

Humboldt County Ordinance #68

Commercial/Utility Grade Wind Energy Conversion Systems (WECS)

PURPOSE

The purpose of this Ordinance is to provide an orderly process for regulating the development and operation of large-scale wind farm projects in the unincorporated areas of Humboldt County. Because of the significant, long-lasting impacts on the County's residents and infrastructure resulting from such projects, the Humboldt County Board of Supervisors believes that it is in the public's best interest that the Humboldt County Board of Supervisors retain the final authority over the issuance of a WECS Construction Permit. This will help promote the safe, effective and efficient use of commercial/utility grade wind energy conversion systems within Humboldt County.

DEFINITIONS

Aggregate Project shall mean projects that are developed and operated in a coordinated fashion, but which have multiple entities separately owning one or more of the individual WECS within the larger project. Associated infrastructure such as power lines and transformers that service the facility may be owned by a separate entity but are also part of the aggregated project.

Commercial WECS shall mean a wind energy conversion system of equal to or greater than 100 kW in total nameplate generating capacity.

Hub Height shall mean the distance from ground level as measured to the centerline of the rotor.

Fall Zone shall mean the area, defined as the furthest distance from the tower base, in which a guyed or tubular tower will collapse in the event of a structural failure. This area may be less than the total height of the structure.

Feeder Line shall mean any power line that carries electrical power from one or more wind turbines to the point of interconnection with the project distribution system, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the wind energy conversion system.

Meteorological Tower shall mean, for purposes of this regulation, a tower which is erected primarily to measure wind speed and directions plus other data relevant to siting a Wind Energy Conversion System. Meteorological towers do not include towers and equipment used by airports, the Iowa Department of Transportation, or other applications to monitor weather conditions.

Neighboring Dwelling Unit shall mean a livable dwelling.

Property Line shall mean the boundary line of the area over which the entity applying for a Wind Energy Conversion System permit has legal control for the purpose of installing, maintaining and operating a Wind Energy Conversion System.

Public Conservation lands shall mean land owned in fee title by State or Federal agencies and managed specifically for conservation purposes, including but not limited to State Wildlife Management Areas, State Parks, federal Wildlife Refuges and Waterfowl Production Areas. For purposes of this regulation, public conservation lands will also include lands owned in fee title by non-profit conservation organizations, Public conservation lands will also include private lands upon which conservation easements have been sold to public agencies or non-profit conservation organizations.

Rotor Diameter shall mean the diameter of the circle described by the moving rotor blades.

Small Wind Energy System shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

Substations shall mean any electrical facility to convert electricity produced by wind turbines to a higher voltage for interconnection with high voltage transmission lines.

Total Height shall mean the highest point, above ground level, reached by a rotor tip or any other part of the Wind Energy Conversion System.

Tower shall mean the vertical structures, including the foundation, that support the electrical generator, rotor blades, or meteorological equipment.

Tower Height shall mean the total height of the Wind Energy Conversion System exclusive of the rotor blades.

Transmission Line shall mean the electrical power lines that carry voltages of at least 69,000 volts (69 KV) and are primarily used to carry electric energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.

Unoccupied Dwelling Unit shall mean a dwelling unit that has been unoccupied for two (2) calendar years or more.

Wind Energy Conversion System (WECS) shall mean an electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations and meteorological towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid.

Wind Turbines shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy using airfoils or similar devices to capture the wind.

APPLICATION REQUIREMENTS

The following requirements and information shall be met and supplied with the application:

1. The name(s) of project applicant.
2. The name of the project owner.
3. The legal description and address of the project.
4. A description of the project including: number, type, name plate generating capacity, tower height, rotor diameter, and total height of all wind turbines and means of interconnecting with the electrical grid.
5. Site layout, including the location of property lines, wind turbines, feeder lines, and all related accessory structures. This site layout shall include distances and be drawn to scale.
6. Certification by an Engineer competent in disciplines of WECS.
7. Documentation of land ownership or legal control of the property.
8. The latitude and longitude of individual wind turbines; included with this shall be an area or zone in close proximity that meets all setbacks; where actual WEC will be considered.
9. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other Wind Energy Conversion System, within 10 rotor distances of the proposed Wind Energy Conversion System not owned by the applicant.
10. Location of wetlands, scenic, and natural areas (including bluffs) within 1,320 feet of the proposed Wind Energy Conversion System.
11. An Acoustical Analysis that certifies that the noise requirements within this regulation can be met.
12. The applicant shall supply the emergency management agency and/or fire departments with a basic emergency response plan.
13. FAA and FCC permit, if necessary. Applicant shall submit permit or evidence that the permit has been filed with the appropriate agency.
14. Road Use Agreement with Secondary Roads/Humboldt County Engineer and Board of Supervisors.
15. Drainage Tile Agreement whether it is private tile or a County Drainage District and filed with the Board of Supervisors.
16. Evidence that there will be no inference with any commercial and/or public safety communication towers.
17. Decommissioning Plan as required by this regulation and land owners and their contract.

AGGREGATED PROJECTS

1. Aggregated projects may jointly submit a single application and be reviewed under joint proceedings, including notices, public hearings, reviews and as appropriate approvals.
2. Permits may be issued and recorded separately.

REVIEW OF APPLICATION

1. Applications shall be filed with the Humboldt County Zoning Administrator. The Zoning Administrator shall promptly provide a copy of the application to the Board of Supervisors. The Zoning Administrator shall have thirty (30) days to review a completed application and provide comments to the applicant.

2. The Humboldt County Board of Supervisors shall set a public hearing no later than thirty (30) days after the review period ends. At least one representative of the applicant who is familiar with all aspects of the project shall be present at the public hearing.
3. Notice of the public hearing shall be published in Humboldt County's newspaper of record.
4. No later than sixty (60) days following the public hearing, the applicant shall submit a final development plan to the Zoning Administrator showing the final location of all turbines and other components comprising the project. The final development plan shall establish the project's compliance with this Ordinance.
5. Within thirty (30) days following the submission of the final development plan by the applicant, the Humboldt County Board of Supervisors shall review it for completeness and compliance with this Ordinance. If it is in compliance, the Board of Supervisors shall approve the application by resolution. The resolution shall direct the Zoning Administrator to issue a WECS Construction Permit.
6. Modifications to the final development plan: the location components may be modified from the final development plan when necessary to address exigencies encountered during construction, subject to the following limitations:
 - a. Any such modification shall remain subject to all setbacks and other requirements set forth in this Ordinance and the Ancillary Agreements.
 - b. The location of Turbines and Project substations can only be modified from the FDP with approval of the Zoning Administrator if the proposed relocation is 300 feet or less; or, for such modifications exceeding 300 feet, with the approval of the Board of Supervisors. Approval of a turbine or project substation modification by the Zoning Administrator or the Board of Supervisors shall be deemed an approved amendment to the FDP and also automatically amend the WECS Construction Permit.
 - c. Within thirty (30) days from the completion of the Project, the permit holder shall revise the final development plan to show the exact "as-built" coordinates for all components, including any modifications.

SETBACKS

All towers shall adhere to the setbacks established in the following table:

	Wind Turbine – Commercial/Utility WECS	Meteorological Towers
Property Lines	150 feet from property lines; however, the setback may be less when two adjoining property owners are within the aggregate project.	One times the tower height.
Neighboring Dwelling Units*	1,000 feet	One times the tower height.
Road Rights-of-Way**	One-half the rotor diameter.	One times the tower height.
Other Rights-of-Way	NA	NA
Wildlife Management Areas and State Recreational Areas	600 feet	600 feet
Confinement Feeding Operation Building	600 feet	600 feet
Wetlands, USFW Types III, IV, and V	600 feet	600 feet
Other structures and cemeteries adjacent to the applicant's sites	One-half the rotor diameter.	One times the tower height.
Other existing WECS not owned by the applicant.	NA	NA
River Bluffs	One-half the rotor diameter.	NA

* The setback for dwelling units shall be reciprocal in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System.

** The setback shall be measured from any future Rights-of-Way if a planned change or expanded Right-of-Way is known.

SETBACK WAIVERS

The above setbacks may be reduced as follows:

Adjacent Property Line to 0 (zero) feet.

PROVIDED, a waiver shall not alter any other non-waived set-back requirement. To effectuate such a waiver, the Applicant must provide the Zoning Administrator with a recordable instrument signed by all owner(s) (or the controlling governmental entity) of the affected Protected Area that specifically identifies the nature and extent of the waiver. All waivers must be approved by the Board of Supervisors for compliance with this Ordinance; and upon such approval, shall be recorded in the office of the Humboldt County Recorder.

SPECIAL SAFETY STANDARDS AND DESIGNS

All towers shall adhere to the following safety and design standards:

1. Clearance of rotor blades or airfoils must maintain a minimum of forty (40) feet of clearance between their lowest point and the ground.
2. All Commercial/Utility WECS shall have a sign or signs posted on the tower, transformer and substation, warning of high voltage. Other signs shall be posted on the turbine with emergency contact information.
3. All wind turbines, which are a part of a commercial/utility WECS, shall be installed with a tubular, monopole type tower.
4. Consideration shall be given to painted aviation warnings on all towers less than two hundred (200) feet.
5. All wind turbines and towers that are part of a commercial/utility WECS shall be white, grey, or an other non-obtrusive color. Blades may be black in order to facilitate deicing. Finishes shall be matte or non-reflective.
6. Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by the FAA permits and regulations. Red strobe lights shall be used during nighttime illumination to reduce impacts on neighboring uses and migratory birds. Red pulsating incandescent lights should be avoided.
7. All other signage shall comply with the sign regulations found in these regulations.
8. All communications and feeder lines associated with the project distribution system installed as part of a WECS shall be buried, where physically feasible. Where obstacles to the buried lines create a need to go above ground, these lines may be placed above ground only to miss the obstacle. All distribution and/or transmission lines outside of the project distribution system may be above ground.
9. Solid and Hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site promptly and disposed of in accordance with all applicable local, state and federal regulations.

DISCONTINUATION AND DECOMMISSIONING

1. A WECS shall be considered a discontinued use after one year without energy production, unless a plan is developed and submitted to the Zoning Administrator outlining the steps and schedule for returning the WECS to service. All WECS and accessory facilities shall be removed to four feet below ground level within 180 days of the discontinuation of use. The 180 days may be extended if proof of weather delays is provided.
2. Each Commercial/Utility WECS shall have a Decommissioning plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon being discontinued use. The cost estimates shall be made by a competent party; such as a Professional Engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning. The plan shall also identify the financial resources that will be available to pay for decommissioning and removal of the WECS and accessory facilities.

NOISE

No Commercial/Utility WECS shall exceed 60 dBA at the nearest structure or use occupied by humans.

INTERFERENCE

The applicant shall minimize or mitigate interference with any commercial or public safety electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. The applicant shall notify all communication tower operators within five miles of the proposed WECS location upon application to the county for permits.

ROADS

1. The applicant shall identify all county, municipal or township roads to be used for the purpose of transporting WECS, substation parts, cement, and/or equipment for construction, operation or maintenance of the WECS and obtain applicable weight and size permits from the impacted jurisdictions prior to construction.
2. The applicant shall conduct a pre-construction survey, in coordination with the appropriate jurisdictions to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public road.
3. The applicant shall be responsible for restoring the road(s) and bridges to preconstruction conditions.

DRAINAGE SYSTEMS

The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the WECS.

ABANDONMENT

If any tower shall cease to be used for a period of one year, the Zoning Office shall notify the tower owner and property owner that the site will be subject to determination by the Zoning Administrator that the site has been abandoned. Upon issuance of written notice to show cause by the Zoning Administrator, the tower owner shall have 30 days to show preponderance of evidence that the tower has been in use or under repair during the period of apparent abandonment. In the event the tower owner fails to show that the tower had been in use or under repair during the relevant period, the Zoning Administrator shall issue a final determination of abandonment of the site and the property owner shall have 75 days thereafter to coordinate with the tower owner for the dismantling and relocation of the tower. In the event the tower is not dismantled and removed, the tower shall be declared a public nuisance by the Zoning Administrator, or his/her designee. The public nuisance will be removed by the County with all associated costs charged to the Owner of said real estate.

BUILDING PERMIT FEE

The building permit fee shall be \$1000 per tower. This fee is due upon approval of the application for a WECS project. This fee is non-refundable.

Dated June 11, 2018

/s/Bruce Reimers
Bruce Reimers
Chairman,
Humboldt County Board of Supervisors

/s/Peggy J. Rice
Peggy Rice
Humboldt County Auditor

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