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Chapter 19.64 - WIND ENERGY (WE) COMBINING DISTRICT



Sections:

19.64.010 - Purpose and application.



- A. It is the intent of the board of supervisors, in adopting this chapter, to promote the use of proven wind-driven generators for energy recovery, and to promote safeguards ensuring the maintenance of the health, safety and welfare of the citizens of the county. In addition, in adopting this chapter, it is the intent of the board of supervisors to promote the use of an alternative to fossil-fuel-generated electrical power in areas of the county which are identified to have suitable wind resources for production of commercial quantities of wind-generated electrical power. Furthermore, it is the intent of the board of supervisors that site-specific application of this chapter shall occur only in a manner that provides a harmonious balance between the suitability of a project site with existing area land use and physical surroundings.
- B. The WE district is a combining district and shall only be applied to the following district classifications: Exclusive Agriculture (A), Industrial (M-1, M-2, and M-3), Natural Resource (NR) with a minimum lot size of twenty (20) acres, Recreation-Forestry (RF) with a minimum lot size of twenty (20) acres, Limited Agriculture (A-1) with a minimum lot size of twenty (20) acres, or Estate (E) with a minimum lot size of twenty (20) acres. The uses allowed and the regulations required in the WE district shall be in addition to the regulations of the base district with which the WE district is combined. The WE district may not be adopted as a single land use designation.

(Ord. G-7189 § 59, 2005; prior code § 7145.01)

19.64.020 - Permitted uses.

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The following uses and all others determined to be similar to these uses pursuant to Sections [19.08.030](#) through [19.08.080](#) of this title are permitted in a WE district:

- A. Wind-driven electrical generators, prototype, as defined in [Chapter 19.04](#) of this title;
- B. Wind-driven electrical generators, production, as defined in [Chapter 19.04](#) of this title;
- C. Accessory administrative and maintenance structures and facilities, electrical substations, transmission lines and other facilities and electrical structures accessory and incidental to the main use;
- D. Uses permitted by the base district with which the WE district is combined.

(Prior code § 7145.02)

(Ord. No. G-8226, § 77, 11-8-11)

19.64.030 - Uses permitted with a conditional use permit.



The following uses and all others determined to be similar to these uses pursuant to Sections [19.08.030](#) through [19.08.080](#) of this title are permitted in a WE district subject to securing a conditional use permit in accordance with the standards and procedures set out in [Chapter 19.104](#) of this title:

- A. Wind-driven electrical generators, experimental, as defined in [Chapter 19.02](#) of this title, on a temporary basis;
- B. Wind-driven electrical generators, manufacture, or assembly;
- C. Conditional uses permitted by the base district with which the WE district is combined.

(Ord. G-6412 § 56, 1997: prior code § 7145.03)

19.64.040 - Prohibited uses.



The following uses are prohibited in a WE district:

- A. Wind-driven electrical generators, experimental, as defined in [Chapter 19.02](#) of this title, on a permanent basis;
- B. All other uses not permitted by Sections [19.64.020](#) and [19.64.030](#) of this chapter or accessory thereto under [Section 19.08.110](#)

are prohibited in a WE district.
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(Ord. G-7189 § 61, 2005: prior code § 7145.04)



19.64.050 - Minimum lot size.



Minimum lot size requirements in a WE district are per the requirements of the base district with which the WE district is combined.

(Ord. G-7189 § 62, 2005: prior code § 7145.05)

19.64.060 - Minimum lot area per dwelling unit.



Requirements for minimum lot area per dwelling unit in a WE district are per the requirements of the base district with which the WE district is combined.

(Prior code § 7145.06)

19.64.070 - Yards and setbacks.



Yard and setback requirements in a WE district are as follows:

- A. Wind-driven electrical generators shall comply with the setback requirements specified in Sections [19.64.130](#) through [19.64.150](#) of this title;
- B. All other structures shall comply with the requirements of the base district with which the WE district is combined.

(Prior code § 7145.07)

19.64.080 - Height limits.



Height limits in a WE district are as follows:

- A. Wind-driven electrical generators and associated meteorological towers shall comply with the height limits specified in [Section 19.64.140](#) of this chapter;
- B. All other uses and structures shall comply with the requirements of the base district with which the WE district is combined.

(Ord. G-7189 § 63, 2005: prior code § 7145.08)

19.64.090 - Minimum distance between structures.



Requirements for minimum distance between structures in a WE district are as follows:

- A. Wind-driven electrical generators shall comply with the requirements specified in Sections [19.64.130](#) through [19.64.150](#) of this chapter;
- B. All other uses shall comply with the requirements of the base district with which the WE district is combined.

(Prior code § 7145.09)

19.64.100 - Parking.



Parking requirements in a WE district are per the requirements of the base district with which the WE district is combined.

(Prior code § 7145.10)

19.64.110 - Signs.



Sign requirements in a WE district are as follows:

- A. Signs in connection with wind-driven electrical generators shall comply with the requirements specified in Sections [19.64.130](#) through [19.64.150](#) of this chapter;
- B. All other signs shall comply with the requirements of the base district with which the WE district is combined.

(Prior code § 7145.11)

19.64.120 - Landscaping.



Landscaping requirements in a WE district are as follows:

- A. None required in connection with wind-driven electrical generators;
- B. All other uses shall comply with the requirements of the base district with which the WE district is combined.

(Prior code § 7145.12)

19.64.130 - Detailed plot plan required—Contents.

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Prior to issuance of construction permits, the developer shall submit a detailed plot plan for review and approval by the planning director. The plan boundaries shall coincide with those of the project parcel. The following information shall be included in said plan:

- A. Existing topography and drainage channels;
- B. Direction of prevailing winds across the project site;
- C. Location, height and dimensions of all existing structures;
- D. Distance to all residences located within one (1) mile of exterior project boundary;
- E. Manufacturer and model designation, rated KW capacity, overall machine height (grade level to highest tip extension), total blade diameter, hub height, rated maximum rotor RPM, location of proposed structures and buildings and, upon request of the planning director, manufacturer's production record, and/or sufficient manufacturer's data in order to classify machines as experimental, prototype, or production in accordance with the definitions contained in this chapter;
- F. Location, grades and dimensions of all roads and parking areas, both existing and proposed;
- G. Location and extent of known archaeological remains;
- H. Location and type of project security fencing;
- I. Location of site by longitude and latitude coordinates within ten (10) feet and elevation of site above mean sea level within ten (10) feet;
- J. A plan of proposed project phasing;
- K. Any and all reports, approvals or requirements, which may be required by mitigation measures incorporated into an environmental document adopted for implementation of this district for specific parcels; including a plan for implementation of recommendations contained in such reports;
- L. A certificate signed by a registered civil engineer or licensed land surveyor stating that area encompassed by the project has been surveyed under his supervision or that a previous survey was performed by a registered civil engineer or licensed land surveyor and that sufficient monuments have been placed to accurately establish the exterior project boundaries;
- M. A certificate signed by a registered civil engineer or licensed land surveyor stating that the proposed development is in full compliance with the requirements of this chapter. The director of the Kern County planning department may require the submittal of additional documentation of compliance when deemed necessary;

Code of Ordinances N. Soil erosion and sedimentation control plan, including re-vegetation plan, as provided for in [Section 19.64.140\(K\)](#) (grading permits (Ord. G-7189 § 64, 2005; Ord. G-6077 § 233, 1994; Ord. G-5966 § 119, 1993; Prior code § 7145.13(A))

19.64.140 - Development standards and conditions.

Development in the WE combining district, and commercial wind-driven electrical generators permitted subject to securing a conditional use permit, shall comply with the following standards:

- A. All necessary building and grading permits shall be obtained from the Kern County planning department. For construction and permit purposes, all wind generator towers shall conform to the regulations of the applicable seismic zone of the Uniform Building Code and the applicable groundshaking zone.
- B. Towers and blades shall be painted a nonreflective, unobtrusive color or have a nonreflective surface.
- C. Fencing shall be erected for each wind machine or on the perimeter of the total project. Wind project facilities shall be enclosed with a minimum four (4)-foot-high security fence constructed of four (4) strand barbed wire or materials of a higher quality. Fencing erected on the perimeter of the total project shall include minimum eighteen (18) inch by eighteen (18) inch signs warning of wind turbine dangers. Such signs shall be located a maximum of three hundred (300) feet apart and at all points of site ingress and egress. Where perimeter fencing is utilized, the planning director may waive this requirement for any portion of the site where unauthorized access is precluded due to topographic conditions.
- D. All on-site electrical power lines associated with wind machines shall be installed underground within one hundred fifty (150) feet of a wind turbine and elsewhere when practicable, excepting therefrom "tie-ins" to utility type transmission poles, towers, and lines. However, if project terrain or other factors are found to be unsuitable to accomplish the intent and purpose of this provision, engineered aboveground electrical power lines shall be allowed.
- E. Prior to issuance of construction permits, the developer shall provide the Kern County planning department with proof of approved access to the site.
- F. Wind generator setback shall be as follows:
 - 1. Setback Where Adjacent Parcels Contain Less Than Forty (40) Acres. A minimum wind generator setback of two (2) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blades) or five hundred (500) feet, whichever is less, shall be maintained from exterior project boundaries where the

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The planning director may allow a reduction in this setback, not to exceed a minimum setback of one (1) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blades) if a letter of consent from the owner(s) of record of adjacent parcels is filed with the Kern County planning department.

2. Setback Where Adjacent Parcels Contain Forty (40) Acres or More. A minimum wind generator setback of one and one-half (1½) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blades) or five hundred (500) feet, whichever is less, shall be maintained from all exterior project boundaries.

The planning director may allow a reduction or waiver of this setback requirement in accordance with both of the following provisions:

- a. The project exterior boundary is a common property line between two (2) or more approved wind energy projects or both properties are located within the WE district; and
 - b. The property owner of each affected property has filed a letter of consent to the proposed setback reduction with the planning director.
3. Setback From Off-site Residence(s) on Adjacent Parcels. In all cases, regardless of parcel area, a minimum wind generator setback of one and one-half (1½) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blades) or five hundred (500) feet, whichever is greater, shall be maintained from any off-site residence.

The planning director may allow a reduction in this setback, not to exceed a minimum setback of one (1) times the overall machine height, if a letter of consent from the owner(s) of record of the adjacent parcel is filed with the planning director.

4. Project Interior Wind Generator Spacing. Wind generator spacing within the project boundary shall be in accordance with accepted industry practices pertaining to the subject machine.
5. Setback From On-site Residences and Accessory Structures Designed for Human Occupancy. A minimum wind generator setback of one (1) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blade) shall be maintained from any on-site residence or accessory structure designed for human occupancy.

Code of Ordinances 6. Setback From Public Highways and Streets, Public Access Easements, Public Trails, and Railroads. A minimum wind generator and one-half (1½) times the overall machine height (measured from grade to the top of the structure, including the uppermost extension of any blade) shall be maintained from any publicly maintained public highway or street. A minimum wind generator setback of the overall machine height shall be maintained from any public access easement or railroad right-of-way. A minimum wind generator setback of one hundred fifty (150) feet shall be maintained from the outermost extension of any blade to any public trail, public easement, or equestrian easement.

- G. Wind generator machine and associated meteorological tower overall height shall not exceed six hundred (600) feet and is subject to [Section 19.08.160](#). For the purposes of this chapter, machine height shall be measured as follows:
 - 1. Overall machine height of horizontal axis machines shall be measured from grade to the top of the structure, including the uppermost extension of any blades.
 - 2. Machine height of vertical axis or other machine designs shall be measured from grade to the highest point of the structure.
- H. All wind projects including wind generators and towers shall comply with all applicable county, state, and federal laws, ordinances, or regulations.
- I. One (1) project identification sign, located at each point of project ingress and egress, not to exceed thirty-two (32) square feet in area, may be erected on the project site. No other signs shall be installed other than safety signs and the required warning signs. The developer shall submit a sign elevation drawing to the planning director for review and approval prior to installation.
- J. Where a residence, school, church, public library, or other sensitive or highly sensitive land use, as identified in the noise element of the county general plan, is located within one (1) mile in a prevailing downwind direction or within one-half (½) mile in any other direction of a project's exterior boundary, an acoustical analysis shall be prepared by a qualified acoustical consultant prior to the issuance of any building permit. The consultant and the resulting report shall be subject to review and approval by the Kern County health department. The report shall address any potential impacts on sensitive or highly sensitive land uses.

In addition, the acoustical report shall demonstrate that the proposed development shall comply with the following criteria:

- 1. Audible noise due to wind turbine operations shall not be created which causes the exterior noise level to exceed forty-five (45) dBA for more than five (5) minutes out of any one (1) hour time period (L8. 3) or to exceed fifty (50) dBA for any

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period of time when measured within fifty (50) feet of any existing residence, school, hospital, church, or public library.

2. Low frequency noise or infrasound from wind turbine operations shall not be created which causes the exterior noise level to exceed the following limits when measured within fifty (50) feet of any existing residence, school, hospital, church, or public library.

One-Third Octave Bank	Sound Pressure
Center Frequency (Hz)	Level (dB)
2 to 1	70 (each band)
20	68
25	67
31.5	65
40	62
50	60
63	57
80	55
100	52
125	50

3. In the event audible noise due to wind turbine operations contains a steady pure tone, such as a whine, screech, or hum, the standards for audible noise set forth in subparagraph (1) of this subsection shall be reduced by five (5) dBA. A pure tone is defined to exist if the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequencies of five hundred (500) Hz and above, by eight (8) dBA for center frequencies between one hundred sixty (160) Hz and four hundred (400) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred twenty-five (125) Hz.
4. In the event the audible noise due to wind turbine operations contains repetitive impulsive sounds, the standards for audible noise set forth in subparagraph (1) of this subsection shall be reduced by five (5) dBA.
5. In the event the audible noise due to wind turbine operations contains both a pure tone and repetitive impulsive sounds, the standards for audible noise set forth in subparagraph (1) of this subsection shall be reduced by a total of five

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6. In the event the ambient noise level (exclusive of the development in question) exceeds one (1) of the standards given above, the applicable standard shall be adjusted so as to equal the ambient noise level. For audible noise, the ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA which is exceeded for no more than five (5) minutes per hour (L8. 3). For low frequency noise or infrasound, the ambient noise level shall be expressed in terms of the equivalent level (Leq) for the one-third (1/3) octave band in question, rounded to the nearest whole decibel. Ambient noise levels shall be measured within fifty (50) feet of potentially affected existing residences, schools, hospitals, churches, or public libraries. Ambient noise level measurement techniques shall employ all practical means of reducing the effects of wind-generated noise at the microphone. Ambient noise level measurements may be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operation, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location.
7. Any noise level falling between two (2) whole decibels shall be the lower of the two (2).
8. In the event that noise levels, resulting from a proposed development, exceed the criteria listed above, a waiver to said levels may be granted by the planning director provided that the following has been accomplished:
 - a. Written consent from the affected property owners has been obtained stating that they are aware of the proposed development and the noise limitations imposed by this code, and that consent is granted to allow noise levels to exceed the maximum limits allowed.
 - b. A permanent noise impact easement has been recorded in the County Hall of Records which describes the benefitted and burdened properties and which advises all subsequent owners of the burdened property that noise levels in excess of those permitted by this code may exist on or at the burdened property.
- K. Prior to the issuance of any grading permit, a plan for the mitigation of potential soil erosion and sedimentation shall be prepared by a registered civil engineer or other professional and submitted for the approval by the Director of the Kern County Engineering, Surveying, and Permit Services Department. The plan shall include provisions for site revegetation, including any necessary re-soiling, proposed plant species, proposed plant density and percentage of ground coverage, and the methods and rates of application and shall include sediment collection facilities as may be required by the engineering, surveying, and permit services department.

The soil erosion and sedimentation control plan shall be consistent with the applicable requirements of the California Regional Water Quality Control Board pertaining to the preparation and approval of Storm Water Pollution Prevention Plans. Notwithstanding the foregoing, the revegetation portion of the soil erosion and sedimentation plan shall be prepared by a professional biologist or other professional approved, in advance, by the Kern County Engineering, Surveying, and Permit Services Department.

The plan shall include a timetable for full implementation, estimated costs, and a surety bond or other security as approved by the Kern County Engineering, Surveying, and Permit Services Department in an amount determined by that department to guarantee plan implementation. The soil erosion and sedimentation control plan, including the revegetation plan and security instrument, shall be submitted to, and approved by, the floodplain management section of the engineering, surveying, and permit services department prior to the issuance of any grading permit. The security shall remain on file with the engineering, surveying, and permit services department until that department has verified that the plan has been successfully implemented.

- L. A minimum of on-site roadways shall be constructed. Temporary access roads utilized for initial machine installation shall be revegetated to a natural condition after completion of machine installation. The applicant shall submit a plan of all proposed roads, temporary and permanent, for approval by the planning director prior to the issuance of any building permits.
- M. Construction of any slopes steeper than four to one (4:1) shall be prohibited unless specifically authorized by the Kern County Planning and Community Development Department and mitigation is provided.
- N. Wind project facilities shall be encircled with a ten (10) foot wide fuel break. Subject fuel breaks may be installed for each wind machine or the perimeter of the total project, but in no event shall encompass more than forty (40) acres per block. Permanent access roads may also be considered fuel breaks. This requirement may be modified at the discretion of the Kern County Fire Chief.
- O. No building permits will be issued until the grading has been completed in accordance with the approved plans and "as graded certification" has been made by the engineer.

(Ord. G-7189 §§ 65—71, 2005; Ord. G-6077 § 234, 1994; Prior code § 7145.13(B))

(Ord. No. G-8226, § 78, 11-8-11)

19.64.150 - Wind turbine maintenance and abandonment.

- A. Except for maintenance periods, wind turbines shall be maintained in an operational condition. A turbine or group of turbines seeking, but unable to obtain transmission service or a power purchase agreement and out of service for that reason, shall be

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- B. Any wind turbine not in operational condition for a consecutive period of twelve (12) months shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and turbine owner, as well as the project operator, by the county. Within this sixty (60)-day period, the property owner, turbine owner, or project operator may provide the planning director with a written request and justification for an extension for an additional twelve (12) months. The planning director shall consider any such request at a director's hearing as provided for in [Section 19.102.070](#) of this title. In no case shall the planning director authorize an extension beyond two (2) years from the date the wind turbine was deemed abandoned without requiring financial assurances to guarantee the removal of the wind turbine, and that portion of the support structure lying above the natural grade level, in the form of a corporate surety bond, irrevocable letter of credit, or an irrevocable certificate of deposit wherein the county is named as the sole beneficiary. In no case shall a wind turbine which has been deemed abandoned be permitted to remain in place for more than forty-eight (48) months from the date the wind turbine was first deemed abandoned.
- C. If the property owner fails to remove an abandoned wind turbine within the time frame specified above, the county may remove the structure(s) at the property owner's expense and lien the property to recover all enforcement and removal costs; however, the county shall first notify the property owner of its intent to remove the structure(s) in accordance with this section in writing at least thirty (30) days prior to removing said structure(s). The county shall not issue any grading or building permits for any new development on the subject property until any such lien has been paid in full.

(Ord. G-7189 § 73, 2005: prior code § 7145.13(C))

19.64.160 - Permit revocation and modification.

Any permit issued pursuant to this chapter may be revoked or modified pursuant to [Section 19.102.020](#) of this title.

(Ord. G-7189 § 74, 2005)

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