar energy facility having 20 or more lots within a recorded subdivision.

Solar energy facility [SEF] means an energy facility, an area of land, or a structural rooftop principally used to convert solar energy to electricity, which includes, but is not limited to, the use of one or more solar energy systems. This definition shall only include stand-alone facilities that sell electricity to be used off site.

Sec. 18-194. Prohibitions.

It shall be unlawful after the effective date of this article for any person, firm, or corporation, or other legal entity to operate, maintain or establish in any unincorporated area of Wayne County a solar energy facility which the site plan has not been approved by the Wayne County Planning Board. Modifications to an existing solar energy facility that increases the area by more than 20 percent of the original footprint or changes the solar panel type shall be subject to this article.

Sec. 18-195. Location.

- (a) All solar energy facilities must comply with the requirements established in the Wayne County Zoning Ordinance.
- (b) All solar energy facilities shall be considered a special use in all areas of the county covered by the Seymour Johnson AFB Airspace Control Surfaces as defined in the 2011 Air Installation Compatible Use Zone (AICUZ) report or subsequent AICUZ reports as well as within the airport overlay districts as depicted on the latest version of the Wayne County Zoning Map. Approval as a special use must be from the Wayne County Board of Adjustment.
- (c) All improved areas, including disposal areas, shall be at least 200 feet from a public road and 25 feet from a fence line. In the event that an opaque fence is installed and maintained, the setback may be reduced to 100 feet.
- (d) Improved areas shall be at least 250 feet from any residence or church, measured from the principal building in a non-residential area. Improved areas shall be 500 feet from a residence or church, measured from the property line in a residential area.
- (e) All access roads and storage areas shall be established on a 30 feet minimum easement to a public right-of-way.
- (f) All solar energy facilities located in a residential area shall have a minimum landscape buffer of 25 50 feet. The buffer shall contain evergreen trees or bushes planted no more than eight feet apart and at least four feet tall at time of planting. The buffer shall obtain a height of ten feet within three growing seasons. The trees or bushes may be trimmed but no lower than a height of ten feet. A buffer area will not be required between a solar energy facility and an industrial or, timber use. A planted buffer will not be required if an opaque and maintained fence is installed.

- (g) Solar energy facilities shall not be located on land comprising of Class I, Class II, or Class III Soil Capability for row crop suitability as identified by the latest version of the US Department of Agriculture Soil Survey of Wayne County.
- (h) Solar energy facilities shall only be located on land comprising of soil identified as severe for septic tank fields as identified by the latest version of the US Department of Agriculture Soil Survey of Wayne County.

Sec. 18-196. Security.

- (a) Solar energy facilities shall be fenced completely as defined in section 18-193 above. The perimeter fence shall be designed to restrict unauthorized access. If a wire fence is used, vegetation above must be planted along the sides and adjoining a public road.
- (b) Each owner, operator or maintainer of a solar energy facility to which this article applies, and who chooses to use vegetation as defined in section 18-193 above with wire fence, shall utilize good husbandry techniques with respect to said vegetation, including but not limited to, proper pruning, proper fertilizer, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted at the next appropriate planting time. Plants or grasses not part of landscaping shall be maintained by the facility operator not to exceed 12 inches in height.

Sec. 18-197. Supplemental regulations.

- (a) The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner.
- (b) On site power lines between solar panels and inverters shall be placed underground.
- (c) The design of solar energy facilities buffers shall use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment and shall be adequately maintained.
- (d) If the solar energy facility consists of batteries or storage of batteries, adequate design must be provided to ensure all manufacturer, local, state and federal requirements regulating outdoor battery storage have been met. Battery storage areas or compartments must be designed so as not to allow fluid to leach into the ground in the event of battery leakage.
- (e) The applicant must obtain from NC Department of Transportation a driveway permit.
- (f) The design and construction of solar energy facilities shall not produce light emissions, either direct or indirect (reflective), that would interfere with pilot vision and/or traffic control operations as stated in section 3.2.2 of the 2011 AICUZ report or subsequent AICUZ reports.
- (g) The design and construction of solar energy facilities shall not produce electrical emissions that would interfere with aircraft communications systems or navigation equipment as stated in section 3.2.2 of the 2011 AICUZ report or subsequent AICUZ reports.
- (h) A copy of the application to the utility company that will be purchasing electricity from the proposed site shall be provided to the county.
- (i) An affidavit or evidence of an agreement between the lot owner and the facility's owner or operator confirming the owner or operator has permission of the property owner to apply for the necessary permits for construction and operation of the solar energy facility.

- (j) Any other relevant studies, reports, certificates and approval as may be reasonably required by Wayne County.
- (k) A description of the proposed technology to include type of solar panel and system, fixed mounted versus solar tracking, number of panels, and angles of orientation.
- (l) An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.
- (m) The design and construction of the solar energy facility shall not produce bird and wildlife impacts that would interfere with aircraft operations.
- (n) No solar panels shall be located within a regulated floodplain, floodway or 500 year flood zone based on the latest FEMA flood maps adopted by Wayne County.
- (s) Soil evaluations must be provided by the applicant certifying that the soils are not suitable for septic or field crop production as required in Section 18-195(g) and (h).

Sec. 18-198. Site plan required.

- (a) Owners or operators of solar energy facilities established after the effective date of the ordinance from which this article derives shall present three copies of a site plan which conform to the standards of this article to the county planning board. The site plan shall include setbacks, panel sizes, and location of property lines, buildings and road rights-of-way.
- (b) The planning board shall review the site plan to insure conformity with the requirements of this article. No new solar energy facility shall be operated until the site plan has been approved by the county planning board; provided, however, that if the planning board has not taken action within 180 days after the first planning board meeting after the submission of the site plan, said site plan will be deemed to be approved.
- (c) Prior to final inspection proof that a permit issued by the state in accordance with applicable provisions of the general statutes has been issued.
- (e) Appeals of a planning board decision shall be to the county board of commissioners.
- (f) After initial departmental review, 15 copies of the site plan in 18-inch by 24-inch format must be provided for the planning board meeting.

Sec. 18-199. Abandonment and decommissioning plan.

- (a) *Abandonment.* A SEF that ceases to produce energy on a continuous basis for 12 months will be considered abandoned unless the current responsible party (or parties) with ownership interest in the SEF provides substantial evidence (updated every six months after 12 months of no energy production) to the planning director or his designee of the intent to maintain and reinstate the operation of that facility. It is the responsibility of the responsible party (or parties) to remove all equipment and facilities and restore the parcel to its condition prior to development of the SEF.
 - (1) Upon determination of abandonment, the zoning administrator shall notify the party (or parties) responsible they must remove the SEF and restore the site to its condition prior to development of the SEF within 360 days of notice by the planning director or his designee.
 - (2) If the responsible party (or parties) fails to comply, the planning director or his designee may remove the SEF, sell any removed materials, and initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the SEF and restore the site to a non-hazardous pre-development condition.
- (b) *Decommissioning.*

- (1) A decommissioning plan signed by the party responsible for decommissioning and the landowner (if different) addressing the following shall be submitted prior to the issuance of the development permit.
 - a. Defined conditions upon which decommissioning will be initiated (i.e. end of land lease, no power production for 12 months, abandonment etc.)
 - b. Removal of all non-utility owned equipment, conduit, structures, fencing, roads, solar panels and foundations.
 - c. Restoration of property to condition prior to development of the SEF.
 - d. The timeframe for completion of decommissioning activities.
 - e. Description of any agreement (e.g. lease) with landowner regarding decommissioning.
 - f. The party currently responsible for decommissioning.
 - g. Provide proof of bonding for the decommissioning.

Sec. 18-200. Aviation notification.

- (a) For consideration of potential impacts to Seymour Johnson AFB flying operations, notification of intent to construct an SEF shall be sent to the Seymour Johnson Base Commander or designated official 30 days before the regularly scheduled planning board meeting. Notification shall include location of SEF (i.e. map, coordinates, address, or parcel ID), technology (i.e. roof-mounted PV, ground-mounted fixed PV, tracked PV, solar thermal, etc.), and the area of system (e.g. five acres). Proof of delivery of notification and date of delivery shall be submitted with permit application.
- (b) For consideration of potential impacts to civilian flight paths for airport operations located within five nautical miles from an airport listed in the National Plan of Integrated Airport Systems, notification of intent to construct an SEF shall be sent to the airport manager or designated official and the Federal Aviation Administration's (FAA) Airport District Office (ADO) with oversight of North Carolina. Notification shall include location of SEF (i.e. map, coordinates, address, or parcel ID), technology (i.e. roof-mounted PV, ground-mounted fixed PV, tracked PV, solar thermal, etc.), and the area of system (e.g. five acres). Proof of delivery of notification and date of delivery shall be submitted with permit application. The airport must be given 30 days for review.
- (c) For consideration of potential impacts to civilian flight paths for airport operations located within five nautical miles from an airport not listed in the National Plan of Integrated Airport Systems, except military airports, notification of intent to construct an SEF shall be sent to the airport manager or designated official. Notification shall include location of SEF (i.e. map, coordinates, address, or parcel ID), technology (i.e. roof-mounted PV, ground-mounted fixed PV, tracked PV, solar thermal, etc.), and the area of system (e.g. five acres). Proof of delivery of notification and date of delivery shall be submitted with permit application. The airport must be given 30 days for review.
- (d) After receiving notification of intent to construct an SEF as described in subsections (b) and (c) of this section; if requested, the proponent of the SEF shall use the latest version of the Solar Glare Hazard Analysis Tool (SGHAT), per its user's manual to evaluate the solar glare aviation hazard, as indicated in subsections (d)(1) and (2) of this section. 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 30 days prior to site plan approval. Proof of delivery of notification and date of delivery shall be submitted with permit application.
 - (1) Airport operations at an airport in the National Plan of Integrated Airport Systems (NPIAS) within five nautical miles of the center of a proposed SEF: provide required SGHAT analysis information to the airport manager or designated official and the Federal Aviation Administration's (FAA) Airport District office (ADO) with oversight of North Carolina.

- (2) Airport operations at airport not in the NPIAS, except military airports, as defined in subsection (c) of this section, within five nautical miles of the center of proposed SEF: provide required SGHAT analysis information to the management of the airport for non-military airports.
- (e) Proposed SEFs within the Seymour Johnson AFB Airspace Control Surfaces Area as defined in the 2011 Air Installation Compatible Use Zones (AICUZ) or subsequent AICUZ reports will be evaluated for potential impacts to Seymour Johnson AFB flying operations as described below.
 - (1) After receiving notification of intent to construct as SEF as described in subsection (d) of this section (to include all SGHAT PV parameters), the Seymour Johnson Base Commander or designated official will notify the designated Wayne County official if the SGHAT needs to be utilized by the SEF proponent or not.
 - (2) If the SGHAT does not need to be utilized, the Seymour Johnson Base Commander or designated official will respond to the designated Wayne County official.
 - (3) If the SGHAT does need to be utilized, the SEF proponent shall contact the Seymour Johnson Base Commander or designated official to receive the military data needed for the SGHAT (e.g., locations, increments, and elevations of observation points, as well as air traffic control tower information). The SGHAT shall be used per its user manual and reports must be run over the entire calendar year (each time zone). Upon receiving the SGHAT reports, the Seymour Johnson Base Commander or designated official will respond to the designated Wayne County official.
- (f) Any applicable SEF 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 contact specified in subsections (d)(1), (2), and (e) above for accurate records of the as-built system.

Sec. 18-201. Penalties for violation.

A violation of any provision of this article shall subject the violator to a civil penalty in the amount of \$100.00 to be recovered by Wayne County. Each day such violation continues shall be considered a separate and distinct violation.

In addition to the above civil penalties, the county may obtain enforcement from a court of competent jurisdiction through equitable remedies such as, prohibitory injunctions, affirmative injunctions, mandamus, or an order of abatement as provided by North Carolina General Statute § 153A-123.

Nothing herein contained shall prevent Wayne County from taking such other lawful action as is necessary to prevent or remedy any violation.

Sec. 18-202. Enforcement.

- (a) The enforcement officer shall be the Wayne County Planning Director or designee. The enforcement officer shall review site plans submitted under section 18-197 and make appropriate recommendations to the planning board. The enforcement officer shall also visit the facilities at least once per year and if the facility does not conform to said article shall discuss with the owner and/or operator the steps needed to bring the facility into compliance. If these steps are not taken, the enforcement officer shall notify the owner in writing of the steps that must be taken to bring the facility into compliance. If the owner or operator still fails to bring the facility into compliance with this article, the enforcement officer may revoke the permit, after consultation with the county manager, and may institute the necessary steps to enforce this article in accordance with the provisions of subsection (b) of this section. The enforcement officer shall also assist owners or operators of any solar energy facility in making plans to comply with this article.
- (b) This article may be enforced by an appropriate equitable remedy issuing from a court of competent jurisdiction. It may be enforced by injunction and order of abatement. The county may apply for a mandatory or prohibitory injunction and order of abatement commanding the violator to correct any unlawful condition

upon or cease the unlawful use of property. The county may request an order of abatement as part of a judgment in the cause any may request the court to close, demolish or remove buildings or other structures or take any other action that is necessary to bring the solar energy facility into compliance with this article.

- (c) This article may be enforced by any one or more of the remedies authorized herein.

ADOPTED November 5, 2014

AMENDED January 19, 2016

AMENDED March 5, 2024