



Ordinance to Regulate Wind Energy Systems

Watauga County, NC

Adopted August 7, 2006
Amended February 18, 2014
Amended October 21, 2015

WATAUGA COUNTY ORDINANCE TO REGULATE WIND ENERGY SYSTEMS

Section 1 Authority and Purpose

Inasmuch as Watauga County has determined that single wind power turbines are exempt from the North Carolina Mountain Ridge Protection Act, and pursuant to the authority granted to counties by NC General Statute 153A-121 et seq. and other pertinent statutes and amendments thereto, it is the purpose of this ordinance to regulate the use of wind energy systems and to describe the conditions by which a permit for installing a system could be obtained.

Section 2 Findings

Wind power is a clean, inexhaustible, reliable, and economical source of energy that can help us reduce our dependence on fossil fuels, help to preserve and protect the environment, and help to create new jobs and sustainable forms of development. As a result of these benefits, wind power has become the fastest growing energy source in the world and is helping to satisfy the growing demand for electricity cleanly and affordably.

The State of North Carolina has enacted a number of laws and programs to encourage the use of small-scale renewable energy systems including a state tax credit, net metering law, property tax exemptions, and a state wide green power program.

Section 3 Definitions

Large Wind Energy System: 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 rated capacity of more than 20 kW.

Small Wind Energy System: A wind energy conversion system consisting of a single wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 20 kW. Multiple systems located on agricultural farms as defined in the Watauga County High Impact Land Use Ordinance are also considered small wind energy systems even if the aggregate kW exceeds 20, provided the primary intent is to generate power to reduce on-site consumption.

Wind Turbine Height: The height above grade to the tip of the turbine blade when it reaches its highest elevation.

Section 4 Small Wind Energy Systems

Small wind energy systems shall be a permitted use by right subject to the requirements set forth in this section:

4.1. **Wind Turbine Height:** Height shall be limited to 135 feet.

4.2. **Setback:** The base of the wind turbine shall not be closer to surrounding property lines than the height of the wind turbine unless a NC Registered Professional Engineer certifies the fall zone of the wind turbine and appurtenances will be within the setback area proposed. In addition, no wind turbine shall be located closer to an inhabited structure on adjacent property than 1.5 times the height of the wind turbine. Relief from this section may be granted if the applicant can secure a permanent easement from the adjoining property owner(s) providing for a fall zone.

4.3. **Building Permit Requirements:** A building permit shall be required and building permit applications for small wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower certified by a licensed professional engineer including standards for ice/wind loading shall also be submitted. This analysis may be supplied by the manufacturer. Wet stamps shall not be required.

4.4. Compliance with FAA Regulations: Small wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports. Evidence of compliance or non-applicability shall be submitted with the application.

4.5. Utility Notification: No small wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

4.6. Appearance: Small wind energy towers shall maintain a galvanized finish or be painted to conform the tower color to the surrounding environment to reduce visual obtrusiveness. No wind tower should have any signage, or writing or pictures that may be construed as advertising placed on it at any time. In addition no flags, streamers or decorative items may be attached to the wind energy system tower or turbine.

4.7. Removal of Defective or Abandoned Wind Energy Systems: Any wind energy system that is not functional shall be repaired by the owner or removed. In the event that the County becomes aware of any wind energy system that is not operated for a continuous period of 6 months, the County will notify the landowner by registered mail and provide 45 days for a written response. In such a response, the landowner shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the County deems the timetable for corrective action as unreasonable, the County shall notify the landowner and such landowner shall remove the turbine with 120 days of receipt of said notice.

Section 5 Large Wind Energy Systems

Large wind energy systems shall be a use permitted by review subject to the requirements of this Section 5 as well as Section 4, except that the height limits in 4.1 may be increased if approved as necessary by the Board of Adjustment.

5.1. Permit Application: A person seeking a site permit for a wind turbine over 20 KW shall file an application with the County for review. The application must provide the following background information regarding the applicant:

- (1) A letter of transmittal signed by an authorized representative or agent of the applicant.
- (2) The complete name, address, telephone number, and e-mail address of the applicant and any authorized representative.
- (3) The signature of the person who prepared the application, if prepared by an agent or consultant of the applicant.
- (4) The role of the permit applicant in the construction and operation of the wind power project.
- (5) The identity of any other wind power project located in the State in which the applicant, or a principal of the applicant, has an ownership or other financial interest; the operator of the wind power project if different from the applicant; and the name of the person or persons to be the permittee if a site permit is issued.

(a) The applicant shall state in the application whether a certificate of public convenience and necessity for the system is required from the North Carolina Utilities Commission and, if so, the anticipated schedule for obtaining the certificate. The County may ask the Utilities Commission to determine whether a certificate of public convenience and necessity is required for a particular wind power project for which the County has received a site permit application. The County shall not approve a project requiring a certificate unless and until such certificate is issued by the Utilities Commission. If a certificate is not required from the Utilities Commission, the permit applicant shall include with the application a discussion of what the applicant intends to do with the power that is generated.

(b) The applicant shall describe in the application how the proposed wind power project furthers State policy to site such projects in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

(c) The permit applicant shall include the following information about the site proposed for the wind power project and any associated facilities:

- (1) The surveyed boundaries of the site proposed for the wind power project.
- (2) The location of other wind turbines in the general area of the proposed wind power project.
- (3) The applicant's land rights within the boundaries of the proposed site.

(d) The permit applicant shall provide the following information regarding the design of the proposed wind power project:

- (1) A project layout, prepared by a design professional, including a map showing the proposed location of the turbine(s).
- (2) A description of the turbine(s) and tower(s) and other equipment proposed to be used in the wind power project, including the name of the manufacturers of the equipment.
- (3) A description of the project electrical system, including transformers at both low voltage and medium voltage.
- (4) A description and location of associated facilities.

(e) An applicant for a site permit shall include with the application an analysis of the potential impacts of the wind power project, proposed mitigative measures, and any adverse environmental effects that cannot be avoided, in the following areas:

- (1) Demographics, including people, homes, and businesses.
- (2) Noise.
- (3) Visual impacts.
- (4) Public services and infrastructure
- (5) Cultural and archaeological impacts.
- (6) Recreational resources.
- (7) Public health and safety, including air traffic, electromagnetic fields, and security and traffic.
- (8) Hazardous materials.
- (9) Land-based economics, including agriculture, forestry, and mining.
- (10) Tourism and community benefits.
- (11) Topography.
- (12) Soils.
- (13) Geologic and groundwater resources.
- (14) Surface water and floodplain resources.
- (15) Wetlands.
- (16) Vegetation.
- (17) Avian, impact assessment that includes an indication of the type and number of birds that are known or suspected to use a project site and the area surrounding that site.
- (18) Wildlife.
- (19) Rare and unique natural resources.

(f) The permit applicant shall describe all of the following:

- (1) The manner in which the wind power project, including associated facilities, will be constructed.
- (2) How the wind power project will be operated and maintained after construction, including a maintenance schedule.

(3) The anticipated schedule for completion of the wind power project, and shall identify the expected date of commercial operation.

(4) The energy expected to be generated by the wind power project.

(g) The permit applicant shall include the following information regarding decommissioning of the wind power project and restoring the site:

(1) The anticipated life of the wind power project.

(2) The estimated decommissioning costs in current dollars.

(3) The method and schedule for updating the costs of decommissioning and restoration.

(4) The method of ensuring that funds will be available for decommissioning and restoration.

(5) The anticipated manner in which the wind power project will be decommissioned and the site restored.

(h) The permit applicant shall include in the application a list of all known federal, state, and local agencies or authorities, and titles of the permits they issue that are required for the proposed wind power project.

(i) Blue Ridge Parkway: If a proposed wind energy site is within the Blue Ridge Parkway viewshed the applicant shall inform the National Park Service of the proposed wind turbine siting. Park Service recommendations shall be given reasonable consideration and documentation of this consideration shall be provided to the County. The Park Service shall be afforded 30 days to respond to the applicant's written intention to erect a wind turbine. No answer to the notification within the 30 days shall be considered as an affirmation of the site as proposed. Viewshed shall be determined by the County using maps and documents prepared for that purpose by the Design Research Laboratory at NC State University and the Blue Ridge Parkway Division of Resource Planning and Professional Services.

5.2. Special Use Permit Required: Prior to granting or denying a permit for a large wind energy system, the Board of Adjustment shall conduct a hearing as set forth in Section 6.

Section 6 Appeals, Special Use Permits, and Variances

6.1. Board of Adjustment: The Watauga County Board of Adjustment shall hear all appeals, requests for variances, and all challenges to the decision or interpretation of the Ordinance Administrator.

6.2. Board of Adjustment Powers: The Board shall have the following powers:

(a) To hear and decide appeals from any final binding order, requirement, or determination made by the Ordinance Administrator charged with enforcement of the ordinance; and

(b) To hear and decide applications for variances from the requirements of this Ordinance in accordance with Section 6.5. Nothing in this Section shall be construed to broaden the power of the Board to permit a use by variance beyond that power given in Section 6.5 below.

6.3. Administration: The Board shall adopt rules of procedures and regulations for the conduct of its affairs.

All meetings of the Board shall be open to the public. The Board shall keep a record of its meetings, including of the vote of each member on every question, a fair and accurate summary of the evidence submitted to it, the documents (or accurate copies thereof) submitted to it and of all official actions. The Board shall give due notice of matters coming before it.

In presenting an appeal, the petitioner shall bear the burden of proof, which shall be by the greater weight of the evidence.

All evidence presented to the Board of Adjustment shall be sworn.

The person acting as Chairman of the Board and the Clerk of the Board are authorized to administer oaths to any witnesses in any matter coming before the Board.

Application for variances and appeals for review of decisions of the Ordinance Administrator shall be filed with the County Clerk.

It shall be the responsibility of the Ordinance Administrator to notify the applicant or appellant of the disposition which the Board makes of any matter before it.

It shall be the responsibility of the Ordinance Administrator to issue a permit in accordance with the Board's action on an appeal or application, if a permit is authorized by the Board action.

6.4. Quorum and Vote Required: A concurring vote of a simple majority of the members shall be required to decide upon all matters to come before the board. For the purposes of the subsection, vacant positions on the board and members who are disqualified from voting shall not be considered members of the board for calculation of the requisite majority.

6.5. Application of Variance Power: When unnecessary hardships would result from strict application of the ordinance, upon application by an aggrieved party with standing, the Board of Adjustment may hold a hearing pursuant to NCGS §160A-388 (a2) and may grant variances to the provisions of the ordinance in accordance with the standards and procedures established in NCGS §160A-388(d), and as established by County policy.

The Board may impose reasonable conditions upon granting of any variance in order to protect the public interest or neighboring property owners. Violation of any such conditions shall be a violation of this ordinance and subject to the penalties set forth in Section 7 of this ordinance.

6.6. Application of Interpretation Power: An appeal from an order, requirement, or decision of the Ordinance Administrator shall be decided by the Board duly supported by competent evidence. In exercising this power, the Board shall act in a prudent manner so that the purposes and intent of the Ordinance shall be served. No decision shall have the effect of varying the terms of the Ordinance or permitting as a matter of right any use otherwise limited or prohibited hereunder.

6.7. Appeal Stays Further Proceedings: An appeal to the Board of Adjustment from a decision or determination of the Ordinance Administrator stays all proceedings in furtherance of the decision or determination appealed from, except as provided in Section 6.9, during the pendency of the appeal.

6.8. Exceptions to Stay of Action: An appeal to the Board of Adjustment from a decision or determination of the Ordinance Administrator shall not stay proceedings in furtherance of the decision or determination appealed from, if the Ordinance Administrator certifies either:

- (a) That a stay would cause imminent peril to life or property; or
- (b) That the situation subject to the appeal is transitory in nature and therefore, an appeal would seriously interfere with enforcement of this Ordinance.

In each instance, the Ordinance Administrator shall set forth in the certificate facts to support its conclusion.

6.9. Application of Special Use Permit Power:

- a. An application for a special use permit shall be submitted to the Board of Adjustment by filing a copy of the application with the Ordinance Administrator.
- b. Subject to subsection (c), the Board of Adjustment shall issue the requested permit unless it concludes, based upon the information submitted at the hearing, that:
 - (1) The requested permit is not within its jurisdiction, or
 - (2) The application is incomplete, or
 - (3) If completed as proposed in the application, the development will not comply with one or more requirements of this Ordinance (not including those the applicant is not required to comply with under the circumstances specified in Article III, Pre-Existing High Impact Land Uses).
- c. Even if the Board finds that the application complies with all other provisions of this chapter, it may still deny the permit if it concludes, based upon the information submitted at the hearing, that if completed as proposed, the development, more probably than not:
 - (1) Will materially endanger the public health or safety, or
 - (2) Will substantially injure the value of adjoining or abutting property, or
 - (3) Will not be in harmony with the area in which it is to be located, or
 - (4) Will not be in general conformity with the land-use plan, thoroughfare plan, or other plan officially adopted by the Board of Commissioners.
- d. The Board shall consider whether the application is complete. If the Board concludes that the application is incomplete and the applicant refuses to provide the necessary information, the application shall be denied. A motion to this effect shall specify either the particular type of information lacking or the particular requirement with respect to which the application is incomplete. A motion to this effect, concurred in by a majority of the Board, shall constitute the Board's finding on this issue. If a motion to this effect is not made and concurred in by a majority of members, this shall be taken as an affirmative finding by the Board that the application is complete.
- e. The Board shall consider whether the application complies with all of the applicable requirements of this Ordinance. If a motion to this effect passes by a majority of members, the Board need not make further findings concerning such requirements. If such a motion fails to receive the majority vote or is not made, then a motion shall be made that the application be found not in compliance with one or more requirements of this chapter. Such a motion shall specify the particular requirements the application fails to meet. A separate vote may be taken with respect to each requirement not met by the application. It shall be conclusively presumed that the application complies with all requirements not found by the Board to be unsatisfied through this process. As provided in Subsection 9 (c) if the Board

concludes that the application fails to meet one or more of the requirements of this section, the application shall be denied.

- f. If the Board concludes that all such requirements are met, it shall issue the permit unless it adopts a motion to deny the application for one or more of the reasons set forth in Subsection 9 (c). Such motion shall propose specific findings, based upon the evidence submitted, justifying such a conclusion and is carried by a simple majority vote.
- g. Subject to Subsection (h), in granting a special use permit, the Board of Adjustment may attach to the permit such reasonable requirements in addition to those specified in this chapter as will ensure that the development in its proposed location:
 - (1) Will not endanger the public health or safety,
 - (2) Will not injure the value of adjoining or abutting property,
 - (3) Will be in harmony with the area in which it is located, and
 - (4) Will be in conformity with the land-use plan, thoroughfare plan, or other plan officially adopted by the Board of Commissioners.
- h. The Board may not attach additional conditions that modify or alter the specific requirements set forth in this ordinance unless the development in question presents extraordinary circumstances that justify the variation from the specified requirements.
- i. Without limiting the foregoing, the Board may attach to a permit a condition limiting the permit to a specified duration.
- j. All additional conditions or requirements shall be entered on the permit.
- k. All additional conditions or requirements authorized by this Section are enforceable in the same manner and to the same extent as any other applicable requirements of this Ordinance.
- l. A vote may be taken on application conditions or requirements before consideration of whether the permit should be denied for any of the reasons set forth in Subsections (b) or (c).

6.10. Appeals of Board Actions: Every decision of the Board of Adjustment shall be subject to review at the instance of any aggrieved party in the Superior Court by proceedings in the nature of a petition for writ of certiorari. Such proceedings in the Superior Court shall be initiated within thirty (30) days of the filing of the decision in the office of the Ordinance Administrator or the delivery of the notice required in Section 6.3, whichever is later. Appeals not received within this thirty (30) day period are not timely. The Superior Court is authorized to stay enforcement of this ordinance during the pendency of an appeal from the decision of the Board of Adjustment upon a hearing and the posting of a bond sufficient to the Court which will adequately protect the interests of the County.

Section 7 Enforcement and Penalties

7.1. Administration and Enforcement: The Ordinance Administrator shall be responsible for the administration and enforcement of this ordinance.

If the Ordinance Administrator shall determine that any of the provisions of this ordinance are being violated, he shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to within ten (10) working days correct the violation. He may order the discontinuance of illegal use of land, buildings, or structures; the removal of illegal buildings or structures or of addition, alterations, or structural changes thereto; the discontinuance of any illegal work being done; and may take any other action authorized by this ordinance to insure compliance with, or to prevent violation of, its provisions.

7.2. Conflict with Other Laws: Wherever the provisions or application of this ordinance impose higher standards than are required in any other local ordinance or regulation, the provisions or application of this ordinance shall govern. Wherever the provisions of any other statute or local ordinance or regulation impose higher standards than are required by the provisions or application this ordinance, the provisions of such other statute or local ordinance or regulation shall govern.

7.3. Penalties: Any person, firm or corporation who violates any provision of any article of this ordinance; or who shall violate or fail to comply with any order made hereunder; or who shall continue to work upon any structure after having received written notice from the Ordinance Administrator to cease work, shall, upon conviction, be guilty of a Class 3 misdemeanor as provided by N.C.G.S. § 14-4 and shall be punishable by a fine not to exceed fifty (\$50.00) dollars, or imprisonment not to exceed twenty days. Each day such violation shall be permitted to exist shall constitute a separate offense. Notice of violation shall be sufficient if directed to the owner, the agent of the owner, or the contractor and left at his known place of residence or place of business. In lieu of or in addition to the criminal penalties outlined above, each person violating this ordinance shall be subject to a civil penalty, under N.C.G.S. 153A-123(c), in the amount of \$200.00 per day. No penalty shall be assessed prior to notice to the violator. For every day a violator is in violation of this ordinance, it shall be considered a separate offense. If the violator does not pay such penalty within 30 days of notification of its assessment by written citation it and any subsequently accruing penalty may be recovered by the County in a civil action in the nature of a debt. Any contest of said penalty shall be by appropriate action taken in the General Court of Justice for Watauga County.

7.4. Severability Clause: Should any section or provisions of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of this ordinance as a whole, or any part hereof other than the part so declared to be unconstitutional or invalid.

7.5. Ordinance Amendments: This Ordinance may be amended by the Board of Commissioners following a public hearing on the proposed changes. The Board shall cause notice of the hearing to be published once a week for two successive calendar weeks. The notice shall be published the first time not less than 10 days nor more than 25 days before the date fixed for the hearing. In computing such period, the day of publication is not to be included but the day of the hearing shall be included.

Should any Federal or State regulation or statute incorporated herein by reference or otherwise referred to herein, be changed or amended, or should either require or mandate a different procedure or change or impose new, different or additional requirements, then, in that event, this ordinance shall be deemed

to have been amended without further action to have complied with such new, additional or amended requirements.

APPENDIX

To: Watauga County Planning Board Members
From: Andrea N. Capua, Esq., di Santi Watson Capua & Wilson
Re: Legal Memorandum
Date: May 15, 2006

Facts: Watauga County is known to be an area with an abundant wind resource. As a result, there has been recent efforts by its citizens to promote the use of wind turbines as a source of alternative energy. A legitimate question has been raised as to whether a landowner wishing to erect a single wind turbine on his or her property could do so legally, without the need to obtain a county building permit. In the wake of growing issues related to energy and the future of oil, local authorities are encouraged to take their own initiative to make way for renewable energy policies. The Watauga County Board of Commissioners has voted to support the use of single wind turbines. It is, therefore, considering enacting an ordinance as an attempt to address issues which may arise from their use.

Issue: Whether wind turbines (“windmills”) are exempt from the North Carolina Mountain Ridge Protection Act (the “Ridge Law”).

Conclusion: Windmills are exempt from the North Carolina Mountain Ridge Protection Act. This memo is limited to a brief legal analysis of single wind turbines. It does not address legal rights to the use of wind turbines which are part of a large wind farm.

I. General History of the Ridge Law

In July 1983 the North Carolina General Assembly enacted the Mountain Ridge Protection Act (the “Ridge Law”). The legislature stated both aesthetic and non-aesthetic purposes being primarily to protect structures from high winds and destruction by fire, to protect against the effects of water erosion, and to preserve the natural beauty of the mountains.

The Ridge Law provided three options for counties to regulate the construction of tall buildings or structures on protected mountain ridges: (1) accept statutory imposed construction height restrictions on mountain ridges (N.C. Gen. Stat. §113A-209); (2) adopt their own restrictions (N.C. Gen. Stat. §113A-208); or (3) opt out of having any restrictions (N.C. Gen. Stat. §113A-214). Watauga County chose to accept the statutory imposed restrictions as outlined in §113A-209 of the Ridge Law.

II. Relevant Definitions within the Ridge Law

The Ridge Law specifically includes the following definitions:

“Protected mountain ridges” are defined as “all mountain ridges whose elevation is 3,000 feet and whose elevation is 500 or more feet above the elevation of an adjacent valley floor” (N.C. Gen. Stat. §113A-206 (6)).

“Tall buildings or structures” are defined to include “any building, structure or unit within a multiunit building with a vertical height of more than 40 feet measured from the top of the foundation of said building, structure or unit and the uppermost point of said building, structure or unit... and no such building structure or unit shall protrude at its uppermost point above the crest of the ridge by more than 35 feet,” (N.C. Gen Stat. §113A-206 (3)).

The definition of tall buildings or structures specifically excludes “**structures of a relatively slender nature** and minor vertical projections of a parent building, including chimneys, flagpoles, flues, spires, steeples, belfries, cupolas, antennas, poles, wires, **or windmills.**” (emphasis added). (N.C. Gen. Stat. §113A-206(3)(b)).

III. Interpretation of the Ridge Law

Interpretations of the exclusions contained within the definition of “tall buildings or structures” have varied and have been viewed three ways: (1) windmills are exempt only if they are relatively slender in nature and are minor vertical projections of a parent building; (2) windmills are exempt because they are naturally slender; and (3) windmills are exempt, period.

There exists no case law to date interpreting the Ridge Law. After a recent inquiry by Watauga County Planning and Inspections Director, Joe Furman, the North Carolina Attorney General has declined to take a position at this point. Therefore, it is left up to the individual county to interpret and apply the law and the following factors should be considered by Watauga County.

First, it is well known that from 1979 until 1983, a Mod-I wind turbine was located on Howard’s Knob, a prominent 4000’ peak rising just north of Boone. Because of the timing of the Ridge Law, there is support for the third interpretation, being that windmills were specifically excluded from the definition of tall buildings or structures to avoid de-legitimizing the Howard’s Knob project. (Watauga County Planning Board member Tom Foxx, who was a planner at the Division of Community Assistance at that time, and who was also involved with the drafting of the statute, confirmed this.)

A second factor to consider is simply looking at the Webster’s Dictionary definition of “slender,” which is “small or slight in width in proportion to height or length.” Whether a windmill is “relatively slender in nature” is subjective. However, objectively, it would be hard to argue otherwise.

IV. Conclusion

Taking into consideration the history of the Ridge Law, its stated purposes, and the simple language of the statute, it is my opinion that windmills were intended to be exempt. Therefore, it remains up to Watauga County whether to be silent as to their use, or whether to enact an ordinance promoting windmills and taking the opportunity to address anticipated issues which may arise as a result of their use.