ARTICLE 4. SPECIAL USE STANDARDS

Sec. 4-1 Accessory Wind Energy Conversion Systems

4-1-1 Permitting Districts

Accessory Wind Energy Conversion Systems (WECS) are permitted as an accessory use in the Agricultural District (AG), Light Industrial District (I-1), and Heavy Industrial District (I-2).

4-1-2 Definitions

Wind Energy Conversion System, Accessory. A device such as a wind charger, windmill, or wind turbine and associated facilities that converts wind energy to electric energy, intended for use on-site. Small WECS generate power for a single farm, residence, or business. They do not distribute electricity for wholesale. Small WECS are treated as accessory structures and must comply with all regulations pertaining to accessory structures (*Section X*).

Sec. 4-2 Utility-Scale Wind Energy Conversion Systems

4-2-1 Purpose

This section is established to enable the orderly development of wind energy conversion systems (WECS) in McKenzie County; to protect public health, safety, and welfare; and to minimize adverse impacts to pre-existing development, infrastructure, and economic activities.

4-2-2 Permitting Districts

Utility-scale WECS are permitted with a conditional use permit in the Agricultural District (AG), subject to the standards of this section.

4-2-3 Definitions

Wind Energy Conversion System, Utility-Scale. One or more wind turbine(s) with capacity of one hundred (100) kilowatts or more intended to produce and distribute electricity for wholesale. This term includes all appurtenant components, utilities, and structures of the WECS.

4-2-4 Development Standards

(A) **Appearance.** Wind turbines and towers shall be painted a non-reflective, non-obtrusive color.

(B) **Signage.** Wind turbines and towers shall display no advertising except for the required identification of the manufacturer or operator of the WECS.

(C) **Lighting.**

(1) Wind turbines shall not be artificially lighted except to the minimum extent required by the Federal Aviation Administration (FAA) or other applicable authority.

(2) Wind turbines must be equipped with functioning light-mitigating technology, pursuant to NDCC 69-06-11.

(D) **Setback Standards.** Setbacks shall be measured as the horizontal distance between the tower base and any object. *Table 4-X* lists setback requirements for utility-scale wind energy facilities.

Table 4-1. Wind Energy Facility Setback Standards

Building/Feature	Utility-Scale Wind Energy Facility Setbacks
Occupied Buildings (Participating)[1]	1.1 x tower height
Occupied Buildings (Non-Participating)	½ mile
Property Lines (Non-Participating)	1.1 x tower height
Federal, State, and County Roads and Section Lines[2]	2.0 x tower height
Transmission Line (150 kv or higher)[3]	1.1 x tower height
Airport Runway	1 mile

1. Denotes participating and non-participating landowner properties.
2. Measured from the roadway centerline.
3. Measured from the right-of-way edge.

(E) **Ground Clearance.** The blade tip of any wind turbine shall, at its lowest point, have ground clearance of no less than fifty (50) feet.

(F) **Construction and Maintenance Standards.**

(1) **Roads.** Roads accessing wind energy facilities may be required by the County Engineer. The location and construction of access roads and other infrastructure shall, to the extent reasonably practicable, minimize disruption to the landscape, farmland, and agricultural operations. All public roads must be constructed to McKenzie County standards. The applicant shall ensure that, following completion of construction of a wind energy facility, County roads will be repaired or restored to a condition satisfactory to the County Engineer.

(2) **Weight Restrictions.** The applicant is responsible for abiding by the state and local overweight permitting process in accordance with NDCC Chapter 39-12.

(3) **Fences.** The applicant shall promptly replace or repair all fences or gates removed or damaged for the duration of wind energy facility operation, unless otherwise negotiated with the affected landowner.

(4) **Tree Removal.** The applicant shall minimize the removal of trees and shall not remove groves of trees or shelter belts without written approval from the landowner. Trimming or removal of trees within the public right-of-way to allow for safe construction of power lines is permissible.

(5) **Power and Communication Lines.** The permittee shall place electrical lines and communication cables underground to a depth of at least four (4) feet. Collectors and cables shall be placed adjacent to WECS access roads unless otherwise negotiated with the affected landowner. Overhead feeder lines may be placed on private property in accordance with the easement negotiated with the affected landowner. Where the permittee cannot place overhead feeder lines on private property, feeder lines may be permitted within public right-of-way with approval from the responsible jurisdiction.

(6) **Electromagnetic Interference.** WECS shall not interfere with microwave, television, radio, telecommunications, or navigation systems contrary to Federal Communications Commission (FCC) regulations. In the event the WECS causes such interference, the applicant shall take measures necessary to correct the problem within thirty (30) calendar days.

(7) **Compliance with Other Laws and Ordinances.** All WECS shall comply with applicable local, State, and Federal laws and ordinances not in conflict with this Section, including but not limited to building codes, fire codes, electrical codes, and placement in floodplains.

(G) **Public Safety Standards.**

(1) **Public Safety Plan.** Prior to construction, the applicant shall prepare a public safety plan in consultation with local fire departments, law enforcement, and the McKenzie County

Emergency Management Coordinator. The applicant shall provide any necessary safety measures, such as warning signs and access restrictions, as outlined in their public safety plan.

(2) **Tower Identification.** Each wind tower shall be marked with a visible identification number to assist with the provision of emergency services. The permittee shall file with local fire departments, law enforcement, and the McKenzie County Emergency Management Coordinator a map identifying wind tower locations and numbers.

(3) **Extraordinary Event.** Within twenty-four (24) hours of an occurrence, the permittee shall notify the McKenzie County Emergency Management Coordinator of any extraordinary event. Extraordinary events include, but are not limited to, fire, tower collapse, thrown blade, electrical failure, and related personal injury. Within thirty (30) days of the occurrence, the permittee shall submit a report to the Emergency Management Coordinator describing the cause of the occurrence and the steps taken to avoid future occurrences.

(H) **Site Decommissioning and Restoration.**

(1) **Decommissioning.** Within six (6) months of termination or abandonment of leases or easements for a WECS in McKenzie County, the permittee shall, at its expense, completely remove all structures. Underground cables do not require removal, but any easements of record must be released. All reclaimed structures and components must be disposed of at a landfill legally accepting such materials.

(2) **Surface Restoration.** Areas disturbed by the construction or decommissioning of a WECS shall be restored to their original condition and shall be graded, top-soiled, and reseeded according to Natural Resource Conservation Service (NRCS) recommendations or similar best practices, unless the landowner requests in writing that access roads or other development be retained.

4-2-5 Application Requirements

(A) **Environmental Review.** Applicants shall fulfill all state and federal requirements for environmental review and permitting, including a wetland determination, wetland mitigation, archeological surveys,

biological surveys, and storm water permitting, in coordination with the U.S. Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), North Dakota Game and Fish (NDGF), the State Historic Preservation Office (SHPO), and other agencies, as needed.

(B) **Visual Impact Assessment.** Applicants shall prepare a visual impact assessment for the proposed WECS. The visual impact assessment shall:

(1) Define the visual character of the project study area. The study area must include a five (5) mile radius of the project area.

(2) Evaluate potential project visibility within the study area and assess the visual impacts of the proposed project.

(3) Identify existing visual resources within the study area, including but not limited to all public recreational areas, State Wildlife Management Areas, Federal Waterfowl Production Areas, and National Wildlife Refuges.

(4) Provide at least one visual simulation from each visual resource.

(5) Describe the appearance of the visible components of the project during daytime and nighttime.

(6) Identify mitigation measures to address any visual impacts.

(C) **Electromagnetic Interference Assessment.** The applicant shall submit an assessment of background microwave signal patterns in the project area prior to commencement of construction. The purpose of this assessment is to provide data that can be used in the future to determine whether the WECS is the cause of any potential disruption or interference that occurs after it becomes operational.

(D) **Development Plan.** Applications for WECS shall include to-scale horizontal and vertical elevation drawings. Drawings must indicate the location of all turbines, access roads, occupied buildings, participating properties, utility buildings, property lines, and required setbacks.

(E) **Platting Process.** Applicants shall satisfy all requirements for subdivision platting and easement recordation, as needed. See *Article 6 – Subdivision Regulation*.

(F) **Reclamation Bond.** To ensure compliance with these regulations the permittee shall post a reclamation bond pursuant to *Section 2-13* of this Ordinance.