

**TOWN OF CUSHING, MAINE**  
**WIND TURBINE ORDINANCE**

**CONTENTS:**

- 1. Purpose**
- 2. Authority**
- 3. Effective date**
- 4. Application**
- 5. Standards**
- 6. Enforcement**
- 7. Conflict of regulations**
- 8. Severability**
- 9. Amendment**
- Division I: Administration**
- Division II: Definitions**
- Division III: Soils of concern**
- Division IV: Reference**

**1.0 Purpose.** The purpose of this Ordinance is to protect the health, safety, and welfare of the residents and property owners of Cushing by establishing regulations for Wind Energy Facilities (WEFs) and Meteorological Towers (MTs).

**2.0 Authority.**

A. The authority for this Ordinance was conferred upon the states by the Tenth Amendment to the U.S. Constitution, which our state delegates to its political subdivisions to enact measures to preserve and protect the safety, health, welfare and morals of the community; specifically, as the Home Rule Power of Article VIII, Part 2 of the Maine Constitution, and 30-A MRSA Section 3001.

B. The Cushing Planning Board shall administer this Ordinance.

**3.0 Effective Date.** This Ordinance shall become effective on the date of its passage.

**4.0 Application** This ordinance applies to Wind Energy Facilities and Meteorological Towers proposed to be constructed or operated after the effective date of this Ordinance.

**5.0 Standards**

**A. Construction**

1. The design and manufacture of Meteorological Towers, wind turbines, monopoles, and other components of a WEF shall conform to applicable standards, such as the American National Standards Institute (ANSI), Underwriters Laboratories, and to local, state, and national codes.

2. Meteorological towers shall not exceed 80 feet above grade in overall height including moving parts. Guy wires shall limit hazard to birds and bats.

3. Except for turbines designed for roof mounting, turbines with a capacity exceeding 1 kW shall be mounted on a monopole towers. The overall height of an installation including blades shall not exceed 80 feet.

4. WEFs shall be designed and sited to prevent the disruption or loss of emergency signals and radio, telephone, television, or similar signals. Interference with such

communications shall be grounds for the CEO to require shut down of a WEF until the interference has been remedied.

5. The minimum distance between the blades of a WEF and the ground or objects permanently fixed to the ground shall be 25 feet as measured at the lowest point in the arc of the blades.
6. The color of WEF and MT components shall be off-white, grey or another neutral color approved by the Planning Board.
7. WEFs shall not display signs or advertising except to identify the turbine manufacturer, the WEF owner's emergency contact information, and warnings required by law.
8. Underground power and transmission lines shall be buried at a depth consistent with state public utility engineering standards to prevent transient ground currents and stray voltage.
9. No clearing, grading or other disturbance of a site may begin until a plan has been approved by the Planning Board and recorded in the Registry of Deeds.

## **B. Setbacks**

1. The location of an MT or WEF shall satisfy two criteria with respect to property lines:
  - a. To minimize the potential for damage, MTs and WEFs shall be set back from all property lines at least 1.5 times the maximum height of the installation above grade.
  - b. To avoid annoyance and hazard to health and property values, sound levels at the property lines of abutters, including those across rights-of-way, due to the operation of the turbine shall not exceed 35 dBA.
    1. This maximum sound level is set for Cushing's low, rural background noise level. It is an adjustment between MDEP and World Health Organization standards for acceptable noise levels at abutters' property lines.

The DEP standard, 45 dBA, was set for heavy duty equipment impacting urban areas, and is entirely too noisy for Cushing's low rural background noise level.

The World Health Organization standard, 30 dBA, was set for large wind farms, and would require properties larger than most lots in Cushing to have enough distance from property lines to achieve adequate sound reduction. (For reference see Division IV.)
    2. As most manufacturers are not providing the maximum sound power level of their turbines, it is not possible to predict how far turbine sound must travel to fall to the maximum allowable level. As a consequence, the burden is on an applicant to secure and provide this distance for the proposed turbine.
2. An applicant may request a waiver of a required setback based on a covenant with an abutter that specifies terms satisfactory to the Planning Board. Any waiver of the standard shall be the least reasonable waiver, and shall not contravene the intent of the ordinance as applied to the specific site.

C. **Measurement** Sound level measurements at property lines shall use Method #1 of ANSI Standard S12.18-1994. Meter calibration shall comply with ANSI Standard S1.4.

**6.0 Enforcement**

A. Any violation of this ordinance shall be deemed a nuisance.

B. The Code Enforcement Officer shall conduct on-site inspections to insure compliance with all applicable laws, regulations, ordinances and approvals. The Code Enforcement Officer shall also investigate all complaints of alleged violations of this ordinance. If the Code Enforcement Officer shall find that any provision of this ordinance is being violated, he or she shall notify in writing the person responsible for such violation, indicating the nature of the violation and ordering action necessary to correct it, including discontinuance of illegal use of land, work being done, removal of illegal structures, or abatement of nuisance conditions. A copy of such notices shall be submitted to the municipal officers and be maintained as a permanent record. The Code Enforcement Officer shall keep a complete record of all essential transactions of the office.

C. When the above action does not result in the correction or abatement of the violation or nuisance condition, the Municipal Officers, upon notice from the Code Enforcement Officer, 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 the municipality. The municipal officers, or their authorized agent, may enter into a consent agreement for the purpose of eliminating violations and recovering fines without Court action. Such agreements shall not allow an illegal structure or use to continue.

D. Any person, including but not limited to a landowner, a landowner's agent or a contractor, who orders or conducts an activity in violation of any provision or requirement of this shall be penalized in accordance with 30-A, M.R.S.A. Section 4452.

**7.0 Conflicts with other ordinances** Whenever a provision of this Ordinance conflicts with or is inconsistent with another provision of this Ordinance or of any other ordinance, regulation or statute of the Town or State, the more restrictive provision shall control.

**8.0 Validity and Severability** Should any section, subsection, clause, phrase or word of this Ordinance be declared by the courts to be invalid, such a decision shall not invalidate any other section or provision of the Ordinance.

**9.0 Amendment** This ordinance may be amended by the voters of Cushing following a public hearing.

**Certificate of adoption**

I hereby attest that this is a true copy of the Wind Turbine Ordinance of the Town of Cushing, Maine, duly adopted by the legislative body of the Town of Cushing, Maine, on November 8, 2011.

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Town Clerk

Date

## **Division I: Administration**

### **A. Permits.**

1. The applicant has the burden of proving that the proposed land use activity is in conformity with the requirements of this ordinance.
2. A Planning Board permit shall be required:
  - a. to construct, operate or modify a Wind Energy Facility; and
  - b. to erect a Meteorological Tower, and
  - c. if the structure is within the Shoreland Zone, to satisfy applicable Shoreland Zoning Ordinance provisions.
3. A permit shall expire
  - a. one year from the date of issuance if construction has not begun; or
  - b. with a change of ownership of the Facility; or
  - c. in the event of a failure of the structure.
4. No permit shall be accepted from an applicant in violation of another Cushing permit.

**B. Fees** Fees shall be made to the Town clerk, payable to the Town of Cushing. If a required fee or is not received prior to a meeting at which the application is listed on the agenda, the application shall be tabled. If that required fee is not received within fourteen (14) days after that meeting, the application shall be considered to have been withdrawn.

### **C. Application processing**

1. The applicant shall consult the Code Enforcement Officer to discuss general requirements and procedures for permitting.
2. Applications shall be submitted to the Town Clerk fourteen (14) calendar days before a regularly scheduled Planning Board meeting on a dated Town form with eight (8) copies of required submittals, and the scheduled fee. Applications shall be signed by an owner or by an authorized agent who can provide evidence of right title and interest in the property.
3. Upon receiving an application for a permit at a regularly scheduled Planning Board meeting, the Planning Board shall issue the applicant a dated receipt; and require the applicant to notify property owners abutting or within 500 feet of the subject property by registered return-receipt-requested mail that an application for a permit has been submitted specifying its location and a general description of the project on a form provided by the Town, and to provide the Board with the receipts; and to notify the review authority of a neighboring municipality if the proposed development abuts or crosses a municipal boundary.
4. Within thirty five (35) days of receipt of an application, the Planning Board shall determine whether the application is complete. If the application is incomplete, the Planning Board shall notify the applicant, in writing, of the specific deficiencies. Until a complete application has been received, the Planning Board shall not begin its review of the application.
5. The Planning Board Chairman may schedule a site visit, which shall be a formal meeting with notice and minutes.
6. The Code Enforcement Officer shall inspect the site and maintain a digital photographic record of site conditions before Board review, during approved work, and after its completion.

7. Upon finding an application complete, the Planning Board shall schedule a public hearing within thirty five (35) days, unless an extension of time has been agreed with the applicant or is required for independent professional review. The Planning Board shall give notice of its date, time and place, to be published twice in a local newspaper with the date of the first publication at least seven (7) days prior to the hearing. If any part of the subject property is located within the Shoreland Zone, the hearing shall include review of the application's compliance with the requirements of the Shoreland Zoning Ordinance.

8. Unless an extension of time has been agreed between the applicant and the Planning Board, the Board shall, within thirty (30) days after the public hearing, either approve, approve with conditions, or deny the application.

a. The Planning Board shall make findings of fact and conclusions relative to the standards contained in this ordinance. If the Planning Board finds that all standards of this ordinance have been met, they shall approve the application. If the Planning Board finds that any of the standards of this ordinance or the ordinances of the Town have not been met, the Planning Board shall either deny the application or approve it with conditions to ensure the standards will be met. The reasons for any conditions shall be stated in the findings of facts and conclusions.

b. When the Planning Board has signed the plat, one signed paper copy and one signed reproducible copy shall be filed at the Town Office. Any plat not recorded in the Knox County Registry of Deeds by the applicant within ninety (90) days of the date upon which the plan is approved and signed by the Planning Board shall be considered null and void.

9. The Planning Board may vote to reconsider any decision within forty-five (45) days of its decision vote. Seven (7) days notice of the reconsideration vote shall be provided to the applicant, Code Enforcement Officer, and other parties of interest, including abutters and those who testified at the original hearing(s). A motion to reconsider may only be made by a member who voted in the majority on the original decision. Reconsideration of a decision shall require a positive vote of the majority of the Board members who voted on the original decision. The Board may or may not receive additional evidence and testimony.

#### **D. Appeals**

1. **Powers and Duties of the Board of Appeals.** The Board of Appeals shall have the power to hear and decide administrative appeals, on an appellate basis, where it is alleged by an aggrieved party that there is an error in any order, requirement, decision, or determination made by, or failure to act by the Planning Board in the administration of this Ordinance, and to hear and decide administrative appeals on a de novo basis where it is alleged by an aggrieved party that there is an error in any order, requirement, written decision or determination made by, or failure to act by, the Code Enforcement Officer in his or her review of and action on a permit application under this Ordinance, or in the enforcement of this Ordinance.

When the Board of Appeals reviews a decision of the Code Enforcement Officer, the Board may receive and consider new evidence and testimony, be it oral or written. When acting in a "de novo" capacity, the Board of Appeals shall hear and decide the matter afresh, undertaking its own independent analysis of evidence and the law, and reaching its own decision.

When the Board of Appeals hears a decision of the Planning Board, it shall hold an appellate hearing, and may reverse the decision of the Planning Board only upon finding

that the decision was contrary to specific provisions of the Ordinance or contrary to the facts presented to the Planning Board. The Board of Appeals may only review the record of the proceedings before the Planning Board. The Board of Appeals shall not receive or consider any evidence that was not presented to the Planning Board, but the Board of Appeals may receive and consider written or oral arguments. If the Board of Appeals determines that the records of the Planning Board proceedings are inadequate, the Board of Appeals may remand the matter to the Planning Board for additional fact finding.

## **2. Appeal Procedure**

### **a. Making an Appeal**

1. An administrative appeal may be taken to the Board of Appeals by an aggrieved party from any decision of the Code Enforcement Officer or the Planning Board. Such an appeal shall be taken within thirty (30) days of the date of the official, written decision appealed from, except that if the Planning Board has voted to reconsider its decision, such an appeal shall be taken within thirty (30) days of the date of the subsequent official, written decision appealed from; excepting further that the Board of Appeals, upon a showing of good cause, may extend either time requirement by an additional thirty (30) days.

2. Applications for appeals shall be made by filing a written notice of appeal with the Board of Appeals which includes:

- i. A concise written statement indicating what relief is requested and why the appeal should be granted.
- ii. A sketch drawn to scale showing lot lines, location of existing buildings and structures and other physical features of the lot pertinent to the relief sought.

3. Upon receiving an application for an administrative appeal, the Chair of the Board of Appeals shall cause the Code Enforcement Officer or Planning Board, as appropriate, to transmit to the Board of Appeals all of the papers constituting the record of the decision appealed from.

4. The Board of Appeals shall hold a public hearing on an administrative appeal within thirty-five (35) days of its receipt of a complete written application, unless this time period is extended by the parties, and shall issue a written decision on all appeals.

### **b. Decision by Board of Appeals**

1. A majority of the full voting membership of the Board shall constitute a quorum for the purpose of deciding an appeal.

2. The concurring vote of a majority of the members of the Board of Appeals present and voting shall be necessary to reverse an order, requirement, decision or determination of the Code Enforcement Officer or Planning Board, or to decide in favor of the applicant on any matter in which it is required to decide under this Ordinance, or to effect any variation in the application of this Ordinance from its stated terms. The Board may reverse the decision, or failure to act, of the Code Enforcement Officer or Planning Board only upon a finding

that the decision, or failure to act, was clearly contrary to specific provisions of this Ordinance.

3. The person filing the appeal shall have the burden of proof.

4. The Board shall decide all administrative appeals within thirty five (35) days after the close of the hearing, and shall issue a written decision on all appeals.

5. The Board of Appeals shall state the reasons and basis for its decision, including a statement of the facts found and conclusions reached by the Board. The Board shall cause written notice of its decision to be mailed or hand-delivered to the applicant and to the Department of Environmental Protection within seven (7) days of the Board's decision. Copies of written decisions of the Board of Appeals shall be given to the Planning Board, Code Enforcement Officer and the municipal officers.

**3. Appeal to Superior Court.** Any aggrieved party who participated as a party during the proceedings before the Board of Appeals may take an appeal to Superior Court in accordance with State laws within the requirements of 30-A MRSA § 2691.

**4. Reconsideration.** In accordance with 30-A M.R.S.A. Section 2691(3)(F), the Board of Appeals may reconsider any decision within forty-five (45) days of its prior decision. A request to the Board to reconsider a decision must be filed within ten (10) days of the decision that is being reconsidered. A vote to reconsider and the action taken on that reconsideration must occur and be completed within forty-five (45) days of the date of the vote on the original decision. Reconsideration of a decision shall require a positive vote of the majority of the Board members originally voting on the decision, and proper notification to the landowner, petitioner, Planning Board, Code Enforcement Officer, and other parties of interest, including abutters and those who testified at the original hearing(s). The Board may conduct additional hearings and receive additional evidence and testimony.

Appeal of a reconsidered decision to Superior Court must be made within fifteen (15) days after the decision on reconsideration.

#### **E. Submittal requirements.**

1. Drawings and reports shall be submitted in eight (8) copies.

2. Submittals shall provide required information such as the following:

a. Name, address and contact information of the applicant and owner, and a copy of the property deed and any deed covenants.

b. Tax map showing the location of the property.

c. A plat of the property at a scale of not more than 60 feet to the inch, on 24" x 36" sheets where practical, two (2) on reproducible, stable-based transparent originals, and eight (8) copies, by a Surveyor or Professional Engineer licensed in the State of Maine, showing property lines; location of proposed improvements and required setback distances from road rights-of-way, utility lines and property lines; delineation of any wetlands, resource protection areas, 100-year flood plain or Shoreland Zone lines, and 75', 100' and 250' setbacks associated with any protected waters.

d. A report citing the turbine manufacturer, model, maximum power output and maximum sound power level; and concluding that maximum sound levels at property lines will not exceed required limits.

- e. Construction drawings of a monopole support, and a report identifying the site soils and any soil noted in Division III, signed by a Professional Engineer licensed in the State of Maine.
- f. MHPC report on archaeological/historical features if applicable.
- g. MDIFW report on significant wildlife habitat if applicable.
- h. MDEP report on protected natural areas if applicable.
- i. Removal date of any Meteorological Tower; and provisions to protect birds & bats from any guy wires.
- j. Applicable requirements of any other Town of Cushing Ordinance.
- k. Other items as the Board may require, such as a lighting plan, proposed blasting provisions, or a covenant with an abutter.

## **Division II: Definitions**

**ANSI.** American National Standards Institute.

**CEO.** Code Enforcement Officer.

**Covenant.** A contract between two parties.

**Decibel (dB).** The practical unit of measurement for sound pressure level; abbreviated "dB."

**dB(A).** The abbreviation designating both the unit of measure sound level, the decibel and the mode of measurement that uses the A-weighting of a sound level meter.

**kW.** Kilowatt: 1000 watts.

**MDEP.** Maine Department of Environmental Protection.

**MDIFW.** Maine Department of Inland Fisheries and Wildlife.

**MHPC.** Maine Historical Preservation Commission.

**Maximum sound level.** The maximum sound pressure level measured in decibels with a sound level meter set for A-weighting, "Fast" meter response over a measurement period; expressed in dBA.

**Meteorological Tower (MT).** Tower constructed to collect wind or other meteorological data.

**Property line.** The legal boundary of a parcel of land.

**Sound level meter.** Instrument measuring sound levels that conforms to ANSI type I or type II standards.

**Sound pressure level.** The level of a sound measured in dB units with a sound level meter which has a uniform (flat) response over the band of frequencies measured.

**Wind Energy Facility (WEF).** All equipment, structures, and power lines that together form a system for the production of electrical power using wind as a source of power.

### **Division III: Soils of concern**

The following soils are not recommended by the Knox & Lincoln County Soils Survey for:

- a. development due to flooding: Charles, Lovewell, Medomak.
- b. development due to organic composition: Borosapristis
- c. development due to high seasonal water table and poor drainage: Biddeford, Boothbay, Brayton, Buxton, Charles, Eldridge, Marlow, Naumburg, Scantic, Searsport, Sheepscot, Swanville.
- d. development due to erosive soils: Biddeford, Boothbay, Buxton, Charles, Eldridge, Marlow, Naumburg, Scantic, Searsport, Sheepscot, Swanville.
- e. stable slopes: Adams and Masardis 15-25% slopes, Allagash 8-15% slopes.
- f. buildings with basements, due to unstable subsoils: Hermon, Madawaska, Masardis.

### **Division IV: Reference**

World Health Organization document "Night Noise Guidelines for Europe, 2009", ISBN 9789289041737.