

Article 5, Table 5-1:

Use Type	Ref. SIC	A-1	Development Standards
Wind Energy Facility Small		D	S. 8.110
Wind Energy Facility Medium		C	S. 8110
Wind Energy Facility Large		C	S. 8110

D= Use permitted upon staff review of compliance with development standards

C = Conditional Use Permit required by County Commission

The following development standards will be incorporated into Article 8.0 of the Chowan County UDO.

8.110 Wind Energy Facilities

- 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
 - (1) Signature of the Applicant.
- (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.

Table INSERT NUMBER: 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	500 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

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:
 - (1) Be a non-obtrusive color such as white, off-white or gray;
 - (2) Not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety; and

- (3) 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 or irrevocable letter of credit in favor of the County in an amount equal to the estimated removal cost of the Wind Energy Facility, less the salvage value of the equipment prior to construction. If the Wind Facility Owner elects to use a letter of credit, it shall be issued by a federally chartered bank with a branch office located in northeastern North Carolina. The bond or letter of credit 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.

*MUST INCREASE
WITH INFLATION*

The following definitions accompany the development standards outlined above and will be incorporated into Article 15.0 of the Chowan County UDO:

Wind Energy Facility: An electric generating facility, whose main purpose is to supply electricity, consisting of one or more Wind Turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

Wind Energy Facility, Small: A single system designed to supplement other electricity sources as an accessory use to existing buildings or facilities, wherein the power generated is used primarily for on-site consumption. A small wind energy conversion system consists of a single Wind Turbine, a tower, and associated control or conversion electronics, which has a total rated capacity of 20 kW or less.

Wind Energy Facility, Medium: A wind energy conversion system consisting of one or more Wind Turbine(s), a tower(s), and associated control or conversion electronics, which has a total rated capacity of more than 20 kW but not greater than 100 kW.

Wind Energy Facility, Large: A wind energy conversion system consisting of one or more Wind Turbine(s), a tower(s), and associated control or conversion electronics, which has a total rated capacity of more than 100 kW.

Wind Energy Facility Operator: The entity responsible for the day-to-day operation and maintenance of a Wind Energy Facility.

Wind Energy Facility Owner: The entity or entities having controlling or majority equity interest in a Wind Energy Facility, including their respective successors and assigns.

FIRE
AIRPORT -
GUIDE PATH
INST. LANDING - POSSIBLE ELECTRO INTERFERENCE
OTHER AIR TRAFFIC INTERFERENCE - IFR
WIND TURBINE SYNDROME
VISUAL POLLUTION
NO LOCAL ECONOMIC OR ELECTRIC BENEFITS
SUBSIDIES EXPIRES 31 DEC - WINTER JOBS