

## **ORDINANCE NO. 3843**

### **AN ORDINANCE AMENDING THE CODE OF THE TOWNSHIP OF FRANKLIN, COUNTY OF SOMERSET, STATE OF NEW JERSEY, MORE PARTICULARLY CHAPTER 112, DEVELOPMENT REGARDING SMALL WIND ENERGY SYSTEMS.**

#### **SUMMARY**

This ordinance amends provisions of Chapter 112, Land Development, so as to permit small wind energy systems subject to appropriate requirements.

**BE IT ORDAINED** by the Township Council of the Township of Franklin, County of Somerset, State of New Jersey that the Code of the Township of Franklin is hereby amended as follows:

#### **SECTION I**

Chapter 112, Land Development, is hereby amended as follows to revise Section 112-4, Definitions, to contain the following definition:

**SMALL WIND ENERGY SYSTEM** - An energy system which converts wind energy by means of a rotor into electrical power for the primary purpose of meeting all or a part of a dwelling's energy requirements. As used in these regulations, the primary application of a wind energy system (SWES) is the conversion of wind by a machine with turbine apparatus (includes base, rotor blades, nacelle, tower, inverter, batteries or other component used in the system) capable of producing electricity by converting the kinetic energy of wind into electrical energy to be used primarily for onsite consumption. The term does not include electrical distribution or transmission lines, or electrical substations. The term is limited to systems that have a nameplate capacity of 20 kilowatts or less. A SWES is incidental and accessory to the permitted principal use located on the lot. A SWES is intended to produce electricity primarily for on-site consumption but excess electrical power may be transferred to a utility company power supply grid pursuant to utility company interconnection agreements. Such term is inclusive of the term "vertical axis wind turbine" which is a compact type of small energy wind system that can be mounted on buildings and poles and produces energy using vertical wind turbine technology in low wind speeds and operates at low noise levels.

#### **SECTION II**

Chapter 112, Land Development, is hereby amended as follows to Amend V, Conditional Uses, to add new Section 112-41, Small wind energy systems.

## **§112-41. Small wind energy systems.**

- A. A small wind energy system shall be permitted in the Agricultural (A), Canal Preservation (CP), Rural Residential 3 (RR3) and Rural Residential 5 (RR5) Zoning Districts subject to the following requirements:
- (1) Minimum lot size. The minimum lot size for a small wind energy system shall be 5 acres.
  - (2) Setbacks. The minimum setback distance shall be 150% of the height of the wind tower. Such distance shall be doubled along a property line adjoining a scenic roadway. The setback distance is the horizontal distance from the center of the supporting structure to the nearest property line or to the nearest overhead utility easement or underground petroleum product pipeline easement.
  - (3) Height.
    - (a) A small wind energy system shall not exceed 120 feet in total height. The height of the structure is the vertical distance from the ground surface to the highest point of a rotor blade when in an upright position.
    - (b) The bottom of the rotor blade sweep shall be no closer than 35-feet above the ground surface.
  - (4) Number. No more than one wind tower for a small wind energy system shall be located on any one property.
  - (5) Visual Impacts.
    - (a) The applicant shall demonstrate through project site planning and proposed mitigation that the small wind energy system's visual impacts will be minimized for surrounding neighbors and the community. This may include, but not be limited to information regarding site selection, turbine design or appearance, buffering, and screening of ground mounted electrical and control equipment. All electrical conduits shall be underground.
    - (b) The color of the small wind energy system shall either be the stock color from the manufacturer or painted with a non-reflective, unobtrusive color that blends in with the surrounding environment.
    - (c) Wind turbines may only be attached to monopole towers with or without guy wires. Lattice towers are prohibited.
  - (6) Lighting. A small wind energy system shall not be artificially lit unless such lighting is required by the Federal Aviation Administration (FAA). If lighting is

required, the applicant shall provide a copy of the FAA determination to establish the required markings and/or lights for the small wind energy system.

- (7) Signs. All signs, both temporary and permanent, are prohibited on the small wind energy system, except as follows: manufacturer's or installer's identification on the wind turbine; and appropriate warning signs and placards.
- (8) Code compliance. A small wind energy system including tower shall comply with all applicable construction and electrical codes, and the National Electrical Code.
- (9) Utility notification and interconnection. Small wind energy systems that connect to the electric utility shall comply with the New Jersey's net metering and interconnection standards for Class I renewable energy systems.
- (10) Noise. The noise level of any small wind energy system shall not exceed 60 dB(A) measured from any property line, or be in excess of five dB(A) above the background noise, whichever is greater, as measured at the closest inhabited dwelling on a neighboring property, except during short-term events such as severe wind storms and utility outages.
- (11) Clearing. Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the small wind energy system and as otherwise prescribed by applicable laws, regulations, and ordinances.
- (12) Access.
  - (a) All ground-mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
  - (b) The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of eight feet above the ground.

B. Permit requirements.

- (1) Site plan approval. Site plan approval shall be required for the installation of a small wind energy system.
- (2) Documents. In addition to other normally required application materials for site plan and conditional use applications, the site plan application shall be accompanied by a plot plan which includes the following:
  - (a) Property lines and physical dimensions of the property;
  - (b) Location, dimensions, and types of existing structures on the property;
  - (c) Location of the proposed small wind energy system tower;

- (d) The right-of-way of any public road that is contiguous with the property;
  - (e) Any overhead utility lines;
  - (f) Small wind energy system specifications, including manufacturer and model, rotor diameter, tower height, tower type (freestanding or guyed);
  - (g) ~~Stamped, engineered tower and tower foundation drawings~~ **Tower and tower foundation drawings signed and sealed by a professional engineer licensed in the State of New Jersey;**
  - (h) Sound level analysis prepared by the wind turbine manufacturer or qualified engineer including noise levels of the proposed wind energy system at all property lines and at the closest neighboring inhabited dwelling.
  - (i) A visual analysis must be submitted, including photos of the subject property, that graphically simulates the appearance of any proposed small wind energy system and indicating its view from at least five locations around and within one mile of the proposed tower.
  - (j) A report from a structural engineer containing the following: A description of the tower, including a description of the design characteristics and material; and, documentation to establish that the tower has sufficient structural integrity for the proposed uses at the proposed location and meets the applicable minimum safety requirements. The applicant shall provide evidence that the proposed tower height does not exceed the height recommended by the manufacturer of the wind turbine. Every two (2) years the owner shall submit a structural report to the Building Department attesting to the structural integrity of the wind generator, tower and/or support system.
- (3) Expiration. A permit issued pursuant to this section shall expire if:
- (a) The small wind energy system is not installed and functioning within 24 months from the date the permit is issued; or
  - (b) The small wind energy system is out of service or otherwise unused for a continuous twelve-month period.

C. Abandonment.

- (1) A small wind energy system that is out of service for a continuous twelve-month period will be deemed to have been presumptively abandoned. The Zoning Officer may issue a notice of abandonment to the owner of a small wind energy system that is deemed to have been abandoned. The owner shall have the right to respond to the notice of abandonment within 30 days from notice receipt date. The Zoning Officer shall withdraw the notice of abandonment and notify

the owner that the notice has been withdrawn if the owner provides information that demonstrates the small wind energy system has not been abandoned. In the event that the Zoning Officer, after investigation, determines that a small wind energy system has been abandoned, the Zoning Officer may issue a notice of abandonment during the presumptive twelve-month period and the owner shall have the right to respond to the notice of abandonment.

- (2) If the small wind energy system is determined to be abandoned, the owner of a small wind energy system shall remove the small wind energy system and all related improvements at the owner's sole expense within three months of receipt of notice of abandonment. The applicant may provide a performance bond and/or other assurances satisfactory to the approving Board, in a form approved by the Township Attorney, that will cause the removal of the small wind energy system and all related improvements at no cost to the Township. In the absence of a performance bond and/or other assurances, if the owner fails to remove the small wind energy system, the Zoning Officer may, at the option of the Township Council, have the small wind energy system and all related improvements removed at the owner's expense, and impose a lien on the property.

- D. Violations. It is unlawful for any person to construct, install, or operate a small wind energy system that is not in compliance with this section or with any condition contained in a building permit issued pursuant to this section. Small wind energy systems installed prior to the adoption of this section are exempt.

### **SECTION III**

Chapter 112, Land Development – Article III, General Zoning Regulations, Schedule 1, Permitted Uses, is amended as follows to clarify that “small wind energy systems” are permitted conditional uses in certain zoning districts:

Schedule 1, Permitted Uses, is amended to add “Small wind energy systems” under the column entitled “Conditional Uses” in the rows entitled “A Agricultural”, “CP Canal Preservation”, “RR-3 Rural Residential”, and “RR-5 Rural Residential”.

### **SECTION IV**

Each clause, section or subsection of this ordinance shall be deemed a separate provision to the intent that if any such clause, section or subsection should be declared invalid, the remainder of the ordinance shall not be affected.

### **SECTION V**

All ordinances or parts of ordinances inconsistent with this ordinance are hereby repealed as the extent of such inconsistency.

**SECTION VI**

This ordinance shall take effect immediately upon adoption and publication according to law.

**ORDINANCE NO. 3843**

This is a true copy of an ordinance adopted by the Township Council, Township of Franklin, Somerset County, New Jersey.

Introduced:	August 11, 2009
Public Hearing:	September 22, 2009
Adoption:	September 22, 2009
Published:	September 28, 2009
Effective:	October 12, 2009

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Ann Marie McCarthy, Township Clerk