

GEORGIA WIND WORKING GROUP
MODEL WIND ORDINANCE
FOR WIND ENERGY FACILITIES
IN _____ [county or municipality]

A RESOLUTION OF THE MAYOR AND CITY COUNCIL/COUNTY COMMISSION/COUNTY
MANAGER OF THE CITY/COUNTY OF TBD, GEORGIA
ADOPTING THE CITY/COUNTY WIND ORDINANCE

WHEREAS, the _____ [county or municipality] acknowledges that it is in the regional public interest to produce electricity in a manner that serves the needs of the community minimizing potentially negative impacts; and

WHEREAS, the _____ [county or municipality] recognizes and accepts its responsibility to implement and promote electricity production practices that protect _____ [county or municipality] natural and built environment; and

WHEREAS, the _____ [county or municipality] finds that responsible wind power is a growing national and existing international 'infinitely renewable' source of power with multiple levels of facility design possibilities; and

WHEREAS, the _____ [county or municipality] has existing wind resources and therefore has the responsibility to include wind power possibilities in its vision of energy sources; and

WHEREAS, the _____ [county or municipality] finds that responsible and educational wind power construction can result in significant cost savings and or revenue to the _____ [county or municipality] over the life of the project as well as significant benefits to the future health and well-being of our citizens;

NOW, THEREFORE, BE IT RESOLVED by the Mayor/County Manager and City Council/County Commission, of _____ [county or municipality, Georgia as follows:

Section 1. This ordinance reflects the _____ [county or municipality's] commitment to encouraging environmentally sensitive wind power project proposals on multiple levels. The _____ [county or municipality] local jurisdiction's comprehensive plan, future land use map and applicable regulations (such as a Mountain Protection ordinance or the Coastal Zone Management Act) will be used as a guide for each proposal.

Section 2. That the _____ [county or municipality] Wind Ordinance may be amended from time to time as directed by the City Council/County Commission.

1. TITLE

This ordinance shall be known as the Wind Energy Facility Ordinance for _____ [county or municipality]

2. PURPOSE

The purpose of the Ordinance is to provide guidance for the regulation of the construction and operation of Wind Energy Facilities in _____ [county or municipality], subject to reasonable conditions that will protect the environment, public health, safety, and welfare.

3. DEFINITIONS

- A. "Applicant" is the person or entity filing an application for a permit to install a wind turbine under this Ordinance.
- B. "Environmental Assessment" is a detailed examination of the applicant's proposal and its potential local environmental context with an emphasis on avoiding, minimizing, and mitigating adverse impacts.
- C. "Facility Operator" is the entity responsible for the day-to-day operation and maintenance of the Wind Energy Facility.
- D. "Facility Owner" is the entity or entities having equity interest in the Wind Energy Facility, including their respective successors and assigns.
- E. "Mountain Protection Ordinance" a local ordinance passed for the purpose of protecting steep slopes and/or view sheds as required by OCGA § 12-2-8 and accompanying regulations.
- F. "Non-Participating Landowner" is any landowner not under an agreement with the facility owner or Operator.
- G. "Occupied Building" is a residence, school, hospital, church, public library or other buildings used for public gathering that is occupied or in use when the permit application is submitted.
- H. "Participating Landowner" is a landowner under lease or other property agreements with the Facility Owner or Operator pertaining to the Wind Energy Facility.
- I. "Shadow Flicker" is the visible flicker effect when rotating turbine blades cast shadows on the ground and nearby structures causing the repeating pattern of light and shadow.
- J. "Wind Energy Facility" is 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 & facilities.
- K. "Wind Energy Facility, Class I System" is 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. An example of a Class I system is a small wind energy conversion system which is defined as a single wind turbine, a tower, and associated control or conversion electronics, which has a total rated capacity

of 20 kW or less. [Note: When passing this model ordinance, the local jurisdiction may need to amend its zoning code's definition of "accessory use" zoning code to include wind facilities.]

- L. "Wind Energy Facility, Class II System" is 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 Class II System is a small wind energy conversion system consisting of a single wind turbine, a tower, and associated control or conversion electronics, which has a total rated capacity of more than 20 kW but no greater than 100 kW.
- M. "Wind Energy Facility, Class III System" is 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 but not greater than 2 MW.
- N. "Wind Energy Facility, Class IV System" is a wind energy conversion system consisting of one or more than one wind turbine(s), a tower(s), and associated control or conversion electronics, which has a total rated capacity of more than 2 MW.
- O. "Wind Power" is the conversion of wind energy into electricity.
- P. "Wind Turbine" is a wind energy conversion system that converts wind energy into electricity.
- Q. "Wind Turbine Height" is the distance measured from grade at the center of the tower to the highest point of the turbine rotor or tip of the turbine blade when it reaches its highest elevation.

4. 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.
- B. All 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 Wind Energy Facilities shall at a minimum:
 - a. Maintain a galvanized finish and be a non-obtrusive color such as white, off-white or gray;
 - b. Not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety; or otherwise regulates lighting,
 - c. Not display advertising (including flags, streamers or decorative items), except for identification of the turbine manufacturer, facility owner and

operator. Size and design parameters shall be subject to approval during Special Use Permit Process

5. SETBACKS *[Note: Before passing this ordinance, a local government should determine how these setbacks will interact with its existing zoning regulations.]*

Wind Energy Facility Type	Minimum Setback Requirements				
	Occupied Buildings on Participating Landowner Property	Occupied Buildings on Non-Participating Landowner Property	Property Lines on Non-Participating Landowner Property	Public Roads ³	Public/Private Right-of-Way ²
Class I and II	0.0/1.1 – undecided. To be revisited	1.5	1.1	1.1	1.5
Class III	1.1	2.0	1.5	1.5	1.5
Class IV	1.1	2.5	1.5	1.5	1.5
NOTE:	Turbine Height Restrictions are not included because they will be determined in the public hearing approval process.				

- A. Setbacks are measured from the center of the wind turbine base to the property line, public road, or nearest point on the foundation of an occupied building. Setbacks are calculated by multiplying the required setback number by the wind turbine height. (i.e. Setback (1.1) = 1.1 x ht. of Turbine). For example an 100 foot turbine should be at least 110 feet away from any public road line or to the edge of a building structure on the property or adjacent property.
- B. If a wind energy facility is sited on multiple properties, the lot size is the sum of all participating landowners.
- C. These setbacks are designed to reduce noise and shadow flicker impacts to any previously existing occupied buildings on adjacent properties.

6. NOISE AND SHADOW FLICKER

- A. Audible sound from a Wind Energy Facility shall not exceed fifty-five (55) dBA at any time, as measured at the property line of a Non-Participating Landowner.
- B. Shadow flicker at any Occupied Building on a Non-Participating Landowner’s property caused by a Wind Turbine Facility located within 2,500 ft of the Occupied Building existing at the time of initial operation of the facility shall not exceed thirty (30) hours per year.

7. PERMIT REQUIREMENT

- A. Permits are required for building, special use, and other ‘action’ based activity tied to this ordinance. A Wind Energy Facility, or addition of a Wind Turbine to an existing Wind Energy Facility, shall not be constructed unless a permit has

been issued to the Facility Owner or Operator approving construction of the facility under this Ordinance. Permit application of the expansion shall be based on the total rated capacity, including existing facility but excluding like-kind replacements of equipment.

- B. Any physical modification to an existing and permitted Wind Energy Facility that alters the size, type or number of Wind Turbines or other equipment shall require a permit modification under this Ordinance.
- C. All wind turbines shall be built in accordance with the manufacturer’s specifications.

Sample Permitted Use Table:

Wind Energy Facility	Zoning Districts			
	Agricultural	Residential	Commercial	Industrial/ Manufacturing
Class I	P	P	P	P
Class II	P	S	S	P
Class III	S	S	S	S
Class IV	S	S	S	S

P – Permitted Use; Building Permit Required

S – Special Use Permit Required *[Note: When passing this ordinance, a local government may want to amend the special use provisions in the zoning code to note that there is also a special use permit required for wind facilities.]*

- D. The permit application shall contain the following:
 - i. A narrative describing the proposed Wind Energy Facility, including an overview of the project;
 - ii. The proposed total rated capacity of the Wind Energy Facility;
 - iii. The proposed number, representative types and height or range of heights of wind turbines to be constructed; including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities;
 - iv. Identification and location of the properties on which the proposed Wind Energy Facility will be located;
 - v. A site plan showing the planned location of all wind turbines, property lines, setback lines, access roads and turnout locations, 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 structures and properties, demonstrating compliance of the setbacks;

- vi. A narrative describing how the proposed project will address compliance with any Mountain Protection Ordinance or any equivalent coastal ordinance that has been adopted [county or municipality].
 - vii. A narrative describing how the proposed project will address compliance with the noise and shadow flicker requirements of this ordinance for the life of the project. The narrative should include a statement that the Wind Energy Facility will be maintained according to the Facility manufacturer's recommendations if such recommendations exist. The narrative should also describe how the proposed project will address compliance with any Mountain Protection Ordinance or any equivalent coastal ordinance that has been adopted [county or municipality].
 - viii. Certification by the property owner of compliance with applicable local, state and federal regulations, such as ESA, USCOE, FAA and FCC regulations.
 - ix. An environmental assessment for Class III - IV Wind Energy Facilities, will be provided to the local jurisdiction in order to show that the proposed project meets any relevant Federal, State and Local requirements.
 - x. Other relevant information as may be reasonably requested by _____ [county or municipality] to ensure compliance with the requirements of this Ordinance, such as a topographical survey.
 - xi. Decommissioning plans that describe the anticipated life of the wind power project, the estimated decommissioning costs in current dollars, the method for ensuring that funds will be available for decommissioning and restoration of site property, and the anticipated manner in which the wind power project will be decommissioned and the site restored; and,
 - xii. Signature of the Applicant.
 - xiii. A fee of \$ _____ to cover administration of the permitting program.
- E. Throughout the permit process, the Applicant shall notify _____ [county or municipality] of any proposed changes to the information contained in the permit application that would alter the impact of the project in writing within ___ business days [depending on county cycle] of the change to the plans.
- F. City or county staff may administratively adopt changes to the approved application that do not materially alter the initial site plan more than 10%.

8. DECOMMISSIONING

- A. The Wind Energy Facility Owner, Operator and/or Participating Landowner shall have 3 months to complete decommissioning of the Facility if no electricity is generated for a continuous period of 12 months.
- B. Decommissioning shall include removal of wind turbines, buildings, cabling, electrical components, roads, and any other associated facilities. If other uses are proposed for the decommissioned turbines, the Wind Facility Owner, Operator or Participating Landowner must obtain an amended Special Use Permit.
- C. Disturbed earth shall be graded and re-seeded and subject to erosion and sedimentation control state and local regulations.

9. SANCTIONS

- A. Any person charged with a violation of any provision of this Ordinance and found guilty, upon conviction by any court of competent jurisdiction, shall be guilty of a misdemeanor punishable by a fine not more than one thousand dollars (\$1,000) or imprisonment of up to a year in jail and shall be enjoined from continuing the violation. Each day that violations occur shall constitute a separate offense.

10. SEVERABILITY

- A. It is hereby declared to be the intention of _____ [county or municipality] that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable, and if any phrase, clause, sentence, paragraph or section is declared invalid or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance , since the same would have been enacted by _____ [county or municipality] without incorporation in this Ordinance of any such invalid or unconstitutional phrase, clause, sentence, paragraph or section.