

Arapahoe County Land Development Code

Part 1 ZONING REGULATIONS

SECTION 4100 SMALL WIND ENERGY CONVERSION SYSTEMS

1-4101 INTENT

- To provide for the installation of small wind energy conversion systems (SWECS) providing electricity up to 100 kilowatts on properties within the unincorporated areas of Arapahoe County, unless otherwise prohibited by an approved Preliminary Development Plan.

1-4102 GENERAL REQUIREMENTS

1-4102.01

- All requests for the installation of small wind energy conversion systems shall be submitted to the PWD Building Division, with referrals to the Current Planning Section, Engineering Services Division, and Zoning Section, and shall be accompanied by a dimensioned site plan showing:
 - Property lines.
 - Proposed location of the tower, including setbacks and height information.
 - Location of all existing structures.
 - All above-ground utility lines.
 - Location of trees or other vegetation described by size and type.
 - Existing easements

1-4102.02

- The maximum tower height allowed in any zone district shall be one hundred and twenty feet (120').

1-4102.03

- Small wind energy conversion systems shall be located at least one (1) times the height of the supporting tower from all property lines, and from any overhead utility lines.

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1-4102.04

- For “horizontal axis” small wind energy conversion systems, the minimum allowable height above-ground for any portion of the rotor or blades shall be thirty feet (30').

1-4102.05

- Climbing access to the structure shall be limited either by means of a six foot (6') high fence around the tower base with a locking gate or by limiting tower climbing apparatus to no lower than twelve feet (12') above the ground.

1-4102.06

- Wind energy conversion systems shall not create a detrimental effect on adjacent properties through electromagnetic interference (EMI) or noise (not to exceed maximum permissible noise levels at the property line as stated in CRS 25-12-103 for the respective zoned districts).

1-4102.07

- The maximum capacity of a small wind energy conversion system is one hundred (100) kilowatts. The SWECS shall not be located along the major axis of an existing microwave communications link nor placed where it may interfere with existing and/or proposed airport facility aids (ILS, NDB, etc.) where the operation of the system is likely to produce an unacceptable level of electromagnetic interference.

1-4102.08

- Small wind energy conversion systems installed in accordance with the requirements of this Section shall not generate power as a commercial enterprise as defined by the Public Utilities Commission (PUC) or the Federal Energy Regulatory Commission (FERC). Any wind energy system that generates power

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as a commercial enterprise as defined the PUC or FERC is subject to, at a minimum, a 1041 permit or a Use by Special Review.

1-4103 PROCEDURE

- Applicants requesting installation of a small wind energy conversion system shall contact the utility company which has jurisdiction over the parcel of land where the proposed system is to be located (Public Service, IREA). The affected utility shall set forth requirements for the proposed interconnection in compliance with the provisions of the Public Utilities Commission or applicable utility company. Such requirements may include, but not be limited to system specifications, metering, disconnect and emergency features, maintenance, insurance and safety factors. Upon the utility's review of the proposed system, the landowner/authorized representative shall submit a "letter of intent to interconnect" to the PWD Building Division, which has been signed by the utility company. This requirement shall be waived if no interconnection is proposed.
- The landowner/authorized representative shall receive and submit to the PWD Building Division a letter of certification from a registered structural engineer, which verifies the structural integrity of the supporting tower for its ability to withstand structural and wind loads in compliance with the Uniform Building Code.