

### Sec. 7-9-146.8. - Performance and development standards for small wind energy systems.

The purpose of this section is to promote distributed generation small wind energy systems while providing for minimum site performance and development standards that safeguard the environment and adjacent properties. In addition to the requirements for each district, the following performance and development standards shall apply to the installation of small wind energy systems. The intent is to provide standards for the safe and effective construction of small wind energy systems for on-site home, commercial, and agricultural use within non-urbanized areas.

A small wind energy system may be installed only on parcels located outside "urbanized" areas, i.e., within the "non-urbanized" area. "Urbanized area" is defined in accordance with Government Code Section 65944(d)(2) as one (1) of the following: an urbanized area as defined in paragraph (2) of subdivision (d) of Section 65944; or a city as defined in Section 56023, and as depicted on the County's Map of Non-Urbanized Areas. The applicant may submit demographic information from a reputable source demonstrating that the system will be located in a non urbanized area subject to the approval of the Director, OC Planning. A "small wind energy system" or "system" is defined as a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics that has a rated capacity of not more than fifty (50) kilowatts (kw) per customer site, consistent with the requirements of Public Resources Code section 25744(b)(3), and that will be used primarily to reduce on-site consumption of utility power.

(a) *Permitted use.*

- (1) The installation of a small wind energy system of forty-five (45) feet or less will be permitted in the non-urbanized area in any district subject to the approval of a use permit approved by the Zoning Administrator unless otherwise prohibited by any of the following: General plan, specific plan, planned community text, California Coastal Commission, a local coastal program; a land use plan adopted by Airport Land Use Commission; a Alquist-Priolo Earthquake Fault Zoning Act; a scenic highway plan; a conservation or open space easement; a protected open space agreement; a listing of the site in a historic register; or a Williamson Act contract.
- (2) The installation of a small wind energy system of more than forty-five (45) feet and up to eighty (80) feet will be permitted in the non-urbanized area in any district subject to the approval of a use permit approved by the planning commission unless otherwise prohibited by any of the following: General plan, specific plan, planned community text, California Coastal Commission, a local coastal program; a land use plan adopted by Airport Land Use Commission; a Alquist-Priolo Earthquake Fault Zoning Act; a scenic highway plan; a conservation or open space easement; a protected open space agreement; a listing of the site in a historic register; or a Williamson Act contract.

(b) *Building site area.* Minimum lot size shall be one (1) acre.

(c) *Height.* For purposes of calculating height, the height shall mean the distance from the ground to the top of the blade in the vertical position. Maximum tower height shall be eighty (80) feet unless applicant can demonstrate to the satisfaction of the Director, OC Planning, that special circumstances exist that require a tower to be up to, but no more than, one hundred (100) feet in height. An application for a small wind energy system shall include evidence that proposed height of the tower does not exceed the height recommended by the manufacturer or distributor of the system. In no event shall the tower height exceed the applicable limits established by the Federal Aviation Administration (FAA).

(d) *Number of units.*

System Height	Permitted	Additional	Maximum No. of Systems
60 feet or less	Up to 2 systems for lots one to five acres in size	1 system for every additional five acres	No more than 5 systems total
Greater than 60 feet	1 system for lots one to ten acres in size	1 unit for every additional ten acres	No more than 3 systems total

- (e) *Setback.* Minimum setback for the system shall be at least two (2) times the height of the system from any property line. Minimum distance between towers shall be at least one and one-half (1 ½) times the height of the taller tower. No part of the system, including guy wire anchors, shall extend closer than thirty (30) feet from any property line. The system must also meet any fire setback requirements.
- (f) *System.* Wind turbine must meet minimum ratings from the California Energy Commission (CEC) and the system must comply with all FAA requirements. Application shall include system specifications, including electrical components, and may be required to include an acknowledgement from the electrical service provider of the proposed system.
- (g) *Noise.* The applicant must demonstrate that the system shall be operated in such a manner as to comply with the requirements set forth in [Title 4](#), Division 6 of the Codified Ordinances of the County of Orange, entitled "Noise Control."

- (h) *Tower.* Tower structure shall not have any climbing apparatus within the first twelve (12) feet from the ground and shall be designed to prevent climbing within the first twelve (12) feet from the ground. Tower and all associated system structures shall be treated with non-reflective colors to provide concealment of the facilities and to minimize visual disruption. No flags, streamers or decorative items shall be attached to system tower or turbine.
- (i) *Wind turbine.* The system shall use a wind turbine approved by the California Energy Commission (CEC) as qualifying under its Emerging Renewables Program pursuant to Public Resources Code Section 25744 or has been certified by a national program recognized and approved by the CEC.  
The minimum distance between the ground and any part of the turbine blade shall be fifteen (15) feet.
- (j) *Notice.* Notice of the application shall be provided to property owners within three hundred (300) feet of the property line. Applicant may also be required to publish a public notice in a newspaper of general circulation. Systems proposed in agricultural areas shall require special notice to pest control aircraft.  
If the proposed system is within one thousand (1,000) feet of a military installation, within special use airspace, or beneath a low-level flight path as defined by Public Resources Code Section 21098, the applicant shall comply with Section 65944.  
The applicant shall comply with all FAA notice requirements for proposed systems within an Airport Planning Area, and shall notify the County Airport Land Use Commission (ALUC) which shall also review the application.
- (k) *Visual effects.* System shall not substantially obstruct views of adjacent property owners. No system shall be visible from a scenic highway or landscape corridor. System shall be placed or constructed so that the entire system is below any major ridgeline.
- (l) *Signs.* No sign shall be attached to the system, except for signs that identify the manufacturer, installer, or owner of the system; or public health and safety signs applicable to the installed system. Signs shall be no larger than four (4) square feet, unless approved by the decision maker, and shall not be located at the base of the system within ten (10) feet of the ground.
- (m) *Lighting.* Tower structure lighting shall be prohibited unless required by the FAA, FCC or building code.
- (n) *Landscaping.* Landscaping shall be provided to screen accessory structures from roads and adjacent residences in compliance with [section 7-9-132](#)
- (o) *Inoperation.* System shall be removed if inoperable for more than twelve (12) consecutive months.
- (p) *Additional application requirements.* The application shall include standard drawings and an engineering analysis of the system's tower, showing compliance with the current version of the Building Code and certification by a professional mechanical, structural or civil engineer licensed in the State of California. The application must demonstrate that the system is designed to meet the most stringent wind requirements (Uniform Building Code wind exposure D), the requirements for the worst seismic class (Seismic 4), and the weakest soil class, with a soil strength of not more than one thousand (1,000) pounds per square foot. The application shall also include line drawings of the electrical components of the system in sufficient detail to allow for a determination that the manner of installation conforms to the National Electric Code.
- (q) *Compliance with FAA requirements.* The system shall comply with all applicable FAA requirements, including Subpart B (commencing with Section 77.11) of Part 77 of Title 14 of the Code of Federal Regulations regarding installations close to airports, and the State Aeronautics Act (Part 1 (commencing with Section 21001) of Division 9 of the Public Utilities Code). A system that complies with this subdivision shall be deemed to meet the applicable health and safety requirements regarding civil aviation.

(Ord. No. 10-020, § 1, 12-14-10)