



# TOWN *of* REDDING, CONNECTICUT

## Zoning Commission

10 Lonetown Road, P.O. Box 1028, Redding, CT 06875 Tel. (203) 938-8517 Fax (203) 938-5027

March 28, 2011

Bethel Town Hall  
Attn: Town Clerk  
1 School Street  
Bethel, CT 06801

To Whom It May Concern:

In accordance with the Connecticut General Statutes this letter is to notify you that a Public Hearing will be held on May 11, 2011 at 7:30 PM in the Hearing Room at the Redding Town Hall located at 10 Lonetown Road. **The purpose of Public Hearing is to propose Amendments to Section 5.15 of the Redding Zoning Regulations. (see attached)**

If you have any questions or concerns regarding this matter please feel free to contact me at (203) 938-8517.

Sincerely,

*Robert M. Flanagan*

Robert M. Flanagan  
ZEO/Wetlands Officer

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TOWN OF BETHEL  
TOWN CLERK



TOWN OF REDDING  
P.O. Box 1028  
100 Hill Road  
Redding, CT 06875

REDDING ZONING COMMISSION  
REDDING, CONNECTICUT

SPECIAL ZONING REGULATION CHANGE FORM:

DATE: March 16, 2011

PROPERTY OWNER: Earth, Wind & Solar, LLC

PROPERTY ADDRESS: One Longwood Drive, Redding, CT 06896

OWNER'S TELEPHONE # (H) 203 938-0563 (W) 203 938-0567

ZONING REGULATION SECTION EXISTING - Section 5.15

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ZONING REGULATION PROPOSED (attach separate sheet if necessary) -

Additions and amendments to Section 5.15, Section 3.12(c),  
Section 4.3.2 (r), Section 4.3.1 (c), 4.3.2 (d), Section 4.4.3 (d),  
Section 4.4.5, Section 4.5.3 (b), Section 8.1.12 and  
Section 8.1.288

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**Town of Redding  
Zoning Commission  
P.O. Box 1028  
10 Lonetown Road  
Redding, CT 06875**

Applicant: EARTH WIND & SOLAR, LLC

RE: Proposed Changes to Redding Zoning Regulations –  
Small Wind Energy Conversion Systems

Date: March 16, 2011

**DEVELOPMENT STANDARDS (*Changes In Italics*)**

**5. 15. 1**

**5. 15. 2 SMALL WIND ENERGY CONVERSION SYSTEMS**

*In order to standardize and streamline the requirements for small wind energy conversion system/s (SWECS) so that this clean, renewable energy resource can be utilized in a cost- effective and timely manner in our Town, SWECS may be established in all zones (on any site) as Accessory Structures, (see Definitions, Section 8.1.12 and 8.1.245) subject to the issuance of an Administrative Permit. 2 and subject to the following requirements:*

- (a) Minimum lot size. One-half (1/2) acre, provided the lot size conforms to the height requirements below;*
- (b) Minimum Setbacks. A wind tower for a SWECS shall be set back, from all property lines, a distance equal to the Town's building setback requirements but, in no case less than the height of the tower. No portion of the wind generator or it's guy lines shall extend beyond the setback line, nor into the following:
  - (i) Any road right of way, unless written permission is granted by the government entity with jurisdiction over the right of way; and*
  - (ii) Any overhead utility lines, unless written permission is granted by the utility that owns and/or controls the lines;**
- (c) Maximum height. Freestanding wind turbines shall not exceed a height of 55 feet on lots between one-half (1/2) acre and three (3) acres.*

- (d) SWECS installed on the roof top of a principal structure or accessory structure shall not exceed the maximum permitted height of the principal structure plus 15 feet;*
- (e) SWECS on all sites shall have a nameplate capacity of 100 kilowatts or less;*
- (f) All SWECS shall comply with the following:*
  - (i) Within residential zones sound levels of the SWECS shall not exceed 42 dBA at a common property line or 20 dBA to the closest occupied structure, whichever is most restrictive; and*
  - (ii) In all other cases at a common property line sound levels of the SWECS shall not exceed 50dBA; and*
  - (iii) SWECS shall be designed with an automatic brake or other similar devise to prevent over speeding and excessive pressure on the tower or roof top structure;*
- (g) SWECS shall not be artificially lighted, except to the extent required by the FAA or other applicable authority;*
- (h) All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access;*
- (i) The tower shall be designed and installed so as not to provide step bolts, a ladder, or other publicly accessible means of climbing the tower for a minimum height of twelve feet above the ground;*
- (j) All moving parts of the SWECS shall be a minimum of 15 feet above ground level;*
- (k) The blades on the SWECS shall be constructed of a corrosive-resistant material;*
- (l) The installation of SWECS shall conform to the National Electric Code;*
- (m) SWECS that connect to the electric utility shall comply with the Net Metering and Interconnection Standards for Class I Renewable Energy Systems;*
- (n) SWECS shall not be used for displaying any advertising except for reasonable identification of the manufacturer or installer of the system;*
- (o) SWECS generators and alternators shall be filtered and/or shielded so as to prevent the emission of radio frequency energy which would cause any harmful interference with radio and/or television broadcasting or reception and shall comply with the provisions of Section 47 of the Federal Code of Regulations, Part 15 and subsequent revisions governing said emissions;*
- (p) The structural design shall be signed and sealed by a professional engineer, registered in the State of Connecticut, certifying that the structural design complies with all of the standards set forth for safety and stability in all applicable codes then in effect in the State of Connecticut and all sections referred to hereinabove. The support tower or roof top mount shall be designed to survive a wind of 120 mph with a three second, 140 mph gust. The design calculations shall include a soil boring at the tower location and a soil analysis. If the soils of the site are not satisfactory for the intended construction, the plans shall be designed to eliminate or overcome the poor soils conditions;*
- (q) A minimum of one sign shall be posted near ground level on a tower structure warning of high voltage. In addition, the following information shall be posted on a label or labels on the inverter of the SWECS:*

- (i) *The maximum power output of the system and the wind speed at which it is achieved; and*
- (ii) *Nominal voltage and maximum current; and*
- (iii) *Manufacture's name and address, serial number and model number; and*
- (iv) *Maximum survival wind speed and the emergency and normal shutdown procedures.*
- (r) *The Connecticut Light & Power Company shall be notified in writing of any proposed interface with that company's grid prior to installing such interface and shall conform to any legislated requirements governing installations of SWECS so as to comply with the Utility Tariff specifications;*
- (s) *All electric lines/utility wires shall be buried under ground.*
- (t) *Any mechanical equipment associated with and necessary for operation, including batteries and storage cells, shall be located, wherever possible, within the primary dwelling or, if mounted on a tower, enclosed with a six-foot high fence. unless the base of the tower is not climbable for a distance of 12 feet from the ground.*
- (u) *When an accessory building is necessary for storage cells or related mechanical equipment, the building may not exceed 140 square feet in floor area nor ten feet in height and may not be located within the setback area.*

3. 12 (c) A wind energy conversion system, as authorized in Section 5. 15. 1 and 5. 15. 2

4. 2. 3 (r) Wind energy conversion system, subject to the limitations of Section 5. 15. 1 and 5. 15. 2.

4. 3. 1 (c) **Permitted Special Uses:**  
As permitted in Residential Zones, Sections 4. 2. 3, Subsection (a), (b), (d), (f), (g), (p), (q) and (r).

4. 3. 2 (d) **Permitted Special Uses**  
As permitted in Residential Zones, Section 4. 2. 3, Subsection (r).

4. 3. 3 (d) **Permitted Special Uses**  
As permitted in Residential Zones, Section 4. 2. 3, Subsection (r).

4. 4. 5 **Permitted Special Uses**  
As permitted in Residential Zones, Section 4. 2. 3, Subsection (r).

4, 5. 3 (b) . *As permitted in Residential Zones, Section 4. 2. 3, Subsection (r) but, not subject to the limitations of a Special Permit.*

8. 1. 12 **Accessory Use** - Any use of land or buildings which is subordinate and incidental to the principal use on the same lot, and which supports or serves the principal use. Examples: parking for a retail store, tennis court for a residence, sign for a commercial establishment, office for a resident professional person, *small wind energy system for a residence or commercial property.* (Sections 3. 7, 4. 2, 4. 3, 4. 4, 4. 5, 5. 15 .2).

8. 1. 288 **Wind Energy Conversion Systems** - A fixed-location windmill, turbine or other device equipped with moving vanes or rotors, which device is designed to convert the energy of the wind to a force of usable energy (Sections 4. 2. 3 (r) , 5, 15, 1 and 5. 15. 2).