TO: EASTBROOK COMPREHENSIVE PLAN COMMITTEE

FROM: HANCOCK COUNTY PLANNING COMMISSION

WIND ENERGY FACILITY ORDINANCE
TOWN MEETING DRAFT

December 20, 2010

Wind Energy Facility Ordinance
Town of Eastbrook, Maine
December 20, 2010 Draft

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EASTBROOK WIND ENERGY FACILITY ORDINANCE: TOWN MEETING DRAFT

Section 1.0 Title

This ordinance shall be known as the Wind Energy Facility Ordinance for the Town of Eastbrook, Maine.

Section 2.0 Authority

This ordinance is adopted pursuant to the enabling provisions of Article VIII, Part Second, Section 1 of the Maine Constitution, 30-A MRSA §3001 and 30-A MRSA §4312 *et seq.* and consistent with the Town of Eastbrook's comprehensive land use plan, as amended.

Section 3.0 Purpose

The purpose of this ordinance is to regulate the siting, construction and operation of Wind Energy Facilities in the Town of Eastbrook, Maine in order to protect the public health, safety and welfare.

Section 4.0 Definitions

Ambient Sound means at a specified time, the all-encompassing sound associated with a given environment, being usually a composite of sounds from many sources at many directions, near and far, including the specific facility of interest.

Applicant means the legal entity that proposes to construct a Wind Energy Facility or conduct an activity regulated under this ordinance and files an application for a permit to do so under this ordinance. "Applicant," sometimes referred to in this ordinance as "permittee," also means the entity to whom a Wind Energy Facility permit is issued.

Approved Residential Subdivision means a residential subdivision for which all applicable land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Associated Facilities means elements of a Wind Energy Facility other than its Generating Facilities that are necessary to the proper operation and maintenance of the Wind Energy Facility, including but not limited to buildings, access roads, Generator Lead Lines and substations.

Blade Reflection means the intermittent reflection of the sun off a surface of the blade(s) of a wind turbine.

Construction means an activity and operations associated with the facility or expansion of the facility or its site.

DEP Certification means a certification issued by the Maine Department of Environmental Protection pursuant to 35-A MRSA §3456 for construction or operation of a wind energy development.

Emergency means any circumstance, condition or situation, whether or not caused or aggravated by a wind energy facility, that presents an imminent threat of physical danger to life or property that calls for immediate action to reduce or mitigate that threat.

Maintenance and Repairs means work performed or other measures taken in response to an emergency or routine work necessary to keep the WEF in proper working condition.

Energy Sum of a Series of Levels means ten times the logarithm of the arithmetic sum of the antilogarithms of one-tenth of the levels.

Existing Hourly Sound Level means the hourly sound level resulting from routine operation of an existing facility prior to the first expansion that is subject to this ordinance.

Equivalent Sound Level means the level of the mean-square A-weighted sound pressure during a stated time period, or equivalently the level of the sound exposure during a stated time period divided by the duration of the period. (NOTE: For convenience, a one hour equivalent sound level should begin approximately on the hour.)

Generating Facilities means wind turbines and electrical lines, not including Generator Lead Lines, that are immediately associated with the Wind Turbines.

Generator Lead Line means a "generator interconnection transmission facility" as defined by 35-A MRSA §3132(1-B).

Historic Area means an Historic Site administered by the Bureau of Parks and Lands, Maine Department of Conservation, with the exception of the Arnold Trail.

Historic Site means any site, structure, district or archaeological site which is included on the National Register of Historic Places or on the Maine Historic Resource Inventory, or which is established by qualified testimony as being of historic significance.

Hourly Sound Level means the equivalent sound level for one hour measured or computed in accordance with this Ordinance.

Locally-Designated Passive Recreation Area means any site or area designated by a municipality for passive recreation that is open and maintained for public use and which: has fixed boundaries; is owned in fee simple or leased by a municipality or is accessible by virtue of public easement; and is identified and described in a local comprehensive plan or other formal designation by the town at the time a complete application for a WEF was filed under this Ordinance.

Maximum Sound Level means ten times the common logarithm of the square of the ratio of the maximum sound to the reference sound of 20 micropascals. Symbol: LAFmax.

Maximum Sound means the largest A-weighted and fast exponential-time-weighted sound during a specified time interval. Unit: pascal (Pa).

Meteorological Tower (MET Tower) means a tower erected for a temporary period or for an indefinite period if permitted in association with a WEF and 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. A MET tower may also include wildlife-related equipment such as ANABAT detectors, bird diverts and wildlife entanglement protectors.

Municipal Reviewing Authority means the Town of Eastbrook Planning Board.

Nacelle means the frame and housing at the top of the tower that encloses the gearbox and generator.

Non-Participating Landowner means any landowner, other than a Participating Landowner whose land is located wholly or partially within the town.

Occupied Building means a residence, school, hospital or other established medical facility, nursing home, community building, grange, house of worship, public library or other building that is occupied or in use as a primary residence or at the time of application for a WEF under this Ordinance is customarily frequented by the public.

Participating Landowner means one or more persons that hold title in fee or a leasehold interest with sublease rights to property on which Generating Facilities or Associated Facilities are proposed to be located pursuant to an agreement with the applicant or an entity that has entered into an appropriate agreement with the applicant that allows the applicant to demonstrate the sufficient right, title and interest in such property.

Person means an individual, corporation, partnership, firm, organization or other legal entity.

Permittee means the legal entity to which a permit for a WEF or MET tower is issued.

Planned Residence means a residence for which all applicable building and land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Pre-development Ambient means the ambient sound at a specified location in the vicinity of a facility site prior to the construction and operation of the proposed facility or expansion.

Protected Location means any location that is:

1) accessible by foot, on a parcel of land owned by a Non-Participating Landowner containing a residence or planned residence, approved residential subdivision, house of worship, school, college, public library, licensed hospital or other established medical facility or nursing home near the development site on the date a complete application for a WEF was filed under this ordinance;

2) within a state or national park or refuge, a nature preserve owned by a land trust, the Maine Audubon Society or The Nature Conservancy, the Appalachian Trail, the Moosehorn National Wildlife refuge, a federally designated wilderness area, a state wildlife management area, a

state wilderness area designated by statute, a municipal park or beach or a locally-designated passive recreation area, active bald eagle nest, or any location within consolidated public reserve lands designated by rule by the Bureau of Parks and Lands as a Protected Location, or;

3) a hotel, motel, established bed & breakfast, farm, campsite or licensed campground that has been designated a Protected Location due to the potential for adverse economic, health, safety or welfare impacts from construction or operation of a WEF.

Residence means a building or structure including manufactured housing, but excluding recreational vehicles, tents and watercraft, that is maintained for permanent or seasonal residential occupancy and having living, cooking and sleeping facilities, and permanent indoor or outdoor sanitary facilities.

Routine Operations means regular and recurrent operation of regulated sound sources associated with the purpose of the facility and operating on the facility site.

Scenic Resource means either a Scenic Resource of state or national significance, as defined in 35-A MRSA §3451(9) or a scenic resource of local significance located within a town and identified as such in a comprehensive plan, open space plan or scenic inventory adopted by the town.

Sensitive Receptor means a residence or other place or structure intended for human habitation, whether inhabited or not, public park, state or federal wildlife area, school, daycare center, elder care facility, medical facility, place of seated assemblage, nonagricultural business, or manicured area of a recreational establishment designed for public use, including but not limited to a golf course, campground or other nonagricultural business licensed by a state or federal agency. A sensitive area is more likely to be sensitive to the exposure of noise, shadow flicker or other potentially adverse effects of a Wind Energy Facility.

Setback as it applies to a wind turbine means the minimal allowable horizontal distance as measured from the center of a wind turbine to a defined point such as a property line.

Setback Area means the entire land area that falls within a specified setback.

Shadow Flicker means alternating changes in light intensity caused by the movement of wind turbine blades casting shadows on the ground or a stationary object.

Short Duration Repetitive Sounds means a sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in duration, and which are inherent to the process or operation of the development and are foreseeable.

Sight Line Representation means a profile drawing showing prominent features, including but not limited to topography, buildings, and trees, along and in relation to a line of sight extending from an observer's eye to the lowest point visible on a proposed tower.

Significant Wildlife Habitat means a Significant Wildlife Habitat as defined in 38 MRSA §480-B(10).

Sound Components means the measurable sound from an audibly identifiable source or group of sources.

Sound Level means ten times the common logarithm of the square of the ratio of the frequency-weighted and time-exponentially averaged sound pressure to the reference sound of 20 micropascals. For the purpose of this Ordinance, sound level measurements are obtained using the A-weighted frequency response and fast dynamic response of the measuring system, unless otherwise specified.

Sound Pressure means root-mean-square of the instantaneous sound pressures in a stated frequency band and during a specified time interval. Unit: pascal (Pa).

Sound Pressure Level means ten times the common logarithm of the square of the ratio of the sound pressure to the reference sound pressure of 20 micropascals.

Substantial Start means construction has commenced with construction activities beyond site clearing and excavation including, but not limited to, the pouring of a slab or footings, installation of piles, framing, construction of columns, or placement of a tower on a foundation.

Tonal Sound means a tonal sound exists if, at a Protected Location, the one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz.

Tower means the free-standing structure on which a wind measuring or energy conversion system is mounted.

Town means the Town of Eastbrook unless the context clearly indicates otherwise.

Turbine Height means the distance measured from the surface of the tower foundation to the highest point of any turbine rotor blade measured at the highest arc of the blade.

Wind Energy Facility sometimes referred to in this ordinance as "WEF", means a facility that uses one or more Wind Turbines to convert wind energy to electrical energy. A Wind Energy Facility includes Generating Facilities and Associated Facilities.

Wind Energy Facility, Type 1A means a Wind Energy Facility having a maximum generating capacity of less than 100kW, a maximum of one Wind Turbine and a maximum turbine height of 80 feet.

Wind Energy Facility, Type 1B means a Wind Energy Facility having: a maximum generating capacity of less than 100kW; more than one wind turbine; or one or more wind turbines with a maximum turbine height of more than 80 feet but less than or equal to 110 feet. A Wind Energy Facility having more than three (3) Type 1B turbines shall be regulated under this ordinance as a Type 2 Wind Energy Facility.

Wind Energy Facility, Type 2 means a Wind Energy Facility having a maximum generating capacity of 100kW or greater and a maximum height of 500 feet, but which does not require a state permit issued by the Maine Department of Environmental Protection (DEP) under the Site Location of Development Act, 38 MRSA §481, *et seq.* Subject to the requirements of 35-A MRSA §3456, a DEP certificate is required when the energy is for sale or use by a person other than the generator.

Wind Energy Facility, Type 3 means a Wind Energy Facility having a generating capacity of 100kW or greater and a maximum height of 500 feet and which requires a state permit issued by the Department of Environmental Protection under the Site Location of Development Act, 38 MRSA §481, *et seq.*

Wind Turbine means a system for the conversion of wind energy into electricity which is comprised of a tower, generator, Nacelle, rotor and transformer.

Additional acoustical terms used in work associated with this ordinance shall be used in accordance with the following American National Standards Institute (ANSI) standards:

ANSI S12.9-1988 - American National Standard Quantities and Procedures for Description and Measurements of Environmental Sound, Part 1;

ANSI S3.20-1973 – American National Standard Psychoacoustical Terminology;

ANSI S1.1-1960 - American National Standard Acoustical Terminology.

Section 5.0 Applicability

5.1 This ordinance applies to any Wind Energy Facility proposed for construction in the Town of Eastbrook after the effective date of this Ordinance.

5.2 A Wind Energy Facility that was lawfully constructed prior to the effective date of this Ordinance is not required to meet the requirements of this ordinance except that any modification to an existing Wind Energy Facility that materially alters the location, size, height, type, design or number of wind turbines requires a permit under this ordinance.

5.3 The burdens of proof and compliance with all aspects of this ordinance are on the applicant of a Wind Energy Facility. Approval of a Wind Energy Facility by the town does not relieve the applicant of its responsibility to comply with all applicable provisions of this ordinance.

Section 6.0 Conflict and Severability

6.1 If there is a conflict between provisions of this ordinance, the more stringent provision shall govern. If there is a conflict between a provision of this Ordinance and that of another Town of Eastbrook ordinance, the provision of this ordinance shall govern, but only as it relates to a Wind Energy Facility.

6.2 If there is a conflict between the provisions of this Ordinance and any state rule or law applying to wind energy facilities, the more stringent provision shall govern.

6.3 The invalidity of any part of this Ordinance by a court of competent jurisdiction does not invalidate any other part of this Ordinance.

Section 7.0 Classification of Wind Energy Facilities

Wind Energy Facilities regulated under this ordinance are classified in accordance with the definitions in Section 4 as of the effective date of this ordinance. A WEF having more than three (3) Type 1B turbines is regulated as a Type 2 under this ordinance.

Section 8.0 Review and Approval Authority

The Planning Board shall review and decide all applications for a Wind Energy Facility or a MET Tower and may approve, deny or approve such applications with conditions in accordance with the provisions of this ordinance.

Section 9.0 Activities Requiring a Permit

1. No person may construct or locate a Wind Energy Facility or a MET tower within the Town of Eastbrook without a permit issued in accordance with this Ordinance.

2. Any physical modification to an existing Wind Energy Facility that materially alters the location or increases the area of development on the site, increases the number, type, design or size of wind turbines or otherwise increases the generating capacity, increases wind tower or turbine height or may increase the level of sound emissions from any wind turbine requires an amended permit under this ordinance.

3. No person may lease, sell, assign or otherwise transfer a Type 2 or 3 Wind Energy Facility or portion thereof without a permit under this ordinance from the Town of

Eastbrook. Such a permit shall be granted only if the applicant or transferee demonstrates to the satisfaction of the planning board that: the transferee has sufficient title, right or interest in the facility; the transferee has the technical capacity and financial ability to fully comply with the provisions of the permit issued for the Wind Energy Facility and this ordinance; and the facility is in substantial compliance with all applicable ordinances and permits.

4. An application to install a MET tower for the purposes of assessing meteorological conditions prior to submission of an application for a WEF is subject to the submission and review standards for a Type 1A Wind Energy Facility, as applicable, except that no tower height limitation shall apply. A permit issued for a MET tower is valid for 30 months from the date of issuance after which the applicant shall remove the MET tower within 30 days and restore the site to its pre-existing condition. The provision for removal of a MET tower does not apply to a MET tower included as permanent Associated Facilities in an approved Wind Energy Facility.

Section 10.0 Activities Not Requiring a Permit

Normal maintenance and repair activities at an existing and operating Wind Energy Facility do not require a permit, provided that the activity will not result in noncompliance with permit conditions or applicable provisions of any ordinance of the town.

Section 11.0 Permit Fees Established

At the time of application, the applicant shall submit a nonrefundable permit application fee to the town in accordance with a fee schedule adopted by the selectmen. Within 45 days of the effective date of this ordinance, the selectmen shall adopt an initial fee schedule after having provided at least 30 days prior public notice, including notice placed in a weekly newspaper of general circulation in the area. The fee schedule must differentiate between fees for Type 1A and Type 1B facilities and fees for Type 2 and Type 3 facilities.

The selectmen of the town may vote to revise the fees from time to time after having provided at least 30 days prior public notice of their intent to do so, including notice placed in a weekly newspaper of general circulation in the area. Upon adoption, any revised fee schedule~~s~~ shall be appended to this ordinance as Appendix A (Fees).

Section 12.0 Demonstration of Community Benefits

For an application for Type 2 or Type 3 Wind Energy Facility, an applicant must demonstrate that substantial community benefits will accrue to the town as a result of the construction and operation of the facility. In addition to any other demonstration of community benefits, including significant tangible benefits provided for in a community benefits agreement entered into by the Applicant and the town, the applicant must identify the tax value, direct payments

or other financial benefits to be realized and the form and duration of such benefits, and the short-term and long-term jobs to be created, telecommunication infrastructure enhancements or other economic benefits to be realized and the duration of such benefits.

Section 13.0. RESERVED

Section 14.0 Administration (Application Review Process)

14.1 For Type 1A Wind Energy Facility Applications

a. Within 30 days after receiving an application for a WEF, the Planning Board shall review the application for completeness and notify the applicant in writing either that the application is complete or, if the application is incomplete, the specific additional information needed to complete the application.

b. The Planning Board shall hold a public hearing on the application.

c. The Planning Board shall make its decision within 15 days following the close of the hearing, denying the application for a Wind Energy Facility and stating the reasons why it is denied; approving the application for a Wind Energy Facility as proposed; or approving the application subject to conditions. In making its decision, the Planning Board shall make findings on whether the wind energy facility as proposed meets the applicable criteria for approval. A decision of the Planning Board relating to the application shall be made only at a public meeting for which proper public notice has been given.

d. Upon the agreement of the Planning Board and the applicant, the Planning Board may further extend the procedural time frames set forth in this section.

14.2 For Type 1B, Type 2 and Type 3 Wind Energy Facility Applications

a. Within 30 days after receiving an application for a Type 1B WEF or 60 days for a Type 2 or 3 WEF, the Planning Board shall review the application for completeness and notify the applicant in writing either that the application is complete or, if the application is incomplete, the specific additional information needed to complete the application.

b. The Planning Board shall hold a public hearing on the application for a Type 1B, Type 2 or Type 3 WEF within 30 days after the date the application is determined to be complete.

c. The Planning Board shall make its decision within 15 days following the close of the hearing for a Type 1B WEF, denying the application for a Wind Energy

Facility and stating the reasons why it is denied; approving the application for a Wind Energy Facility as proposed; or approving the application subject to conditions. In making its decision, the Planning Board shall make findings on whether the wind energy facility as proposed meets the applicable criteria for approval.

Within 30 days following the close of the public hearing on an application for a Type 2 or 3 WEF and after review, the Planning Board shall issue a written decision: denying the application for a Wind Energy Facility and stating the reasons why it is denied; approving the application for a Wind Energy Facility as proposed; or approving the application subject to conditions. In making the decision, the Planning board shall make findings on whether the wind energy facility as proposed meets the applicable criteria for approval.

A decision of the Planning Board relating to the application shall be made only at a public meeting for which proper public notice has been given.

d. The Planning Board may extend the time frame for deciding an application for a Type 2 or 3 WEF for an additional 30 days if it determines such additional time is necessary to fully consider the application.

Upon the agreement of the Planning Board and the applicant, the Planning Board may further extend the procedural time frames of this section.

14.3 Notice of Planning Board meeting

In addition to any notice required by law or town ordinance for a planning board meeting, the Town of Eastbrook shall, at the applicant's expense, give notice by first class mail to the applicant, and all owners of property abutting the property on which the Wind Energy Facility is proposed to be located at least 10 days prior to any meeting, including a public hearing, at which an application for a Type 1A or 1B, Type 2, or Type 3 Wind Energy Facility is to be considered.

For Type 2 or a Type 3 WEF, notice shall be given to all owners of record of property within 1 mile of the property. Such notice must also be prominently posted at the community building at that time. The Applicant shall pay the town the total costs of such notice within 10 days of having been sent an invoice by the town for the costs of the notice.

The notice must state the date, time and place of the meeting and the name and address of the applicant, proposed WEF size and location, type of Wind Energy Facility and nature of the action to be considered by the Planning Board.

14.4 Public hearing notice to be given in newspaper and at town office

The Town of Eastbrook shall post notice of the date, time, and place of any public hearing on a proposed Wind Energy Facility at least once in a newspaper of general circulation in the area at least 14 days prior to the hearing. At that time, such notice must also be prominently posted at the community building or other public location where official town notices are posted.

14.5 Professional services retained by town

In order to assist the Planning Board in its review of an application for a WEF, the Town of Eastbrook may retain professional services, including but not limited to those of an attorney or land use or technical consultant, to evaluate the proposal and potential impacts and whether the application meets the criteria set forth the ordinances of the town. Upon presentation of a reasonable estimate of the cost of such evaluation by the town, the applicant shall deposit with the town the full estimated cost, which the town must place in an escrow account.

The town shall pay the costs of the professional services from the escrow account and shall reimburse any unspent funds to the applicant following the final decision by the town on the application and exhaustion of any appeals.

14.6 Expiration of WEF Permit

A WEF permit issued by the Planning Board expires 24 months following the date of approval unless construction has substantially started. Upon the expiration of a permit, the applicant may not begin to construct or operate a WEF unless and until a new approval is granted. If construction of the approved WEF has substantially started but is not completed within 36 months following the date of approval, the permit expires. Upon the Applicant's written request and for good cause, the Planning Board may extend the 24-month or 36-month expiration date., which may not be more than 24 additional months.

If a permit for a Type 2 or Type 3 Wind Energy Facility expires, the applicant shall immediately implement pertinent provisions of the approved decommissioning plan.

14.7 Access during application review and following issuance of a permit

The code enforcement officer or other authorized representative of the town shall be allowed access to the site at all reasonable times for the purposes of evaluating the WEF proposal, reviewing the progress of the work or assuring compliance with the conditions of any permit and of this ordinance. They have authority to inspect all records and documents of the applicant or WEF operator that relate to the design, construction and operation and compliance of the facility.

14.8 Enforcement

No person may violate or fail to comply with or take any action that is contrary to the provisions of this Ordinance, or violate or fail to comply with any permit issued under this Ordinance, or to cause another to violate or fail to comply or take any action that is contrary to the provisions of this Ordinance or any permit under this Ordinance. Consistent with the provisions of 30-A MRSA, section 4452 or its successor, the town may institute civil enforcement proceedings or any other remedy at law to ensure compliance with this Ordinance and any permit issued thereunder.

14.9 Appeals

Any Person aggrieved by a decision of the Planning Board made under this ordinance may appeal the decision to the Board of Appeals within 30 days of the date of decision, as provided by Section XV.G of the Town of Eastbrook Land Use Ordinance.

Section 15.0 Pre-application Meeting

Prior to filing an application for a Type 1B, Type 2 or Type 3 WEF application, the applicant is strongly encouraged to meet with the Planning Board to discuss the application requirements. At such a pre-application meeting, the Planning Board can explain the ordinance's provisions, application forms, and submission requirements. At that time, the applicant should provide photos of the proposed site and written descriptions of the proposed facility and the proposed site, including its location, lot area and current zoning designations. Such discussions with the Planning Board are informational only and may not be construed to decide, formally or informally, on the merits of any substantive aspects of proposal under discussion.

Section 16.0 Permit Application

16.1 Application components.

A Wind Energy Facility permit application shall consist of a permit application fee, completed application form and all supporting documents as described below:

a. Application Form. The application form provided by the Town of Eastbrook that shall be signed and dated by the applicant. The signatory shall certify that the information in the application is complete and correct and that the proposed facility will be constructed and operated in accordance with the provisions of this ordinance, permit(s) issued and all conditions of approval, if any.

b. Application Fee. Submission of the full amount of the application fee at the time of submission of the application.

c. Demonstration of Community Benefit. For an application for Type 2 or Type 3 Wind Energy Facility, a demonstration of substantial community benefits.

d. Supporting Documents. The application must include all documents necessary to satisfy the applicable submission requirements under this Ordinance.

16.2 Application submission.

The applicant shall submit two (2) complete copies of the application in paper format including all supporting documents, such documents being titled and sequentially numbered, except that for Type 2 and 3 WEF applications, the applicant must submit ten (10) complete copies. For Type 2 and 3 WEF applications, the applicant shall also submit one complete copy in an electronic format determined by the planning board. The submissions must be made to the town office c/o the planning board.

16.3 Changes to a pending application

a. The applicant shall promptly notify the Planning Board in writing of any changes the applicant proposes to make to information contained in the application. The Planning Board may require an application to be resubmitted and the review periods restarted if it determines the changes modify the applicant's proposal materially.

b. If an applicant proposes modifications to a pending application during or after a public hearing on the application has been held, the Planning Board must continue the hearing to another date or reopen the public hearing if it determines the proposed modifications materially alter the proposal.

Section 17.0 Application Submission Requirements

General Submission Requirements

17.1. A completed application form including:

a. The applicant and Participating Landowner(s)' name, principal place of business, physical and mailing addresses, telephone number, fax number and email address.

b. The tax map number, zone, current use, deed book and page number and the name and address of the owner(s) of the proposed facility site and of any contiguous parcels owned by Participating Landowners.

c. The tax map number, zone, current use, deed book and page number and the name and address of the owner(s) of parcels that abut the proposed facility site or abut parcels of Participating Landowners that are contiguous with the proposed facility site.

d. A narrative description of the proposed WEF, including an overview of the project, project schedule, project location, elevation of land upon which the wind

tower(s) will be placed, number of wind towers and their height, generating capacity of the WEF, area affected, prevailing winds at the project location, road access to the site and receiving transmission line location.

e. Evidence of the applicant's technical and financial ability to construct and operate the project as proposed during the expected period of operation.

17.2 A copy of a deed, easement, lease, purchase option or other comparable legal documentation demonstrating that the applicant has right, title or interest in the proposed facility site.

17.3 Location map, drawn to scale, showing the boundaries of the proposed facility site and all contiguous property under total or partial control of the applicant or Participating Landowner(s) and any public way, above ground utility lines, designated floodplain, deer wintering area, bald eagle nests, state or federally designated wetlands, Scenic Resource, Historic Site or Area, Significant Wildlife Habitat, Locally-designated Passive Recreation Area, residence or planned residence, approved residential subdivision, Occupied Building or Protected Location within 1.5 miles of the proposed development, and depicting the current zoning designations for the area.

17.4 Detailed description of the proposed Wind Energy Facility that includes the number, aggregate generating capacity of all wind turbines, manufacturer's specifications for each Wind Turbine, including but not limited to the make, model, maximum generating capacity, sound emission levels and types of overspeed controls, wind tower heights and tower footprint, and a description of Associated Facilities.

17.5. Site plan showing the proposed location of each wind turbine, the ground area occupied by the turbine, and Associated Facilities and any of the following features located within 1,500 feet of any Type 1A or 1B wind turbine or within 1 mile for Type 2 or 3 wind turbines; parcel boundaries, required setbacks, topographic contour lines (maximum 20-foot interval), roads, rights-of-way, overhead utility lines, buildings (identified by use), land cover, wetlands, streams, water bodies and areas proposed to be re-graded, cleared of vegetation or otherwise altered.

a. Site plans for Type 1B, Type 2 and Type 3 Wind Energy Facilities must also show the location and average height of tree cover to be retained and the location, variety, planting height and mature height of proposed trees, if any.

17.6. Written evidence that the Environmental Coordinator for the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program (MNAP) have both been notified of the pending application and the location and turbine height of all proposed wind turbines, and inclusion of any comments and recommendations made by those agencies or other group recommended by either agency.

17.7. Written evidence that the provider of electrical service to the property has been notified of the applicant's intent to connect an electric generator to the electricity grid, if such connection is proposed, and the provider's agreement to accept such electricity when generated by the WEF.

17.8 Detailed description of the proposed emergency and normal shutdown procedures for the WEF, including notifications to the provider of electrical service, the town and the public.

17.9. Photographs in sufficient quantity and detail that fairly represent pre-construction conditions at the site, and for a Type 2 or Type 3 Wind Energy Facility, an aerial photograph depicting the project parcels, Participating Landowner parcels and all Non-Participating parcels located within 1 mile of the proposed facility.

17.10 An application for a Type 1A or 1B Wind Energy Facility must include structural drawings of the tower foundation and anchoring system prepared and certified by the Wind Turbine or Tower manufacturer or prepared and stamped by a Maine-licensed professional engineer qualified to prepare such drawings. Furthermore, it must be designed with setbacks as specified in this Ordinance.

17.11. An application for a Type 1A or Type 1B Wind Energy Facility shall include a written statement, signed by the applicant, that certifies that the proposed facility is designed to meet the applicable noise control provisions of this ordinance and acknowledges the applicant's obligation to take remedial action in the event those standards are not being met.

17.12. An application for Type 1B, Type 2 or Type 3 Wind Energy Facility must include the following sight-line, photographic and, if applicable, screening information, provided that an Applicant for a Type 3 Wind Energy Facility may provide this information as part of a visual assessment if required pursuant to section 20.5:

a. Sight line representations of each Wind Turbine from the nearest Occupied Building and from at least five other representative locations within 1 mile of the Wind Turbine, such as a Scenic Resource or another Occupied Building. Each sight ~~site~~ line representation must be drawn at a scale sufficiently large to make it legible. If screening is proposed, the proposed screening device, such as trees, shrubs or fencing, must be depicted on the drawing along with the sight line as altered by the screening.

b. A current four-inch by six-inch or greater color photograph of the proposed site of the Wind Turbine(s) taken from viewpoints corresponding to each of the sight line representations, or a computer-generated image if the owner of the subject property does not allow the Applicant to access the property.

c. One copy of each of the photographs described in b, above, onto which is superimposed an accurately-scaled and sited representation of the Wind Turbine(s).

d. Standard boundary survey of the subject property, giving complete descriptive data by bearings and distances, made and certified by a Maine-licensed surveyor. The Planning Board may waive this requirement for a Type 1A or Type 1B WEF if it determines that the Applicant has provided information sufficient to identify property boundaries to the extent necessary.

17.13. An application for a Type 2 Wind Energy Facility that generates energy primarily for sale or use by a person other than the generator, must include, if issued at the time of application, certification from the Department of Environmental Protection pursuant to 35-A MRSA. §3456 that the Wind Energy Facility:

a. will meet the requirements of the noise control rules adopted by the Board of Environmental Protection pursuant to the Site Location of Development Act, 38 M.R.S. §481, *et seq.* and the standards set forth in Appendix B of this ordinance;

b. will be designed and sited to avoid adverse Shadow Flicker effects that result in flicker or blade reflections falling on a sensitive receptor, as provided in this Ordinance. An exception to this standard may be made only if the flicker or reflection does not exceed ten (10) hours per year for any given receptor or if the applicant enters into a binding agreement with an affected land owner waiving this standard for property controlled by the land owner; and

c. will be constructed with setbacks adequate to protect neighboring properties and public safety and mitigate adverse noise effects from operation of a wind turbine.

If such certification has not been issued at the time of application, the applicant shall include written evidence that the Applicant has applied for certification and shall submit such certification to the Planning Board upon its issuance. The Planning Board may postpone its decision on the application until it receives evidence of such authorization.

17.14 Additional Submission Requirements for an Application for a Type 2 and 3 Wind Energy Facility

The applicant shall provide the following.

1. Certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, or other similar certifying organizations.

2. Decommissioning plan in conformance with Appendix C, including provisions for financial surety to ensure completion of decommissioning and site restoration.

3. Written summary of operation and maintenance procedures for the Wind Energy Facility and a maintenance plan for access roads, erosion and sedimentation controls and storm water management facilities.

4. Visual impact assessment, if required pursuant to section 20.5.

5. Stormwater management plan stamped by a Maine-licensed professional engineer.

6. Shadow flicker analysis based on WindPro or other modeling software approved for use by the Department of Environmental Protection.

7. Foundation and anchoring system drawings that are stamped by a Maine-licensed professional engineer.

8. A blasting plan prepared in accordance with all applicable state laws and rules and with the standards set forth in Appendix D of this Ordinance. Blasting may occur only after the Applicant has received approval for such operations and must comply with the provisions established by the Department of Environmental Protection under 38 MRSA, Chapter 3, Subchapter 1, Article 8-A, § 490-Z(14).

9. A sound study prepared by a qualified firm having expertise in noise and acoustical assessments. The study must include pre-construction sound levels at representative key receptor sites over multiple periods and a computer modeling that projects post-construction noise levels in each direction for a distance of wind three miles from the Wind Energy Facility.

10. A fire prevention and emergency response plan including provisions for annual training for local and regional fire and emergency response personnel.

11. A facility security plan, including limiting unauthorized access to wind turbines.

12. Other relevant studies, reports, certifications and approvals as may be reasonably requested by the Town of Eastbrook to ensure compliance with this Ordinance, including but not limited to a meteorological assessment of the wind resources and speed in the project area, sound analysis and land uses within two miles of the project area.

Section 18.0 General Standards

18.1 Allowed Land Use Zones for WEF

No permit for a WEF may be granted for uses not allowed in a given zoning district as specified in the Town of Eastbrook Land Use Ordinance.

18.2 Maximum Turbine Height

The height of any turbine may not exceed the following:

- for a Type 1A WEF: 80 feet;
- for a Type 1B WEF: 110 feet
- for a Type 2 or Type 3 WEF: 500 feet.

18.3 Turbine Safety Setback Distances

A Type 1A, 1B, 2 or 3 wind turbine must be set back a horizontal distance of at least 150% of the turbine height from all property boundaries, public and private rights-of-way, and from overhead utility lines that are not part of the proposed Generating Facility except that the Planning Board may establish a reduced setback from a property boundary up to a distance no less than 110% of the turbine height from any building if the Applicant submits a signed and notarized statement signed by the applicable abutting landowner attesting to the landowner's agreement to a waiver or reduction in the setback requirement. The Planning Board may also waive or reduce a setback from a private right-of-way owned by a Participating Landowner if the Applicant submits a signed and notarized statement signed by the Participating Landowner attesting to the landowner's agreement to a waiver or reduction in the setback requirement.

18.4 Community and Environmental Protection Setback Distances

Notwithstanding any other setback provision contained in this Ordinance, no Type 2 or Type 3 wind turbine may be constructed or operated within 5,280 feet of any Sensitive Receptor or Scenic Resource or within 6,600 feet of any great pond.

18.5 Natural Resource Protection

A Wind Energy Facility may not have an unreasonable adverse effect on rare, threatened, or endangered wildlife, significant wildlife habitat, rare, threatened or endangered plants and rare and exemplary plant communities. In making its determination under this subsection, the Planning Board may consider relevant written comments or recommendations, if any, from the Maine Department of Inland Fisheries and Wildlife and the Maine Natural Areas Program.

18.6 **Building Codes**

All components of the Wind Energy Facility must conform to all applicable local and state building codes and all applicable life safety codes.

18.7 **Overspeed Controls and Brakes**

Each wind turbine must be equipped with an overspeed control system that: includes both an aerodynamic control such as stall regulation, variable blade pitch, tip or other similar system, and a mechanical brake that operates in fail safe mode; and has been designed by the manufacturer or a qualified licensed civil engineer, certified to protect the public safety during

all periods of operation of the turbine and found by the Planning Board based upon its review to protect public safety.

18.8 **Electrical Components and Interconnections**

All electrical components of the Wind Energy Facility shall conform to all applicable local, state, and national codes.

18.9 **Access Control to Turbines and Equipment**

All ground-mounted electrical and control equipment and all access doors to a Wind Turbine shall be labeled and secured to prevent unauthorized access. A Wind Tower may not be climbable up to a minimum of fifteen (15) feet above ground surface unless such access is from the inside of a wind tower having controlled access.

18.10 **Minimum Blade Clearance from Ground**

The minimum distance between the ground and the outer edge of all blades of a Type 1A or Type 1B wind turbine is 25 feet as measured at the lowest arc of the blades. For Type 2 or Type 3 type wind turbines, the minimum distance is 40 feet.

18.11 **Signal Interference**

The WEF must be sited and operated such that it may not cause any significant disruption or loss of radio, telephone, cellular phone, television, or similar signals. If construction or operation of the WEF results in demonstrated significant disruption or loss of signals, the applicant shall provide alternate but substantially equivalent signals or service. For the purposes of this section, "significant disruption means degradation of service that limits use of the service or signal noticeably more than 5% of the time of service operation.

18.12 **Structure Type**

With the exception of MET towers, wind towers must be monopoles having no guy wires. Bird flight diverters must be installed on all guy wires associated with a MET tower that is permitted.

18.13 **Erosion Control Measures**

Erosion of soil and sedimentation must be minimized by employing "best management practices" in the "*Maine Erosion Control Handbook for Construction: Best Management Practices*", March 2003, or successor edition if issued by the date of filing of an application for a wind energy facility.

18.14 **Building-mounted Wind Turbines**

Building-mounted wind turbines are prohibited.

18.15 Visual Appearance

1. A Wind Turbine must be constructed or painted of a color that is non-obtrusive such as white, off-white or gray, or as otherwise required by another governmental agency having jurisdiction over the Wind Energy Facility.

2. A Wind Turbine may not be lighted artificially, except to the extent necessary to comply with requirements of the Federal Aviation Administration or other applicable authority that regulates air safety, or as is otherwise required by another governmental agency having jurisdiction over the Wind Energy Facility. The Applicant shall submit a statement from the Federal Aviation Administration that it approves or has no objections to the proposed wind tower design, height or and location.

3. A Wind Turbine may not be used to support signs and may not display advertising or other promotional information except for reasonable and incidental identification of the turbine manufacturer, facility owner and operator, and for warnings.

18.16 Visibility of Wind Turbine

The following requirements apply to Type 1B and Type 2 Wind Energy Facilities:

1. To the extent that doing so does not unreasonably block access to the wind resource, each Wind Turbine must be located to maximize the effectiveness of existing vegetation, structures and topographic features in screening the Wind Turbine from residences and Scenic Resources.

2. If existing features do not screen a Wind Turbine from residences or Scenic Resources, the applicant may be required to take reasonable and effective measures to provide screening, including but not limited to, planting of trees or shrubs and minor relocation of a proposed wind turbine. In order to maximize the screening effect and minimize wind turbulence near the Wind Turbine, plantings should be situated as near as possible to the point from which the Wind Turbine is being viewed. Such plantings should be of native varieties.

18.17 Recording of Mitigation Waivers and Agreements

In order for a mitigation waiver or other agreement entered into by the Applicant and a Participating Land Owner or other person to be considered valid and recognized as effective under this Ordinance, the waiver or agreement must recorded in the Hancock County Registry of Deeds and a copy filed with the town clerk. Such a waiver or other agreement must be signed and dated by all parties to the agreement and must include a description of the property affected, registry book and page number, relevant provision(s) of the ordinance, and duration of waiver or agreement.

Section 19.0 Special Standards for Type 1A and Type 1B Wind Energy Facilities

19.1 Noise Standards.

Sounds emanating from a Type 1A or Type1B Wind Energy Facility are subject to the provisions of this section

1. The sound level limits contained in this section apply only to areas that are defined as Protected Locations and to property boundaries that describe the outer limits of the facility site in combination with any parcel(s) owned by a Participating Land-Owner that are contiguous with the facility site.

2. The sound level limits in this section do not apply to the facility site or any land owned by a Participating Land-Owner that are contiguous with the facility site.

3. The sound levels resulting from routine operation of a Wind Energy Facility, as measured in accordance with the procedures described in section 19.1.5 may not exceed the limits specified for the following locations and times:

   a. At a Protected Location: 35 dBA between 6:00 p.m. and 7:00 a.m. or 5 dBA above the ambient sound level whichever is less; and 45 dBA between 7:00 a.m. and 6:00 p.m. or 5 dBA above the ambient sound level whichever is less; and

   b. At the property boundaries that describe the outer limits of the facility site combined with any parcel(s) owned by a Participating Landowner that are contiguous with the facility site:

      55 dBA at any time.

4. The town may perform measurements of sound levels resulting from routine operation of an installed Type 1A or Type 1B Wind Energy Facility at the town's own initiative or in response to a noise-related complaint to determine compliance with the applicable noise standards and conditions of the permit. When doing so, the town shall perform the measurements in accordance with the protocols established by a qualified noise consultant retained by the town or alternatively, as follows:

   a. Measurements shall be obtained during representative weather conditions when the sound of the Wind Energy Facility is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the Wind Turbine and inversion periods (which most commonly occur at night).

   b. Sound levels shall be measured at least four (4) feet above the ground by a meter set on the A-weighted response scale, fast response. The meter must meet the

latest version of American National Standards Institute (ANSI S1.4.) "American Standard Specification for General Purpose Sound Level Meters" and must have been calibrated at a recognized laboratory within the past year.

c. When determining the sound level, 5 dBA must be added to measured sound levels of any Short Duration Repetitive Sound measured in accordance with paragraphs a and b.

d. If a violation is found, all costs associated with the measurements required by this section shall be borne by the applicant, in addition to any other remedial sanctions.

5. The Applicant shall operate the proposed Wind Energy Facility in conformance with the applicable sound level limits, and shall take remedial action to ensure compliance with those limits, including as necessary:

a. modification or limitation of operations during certain hours or wind conditions;

b. maintenance, repair, modification or replacement of equipment;

c. relocation of the Wind Turbine(s), for which town approval is required; and,

d. removal of the Wind Turbine(s).

19.2 **Shadow Flicker and Blade Reflection**

A Type 1A or Type 1B Wind Energy Facility may not cause an unreasonable adverse shadow flicker or blade reflection effect at any Occupied Building or residence located on a Non-Participating Landowner's property. For the purposes of this section, "unreasonable adverse shadow flicker or blade reflection" means shadow flicker or blade reflection occurring for 3 days of more in any one month that, if annualized, would total more than 10 hours of flicker or reflection per year. In addition, a wind turbine, including its blades, must be constructed of non-reflective materials or its surface painted so as to be non-reflective.

19.3 **Discontinued Use**

1. A Type 1A or Type 1B Wind Energy Facility that has not generated electricity for twelve (12) consecutive months or 12 months in a 15-month period is deemed a discontinued use and must be removed from the property by the applicant within 120 days of receipt of notice from the town, unless the applicant demonstrates by a preponderance of the evidence that facility has not been discontinued and, therefore, should not be removed. If the Wind Energy Facility is not removed within the time period specified by the town, the town may remove the facility at the applicant's expense. The applicant shall pay all site reclamation costs deemed necessary and

reasonable to return the site to its pre-construction condition, including the removal of roads and reestablishment of vegetation.

2. If a surety has been given to the town for removal of a Type 1B Wind Energy Facility, the applicant may apply to the town for release of the surety when the Wind Energy Facility has been removed to the satisfaction of the town.

Section 20.0 Special Standards for Type 2 and Type 3 Wind Energy Facilities

20.1 Noise Standards

Noise resulting from a Type 2 Wind Energy Facility or a Type 3 Wind Energy Facility is subject to and controlled in accordance with the provisions of Appendix B.

If there is a conflict between a provision of Appendix B and another provision of this ordinance, the provision of Appendix B shall apply.

Beginning during the period April through December of the 1st year of commencement of operation of an approved Wind Energy Facility, the applicant shall arrange a post-construction sound study with all wind turbines operating to be performed by a qualified firm to determine actual noise levels from the WEF and assess compliance with noise standards set forth in the facility permit and this ordinance. The Applicant shall notify the Planning Board at least 30 days prior to conducting the study and the town may observe all field work and shall be given an opportunity to review the study's methodology and results. A second sound study must be performed during the same period in the second year and at least every 3 years thereafter.

20.2 Use of Public Roads

1. The applicant shall identify all state and local public roads to be used within the Town of Eastbrook to transport equipment and parts for construction, operation, maintenance or dismantling of a Type 2 or Type 3 Wind Energy Facility.

2. The Town Engineer or Road Commissioner or a qualified third-party engineer acceptable to the Planning Board and paid for by the applicant pursuant to Section 14.5 of the Ordinance, shall document road conditions prior to construction or other related activity. Such person shall document road conditions again thirty (30) days after construction is complete or as soon as weather permits.

3. The applicant shall, at its own expense, promptly repair any road damage caused by the applicant or its contractors. The applicant shall demonstrate, to the satisfaction of the Planning Board that it has financial resources sufficient to promptly repair any damage to roads, including culverts, caused by the applicant or its contractors to the local or state road standards, as applicable. The town may require the applicant to post a bond or other security in order to ensure compliance with this provision.

20.3 **Warning Signs**

A clearly visible warning sign concerning voltage must be placed and maintained at the base of all pad-mounted transformers and substations. A warning sign must also be placed at the base of each turbine.

20.4 **Artificial Habitat for Raptors**

The applicant shall design the wind energy facility to minimize the creation of artificial habitat for raptors or raptor prey. The applicant shall consider and incorporate to the extent feasible comments and recommendations provided by the Maine Department of Inland Fisheries and Wildlife relating to raptor habitat.

20.5 **Effect on Scenic Resources**

1. Except as otherwise provided in this subsection, if a Type 2 or Type 3 Wind Energy Facility is proposed for location in or is visible from a Scenic Resource, the applicant shall provide to the Planning Board a visual impact assessment as part of its application. The assessment must address the evaluation criteria set forth in subsection 20.5.3. There is a rebuttable presumption that the proposed facility will not create an undue visual impact on the area and, therefore, no visual impact assessment is required for those portions of a Type 2 or Type 3 Wind Energy Facility that are located more than 3 miles, measured horizontally, from the nearest Scenic Resource. However, the Planning Board may require a visual impact assessment for portions of the Type 2 or Type 3 Wind Energy Facility located more than 3 miles and up to 8 miles from a Scenic Resource if it determines that a visual impact assessment is needed to assess the potential for significant adverse effects on a Scenic Resource. The Planning Board may determine that the presumption is rebutted based on a preponderance of evidence made available to the board within 30 days of determination that the application is complete.

2. The Planning Board shall determine, based on consideration of the evaluation criteria in subsection 20.5.3, whether the Type 2 or 3 Wind Energy Facility significantly compromises views from a Scenic Resource such that the proposed facility has an unreasonable adverse effect on the scenic character or existing uses related to scenic character of that Scenic Resource.

3. In making its determination pursuant to subsection 20.5.2, and in determining whether an Applicant for a Type 2 or 3 Wind Energy Facility located more than 3 miles from a Scenic Resource must provide a visual impact assessment in accordance with subsection 20.5.1, the Planning Board shall consider:

    a. The significance of the potentially affected Scenic Resource;

    b. The existing character of the surrounding area;

c. The expectations of the typical viewer;

d. The Type 2 or Type 3 Wind Energy Facility's purpose and the context of the proposed activity;

e. The extent, nature and duration of potentially affected public uses of the Scenic Resource and the potential effect on the public's continued use and enjoyment of the Scenic Resource; and

f. The scope and scale of the potential effect of views of the Wind Energy Facility on the Scenic Resource, including but not limited to issues related to the number and extent of Wind Turbines visible from the Scenic Resource, the distance from the Scenic Resource and the effect of prominent features of the Wind Energy Facility on the landscape.

A finding by the Planning Board that the Type 2 or Type 3 Wind Energy Facility is a highly visible feature in the landscape is not a solely sufficient basis for determination that it has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a Scenic Resource. In making its determination under subsection 20.5.2, the Planning Board may not consider the scenic effects of any portion of a Type 2 or Type 3 Wind Energy Facility that is located more than 8 miles, measured horizontally, from a Scenic Resource.

20.6 Shadow Flicker and Blade Reflection

Type 2 and Type 3 Wind Energy Facilities may not cause an unreasonable adverse shadow flicker or blade reflection effect at any Occupied Building or residence located on a Non-Participating Landowner's property. For the purposes of this section, "unreasonable adverse shadow flicker or blade reflection" means shadow flicker or blade reflection occurring for 3 days of more in any one month that, if annualized, would total more than 10 hours of flicker or reflection per year. In addition, a wind turbine, including its blades, must be constructed of non-reflective materials or its surface painted so as to be non-reflective. As part of its application, the applicant shall include a detailed shadow flicker and blade glint assessment, developed through modeling and prepared by a person qualified to conduct such an assessment, and an estimate of the projected extent of flicker and glint. The assessment must meet the following:

A. The assessment must identify Sensitive Receptors and public ways, model the locations and durations of shadow flicker caused by the proposed WEF within the study area and project the frequency and duration of shadow flicker within 200 feet of those locations throughout the study area.

20.7 Relationship to DEP Certification and Permitting

1. For a Type 2 Wind Energy Facility for which a Department of Environmental Protection (DEP) Certification has been issued in accordance with section 17.13, the

Planning Board may, but is not required to, consider applicable findings of fact and conclusions of law made in the department-issued certification when making its determination under sections 18.3, 20.1, and 20.6 and may rely upon those findings and conclusions in its decision on the application.

2. If DEP has issued a Site Location of Development Act permit for a Type 3 Wind Energy Facility pursuant to 38 M.R.S. §484(3), the Planning Board may, but is not required to, consider applicable findings of fact and conclusions of law made in the department-issued permit when making its determination whether the proposal meets the requirements of sections 18.3, 18.5, 20.1, 20.6, 20.12 and, as it pertains to Scenic Resources of state or national significance as defined by 35-A M.R.S. §3451(9), section 20.5 and may rely upon those findings and conclusions in its decision on the application.

20.8 **Local Emergency Services**

1. The Applicant shall provide a copy of the project summary and site plan to local emergency service providers, including paid or volunteer fire department(s).

2. Upon request, the Applicant shall cooperate with emergency service providers to develop and coordinate implementation of an emergency response plan for a Type 2 or Type 3 Wind Energy Facility.

3. A Wind Turbine shall be equipped with an appropriate fire suppression system to address fires within the Nacelle portion of the turbine or shall otherwise address the issue of fire safety to the satisfaction of the Planning Board.

20.9 **Liability Insurance**

The Applicant or an Applicant's designee acceptable to the Planning Board shall maintain a current general liability policy for the Type 2 or Type 3 Wind Energy Facility that covers bodily injury and property damage with limits in an amount commensurate with the scope and scale of the Wind Energy Facility. The Applicant or its designee shall make certificates of insurance available to the town upon request.

20.10 **Design Safety Certification**

Each Wind Turbine shall conform to applicable industry standards including those of the American National Standards Institute (ANSI) and at least one of the following: Underwriters Laboratories, Det Norske Veritas, Germanischer Llloyd Wind Energies, or other similar certifying organization.

20.11 **Public Inquiries and Complaints**

1. At all times during the life of the facility, the Applicant or its designee shall maintain a toll-free telephone number 24 hours a day, 365 days a year that allows any member of the public to contact the facility operator with inquiries or complaints and shall

also identify a person representing the facility who is responsible for answering the inquiries and complaints. The Applicant shall maintain a log of such inquiries and complaints and the Applicant's response to them.

2. The Applicant or its designee shall make reasonable efforts to respond to the public's inquiries and complaints and shall provide written copies of all complaints and the company's resolution or response to the town upon request.

20.12 **Decommissioning**

The Applicant shall prepare a decommissioning plan in conformance with Appendix C, including provisions for financial assurance. The Applicant shall, at its expense, commence and complete decommissioning of the Wind Energy Facility or portion thereof within: twelve (12) months after the end of the useful life of the facility of portion thereof; or as otherwise specified in the facility proposal as approved by the Planning Board. A Wind Energy Facility is presumed to have reached the end of its useful life if does not generate electricity for a continuous period of twelve (12) months or for 12 months in a 15-month period.

20.13 Emergencies and Emergency Shutdown of Facility

The Applicant shall immediately cease operations and shutdown all wind turbines for the duration of any emergency. "Emergency" means any condition or situation caused or aggravated by a wind energy facility that presents an imminent threat of physical danger to life or property. The applicant shall immediately notify the Town of Eastbrook Fire Department of any emergency condition.

20.14 Blasting

The Applicant shall not undertake any blasting in connection with construction or operation of a Wind Energy Facility unless the applicant has first provided notice to the town and filed a plan for blasting that is in accordance with all applicable laws and rules and standards set forth in Appendix D, and approved by the Planning Board. Furthermore, no blasting may occur without the applicant having given 48 hour prior notice to all property owners within 2 miles of the blast site.

20.15 As-built Plans

Within 60 days of completion of the WEF and commencement of operation, the Applicant shall provide the Planning Board with two complete sets of construction plans that depict the facility as actually constructed. Major deviations from the proposed project plans must be prominently noted on the plans.

Section 21.0 Effective Date

Having been approved by Town vote held on _____, this ordinance is effective as of _____.

APPENDIX A

Application Fees

Permit application fees must be established by the selectmen after adoption of this Ordinance as provided in Section 11 of this Ordinance. The selectmen shall hold a public hearing on the proposed fee schedule prior to adoption of the fee schedule. The selectmen shall review the fee schedule annually and may revise the fee schedule only after prior notice and public hearing on the revised fee schedule.

APPENDIX B

Noise Standards

A Type 2 or Type 3 Wind Energy Facility is subject to the following noise standards.

A. Sound Level Limits

(1) Sound from Routine Operation of Facility.

(a) The hourly sound levels resulting from routine operation of the facility and measured in accordance with the measurement procedures described in subsection F may not exceed the following limits:

(i) At any property line of the facility site or contiguous property owned by the Applicant or Participating Land Owner(s), whichever is further from the proposed facility's sound sources:

75 dBA at any time of day or night.

(ii) Within 660 feet of any Protected Location:

55 dBA between 7:00 a.m. and 6:00 p.m.
(the "daytime hourly limit"), and
40 dBA between 6:00 p.m. and 7:00 a.m.
(the "nighttime hourly limit").

(b) For the purposes of determining compliance with the above sound level limits, 5 dBA must be added to the observed measurements of any tonal sounds that result from routine operation of the facility. *For example, if sound from the facility is measured to be 50 dBA, then the sound level for the purposes of determining compliance with the sound level limits set forth in (a) above is 55 dBA.*

(c) When routine operation of a facility produces short duration repetitive sound, the following limits apply:

(i) For short duration repetitive sounds, 5 dBA must be added to the observed measurements of the short duration repetitive sounds that result from routine operation of the facility for the purposes of determining compliance with the above sound level limits.

(ii) For short duration repetitive sounds which the Planning Board determines are particularly annoying or pose a threat to the health and welfare of other persons due to their character or duration, a second 5 dBA increment must be added to the observed levels of the short duration repetitive sounds that result from routine operation of the facility for the purposes of determining compliance with the above sound level limits, and the maximum sound level of the short duration repetitive sounds shall not exceed the following limits:

(a) Within 660 feet of any Protected Location 55 dBA at any time of day or night.

NOTE: The maximum sound level of the short duration repetitive sound must be measured using the fast response [L_{AFmax}]. See the definition of maximum sound level.

(d) In addition to the above limits, the hourly sound levels resulting from routine operation of the facility and measured in accordance with the measurement procedures described in subsection F may not exceed 35 dBA at any location greater than 2 miles from a wind turbine.

(2) Sound from Construction of a Facility

(a) Sound from construction activities at the facility location occurring between 6:00 p.m. and 7:00 a.m. is subject to the following limits:

(i) Sound from construction activities, including construction activities conducted concurrently with routine operation of the facility, may not exceed the limit set forth in 1(a) (ii) above.

(b) Sound from construction activities occurring between 7:00 a.m. and 6:00 p.m. shall not exceed the following limits within 660 feet of any Protected Location:

Duration of Activity	Hourly Sound Level Limit
>6 hours	80 dBA
2 to 6 hours	85 dBA
>1 hour but <2 hours	95 dBA
1 hour or less	105 dBA

(c) All equipment used in construction on the facility site must comply with applicable federal noise regulations and must include environmental noise control devices in proper working condition, as originally provided with the equipment by its manufacturer.

(3) Sound from Facility Maintenance Activities

(a) Sound from routine, ongoing maintenance activities is considered part of the routine operation of the facility.

(b) Sound from occasional, major, scheduled overhaul activities, including overhaul activities conducted concurrently with routine operation of the facility, are subject to the construction sound level limits contained in subsection 2 above.

B. Submissions

The applicant shall submit technical information submitted describing the Applicant's plan and intent to make adequate provision for the control of noise. The applicant's plan shall contain information such as the following, when appropriate:

(a) Maps and descriptions of the land uses, local zoning and comprehensive plans for the area within which sounds from the facility will be above ambient sound levels.

(b) A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed facility, including their locations within the proposed facility.

(c) A description of the daytime and nighttime hourly sound levels and, for short duration repetitive sounds, the maximum sound levels expected to be produced by these sound sources at Protected Locations within two miles of the proposed facility.

(d) A description of the Protected Locations-within two miles of the proposed facility.

(e) A description of proposed major sound control measures, including their locations and expected performance.

(f) A comparison of the expected sound levels from the proposed facility with the sound level limits of this ordinance. Expected sound levels must be calculated with an acoustic model that conforms to International Standard ISO 9613-2, as revised, assuming simultaneous operation of all wind turbines and winter frozen-ground conditions. The acoustic modeling must assume each turbine emits the maximum sound power level guaranteed by the manufacturer for all wind speeds including the uncertainty level (K-factor) for sound measurement uncertainty and turbine production uncertainty (IEC Technical Specification 61400-14).

(g) The turbine sound power level frequency spectrum in 1/3-octave bands.

C. Terms and Conditions

The Planning Board may, as a term or condition of approval, establish any reasonable requirement to ensure that the Applicant has made adequate provision for the control of noise from the facility and to reduce the adverse effects of noise on Protected Locations. Such conditions may include, but are not limited to, enclosing equipment or operations, imposing limits

on extent or hours of operation, or requiring the employment of specific design technologies, site design, modes of operation, or traffic patterns.

The sound level limits established in this Ordinance do not preclude the Planning Board from requiring an Applicant to demonstrate that sound levels from a facility will not unreasonably disturb wildlife or adversely affect wildlife populations. In addition, the sound level limits shall not preclude the Planning Board, as a term or condition of approval, from requiring that lower sound level limits be met to ensure that the Applicant has made adequate provision for the protection of wildlife resources.

D. Measurement Procedures

(1) Scope. These procedures specify measurement criteria and methodology for use, with applications, compliance testing and enforcement. They provide methods for measuring the ambient sound and the sound from routine operation of the facility, and define the information to be reported. The same methods shall be used for measuring the sound of construction and maintenance activities.

(2) Measurement Criteria

2.1 Measurement Personnel

Measurements must be supervised by personnel who are well qualified by training and experience in measurement and evaluation of environmental sound, or by personnel trained to operate under a specific measurement plan approved by the Planning Board.

2.2 Measurement Instrumentation

(a) A sound level meter or alternative sound level measurement system used must meet all of the Type 1 or 2 performance requirements of American National Standard Specifications for Sound Level Meters, ANSI S1.4-1983.

(b) An integrating sound level meter (or measurement system) must also meet the Type 1 or 2 performance requirements for integrating/averaging in the International Electrotechnical Commission Standard on Integrating-Averaging Sound Level Meters, IEC Publication 804 (1985).

(c) A filter for determining the existence of tonal sounds must meet all the requirements of-American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSI S1.11-1986 for Order 3, Type 3-D performance.

(d) An acoustical calibrator must be used of a type recommended by the manufacturer of the sound level meter and that meets the requirements of American National Standard Specification for Acoustical Calibrators, ANSI S1.40-1984.

(e) A microphone windscreen must be used of a type recommended by the manufacturer of the sound level meter.

2.3 Calibration

(a) The sound level meter must have been calibrated by a laboratory within 12 months of the measurement, and the microphone's response must be traceable to the National Bureau of Standards.

(b) Field calibrations must be recorded before and after each measurement period and at shorter intervals if recommended by the manufacturer.

2.4 Measurement Location, Configuration and Environment

(a) Except as noted in subsection (b) below, measurement locations must be at nearby Protected Locations that are most likely affected by the sound from routine operation of the facility.

(b) For determining compliance with the 75 dBA property line hourly sound level limit, measurement locations must be selected at the property lines of the proposed facility or contiguous property owned by the Applicant, as applicable.

(c) The microphone must be positioned at a height of approximately 4 to 5 feet above the ground, and oriented in accordance with the manufacturer's recommendations.

(d) Measurement locations should be selected so that no vertical reflective surface exceeding the microphone height is located within 30 feet. When this is not possible, the measurement location may be closer than 30 feet to the reflective surface, but under no circumstances must it be closer than 6 feet.

(e) When possible, measurement locations should be at least 50 feet from any regulated sound source on the facility.

(f) Measurement periods must be avoided when the local wind speed exceeds 12 mph and/or precipitation would affect the measurement results.

2.5 Measurement Plans. Plans for measurement of pre-development ambient sound or post-facility sound may be discussed with the Codes Enforcement Officer.

(3) Measurement of Ambient Sound

Post-Facility Ambient Sound

(a) Measurements of the post-facility ambient one hour equivalent sound levels and, if short duration repetitive sounds are produced by the facility, the maximum sound levels made at nearby Protected Locations and during representative routine operation of the facility that are not greater than the applicable limits of subsection C clearly indicate compliance with those limits. If any of these conditions is not met, compliance with respect to the applicable limits must be determined by measuring the sound from routine operation of the facility in accordance with the procedures described in subsection 4.

(4) Measurement of the Sound from Routine Operation of Facility.

4.1 General

(a) Measurements of the sound from routine operation of facilities are generally necessary for specific compliance testing purposes in the event that community complaints result from operation of the facility, for validation of an Applicant's calculated sound levels when requested by the Planning Board, for determination of existing hourly sound levels for an existing facility or for enforcement purposes.

(b) Measurements must be obtained during representative weather conditions when the facility sound is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the facility and inversion periods (which most commonly occur at night).

(c) Measurements of the facility sound must be made so as to exclude the contribution of sound from facility equipment that is exempt from this regulation.

4.2 Measurement of the Sound Levels Resulting from Routine Operation of the Facility.

(a) When the ambient sound levels are greater than the sound level limits, additional measurements can be used to determine the hourly sound level that results from routine operation of the facility. These additional measurements may include diagnostic measurements such as measurements made close to the facility and extrapolated to the Protected Location, special checkmark measurement techniques that include the separate identification of audible sound sources, or the use of sound level meters with pause capabilities that allow the operator to exclude non-facility sounds.

(b) For the purposes of computing the hourly sound level resulting from routine operation of the facility, sample diagnostic measurements may be made to obtain the one hour equivalent sound levels for each sound component.

(c) Identification of tonal sounds produced by the routine operation of a facility for the purpose of adding the 5 dBA penalty in accordance with subsection A(l)(d) requires aural perception by the measurer, followed by use of one-third octave band spectrum analysis instrumentation. If one or more of the sounds of routine operation of the facility are found to be tonal sounds, the hourly sound level component for tonal sounds must be computed by adding 5 dBA to the one hour equivalent sound level for those sounds.

(d) Identification of short duration repetitive sounds produced by routine operation of a facility requires careful observations. For the sound to be classified as short duration repetitive sound, the source(s) must be inherent to the process or operation of the facility and not the result of an unforeseeable occurrence. If one or more of the sounds of routine operation of the facility are found to be short duration repetitive sounds, the hourly sound level component for short duration repetitive sounds must be computed by adding 5 dBA to the one hour equivalent sound level for those sounds. If required, the maximum sound levels of short duration repetitive sounds must be measured using the fast response [LAFmax]. The duration and the frequency of occurrence of the events must also be measured. In some cases, the sound exposure levels of the events may be measured. The one hour equivalent sound level of a short duration repetitive sound may be determined from measurements of the maximum sound level during the events, the duration and frequency of occurrence of the events, and their sound exposure levels.

(e) The daytime or nighttime hourly sound level resulting from routine operation of a facility is the energy sum of the hourly sound level components from the facility, including appropriate penalties, (see (c) and (d) above). If the energy sum does not exceed the appropriate daytime or nighttime sound level limit, then the facility is in compliance with that sound level limit at that Protected Location.

(5) Reporting Sound Measurement Data. The sound measurement data report should include the following:

(a) The dates, days of the week and hours of the day when measurements were made.

(b) The wind direction and speed, temperature, humidity and sky condition.

(c) Identification of all measurement equipment by make, model and serial number.

(d) The most recent dates of laboratory calibration of sound level measuring equipment.

(e) The dates, times and results of all field calibrations during the measurements.

(f) The applicable sound level limits, together with the appropriate hourly sound levels and the measurement data from which they were computed, including data relevant to either tonal or short duration repetitive sounds.

(g) A sketch of the site, drawn to scale, orienting the facility, the measurement locations, topographic features and relevant distances, and containing sufficient information for another investigator to repeat the measurements under similar conditions.

(h) A description of the sound from the facility and the existing environment by character and location.

APPENDIX C

Decommissioning Plan

Pursuant to section 20.12, the Applicant shall provide a plan for decommissioning a Type 2 or Type 3 Wind Energy Facility. The decommissioning plan must include, but shall not be limited to the following:

1. A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if no electricity is generated for a continuous period of twelve (12) months or 12 months in a 15-month period. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for that period, the project has not been abandoned and should not be decommissioned.

2. A description of the work required to physically remove all Wind Turbines, associated foundations to a depth of 36 inches, buildings, cabling, electrical components, and any other Associated Facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing.

   [Note: At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Wind Energy Facility. Any changes to the approved decommissioning plan must be subject to review and approval by the town.]

3. An estimate of the total cost of decommissioning less salvage value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: turbine removal, turbine foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.

4. Demonstration in the form of a performance bond, surety bond, letter of credit, parental guarantee or other form of financial assurance as may be acceptable to the Planning Board that upon the end of the useful life or cessation of operation of the Wind Energy Facility the Applicant will have the necessary financial assurance in place for 100% of the total cost of decommissioning, less salvage value. The Applicant may propose securing the necessary financial assurance in phases, as long as the total required financial assurance is in place within 5 years of commencement of operation of the useful life of the Wind Energy Facility.

APPENDIX D

BLASTING PLAN

The Applicant shall not undertake any blasting in conjunction with the construction, modification or expansion of a WEF unless the Applicant has notified the town in writing and submitted a blasting plan consistent with all applicable laws and rules and a blasting schedule. The plan and schedule shall be submitted for review and must be approved by the Planning Board before any blasting may take place.

Blasting may occur only in accordance with the approved blasting plan and schedule, and no blasting may occur without the Applicant having given at least 48 hours prior notice to all owners of record of property within a two mile radius, measured horizontally, from the blast site. The immediate site where blasting is to occur must be covered with blast mats or other protective devices to prevent debris from falling on adjacent properties or causing injury or property damage. Blasting must be restricted to daylight hours.