



**Town of Machias  
Wind Energy Facility  
Ordinance  
DRAFT**



**Section 1. Title**

1.1. This Ordinance shall be known and may be cited as the “Wind Energy Facility Ordinance of the Town of Machias, Maine” and will be referenced herein as this “Ordinance.”

**Section 2. Authority**

2.1. This Ordinance is adopted pursuant to the enabling provisions of Article VIII, Part 2, Section 1 of the Maine Constitution; the provisions of 30-A M.R.S. § 3001 (Home Rule); and the provisions of the Planning and Land Use Regulation Act, 30-A M.R.S. §§ 4312, *et seq.*

2.2. Due to the nature of certain Wind Energy Facilities, the Machias Planning Board or Code Enforcement Officer (“CEO”) may hire independent professional consultants to review certain Wind Energy Facility permits to determine any impacts to nearby properties, potential public safety implications, or address any concerns with a Wind Energy Facility application. If any costs are associated with such consulting services, they shall be covered by the applicant. The Planning Board or CEO will notify the applicant of the consultant’s name and address, along with the reason for the consultation, and an estimation of the expected cost.

**Section 3. Purpose and Intent**

3.1. The purpose of this Ordinance is to provide for the construction and operation of Wind Energy Facilities in the Town of Machias, Maine (“Town”).

3.2. This Ordinance establishes a municipal review process for procedures and performance standards for Wind Energy Facilities. These standards are intended to;

- A. Establish guidelines, standards, and time frames for the Town to regulate Wind Energy Facilities.
- B. Regulate the location of Wind Energy Facilities.
- C. Mitigate any potential adverse impacts of Wind Energy Facilities on surrounding property values.

- D. Protect public health, safety, and welfare.
- E. Protect the Town's scenic and natural beauty, wildlife habitats, freshwater and coastal wetlands, and other valued geographic characteristics.
- F. Protect historical and archaeological sites.
- G. Protect groundwater resources, protect drinking water supplies, provide adequate and safe subsurface wastewater disposal, and prevent water pollution.
- H. Prevent and minimize soil pollution.
- I. Provide for the complete decommissioning of Wind Energy Facilities at the end of their useful life.

#### **Section 4. Classification of Wind Turbines**

4.1. For the purpose of classification, Wind Turbine Generators are classified according to the following definitions:

- A. Type 1- Small Wind Turbine means a single wind turbine with a nameplate capacity less than 10kW and turbine height less than 100 feet.
- B. Type 2 - Intermediate Wind Turbine means a single wind turbine with a nameplate capacity less than 100kW and a turbine height less than 100 feet, and not requiring a permit from the Maine Department of Environmental Protection (DEP) pursuant to 35-A M.R.S. § 3456.
- C. Type 3 - Large Wind Turbine means up to three wind turbines with a nameplate capacity less than 1mW, and a turbine height less than 300 feet. A Location of Development permit from the Maine Department of Environmental Protection (DEP) pursuant to 35-A M.R.S. § 3451, § 3456, and 38 M.R.S. § 482 may be required for this project. For the purpose of this Ordinance, included in the Type 3 - Large Wind Turbine shall be any turbine(s) of nameplate capacity equal to or greater than 100kW and a turbine height greater than 150 feet if the energy generated is for sale or use by a Person other than the generator.
- D. Type 4 - Industrial Wind Turbine means one or more wind turbines each with a nameplate capacity of greater than or equal to 1mW, or a turbine height greater than or equal to 300 feet; or more than three Type 3 Wind Turbines. A Location of Development permit from the Maine Department of Environmental Protection (DEP) pursuant to 35-A M.R.S § 3451, § 3456, and 38 M.R.S. § 482 may be required for this project.
- E. Meteorological Towers (MET Towers) means 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. A MET has no height limitations, other than those imposed under State or Federal law. A permit for a temporary MET tower shall be valid for a

maximum of five years. The site shall be restored to its original condition within 30 days following removal of the tower.

### **Section 5. Applicability**

5.1. This ordinance applies to the entire town of Machias, meaning any and all property located within its designated boundaries, after the effective date of this Ordinance.

5.2. This Ordinance does not apply to any application for a Wind Energy Facility determined to be complete by the CEO or Planning Board prior to the effective date of this Ordinance.

5.3. Routine maintenance or the installation or replacement of a component for a Wind Energy Facility does not require a new permit under this ordinance unless the planned work increases the power-generating capacity of the Facility or materially alters the footprint or physical appearance of the Facility.

### **Section 6. Administration**

6.1. The Planning Board is authorized to review all applications for Type 1, Type 2, Type 3, and Type 4 Wind Energy Facilities, in addition to MET towers, and may approve or deny such applications in accordance with this ordinance.

6.2. The applicant may request a pre-application meeting with the Planning Board at the start of the process. The purpose of the pre-application meeting is for the applicant to present general information regarding the proposed Wind Energy Facility to the Planning Board and to seek feedback and comments before submitting a completed application. While not required, a pre-application meeting is recommended to avoid the unnecessary expenditure of funds for surveying, soil testing, and other project-related expenses without the necessary information.

A. The applicant may present a preliminary sketch plan and make a verbal presentation regarding the site and details of the proposed Wind Energy Facility.

B. Following the applicant's presentation, the Planning Board may ask questions and provide suggestions and/ or feedback to be considered by the applicant.

C. The Planning Board may consider whether an on-site inspection is advised and can, at that time, schedule and notify the public of the inspection's date and location.

6.3. A complete application with corresponding application fees must be filed with the planning board for review before any activity to which this ordinance applies may commence.

6.4. A code enforcement officer ("CEO") inspection form must accompany each permit application. A CEO fee of \$150 must accompany each application and is to be made payable to the town of Machias in order to obtain a certificate of compliance inspection. Applications will not be considered if the applicant has not paid the CEO fee and obtained a certificate of compliance from the CEO.

6.5. Certain Wind Energy Facilities may require additional Federal and State permits. All additional permit applications and approvals shall be submitted to the Planning Board as part of the application.

6.6. With the assistance of existing staff and/or consultants, the reviewing authority shall determine the completeness of the application within thirty (30) days after submission.

6.7. Upon the completion of the application, the Planning Board shall schedule a meeting for consideration of the application and provide meeting details to the applicant.

6.8. Ten (10) days prior to any meeting at which a Wind Energy Facility permit application is to be considered, the Planning Board shall notify the Applicant of the intent to consider a permit application and shall post a similar notice for the general public. The notice shall state the proposed Facility location, type of permit, and the date, time, and place where consideration will take place.

6.9. The Planning Board may hold a public hearing on the proposal within thirty (30) days of the receipt of the completed application if deemed necessary.

6.10. The Planning Board shall hold a public hearing if said hearing is requested by one or more abutting property owners within thirty (30) days of application submission.

6.11. In reviewing an application for compliance with this Ordinance, the Planning Board may retain professional services, including but not limited to attorneys and technical consultants, to verify data presented. This includes a review of the construction, operation, and decommissioning plans for the project. If professional consultation is retained, a professional fees escrow shall be established by the applicant: one-half of one percent of the estimated cost of the project, with a minimum balance of \$25,000,000 at all times. The fees escrow shall be maintained for 2 years after the project completion. The escrowed fees may be returned to the applicant at this time.

6.12. If the Applicant proposes changes to a pending application after a public hearing, town meeting, or Planning Board meeting, the Planning Board may continue the review process without a renewed public hearing if it determines that the proposed changes do not materially affect the application. Should the Planning Board determine that the proposed changes involve potential adverse effects in addition to or distinct from those addressed in the initial application, another public hearing shall be scheduled within thirty (30) days of that determination.

6.13. Type 3 and Type 4 permit applications will be subject to a public hearing and only approved by a majority vote at a town meeting.

6.14. Permits shall expire: 1) two years after the date of approval unless the CEO or Planning Board approves a longer expiration date or a substantial start on construction has occurred as defined in Appendix A, or 2) three years after the date of approval if construction is incomplete.

6.15. If a permit for a Wind Energy facility expires, the applicant shall implement pertinent provisions of the approved decommissioning plan. Upon the Applicant's written request, the reviewing authority may extend either the permit or the decommissioning plan expiration time limits by one year.

6.16. The CEO and any hired technical consultants shall have access to a Wind Energy Facility site at all times to review pertinent records, documents, and physical construction of the facility.

### **Section 7. General Standards.**

7.1. Wind Energy facilities shall be constructed only at locations that afford five thousand two hundred eighty (5,280) feet of separation from the nearest Protected Location as defined in Appendix A.

7.2. Machias Fire Protection: The Applicant shall prepare a plan in consultation with the Town of Machias Fire Department as part of the permitting process. The plan shall address all activities at the Wind Turbine Generator from the start of construction through the end of power generation and the final removal and restoration of the site, and shall discuss a response plan to address all identified potential fire, rescue, and hazardous material scenarios. The Owner/Operator shall ensure the Wind Turbine Generator complies with the following control and prevention measures and assumes responsibility for all associated incremental costs:

- A. Use of fireproof or fire-resistant building materials and buffers or fire-retardant landscaping around the Wind turbine generator as appropriate.
- B. Incorporation of a self-contained fire protection system to address nacelle fires, including but not limited to redundant fire quenching systems in the nacelle.
- C. Maintenance of firebreak areas as appropriate, cleared of vegetation and maintained as a fire/fuel break as long as the wind turbine is in operation.
- D. Provision for any additional firefighting or rescue personnel, services, training materials, or vehicles as may be required to address any emergency related to the Wind Turbine Generator that is beyond the current capabilities and duties of the local fire department.

7.3. The name, address, and telephone number of the individual or firm proposing to apply for a permit shall be filed with the CEO or Planning Board. The individual who will direct or manage a proposed facility shall also be identified. During the application process for the project, and during the life of the project, the applicant or his designee shall publicize a telephone number and name an individual to respond to citizen inquiries and complaints throughout the life of a Wind Energy Facility. Complaints shall be identified to the town Code Enforcement Officer and resolved within seven (7) days thereafter.

7.4. As part of the application, the applicant must submit estimated costs of the project and the cost of removing the obsolete, unused, or defective Facility. A demonstration in the form of a performance bond, surety bond, letter of credit, or other financial instrument must be presented to and accepted by the Planning Board to assure that the Applicant will have the funds necessary to complete the project and to remove the Facility at the end of its useful life.

7.5. Wind Turbine Generators that have a taxable property value of greater than \$10 million dollars; or, if the project will be qualified as a "designated business" for the purposes of state tax incremental financing as defined in 30-A M.R.S. § 5241, are required to have a written agreement between the Town of Machias and the Owner/Operator designating the financial methodology that will be used for tax purposes (Tax Valuation Agreement). The Tax Valuation Agreement must be in a format approved by the Town attorney and comply with all applicable state and federal tax codes and laws. The Tax Valuation Agreement must include a financial projection of the tax valuation for the useful life of the project and be prepared by a qualified CPA and reviewed by a qualified tax attorney selected by the Town and paid for by the Applicant. A Tax Impact statement must be prepared and presented to the Town. It will contain year-by-year for 10 years estimated of Machias residents' tax burden using the following data: 1) re-appraised values for all residents within 2 miles of the Wind Turbine Generators, 2) State re assessment for school tax amounts (assume constant school budget and constant contributions from Towns other than Machias), 3) other resident's properties are presumed to stay at their same value. This Tax Impact Statement will be prepared by an Accountant hired by the Town at the Owner/Operator's expense. The Tax Impact Statement will be presented to the Town for information.

7.6. Each Wind turbine shall be equipped with an overspeed control system that includes both an aerodynamic control, such as stall regulation, variable blade pitch, or similar system, and a mechanical brake that operates in a fail-safe mode.

7.7. Safety Setback - Wind Turbines shall be setback a horizontal distance equal to 200% of the Turbine Height from Facility property boundaries, public and private rights-of-way, and overhead utility lines that are not part of the Proposed Facility; except, the Town review and approval authority may allow a reduced setback if the Applicant submits in writing 1) a waiver of the property setback requirement signed by the pertinent abutting land owner or, 2) evidence such as operating protocols, safety programs, or recommendations from the equipment manufacturer or a licensed professional engineer having relevant experience with Wind Turbines, that demonstrates that the reduced setback does not compromise safety of adjacent Protected Locations existing at the time of application

7.8. Building Standards - All components of the Wind Energy Facility shall conform to relevant local and State building codes.

7.9. Access - 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 shall not be climbable up to a minimum of fifteen (15) feet above the ground surface. Danger warning signs shall be posted on all Associated Facilities at ground level where voltages greater than 120 volts may be encountered.

7.10. Natural Resources - A Wind Energy Facility shall not have an unreasonable adverse effect on rare, threatened, or endangered wildlife, significant wildlife habitat, threatened or endangered plants, and rare and exemplary plant communities. The Machias authority reviewing the permit application shall seek the written comments or recommendations of the Maine Department of Inland Fisheries and Wildlife Environmental Coordinator and the Maine Natural Areas Program.

7.11. Erosion Control - Erosion of soil and sedimentation shall be minimized by employing "best management practices" as found in the "Maine Erosion and Sediment Control Best Management Practices (BMPs)." October 2016.

7.12. Signal Interference - To the extent practical, Wind Turbines should be positioned to avoid and mitigate disruption or loss of radio, television, telephone, cell phone transmitter, and similar signals.

7.13. Structure Type - Wind Turbine towers shall be monopoles, with no guy-wires unless, to the satisfaction of the reviewing authority, it is demonstrated that a guy-wired tower is the most practical and economical alternative. Bird flight diverters must be installed on permitted guy-wires. Building-mounted Wind Turbines are not permitted.

7.14. Blade Clearance - The minimum clear distance between ground and Turbine blades shall be twenty-five (25) feet to the lowest position of the base of the blade arc.

7.15. Appearance and Visibility

A. A Wind Turbine shall be a non-obtrusive color such as white, off-white, gray, or as otherwise may be required by another government agency with jurisdiction over the Wind Energy facility.

B. A Wind Turbine shall not exceed 400' to the highest point.

C. A Wind Turbine shall not be lighted artificially except to the extent consistent with the Federal Aviation Administration recommendations using an ADLS System (Aircraft Detection Lighting System) for safety lighting.

D. A Wind Turbine tower shall not be used to support advertising signs apart from reasonable and incidental identification of the turbine manufacturer, facility owner, and operator, and safety warnings.

E. To the extent that doing so does not inhibit adequate access to the wind resource, each Wind Turbine shall be located to maximize the effectiveness of existing vegetation, structures, and topographic features in screening views of a Wind Turbine from Protected Locations and Scenic Resources.

F. When existing features do not screen views of a Wind Turbine from Protected Locations and Scenic Resources, screening may be feasible via planting of trees and shrubs. Plantings should be native varieties placed as close as possible to the point from which the Turbine is viewed.

7.16. Electrical Components - All electrical components of a Wind Energy Facility shall be installed to comply with applicable local, state, and national codes.

7.17. A Wind Energy Facility that has not generated electric power for twelve (12) consecutive months shall be deemed discontinued and shall be removed from the property within one hundred twenty (120) days after receipt of notice from the Code Enforcement Officer; this requirement may be waived if the Applicant provides the reviewing authority with information demonstrating that the facility has continuing value. Upon removal of a facility, the owner shall pay all costs, including for the site reclamation deemed reasonable; i.e., road removal, vegetation and tree restoration, etc.

7.18. Decommissioning Plan – The Applicant shall provide a plan for decommissioning a Wind Energy Facility that includes, but is not limited to;

A. A description of the work required to physically remove all wind turbines, associated foundations, cables, buildings, electrical components, and any other components of the Wind Energy Facility.

B. An estimate of the total cost of the decommissioning process.

7.19. Cost of Decommissioning – The Town may require a 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, that upon the end of the useful life of the Wind Energy Facility, the Applicant will have the necessary financial assurance for the entire cost of decommissioning.

7.20. Liability Insurance - The applicant or his designee shall maintain a current liability policy, acceptable to the Machias Planning Board, that covers bodily injury and property damage with limits in an amount commensurate with the scope and scale of the Facility.

## **Section 8. Additional Standards for Type 3 and Type 4 Wind Energy Facilities**

8.1. In addition to the above standards, Type 3 and Type 4 Wind Energy Facilities must meet these additional standards.

8.2. Sound Level Prediction - The level of sound that may emanate from a proposed Wind Energy Facility shall be estimated using the best available mathematical model of sound distribution from the Facility. The model theoretical basis and structure shall be documented and shall include effects of topology, wind speeds and directions, likely meteorological conditions, and such physical elements (forested areas, large buildings, pond areas, etc.) as may be significant in the model. The computer code and operating instructions shall be provided to the review authority upon request.

8.3. Pertinent Locations - Wind Energy Facility sound levels shall be estimated at each Protected Location within one mile (5,280 feet) of the Facility. The side or region of the Protected Location that is nearest or otherwise most likely to receive the highest sound level should be the subject of estimation.

8.4. Acceptable Sound Levels - For any Protected Location in an area that is, or will be, predominantly residential, the sound limit shall be 45 dBA at all times. Short Duration Repetitive Sounds, at all times, shall not exceed 48dbA.

8.5. For any Protected Location in an area that is, or will be, predominantly commercial, transportation, or commercial, the limit shall be 50 dBA at all times. Short Repetitive Sounds, at all times, shall not exceed 56 dBA.

8.6. At any property line of the facility site or contiguous participating property, the acceptable sound level shall be 65 dBA or less at all times of the day.

#### 8.7. Sound Level Management

A. Prior to facility construction and as part of the data submitted when a Site Permit is sought, ambient sound levels shall be measured at all Protected Locations within one mile (5,280 feet) of a proposed facility location. The time or times of measurement shall be those when ambient levels are expected to be least and when they are greatest. The seasons of the year and possible meteorological effects shall be considered when choosing measurement times.

B. When facility construction is complete and the Wind Turbine is ostensibly in normal operation, sound measurements shall be made and recorded for all Protected Locations where predicted sound levels are within five (5) dbA of required values. The time or times of measurement shall be those when the Wind Turbine noise is greatest, again with consideration of seasons and meteorological effects.

C. Measurements shall be supervised by personnel who are well-qualified by training and experience in the measurement and evaluation of environmental sound. Costs associated with measurements shall be assumed by the Wind Turbine Facility owner.

- D. Based upon neighbor complaints or on the initiative of the Code Enforcement Officer, after a Wind Turbine is operational, sound level measurement shall be conducted at Protected Locations. If measured levels are 3 dBA or greater than mandated levels for one hour or more, the mill shall be shut down. During a subsequent year, the mill may be operated only to test the effectiveness of noise-abatement modifications made to the mill. If the mandated sound levels are achieved, the mill may be put into full operation.
- E. Should no satisfactory noise abatement be achieved during the year, the mill shall be removed. If the turbine operator can demonstrate that an impending modification will silence the turbine, removal of the mill may be postponed at the discretion of the Planning Board.
- F. Sound measurement procedures and apparatus shall be as defined in American National Standards Institute S12.9, Quantities and Procedures for Description and Measurement of Environmental Sound.

8.8 Flicker - Shadow flicker, caused by moving Wind Turbine blades and the sun, shall be estimated for all Protected Locations within one mile (5280 feet) distance from a proposed facility. Estimations shall derive from the assumed duration of the worst positions of the sun and the screening effects of trees in leaf and without leaves. Worst-case estimation flicker duration shall be less than thirty (30) hours per year at all Protected Locations. Reflections (glint) from Wind Turbine blades shall be minimized with non-reflective coatings on the blades.

8.9. Public Roads - The Applicant shall identify all state and local public roads to be used within the Town of Machias to transport equipment and parts for the construction, operation, and maintenance of a Wind Energy Facility. A qualified third-party engineer acceptable to the Applicant and the Machias Planning Board, and paid by the Applicant, shall document road conditions prior to facility construction. The engineer shall similarly document road conditions thirty (30) days after construction is complete.

8.10. Any road damage caused by the Applicant's activity during construction and operation of a Wind Energy Facility shall promptly be repaired at the Applicant's expense. The Applicant shall demonstrate to the Machias Planning Board that the necessary funds are or will be available.

8.11. Scenic Resources - Except as otherwise provided in this subsection, if a Type 3 or Type 4 Wind Energy Facility is proposed for location in or is visible from a Scenic Resource, the Applicant shall provide the Planning Board with a visual impact assessment that addresses the evaluation criteria set out below:

- 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 3 or Type 4 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.

8.12. DEP Certification - A Site Application for a Type 3 and Type 4 Wind Energy Facility that will generate power for sale or use by persons other than the Applicant shall include certification from the Maine Department of Environmental Protection relative to 35-A. M.R.S. § 481 and 35-A M.R.S. § 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.

B. Will be designed and sited to avoid unreasonable Shadow Flicker effects.

C. Will be constructed with setbacks adequate to protect public safety.

If such certification has not been issued at the time of application, the Applicant shall include evidence that DEP certification has been applied for.

## **Section 9. Application Submission Requirements**

9.1. All Wind Energy Facility permit applications shall consist of the application form, application fee, and supporting documents as described below:

A. Application Form. The Town shall provide the application form, which shall be signed by: 1) a Person with right, title, and interest in the subject property or 2) a Person having written authorization from a Person with right, title, and interest in the subject property. The signature shall be dated, and 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 standards of this ordinance and all approval and permit conditions, if any.

B. Application Fees shall be assessed and paid upon submission of the application. The Planning Board shall, from time to time, define fees for Permits and Licenses required by this Ordinance. Fees will be listed in an attachment.

C. The application shall include all additional documents necessary to satisfy the applicable submission requirements under this ordinance.

D. An application shall include a narrative describing a proposed Wind Energy Facility, or modification, that includes the number and aggregate generating capacity of all Wind Turbines, the Turbine height and manufacturer's specification for each Turbine (including but not limited to the make, model, maximum generating capacity, sound emission levels and type of over speed controls) and a description of Associated Facilities. Location maps shall be provided showing boundaries of the proposed facility site and all contiguous property under total or partial control by the Applicant and Participating land owners. Historic Areas and Scenic Resources within five thousand two hundred eighty (5,280) feet of the proposed site shall be identified.

## **Section 10. Additional Application Submission Requirements for Type 3 and Type 4 Wind Energy Facilities**

10.1. In addition to all requirements listed elsewhere in this Ordinance, applications for Type 3 and Type 4 Wind Energy Facilities must include the following information:

- A. A receipt attesting to payment of the application fee, together with the applicant's affirmation that the proposed Facility will be designed and in compliance with this Ordinance and any conditions of approval.
- B. An estimate of total cost for Facility construction, together with a description of the financial arrangement that will assure the availability of necessary funds. The cost of removing an obsolete or defective Wind Turbine and Tower shall be included in the estimate.
- C. Certificates of design compliance obtained by the equipment manufacturer from Underwriters Laboratory, Det Norske Veritas, or other similar certifying organization.
- D. Standard boundary survey of subject property stamped by a Maine-licensed surveyor.
- E. A stormwater management plan stamped by a Maine-licensed surveyor.
- F. Foundation and Tower anchoring system drawings that are stamped by a Maine Licensed professional engineer.
- G. A copy of a deed, easement, purchase option, or comparable documentation demonstrating the Applicant's rights on the proposed Facility site. The address, tax map, and number of the proposed facility location, together with identification of contiguous parcels owned by Participating Landowners, shall be reported. Owner names and addresses of the contiguous Participants shall be documented.
- H. The names and addresses of non-participants owning parcels (identified by map and lot number, and current usage) which are adjacent to the proposed facility and participating land owner properties shall be listed and notified by mail by the applicant.
- I. Facility site plans shall be provided showing the proposed location of each Wind Turbine and Associated Facilities. The plans shall encompass all areas within one mile

(5280 feet) of the proposed facility. It shall indicate parcel boundaries, required setbacks, topographic contour lines (maximum 20-foot interval), public and private roads and rights-of-way, overhead utility lines apart from those integral to the Facility, forested areas, streams, wetlands, water bodies, and areas proposed to be graded or cleared of vegetation. The plan's documentation shall include structural drawings of the Tower foundation and anchoring system: a) prepared by the Wind Turbine or Tower manufacturer, b) prepared in accord with the manufacturer's specifications or c) prepared and stamped by a Maine licensed professional engineer.

J. The minimum and maximum ambient sound levels measured at each Protected Location.

K. Photographs of existing conditions at the site shall be provided. Insofar as the site may be visible from Protected Locations within one mile (5280 feet), photographs and Sight Line Representations from those locations shall also be provided.

L. Written notice that the Environmental Coordinator of the Maine Department of Inland Fisheries and Wildlife and the Maine Natural Areas Program have been notified of the pending application. The notification shall include the number, location, and height of the proposed Wind Turbines.

M. A statement, signed by the Applicant, that certifies that the proposed facility is designed to meet applicable noise standards and acknowledges the Applicant's obligation to take remedial action when informed of a noise violation by the Code Enforcement Officer.

N. Normal and emergency shutdown procedures shall be described, as well as the means for slowing braking, and stopping a Turbine.

O. Such additional data, which the Applicant believes will support the request for a permit.

## **Section 11. Conflict and Severability**

11.1. If there is a conflict between provisions of this Ordinance, the more stringent shall apply. Conflicts between this Ordinance and other Machias ordinances shall be resolved in favor of this Ordinance. Should a Court declare invalidity of any part of this Ordinance, such declaration shall not invalidate other parts of the Ordinance or the Ordinance as a whole.

## **Section 12. Effective Date**

12.1. This Ordinance is effective as of \_\_\_\_\_

## **Section 14. Enforcement**

14.1. It shall be unlawful and a violation of this Ordinance to begin construction, operation, or modification of a Wind Energy Facility without a Permit from the Town of Machias and any applicable State and Federal permits. Similarly, it shall be unlawful to undertake actions that

violate or fail to comply with an approved permit or license, including conditions that may have accompanied the issuance of a license.

14.2. The burden of compliance with all aspects of this Ordinance is on the Applicant; e.g., the prospective Owner-Operator of a Wind Energy Facility. Approval of a permit by the CEO or Planning Board does not relieve the applicant from compliance with Ordinance demands that may be unmentioned in the Permit.

14.3. The CEO is authorized and shall have the authority to enforce all provisions of this Ordinance, including obtaining fines, injunctive relief, and reasonable attorney's fees and costs pursuant to 30-A, M.R.S. § 4452. If the CEO shall find any provision of this Ordinance is being violated, he shall notify, in writing, the person responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it, including discontinuance of illegal use of land, buildings, or structures, and abatement of nuisance conditions. A copy of such notice shall be maintained as a permanent record by the Planning Board.

14.4. If the alleged violation does not pose an immediate threat to public health or safety, the CEO shall engage in good faith negotiations to resolve the alleged violation. Such negotiations shall be conducted within a reasonable time of the notice of violation.

14.5. When the above action does not result in the correction or abatement of the violation within thirty (30) days from the date of notice of violation or further period as agreed to by the CEO and alleged violator, the CEO determines, in the officers reasonable discretion, that the parties have not resolved the alleged violation, the CEO may institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of Machias, as authorized by the Select Board.

## **Section 15. Appeals**

15.1. Any person aggrieved by a decision of the Code Enforcement Officer or the Machias Planning Board pertaining to this ordinance may appeal to the Machias Board of Appeals for modification or reversal of an aggravating requirement, except for decisions concerning the enforcement of this Ordinance.

## **Appendix A. Definitions**

**Ambient Sound:** is at a specified time, the all-encompassing sound associated with a given environment. It is usually a composite of sounds from many sources and directions.

**Applicant:** is the legal entity, including successors and assigns, that files an application under this Ordinance.

**Approved Residential Subdivision:** means a residential subdivision for which all applicable permits have been issued, providing that at the time of Facility construction, such permits have not expired.

**Associated Facilities:** means those 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, electrical substations, and conductors carrying electric power from a Facility.

**Construction:** the activity and operations associated with the implementation of a facility or its expansion.

**DEP Certification:** means a certificate issued by the Maine Department of Environmental Protection pursuant to 35-AM.R.S.A. Sec. 3456 for a Wind Energy Development.

**Emergency:** is an unforeseen combination of circumstances requiring immediate action.

**Emergency Maintenance and Repairs:** is the work done in response to an emergency.

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

**Generating Facilities:** means Wind Turbines and electrical connections that are immediately associated with a Wind Turbine.

**Historic Area:** means any site, structure, district, or archeological site which has been officially included on the National Register of Historic Places, the Maine Historic Inventory, administered by the Bureau of Parks and Lands, or which is established by qualified testimony as being of historic significance.

**Hourly Sound Level:** is the average value reported, during a one-hour period, by integrating/averaging sound meter meeting Type 1 or Type 2 performance requirements of the American National Standards Institute specifications for Sound Level Meters, ANSI.4- 1993.

**Locally-designated Recreation Area:** means any site designated by a municipality for recreation that is open and maintained for public use, such as a park or community forest.

**Maximum Sound Level:** in decibels, is ten times the common logarithm of the square of the ratio of the maximum sound pressure to the reference pressure of 20 micropascals.

**Municipal Reviewing Authority:** means the Machias Planning Board or Code Enforcement Officer.

**Nacelle:** is the frame or housing at the top of a Wind Tower that encloses the gearbox and generator.

**Non-Participating Landowner:** means any landowner with property within 500 feet of a proposed facility who chooses not to participate in siting and operation of a Wind Energy Facility.

**Occupied Building:** means a residence, school, hospital, house of worship, public library, or similar building that is in use as a primary residence or is customarily frequented by the public during daylight and early evening hours; for consideration as such, the building must be occupied at the time of facility permit application.

**Participating Landowner:** means one or more persons that hold title in fee or a leasehold interest with sublease rights to property on which a Wind Turbine, or Turbines, and Associated Facilities are proposed to be located pursuant to an agreement with the Applicant or an entity that has entered into an agreement with the Applicant allowing the Applicant to demonstrate the requisite right, title, and interest in such property.

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

**Planned Residence:** means a Residence building for which all applicable building and land use permits have been issued, provided that at the time of Facility construction, such permits have not expired.

**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, and approved residential subdivision, house of worship, academic school, college, library, duly licensed hospital or nursing home, etc., near the Facility site at the time a Wind Energy Facility permit application is submitted under this Ordinance;
- 2) Within a State Park, Baxter State Park, a National Park, a nature preserve owned by a land trust, the Maine Audubon Society or the Maine chapter of the Nature Conservancy, the Appalachian Trail, the Moosehorn National Wildlife Refuge, a federally designated wilderness area, a state wilderness area designated by statute, a municipal part or a locally-designated passive recreation area, or any location within consolidated public reserve lands designated by rule by the Bureau of Public Lands as a Protected Location;
- 3) A hotel, motel, campsite or duly licensed campground that the Planning Board Has designated a Protected Location after determination that the health and welfare of guests or the economic viability of the establishment will be unreasonably affected by the noise in excess of the limit mandated for the type of Wind Energy Facility. The term does not include buildings and structures located on leased camp lots owned by the Applicant for seasonal purposes.

**Residence:** means a building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy, providing living, cooking, and sleeping facilities

and having a permanent indoor sanitary facility. Recreational vehicles, tents, and watercraft are excluded from this definition.

For purposes of this ordinance, (1) a Residence is considered planned when the owner of a parcel of land on which the residence is to be located has received all applicable land use permits and the time for beginning construction under such permits has not expired, and(2) a residential subdivision is considered approved when the developer has received all applicable land use permits for the subdivision and the time for beginning construction has not expired.

**Routine Operation:** is the regular and current operation of regulated sound sources associated with the purpose of the facility

**Scenic Resource:** means either a Scenic Resource of state or national significance, as defined in 35-A M.R.S. § 3451(9), or a Scenic Resource of local significance located within the Town of Machias and identified as such in the town's comprehensive plan, open space plan, or a scenic inventory adopted by Town Meeting.

**Shadow Flicker:** means alternating changes in light intensity caused by the movement of Wind Turbine blades casting shadows on the ground or other stationary objects.

**Short Duration Repetitive Sounds:** means a sequence of sounds which occur more than once within one hour, each clearly discernible as an event and causing a significant sound level increase, on the fast meter response, above the sound level immediately before and after each event.

**Sight Line Representation:** means a profile drawing or photograph showing prominent features, including but not limited to topography, buildings, and trees along a line of sight extending from an observer's eye to the lowest point visible on a proposed or existing Turbine Tower.

**Significant Wildlife Habitat:** means Significant Wildlife Habitat as defined in 38 M.R.S. § 480-B(10).

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

**Sound Pressure:** is the root-mean-square of the instantaneous sound pressures in a frequency band and during a specified time interval; expressed in pascals.

**Sound Pressure Level:** in decibels is ten times the common logarithm of the square of the ratio of the sound pressure to the reference pressure of 20 micropascals.

**Substantial Start:** means that construction shall be considered substantially underway when work beyond excavation, including but not limited to the pouring of a slab or footings, the installation of piles, the construction of columns, or the placement of the Tower on a foundation has begun.

**Tower:** means the free-standing structure on which a wind conversion system is or will be mounted.

**Turbine Height:** means the distance measured from the surface of the Tower foundation to the highest point of any turbine blade measured at the highest arc of the blade.

**Wind Energy Facility:** 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 Turbine:** means an apparatus for the conversion of wind energy into electrical energy; a Wind Turbine is conventionally mounted on a Tower.

(Additional acoustic terms used in association with this Ordinance shall be interpreted in accordance with the following American National Standard: Quantities and Procedures for Description and Measurements of Environmental Sound, Part 1; NASI S12.-1998 - 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.)

## **Appendix B. Construction and Maintenance Noise**

All equipment used in the construction and maintenance of a Wind Energy Facility shall comply with federal noise regulations and shall include environmental noise control devices in proper working order as provided by the manufacturer.

Sound from construction and maintenance activities between 7 a.m. and 7 p.m. shall not exceed the following limits at any Protected Location:

<b>Duration of Activity</b>	<b>Hourly Sound Level Limited</b>
8 hours	85 dBA
4 hours	90 dBA
3 hours	92 dBA
2 hours	95 dBA

2 hours

97 dBA

1 hour

100 dBA

1 hour or less

105 dBA

**Machias Municipal Officers**

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Dated: \_\_\_\_\_

**Attested Copy:**

\_\_\_\_\_

Machias Town Clerk

\_\_\_\_\_

Date