

**TOWN OF NEW GLOUCESTER
WIND ENERGY CONVERSION SYSTEM ORDINANCE**

1. Purpose and Intent

The purpose of this ordinance is to reduce dependence on fossil fuel energy sources by encouraging the development of on-site energy production and consumption by providing standards for alternative wind powered systems. The wind energy conversion provisions set forth in this ordinance are intended to protect the public health and safety, promote the general welfare of the community and conserve the environment, wildlife habitat, fisheries and unique natural areas; and to fit Wind Energy Conversion Systems harmoniously into the fabric of the community by assuring the following standards are accomplished with the least possible regulation.

2. Authority

The Code Enforcement Officer and the Planning Board are vested with the authority to review and approve, conditionally approve or reject any application for Wind Energy Conversion Systems.

The Code Enforcement Officer shall have the authority to review and approve Wind Energy Conversion Systems that include fewer than four (4) wind turbines and which generate no more than 100 kW combined and each of which either: 1) are not more than thirty (30) feet taller in height than any structures or trees located within 300 feet from the wind turbine (measured horizontally from the bottom of the blade rotation), or 2) have a hub height of seventy-five (75) feet or less. All other applications for Wind Energy Conversion Systems shall be reviewed by the Planning Board in accordance with Article 7 of the Zoning Ordinance and the provisions of this Ordinance.

3. Applicability

The requirements of this ordinance shall apply to Wind Energy Conversion Systems proposed, first operated, materially modified or constructed after the date of adoption of this ordinance.

4. Conflicts with Other Ordinances

This ordinance is not intended to interfere with, abrogate or annul any other ordinance, rule, regulation, statute, or other provision of the law except as specifically provided in this ordinance. If any provision in this ordinance imposes restrictions different from any other ordinance, rule, regulation, statute, or other provision of the law, the provision that is more restrictive or imposes higher standards shall control, except with respect to the height standards set forth in this ordinance. Any height standards or limits set forth in the New Gloucester Land Use Ordinance shall not apply to a Wind Energy Conversion System approved pursuant to this Ordinance.

5. Severability

If any section, clause, or provision of this ordinance is declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the validity of the remainder of this ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

6. Pre-Application and Application Procedures

A. Pre-Application Procedure

- (1) Prior to submitting an application for approval of the proposed project the applicant shall meet informally with the Code Enforcement Officer to present a sketch plan and generally discuss the proposal and to obtain guidance in development of the plan. The sketch plan may be a freehand drawing and shall show to the extent known:
 - (a) The outline of the tract or parcel with estimated dimensions, road rights of way and existing easements;
 - (b) North Arrow;
 - (c) The proposed layout of the Wind Energy Conversion System equipment, related features of the project and existing or planned building(s), identification of general areas of steep slopes, wetlands, streams, and flood plains;
 - (d) Other information pertinent to the project.

B. Minor Application Procedure

Applications for Wind Energy Conversion Systems that include fewer than four (4) wind turbines and which generate no more than 100 kW combined and each of which are either: 1) not more than thirty (30) feet taller in height than any structures or trees located within 300 feet from the wind turbine (measured horizontally from the bottom of the blade rotation), or 2) have a total Hub Height of seventy-five (75) feet or less are deemed Minor Applications and are eligible for expedited review by the Code Enforcement Officer

- (1) The applicant shall submit a fully executed and signed copy of the building permit application, the Wind Energy Conversion System fee and submissions required under Section 6.C below.
- (2) The Code Enforcement Officer shall indicate any other approvals from local, regional and State agencies that may be required. Letters, permits or approvals from these agencies shall be included as a part of the application and/or review.
- (3) The Code Enforcement Officer shall make an inspection of the site.

- (4) The applicant shall notify all landowners within 250 feet of the site by certified mail upon application for a building permit to construct a Wind Energy Conversion System with a maximum power rating of over 20kW. The landowners will be afforded thirty (30) days to submit comments to the Code Enforcement Officer prior to the issuance of the building permit.
- (5) Within thirty-five (35) days from submission of a Minor Application for a Wind Energy Conversion System and following an on-site inspection the Code Enforcement Officer shall evaluate the application for compliance with the standards outlined in Section 9 of this ordinance and shall approve, approve with conditions, or deny the application.

C. Minor Application Submission Requirements

The following submission requirements shall apply to all applications for Wind Energy Conversion Systems:

- (1) Evidence of right, title or interest in the property such as deed, option to purchase, lease, or agreement.
- (2) A copy of the tax map showing general location of the site within the town.
- (3) List of landowners within 250 feet of the site.
- (4) Standard drawings of wind turbine structure including the rotor, nacelle, tower, footings, and, if applicable, guy wires provided by the Wind Energy Conversion System manufacturer.
- (5) Tower foundation blueprints or drawings. For systems with a maximum power rating of 20kw or greater, the applicant shall provide a soils analysis and an engineered foundation plan stamped by a professional engineer licensed in the State of Maine.
- (6) Wind Energy Conversion System manufacturer specifications, including model, rotor diameter, tower height, tower type, nameplate generation capacity, cut-in speed, EMI and RFI shielding, sound analysis, and system safety and stability data. Also include the estimated generation capacity based on average annual wind speed at the site based on meteorological tower data or as estimated using data from the U.S. Department of Energy or another acceptable source.³
- (7) Certification that the wind energy system is compliant with the National Electrical Code, or State Electrical Code where applicable.
- (8) Evidence of compliance or non-applicability with Federal Aviation Administration requirements.
- (9) A site plan measuring no smaller than 11" X 17" and no larger than 24" X 36" and drawn at a scale no greater than 1" = 30' for parcels under ten acres, and 1" = 50' for parcels exceeding ten acres and showing the following:

- (a) Boundaries of all contiguous property under the control of the owner or applicant regardless of whether all or part is being developed at this time;
- (b) A title block in the lower right-hand corner containing the name and address of the applicant and property owner, the name and address of the preparer of the plan if applicable, the map and lot number according to municipal tax maps, and the date of the plan preparation and revisions;
- (c) A parcel information block located in the lower left-hand corner containing the parcel acreage, zoning district(s), and required setbacks;
- (d) The location of all existing structures, overhead utility lines, roads and easements; and copies of any proposed or existing easements, covenants, deed restrictions or other legal matters related to the deed;
- (e) The location of each proposed Wind Energy Conversion System, foundations, guy anchors, setback lines, fencing, access roads and turnout locations, substations(s), electrical cabling from the system to the substation, accessory equipment, buildings and structures, right-of-way boundaries, railroads, and the layout of all structures within the Wind Energy Conversion System setback area;
- (f) Zoning district boundaries as applicable;
- (g) The location and height of highest tree or structure within 300' of the proposed Wind Energy Conversion System.

D. Major Application Procedure

Applications for Wind Energy Conversion Systems that are either greater than three (3) wind turbines, generate more than 100kW combined, or exceed the height restrictions for Minor Applications are deemed Major Applications and require Planning Board review.

- (1) The applicant shall follow the procedures for Site Plan Review laid out in Article 7 of the New Gloucester Zoning Ordinance. The applicant shall submit a fully executed and signed copy of the building permit application, the Wind Energy Conversion System fee and submissions required under Section 6.E below.
- (2) The Code Enforcement Officer shall indicate any other approvals from local and regional and State agencies that may be required. Letters, permits or approvals from these agencies shall be included as a part of the application and/or review.
- (3) The applicant shall obtain a Wind Energy Conversion System Application, complete the application and submit it to the Code Enforcement Officer. The project shall be reviewed by the Code Enforcement Officer to determine if it generally conforms to applicable ordinance requirements.

- (4) The Code Enforcement Officer shall make an inspection of the site.
- (5) If the project appears to conform to applicable ordinance requirements, the applicant shall complete a building permit application, provide supporting documents and pay only the Wind Energy Conversion System fee.
- (6) After receipt of the full application, the Code Enforcement Officer and Planner shall submit the application to the Planning Board for site plan review.
- (7) The Planning Board shall hold a public hearing for all requests for a major Wind Energy Conversion System. Such hearing shall be scheduled within 30 days of acceptance of an application as complete.
- (8) The Board may attach reasonable conditions to approvals to ensure conformity with the purposes and provisions of this ordinance.

E. Major Application Submission Requirements

A completed application for Major Application review shall consist of 10 copies of all of the following:

- (1) All submission requirements for Minor Application review;
- (2) All applicable submission requirements for site plan review.
- (3) The Planning Board may require a scenic assessment consisting of one or more of the following:
 - (a) A visual analysis composed of elevation drawings of the proposed Wind Energy Conversion System and any other proposed structures, showing height above ground level. The analysis may include a computerized photographic simulation demonstrating the visual impacts from nearby strategic vantage points or photo simulations of the proposed facility taken from perspectives determined by the Board. Each photo must be labeled with the line of sight, elevation, and with the date taken imprinted on the photograph. The photos must show the color of the facility and method of screening.
 - (b) A brief narrative discussing: the extent to which the proposed facility would be visible from or within a scenic resource or scenic viewshed, the tree line elevation of vegetation within 100 feet of the facility, and the distance to the proposed facility from the scenic resource viewpoints.

7. Meteorological Towers (MET Towers)

Applications for Meteorological (MET) Towers shall be subject to the Minor Application procedure for wind energy conversion systems, as applicable, except that, notwithstanding any contrary provisions in the New Gloucester Land Use Ordinance, no height limitation shall apply. A permit for a MET Tower shall be valid for 2 years and 2 months from the date of issuance. The Code Enforcement Officer may grant one or more

one-year extensions of this permit period. Within 30 days following removal of a MET Tower, the Applicant shall restore the site to its original condition to the extent practicable. The provisions of this section do not apply to permanent MET Towers included as facilities associated with approved Wind Energy Conversion Systems.

8. Dimensional Requirements

A. Setbacks.

All Wind Energy Conversion Systems shall be set back a minimum horizontal distance of 1.1 times the Total Height of the system from property lines, public right-of-ways, and easements. The Planning Board or Code Enforcement Officer may reduce the Wind Energy Conversion System setback to the minimum structure setbacks of the zoning district if there are no habitable buildings within the fall zone area of the abutting property or easements and the applicant obtains a fall zone easement from the pertinent abutting landowner.

Grandfathered Wind Energy Conversion Systems in operation at the time of approval of the new ordinance may increase system height consistent with the ordinance without meeting the setback requirement.

B. Minimum Height.

The minimum distance between the ground and any part of the rotor blade shall be fifteen (15) feet.

9. Development Standards

If a project includes construction other than a Wind Energy Conversion System project, such other construction must comply with other applicable Town ordinances.

- A. The system's tower and blades shall be a non-reflective color that blends the system and its components into the surrounding landscape to the greatest extent possible and incorporates non-reflective surfaces to minimize any visual disruption.
- B. The system shall be designed and located to minimize Negative Visual Impacts on Significant Designated Resources without inhibiting adequate access to the wind resource.
- C. Exterior lighting on any tower or turbine associated with the Wind Energy Conversion System shall not be allowed except that which is specifically required by the Federal Aviation Administration.
- D. All on-site electrical wires associated with the systems shall be installed underground except for 'tie-ins' to a public utility company transmission poles, towers and lines. A licensed electrician shall connect the small Wind Energy Conversion System to the residence or other structure. This standard may be modified by the Planning Board if the project terrain is determined to be unsuitable due to the reasons of need for excessive excavation, grading or similar factors.

- E. The system shall be operated and located such that no disruptive electromagnetic interference with signal transmission or reception is caused beyond the site. If it has been demonstrated that the system is causing disruptive interference beyond the site, the system operator shall promptly eliminate the disruptive interference or cease operation of the system.
- F. Towers shall be constructed to provide one of the following means of access control or another appropriate method of access control as approved by the Code Enforcement Officer or Planning Board:
 - (1) Tower climbing apparatus shall be located no closer than twelve (12) feet from the ground.
 - (2) A locked anti-climb device shall be installed on the tower.
 - (3) A locked, protective fence at least six (6) feet in height shall be maintained that fully encloses the tower.
- G. Anchor points for any guy wires for a system tower shall be located within the site. No guy wires or other system components shall be located so as to block access by emergency vehicles. The Fire Department shall be afforded the ability to cut electricity going into the house or other habitable building remotely.
- H. All Wind Energy Conversion Systems shall comply with applicable Federal Aviation Administration (FAA) rules and regulations.
- I. No Wind Energy Conversion System shall be installed or operated in a manner that causes interference with the operation of any existing aviation facility including helicopter pads.
- J. The conformance of rotor and over-speed control design and fabrication with good engineering practices shall be certified by the manufacturer.
- K. Noise

Except during short-term events including utility outages and severe wind storms, the audible noise created by operation of a Wind Energy Conversion System as measured at the property boundary line shall not exceed fifty-five (55) dBA.¹

10. Administration and Waivers or Modifications

- A. The Code Enforcement Officer and/or Planning Board is authorized to review and act on all Wind Energy Conversion System applications. In considering Wind Energy Conversion System plans under this ordinance, the Code Enforcement Officer and Planning Board may act to approve, disapprove or approve with conditions as

¹ 42-55 dB is approx. sound of small refrigerator.

authorized by these provisions. No municipal permit shall be issued nor construction work begun on any Wind Energy Conversion System project until the Wind Energy Conversion System plan has been approved by the Code Enforcement Officer or Planning Board. All work shall be carried out in accord with the documentation submitted and approved by the Code Enforcement Officer or Planning Board.

- B. The Planning Board may attach reasonable conditions to approvals to ensure conformity with the purposes and provisions of this ordinance. The Planning Board may condition final approval on receipt of copies of all State or Federal permits required by the project including, but not limited to, the Zoning Ordinance or the Federal Aviation Administration (FAA) permits.
- C. All approvals shall expire within one year of the date of issuance unless work thereunder is substantially commenced within one year from the date of approval. If work is not substantially completed within two years from the date of issue, a new application may be required by the Board.

11. Definitions

- A. Applicant: The person, firm, partnership, corporation, company, limited liability company or other entity which applies for approval under this ordinance.
- B. Fall Zone: 1.1 times the Total Height of the Wind Energy Conversion System.
- C. Habitable Building (or structure): Places likely to be occupied on a continuous or temporary basis. This includes, but is not limited to, dwellings, commercial businesses, places of worship, nursing homes, schools or other places used for education, day-care centers, motels, hotels, correctional institutions or barns.
- D. Hub Height: The vertical distance measured from a point on the ground at the original grade to the turbine hub.
- E. Line of Sight: The direct view of the object from selected locations.
- F. Material Modification: Changes in the location of any approved unit, location of main exterior switch, size of rotor blades, and approved height(s); the replacement of the turbine with a unit of different manufacturer specifications regarding level of power or noise generation, adding additional turbine(s), or any other significant change(s) regarding safety features of the approved Wind Energy Conversion System.
- G. Meteorological (MET) Tower: A tower used for the measurement and collection of wind data that supports various types of equipment, including but not limited to anemometers, data recorders, and solar power panels. MET Towers may also include wildlife related equipment such as ANABAT detectors, bird diverts and wildlife entanglement protectors.
- H. Negative Visual Impact: A change in the appearance of the landscape as a result of a Wind Energy Conversion System development that is both out-of-character with a Significant Designated Resource and which significantly diminishes the scenic value

of the significant resource. Mere visibility of a Wind Energy Conversion System does not in and of itself constitute a Negative Visual Impact.

- I. Significant Designated Resource: A specific location, view or corridor identified as a scenic resource in the Comprehensive Plan or by a State or Federal agency. Significant designated resources include, but are not limited to, National Register of Historic Places buildings, locales or views of same.
- J. Site: The parcel of land where a Wind Energy Conversion System is to be placed. The site can be publicly or privately owned and is a single lot.
- K. Total Height: The vertical distance measured from a point on the ground at the original grade to the highest point of the wind turbine blade (or other component) when the tip is at full vertical.
- L. Viewshed Map: A map that shows the geographic area from which a Wind Energy Conversion System may be seen.
- M. Wind Energy Conversion System: A Wind Energy Conversion System consisting of a wind turbine, a tower, footings, electrical infrastructure, fence and any other associated equipment or structures. Any Wind Energy Conversion System, herein defined, is a legal accessory use wherever situated.