



Building Safety Department
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RESIDENTIAL Wind Energy Systems

This handout was prepared in an effort to provide assistance and guidance relative to the installation of small wind energy systems (SWES). The intent of this handout is not to be all-inclusive, but rather to present the reader to the most important points of SWES installation.

Prior to submittal of permit application, applicants are encouraged to discuss their plans with Cheyenne Light, Fuel & Power and to investigate the possibility of net metering generation.

Requirements

A. Setbacks:

1. No part of the SWES, including the rotor blades, may extend within 10 feet of the property boundaries of the installation site.
2. SWES shall be set back a distance equal to the total height of the wind turbine from all inhabited structures, overhead utility lines, and public roads or rights-of-way. This statement shall not apply to electrical lines from utility poles to house/garage. (Height shall be measured from the ground to the highest point of the rotor or blade.)
3. The wind generator must be detached from the primary structure and must meet the setback requirements for an *accessory* structure.

B. SWES dimensions:

4. If the wind generator is over 50 feet in height, clearance must be received from the FAA prior to signing the building permits.
5. The maximum rotor diameter shall be 6 ft.
6. There shall be a minimum of 30 feet between the ground and the lowest point of the rotor blade. Blades shall not extend over parking areas, driveways, or sidewalks.

C. Documents to be submitted:

7. A site-specific foundation drawing **and** structural drawing of the supporting structure shall be provided. Both documents shall reference a specific legal description or address, if available, and shall be wet-stamped, dated, and signed by a Wyoming registered professional engineer or architect.
8. A plot plan depicting the proposed location of the wind generator, all other structures on the site, and required setbacks shall be provided.

D. Other considerations:

9. Turbines shall be installed on engineered monopoles or towers. Guy wires supporting "ground-based" towers are not permitted.
10. All wiring from the tower to the residence shall be underground.
11. A maximum number of one (1) SWES is permitted per residential unit.
12. No tower is permitted that requires any lighting under federal, state, or local law.
13. All electrical components and installations must meet the requirements of the 2008 National Electrical Code.
14. Licensing requirements:
 - a. All work may be performed by the resident owner.
or
 - b. Structure/tower erection: "A" or "B" contractor
 - c. To set the turbine: "A", "B" or "D" (equipment installation) contractor
 - d. To construct the caisson(s): "A", "B" or "C-1" (structural concrete) contractor
 - e. A licensed electrical contractor

SMALL WIND ENERGY SYSTEM (SWES) DIAGRAM

