

ORDINANCE NO. 558

AN ORDINANCE CREATING CHAPTER 18.12.050 OF THE TOWN OF MILLS MUNICIPAL CODE PERTAINING TO REGULATION OF MICRO WIND SYSTEMS AND SMALL WIND ENERGY CONVERSION SYSTEMS.

WHEREAS, the Town of Mills wishes to support renewable energy sources for the long-term health, welfare, and sustainability of the Town of Mills and its residents; and,

WHEREAS, the Town wishes to allow wind power as a source of electrical supply in the Town; and,

WHEREAS, the Town wishes to allow residents and businesses to use small wind energy systems to harness wind energy for individual properties; and,

WHEREAS, the Town wishes to enact regulations and siting criteria for small wind energy systems; and,

WHEREAS, the Town wishes to provide an administrative permitting process to allow for small wind energy systems.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE TOWN OF MILLS, WYOMING:

SECTION 1.

That Section 18.12.050 is hereby created as follows:

MICRO WIND SYSTEMS AND SMALL WIND ENERGY CONVERSION SYSTEMS:

DEFINITIONS

“A-Weighted Sound Level (dba)” – A measurement of sound pressure level, which has been filtered or weighted to progressively de-emphasize the importance of frequency components below 1,000 Hz and above 5,000 Hz. This reflects the fact that human hearing is less sensitive at low frequencies and at extremely high frequencies, relative to the mid-range of the frequency spectrum. This area of sensitivity also corresponds to the human speech band.

“Decibel (db)” – The measurement of a sound pressure relative to the logarithmic conversion of the sound pressure reference level often set as 0 db (A-weighted). In

general, this means the quietest sound we can hear is near 0 db (A-weighted) and the loudest we can hear without pain is near 120 db (A-weighted).

“FAA” – The Federal Aviation Administration of the United States Department of Transportation.

“Guy Cable” – Any cable or wire that extends from a small wind energy system for the purpose of supporting the system structure.

“Meteorological Tower” – means a facility consisting of a tower and related wind-measuring devices, which is used solely to measure winds preliminary to construction of a *Small Wind Energy Conversion System*. Meteorological Towers shall not be allowed for time periods in excess of twelve months, and shall be removed prior to the installation of the wind energy conversion system for which they are measuring. A request to install a meteorological tower shall be included in the application to install either a *Micro Wind System* or a *Small Wind Energy Conversion System*.

“Micro Wind System” – A building-mounted wind system (either a Vertical or Horizontal Axis Turbine) that has a Rated Nameplate Capacity of 10kW or less, (3kW or less for residential properties), and projects no more than fifteen feet (15') above the highest point of the roof. Such building-mounted wind systems shall be regulated by applicable building and electrical codes, and shall not be considered a *Small Wind Energy Conversion System*. A *Micro Wind System* shall not be considered in determining total building height for zoning or setback purposes. Multiple turbines are permitted, provided the total cumulative Rated Nameplate Capacity does not exceed 10kW (or 3kW for residential properties).

“Rated Nameplate Capacity” – The maximum rated output of electric power production equipment. This output is typically specified by the manufacturer with a “nameplate” on the equipment.

“Small Wind Energy Conversion System” – means a wind energy conversion system consisting of a tower, a turbine, and associated control or conversion electronics that generates power for an individual property for the purpose of reducing on-site energy consumption with a Rated Nameplate Capacity of 25kW or less per tower. This includes, but is not limited to, storage, electrical collection and supply equipment, and transformers. Excess electrical power generated, and not presently needed for on-site use, may be utilized by the utility company.

“Tower Height” – means the total height above finished grade of the fixed portion of the tower, including the wind turbine blades.

“Turbine” – The parts of a wind system including the blades, generator and tail. The definition of a turbine includes both Horizontal Axis Wind Turbines (HAWT) and Vertical Axis Wind Turbines (VAWT).

PURPOSE

The purpose of this chapter is to provide a uniform set of standards, conditions, and procedures for the placement of *Micro Wind Systems*, *Small Wind Energy Conversion Systems*, and temporary meteorological towers on property located within the Town of Mills.

PERMITTED USE

Micro Wind Systems and *Small Wind Energy Conversion Systems* shall be permitted, as an accessory use, in all zoning classifications, subject to all requirements as provided herein.

GENERAL REQUIREMENTS

- A. Minimum Lot Size – The minimum lot size for a *Small Wind Energy Conversion System* shall be 20,000 square feet. There is no minimum lot size requirement for *Micro Wind Systems*.
- B. Maximum Tower Height – The maximum tower height for a *Small Wind Energy Conversion System* on a property between 20,000 square feet and one-acre in size shall be seventy feet (70'). The maximum tower height on properties between 1.01-acres and five-acres in size shall be one hundred feet (100'). On properties larger than five-acres, there is no limitation on tower height, except as imposed by FAA regulations.
- C. Minimum Setbacks – Minimum setbacks for a tower shall be equal to the height of the tower. No part of the *Small Wind Energy Conversion System* structure, including, but not limited to, guy wire anchors, may extend closer than ten feet (10') to the property line.
- D. Sound – *Micro Wind Systems* and *Small Wind Energy Conversion Systems* shall not exceed 60 dbA, measured five feet (5') above ground level at the closest property line. The sound level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.
- E. Turbine Clearance – No portion of any turbine shall extend within twenty feet (20') of the ground. No portion of any turbine may extend over parking areas, driveways or sidewalks.
- F. Automatic Over-Speed Controls – All *Micro Wind Systems* and *Small Wind Energy Conversion Systems* shall be equipped with manual (electronic or mechanical) and automatic over-speed controls to limit the blade rotation speed to within the design limits of the *Micro Wind System* or *Small Wind Energy Conversion System*.

- G. Utility Notification – No *Micro Wind System* or *Small Wind Energy Conversion System* shall be installed until evidence has been given that the electrical utility company has been informed of, and approved the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
- H. Tower color – Tower colors shall be white, off-white, gray, or neutral subdued tones, such as earth tones of green or brown. Towers shall not be finished in bright or vivid colors, nor shall the tower be used for advertising of any kind.
- I. Lighting – *Micro Wind Systems* and *Small Wind Energy Conversion Systems* shall not be artificially lighted, except as required by the FAA.
- J. Climb prevention – *Small Wind Energy Conversion Systems* shall not be climbable up to fifteen feet (15') above the ground surface.

APPLICATION REQUIREMENTS

The applicant shall provide the following materials to the Community Development Department as part of a building permit application, for *Micro Wind Systems* and *Small Wind Energy Conversion Systems*:

- A. A completed application provided by the Community Development Office.
- B. Proof of ownership for the property where the proposed tower will be constructed, and all applicable fees, as established by the Town Council.
- C. A scaled 8-1/2" x 11" or larger plot plan of the proposed *Small Wind Energy Conversion System*, to include property lines, setbacks, physical dimensions of the property, and locations of structures and the tower, base, footings, generator, blades, guy wires, and all associated equipment.
- D. An engineering analysis of the *Micro Wind System* and/or tower showing compliance with all applicable current building codes, and certified by a licensed professional engineer.
- E. Certification that the design is in compliance with the current National Electrical Code and local electrical code. Building permit applications for *Micro Wind Systems* and *Small Wind Energy Conversion Systems* shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of the installation conforms to the National Electrical Code and local electrical codes.
- F. Evidence satisfactory to the Community Development Director, that the proposed system meets the following standards:

1. That the *Micro Wind System or Small Wind Energy Conversion System* is UL listed, and/or meets the Institute of Electrical and Electronic Engineers (IEEE) standards, or other Nationally Recognized Testing Lab (NRTL);
2. Information demonstrating that the wind turbine is approved under an emerging technology program, such as International Electrotechnical Commission (IEC) or any other small wind certification program recognized by the American Wind Energy Association (AWEA) or the U.S. Department of Energy. Non-certified wind turbines must submit a description of the safety features of the turbine prepared by a professional mechanical engineer.

REVIEW AND APPROVAL

After the submittal of all required application materials, the Community Development Department shall review the submittal and shall issue a building permit for *Micro Wind Systems and Small Wind Energy Conversion Systems* if the application materials meet all requirements of this ordinance, and all applicable building and electrical codes.

ABANDONED FACILITIES

- A. Any *Micro Wind System or Small Wind Energy Conversion System* that is not operated on a functional basis for a period of six (6) consecutive months shall be deemed abandoned. The building official may order the repair or removal of said *Micro Wind System or Small Wind Energy Conversion System*, in accordance with these provisions. The applicant, owner, or other person responsible for the facility shall repair or remove the same within thirty (30) days of receipt of notification by certified mail. If said facility is not either operational or removed after thirty (30) days from the date of notification, the Town may remove the system at the owner's expense.
- B. The Town reserves the right to enter upon and disconnect, dismantle or otherwise remove any *Micro Wind System or Small Wind Energy Conversion System* should it become an immediate hazard to the safety of persons or property due to emergency circumstances, as determined by the Town Manager or his designee, such as natural or man-made disasters or accidents, when the applicant, owner, or other person responsible for the facility is not available to immediately remedy the hazard. The Town shall attempt to notify any such applicant, owner, or other person responsible for the facility of such action within forty-eight hours. The applicant, owner, or other person responsible for the facility shall reimburse the Town for all costs incurred for action taken pursuant to this Section.

This ordinance shall be in full force and effect from and after passage on three readings and publication.

PASSED on 1st reading the 8th day of July, 2009.

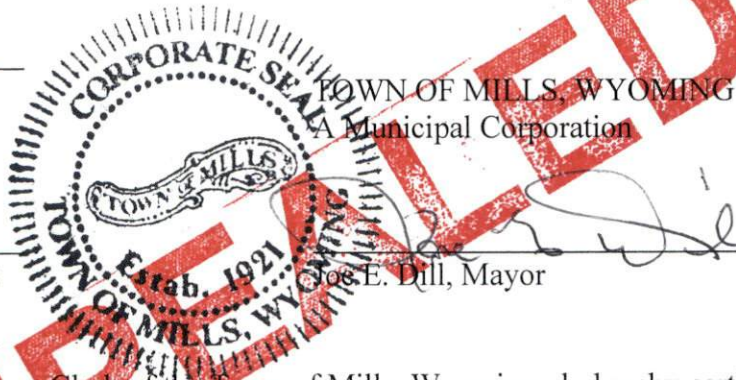
PASSED on 2nd reading the 5th day of August, 2009.

PASSED, APPROVED, AND ADOPTED on 3rd and final reading the 9th day of September, 2009.

APPROVED AS TO FORM:

ATTEST:

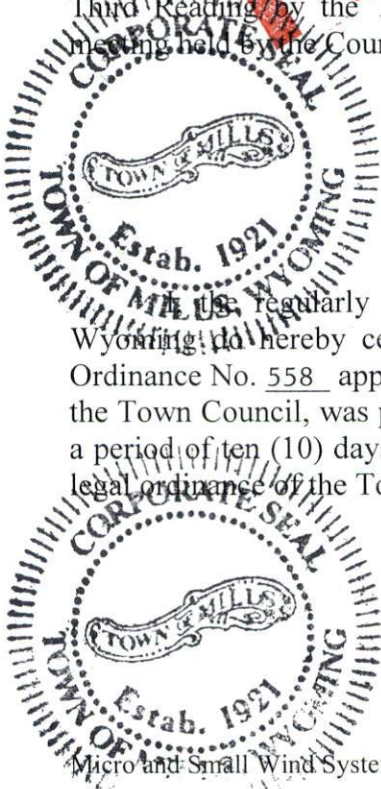
Raeann Weber
Raeann Weber, Town Clerk



Joe E. Dill
Joe E. Dill, Mayor

I, Raeann Weber, Town Clerk of the Town of Mills, Wyoming, do hereby certify that the foregoing is a true and correct copy of ordinance no. 558, entitled "AN ORDINANCE CREATING CHAPTER 18.12.050 OF THE TOWN OF MILLS MUNICIPAL CODE PERTAINING TO REGULATION OF MICRO WIND SYSTEMS AND SMALL WIND ENERGY CONVERSION SYSTEMS."; passed on Third Reading by the Town Council of the Town of Mills, Wyoming, at a regular meeting held by the Council Members on the 9th day of September, 2009.

Raeann Weber
Raeann Weber, Town Clerk



I, Joe E. Dill, regularly appointed, duly qualified Town Clerk of the Town of Mills, Wyoming, do hereby certify that signed, attested, sealed, and certified copies of this Ordinance No. 558 approved and passed as certified above, and following its passage by the Town Council, was posted in the Town Clerk's Office and at the Mills Town Hall for a period of ten (10) days as required by law; that it took effect and became in force as a legal ordinance of the Town of Mills, Wyoming on the 11th day of Sept., 2009.

Raeann Weber
Raeann Weber, Town Clerk