

1. Approved Solar Components – Electric solar energy system components must have a UL listing and must be designed with anti-reflective coating(s).
2. Compliance with Building and Electrical Code – All solar farms shall meet all requirements of the International Building Code with North Carolina Amendments.

8.109 Wind Energy Facilities (Small, Medium, Large)

A. Zoning Districts

Small:	A-1
Medium:	A-1
Large:	A-1

B. Preamble

Wind Energy Facilities may be permitted in districts as designated in the Table of Permitted Uses, found at Article 5, Table 5-1, subject to the following requirements:

1. A Permit Application for a Wind Energy Facility shall contain the following:
 - (a) A narrative describing the proposed Wind Energy Facility, including an overview of the project;
 - (b) The proposed total rated capacity of the Wind Energy Facility;
 - (c) The proposed number, representative types and height or range of heights of Wind Turbines to be constructed, including their rated capacity, dimensions and respective manufacturers, and a description of ancillary facilities;
 - (d) Identification and location of the property or properties on which the proposed Wind Energy Facility will be located;
 - (e) A site plan showing the planned location of all Wind Turbines, property lines, setback lines, access roads, substation(s), electrical cabling from the Wind Energy Facility to the substation(s), ancillary equipment, building(s), transmission and distribution lines. The site plan must also include the location of all Occupied Buildings, Residences, and other features sufficient to demonstrate compliance with the setbacks required by this Article;
 - (f) Any Environmental Assessment required by state or Federal law;
 - (g) Decommissioning plans that describe the anticipated life of the Wind Energy Facility, the estimated decommissioning costs in current dollars, the salvage value of the equipment, and the anticipated manner in which the Wind Energy Facility will be decommissioned and the site restored;

- (h) Documentation of agreement between Participating Landowner(s) and the Applicant, Facility Owner, or Operator; and Signature of the Applicant.
 - (i) The applicant shall establish an escrow account in the name of Chowan County in the amount of \$50,000 to be used by the County for all County expenses related to the project.
2. Throughout the permit process, the Applicant shall promptly notify Chowan County of any proposed changes to the information contained in the permit application that would materially alter the impact of the project.
 3. Changes to the approved application that do not materially alter the initial site plan may be administratively approved by the Zoning Administrator. Major modifications to the approved Conditional Use Permit will require a new Application and approval by the Planning Board and Board of County Commissioners in the same manner as the original Conditional Use Permit. Major Modification is defined as an expansion of the project boundary or an increase in the number of turbines. A decrease in the number of turbines or the relocation of any turbine on the site plan within the project boundary is not a Major Modification so long as the turbine locations conform to development standards of the ordinance.
 4. **Wind Turbine Height and Setback Multipliers and Minimum Lot Sizes:**
The Setbacks shall be calculated by multiplying the required setback number by the Wind Turbine Height and measured from the center of the Wind Turbine base to the property line or the nearest point on a public road right-of-way or the nearest point on the foundation of a Residence or an Occupied Building. For a Wind Energy Facility, Large, the minimum lot size is the minimum combined acreage of lots that are under lease or agreement with the Applicant or Wind Energy Facility Owner pertaining to the Wind Energy Facility.

Lot Size, Setback and Height Requirements

Facility Type	Minimum Lot Size	Minimum Setback Requirements				Maximum Height
		Occupied Buildings	Residences	Property Line (Non-Participating Property)	Public Roads	
Small Facility	43,000 Sq. Ft.	1.5	1.5	1.1	1.5	120 feet
Medium Facility	250 Acres	2.0	2.0	1.5	1.5	250 feet

Large Facility	500 Acres	2.5	2.5	1.5	1.5	600 feet
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Setback requirements may be waived by a property owner so long as such waiver is in writing and signed by the property owner and recorded in the Chowan County Register of Deeds Office.

5. Sound and Shadow Flicker

This Section shall only apply to Large Wind Energy Facilities. Sound and Shadow Flicker issues for Small and Medium Wind Energy Facilities are addressed by setbacks.

- (a) Audible sound from a Large Wind Energy Facility shall not exceed fifty-five (55) dBA, as measured at any Occupied Building or Residence on the property of a Non-Participating Landowner.
- (b) Shadow Flicker on any Occupied Building or Residence on a nonparticipating landowner's property caused by a Large Wind Energy Facility must not exceed thirty (30) hours per year.
- (c) Sound and/or Shadow Flicker provisions may be waived by a property owner so long as such waiver is in writing, signed by the property owner and recorded in the Chowan County Register of Deeds Office.

6. Installation and Design

- (a) The installation and design of the Wind Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute, and take into consideration local conditions.
- (b) All structural, electrical and mechanical components of the Wind Energy Facility shall conform to relevant and applicable local, state and national codes.
- (c) The visual appearance of a Wind Turbine shall at a minimum:
 - i. Be a non-obtrusive color such as white, off-white or gray;
 - ii. Not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety; and
 - iii. Not display advertising (including flags, streamers or decorative items), except for identification of the Wind Turbine manufacturer, Facility Owner and Operator.

7. Decommissioning

- (a) The Wind Energy Facility Owner shall have twelve (12) months to

complete decommissioning of the Wind Energy Facility if no electricity is generated for a continuous period of twelve (12) months. For purposes of this Section, this twelve (12) month period shall not include delay resulting from Force Majeure.

- (b) Decommissioning shall include removal of Wind Turbines, buildings, cabling, electrical components, roads, and any other associated facilities down to thirty-six (36) inches below grade.
- (c) Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
- (d) Prior to the issuance of a building permit, the owner of a Medium or Large Wind Energy Facility shall provide a cash bond in favor of the County in an amount equal to the estimated removal cost of the Wind Energy Facility. The bond shall remain in full force and effect until any necessary site restoration is completed to restore the site to a condition comparable to that which existed prior to the issuance of the Conditional Use Permit.

8.110 Recycling Centers

A recycling center developed as a principal use shall be permitted in accordance with Table 5-1, subject to the following:

- A. Recycling centers shall be located five hundred feet or more from any existing residential use. This distance shall be measured from the location of the actual recycling center operation, and not from the property boundaries within which the use is located.
- B. No recycling center operation shall exceed five acres in size.
- C. Any given piece of material collected through operation of the recycling center may not remain on-site for a period exceeding thirty days.
- D. No recycling centers may be developed within a defined Highway Corridor Overlay District.
- E. All new recycling centers must comply with the landscaping screening standards outlined under Section 16.04 (B). If a newly established recycling center is not subject to these standards then screening shall be provided to shield the operation from the right-of-way or road providing access to the site. The method used for screening may be determined by the applicant, but must be approved by the Planning Board in conjunction with the issuance of a special use permit.