

**Humboldt County, Iowa**  
**Summary Only - Wind**

For full ordinance text, please find pdf below or visit county website.

**Date Passed/Amended:** Commercial/Utility Grade Wind Energy Conversion Systems Ord.  
Adopted June 11, 2018

**Summary Written:** January 20, 2023

**Agricultural Use Table:**

**Eligible Zoning:** Agricultural District (A-1) and Agricultural District (A-2)

**Prohibition Language:**

**Required Information/Permits Required:**

- a) Wind Energy Conversion System (WECS) Construction Permit. The application shall include the following:
  - a. The name(s) of the project applicant.
  - b. The name of the project owner.
  - c. The legal description and address of the project.
  - d. 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.
  - e. Site layout, including the location of property lines, wind turbines, feeder lines, and all related accessory structures.
  - f. Certification by an Engineer competent in disciplines of WECS.
  - g. Documentation of land ownership or legal control of Property.
  - h. 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 WECS will be considered.
  - i. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other WECS, within ten (10) rotor distances of the proposed WECS not owned by the applicant.
  - j. Location of wetlands, scenic, and natural areas (including bluffs) within thirteen hundred twenty feet (1,320') of the proposed WECS.
  - k. An Acoustical Analysis that certifies that the noise requirements within this regulation can be met.
  - l. A basic emergency response plan.
  - m. FAA and FCC permit, if necessary.
  - n. Road Use Agreement.
  - o. Drainage Tile Agreement.

- p. Evidence that there will be no interference with any commercial and/or public safety communication towers.
- q. Decommissioning Plan required by the regulations and land owners and their contract.

**Request for Variance:**

- a) A WECS Construction Permit must be approved by the Humboldt County Board of Supervisors after a public hearing.

**Site and Structure Requirements:**

- a) Compliance with all local, state, and federal regulations:
  - a. All wind energy devices shall comply with all applicable State of Iowa construction and electrical codes, and the National Electrical Code.
  - b. Wind energy devices that connect to an electric utility shall comply with all local, State of Iowa and Federal regulations regarding the connection of energy generation facilities.
  - c. An FAA Permit Application is required.
  - d. The County may require the following agencies be notified of the application and given an opportunity to review: Federal Aviation Administration, U.S. Fish and Wildlife, U.S. Department of Agriculture (Local NRCS), Environmental Protection Agency, Federal Communication Commission, Iowa Department of Transportation, Iowa Department of Natural Resources, Iowa Utilities Board, Office of State Archaeologist, O'Brien County Engineer's Office, and O'Brien County Conservation Board.
- b) Concentrating Solar Power Facilities:
- c) Fencing/Security:
  - a) All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- d) Glare minimization:
  - a) Finishes shall be matte or non-reflective.
- e) Height:
  - a) Clearance of rotor blades must maintain a minimum of forty feet (40') of clearance between their lowest point and the ground.
- f) Lighting:
  - a) Lighting, including lighting intensity and frequency of strobes, shall adhere to but not exceed requirements established by the FAA permits and regulations.
  - b) Red strobe lights shall be used during nighttime illumination to reduce impacts on neighboring uses and migratory birds.

- c) Red pulsating incandescent lights should be avoided.
- g) Noise:
  - a) No WECS shall exceed sixty decibels (60 dBA) at the nearest structure or use occupied by humans.
- h) Outside storage:
- i) Setbacks and Lot Coverage:

Property Lines	One hundred fifty feet (150'); however, the setback may be less when two adjoining property owners are within the aggregate project
Neighboring Dwelling Units	One thousand feet (1,000')
Road Rights-of-Way*	One-half the rotor diameter
Other Rights-of-Way	NA
Wildlife Management Areas and State Recreational Areas	Six hundred feet (600')
Confinement Feeding Operation Building	Six hundred feet (600')
Wetlands, USFW Types III, IV, and V	Six hundred feet (600')
Other structures and cemeteries adjacent to the applicant's sites	One-half the rotor diameter
Other existing WECS not owned by the applicant	NA
River bluffs	One-half the rotor diameter

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

- j) Screening:
- k) Signage:
  - a) All WECS shall have a sign(s) posted on the tower, transformer and substation, warning of high voltage.
  - b) Other signs shall be posted on the turbine with emergency contact information.
  - c) Consideration shall be given to painted aviation warnings on all towers less than two hundred feet (200').
  - d) All other signage shall comply with the sign regulations found in the county zoning ordinance.
- l) Site Access/Emergency Response:

- m) Utility Connections:
  - a) All communications and feeder lines associated with the project distribution system shall be buried, where physically feasible.
  
- n) Waste:
  - a) 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.

**Operation and Maintenance Plan:**

- a) Monitoring and Maintenance:
- b) Soil and Erosion and Sediment Control:

**Decommissioning and Site Reclamation:**

- a) Each 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 considered a discontinued use.
- b) The cost estimates shall be made by a competent party.
- c) The Plan shall also identify the financial resources that will be available to pay for decommissioning and removal of the WECS and accessory facilities.
- d) All WECS and accessory facilities shall be removed to four feet (4') below ground level within one hundred eighty (180) days of the discontinuation of use.