

ARTICLE ____ Shall an ordinance entitled “Amendments to Chapter 1, General Provisions,” “Amendments to Chapter 44, Shoreland Zoning,” and “Amendments to Chapter 45, Zoning” of the Municipal Code of Ordinances of the Town of Eliot, Maine, to permit small wind energy systems dated _____ be enacted? The Amendment will:

- Amend Chapter 45, Zoning, to permit the use of small wind energy systems and set forth requirements for such systems.
- Amend Chapter 44, Shoreland Zoning, to permit the use of small wind energy systems and set forth requirements for such systems.
- Amend Chapter 1, General Provisions, by adding definitions of terms associated with small wind energy systems.

- *A complete copy of the changed text is available for review at the Town Hall.*
- *This ordinance has been reviewed by an attorney for the Town via correspondence dated November 29th, 2007.*

Amendments to Chapter 1, General Provisions, Amendments to Chapter 44, Shoreland Zoning, and Amendments to Chapter 45, Zoning of the Municipal Code of Ordinances of the Town of Eliot, Maine, to permit small wind energy systems.

**Amend Section 45-290 by adding the following entry:
Sec. 45-290. Table of permitted and prohibited uses.**

Land Use	Rural	Suburban	Village	C/I	MHP
Small Wind Energy System	PB	PB	PB	PB	PB

**Amend Section 44-34 by adding the following entry:
Sec. 44-34. Table of land uses.**

Land Use	S&WP	RP	LR	LC	GD
Small Wind Energy System	PB	PB	PB	PB	PB

**Add the following definition to Sec. 1-2 as follows:
Sec. 1-2. Definitions and rules of construction.**

Restrictive Easement, as used in the provisions of this Code governing Small Wind Energy Systems, means an easement on a property abutting a Small Wind Energy System that restricts the uses and structures within the easement area so as to allow the Small Wind Energy System to be located closer to the property line than the otherwise applicable setback requirement.

Rotor Diameter means the cross sectional dimension of the circle swept by the rotating blades.

Small Wind Energy System means a system of equipment located on a single lot that has an aggregate rated capacity of not more than 100 kW that converts and then stores or transfers energy from the wind into usable forms of energy for use on the same lot as the system, or on an adjacent lot in the case of a common system serving more than one principal use or structure. This equipment includes and base, blade, foundation, generator, nacelle, rotor, tower, transformer, vane, wire, inverter, batteries, or other components used in the system. Small Wind Energy Systems are allowed only as accessory uses or structures, and only one Small Wind Energy System is allowed per lot.

Small Wind Energy System Height means the height above grade to the tip of the turbine blade when it reaches its highest elevation.

Tower Height means with regard to a wind energy system, the height above grade of the fixed portion of the tower, excluding the wind turbine itself.

Tower means with regard to a wind energy system, the structure on which the wind system is mounted. This includes a monopole, freestanding, or guyed structure that supports a wind generator.

Wind Turbine means the parts of the wind system including the blades, generator, and tail.

Add Sec. 45-461 as follows:

Sec. 45-461. Small Wind Energy Systems.

a. *Purpose.* The purpose of this section is to promote the safe, effective and efficient use of small wind energy systems. This section describes the requirements for obtaining a permit to install a small wind energy system.

b. *Setbacks.*

1. A tower for a Small Wind Energy System shall be set back a distance equal to 110% of its Small Wind Energy System Height from:

(a) any public or private road right of way, unless written permission is granted by the Town or State entity with jurisdiction over the road.

(b) any overhead utility lines, unless written permission is granted by the utility.

(c) all property lines, unless written permission is granted from the affected landowner or neighbor.

(d) The Planning Board may accept restrictive easements on abutting parcels to satisfy setback requirements.

2. Small Wind Energy Systems must meet all setbacks for principal structures for the zoning district in which the system is located. However, notwithstanding such district regulations, no part of the Small Wind Energy System, including guy wire anchors, may extend closer than 10 feet to the property boundaries of the installation site.

c. *Tower Height.*

1. For property sizes up to 1 acre the Tower Height shall be limited to a maximum of 80 feet.

2. For property sizes of one acre or more there shall be no limitation on Tower Height except as imposed by FAA regulations and setback requirements.

3. The Planning Board may accept restrictive easements on abutting parcels to satisfy acreage requirements

4. The applicant shall provide evidence that the proposed Tower Height does not exceed the height recommended by the manufacturer of the system.

d. *Design Requirements*

1. Access.

- (a) All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- (b) The tower shall be designed and installed such that public access via step bolts or a ladder is prevented for a minimum of 12 feet above the ground.
- 2. Blade clearance. For all systems the minimum distance between the ground and any protruding blades shall be 15 feet as measured at the lowest point of the arc of the blades.
- 3. Appearance. Towers shall maintain a galvanized steel finish unless FAA standards require otherwise or if owner is attempting to conform the tower to the surrounding environment and architecture, in which case it may be painted to reduce visual obtrusiveness.
- 4. Signs. Towers shall not display any permanent or temporary signs, writing, symbols, logos, or any graphic representation of any kind
- 5. Lighting. No tower shall be lighted unless required by the FAA.
- 6. Noise. Small Wind Energy Systems shall comply with the Town of Eliot noise requirements in section 45-407.

e. *Documents required.* The following documents must be submitted with the application for a Small Wind Energy System:

- 1. Plot plan showing
 - (a) A title block showing date, scale and arrow pointing north.
 - (b) The Zoning District in which the Small Wind Energy System is proposed
 - (c) The setbacks of all existing and proposed structures or uses.
 - (d) The location of all existing and/or proposed structures or uses.
 - (e) Any overhead utility lines.
- 2. Wind system specifications, including manufacturer and model, rotor diameter, Tower Height, tower type (freestanding or guyed).
- 3. Tower foundation blueprints or drawings.
- 4. Tower blueprint or drawing.
- 5. Standard drawings and an engineering analysis of the systems tower, and certification by a professional mechanical, structural, or civil engineer. This analysis shall include standards for ice and wind loading.
- 6. A line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the current edition of the National Electric Code on file in the office of the Code Enforcement Officer.
- 7. Data on approval from any small wind certification program that may apply.
- 8. Information showing that the generators and alternators to be used are constructed so as to prevent the emission of radio and television signals.

f. *Notification.* The applicant shall provide evidence that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement

g. *State and Federal Requirements.*

1. Small Wind Energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports. Evidence of compliance or non-applicability shall be submitted with the application.

2. Small Wind Energy systems must comply with applicable building code, National Electric Code, and other State and Federal requirements.

h. *Removal of Unsafe Small Wind Energy systems.* Any Small Wind Energy system found unsafe by the CEO shall be repaired by the owner to meet all federal, state, or local safety standards or removed within 6 months. If the owner fails to remove the system as directed the CEO may pursue legal action to have the system removed at the owner's expense.

Background and rationale for ARTICLE_____ “Amendments to Chapter 1, General Provisions,” “Amendments to Chapter 44, Shoreland Zoning,” and “Amendments to Chapter 45, Zoning” of the Municipal Code of Ordinances of the Town of Eliot, Maine, to permit small wind energy systems.

- § This amendment comes as a result of an ordinance drafted by the Eliot Energy Committee to permit and promote the use of small wind energy systems in Eliot.