

Polk County Renewable Energy Ordinance

Legislative Amendment 08-04

Proposed Amendments to the Polk County Zoning Ordinance:

Add to all zoning chapters under permitted uses:

- (P) Wind energy systems, meteorological towers, and photovoltaic systems that are not commercial power generating facilities, but not including wind energy systems utilizing a tower and meteorological towers that require tower lighting, are located in an adopted urban growth boundary, or that would require modification to the height or type of construction standards described in Section 112.135(C)(1). Wind energy systems utilizing towers and meteorological towers are subject to standards listed in Sections 112.135 and 112.137. Roof-mounted, building-integrated, building-mounted and architectural wind energy systems that extend no more than an additional 5 feet above the highest ridge of the building's roof or 15 feet above the highest eave, whichever is higher, and do not exceed the height limitation of the zone, are subject to the standards listed in Section 112.137. Photovoltaic systems are subject to the standards described in Section 112.138.

Add to all zoning chapters under administrative review:

- (A) Wind energy systems utilizing a tower and meteorological towers outside of an adopted urban growth boundary that are not commercial power generating facilities that would utilize a tower(s) that requires lighting or that requires modification to the height or type of construction standards described in Section 112.135(C)(1), as provided in Sections 112.135 and 112.137.

Add to all zoning chapters under conditional use:

- (C) Wind energy systems utilizing a tower and meteorological towers within an adopted urban growth boundary up to 100 feet in height that are not commercial power generating facilities, as provided in Sections 112.135 and 112.137.

Add Definitions to Chapter 110:

COMMERCIAL POWER GENERATING FACILITY. A “commercial power generating facility” is a facility that converts energy into a usable form of energy (such as electricity) and conveys that energy to the public. Commercial power generating facilities typically convert mechanical energy into electrical energy. A “commercial power generating facility” does not include a net metered facility as defined in ORS 757.300 or a grid-connected or stand-alone (not connected to the power grid) facility that produces an equal amount or less energy than is consumed by the use(s) to which the facility is accessory over the course of a calendar year, provided that the power generating facility is located on the same tract as the use(s) to which it is accessory and the power generating facility, tract, and use(s) are all under common ownership and management.

COMMUNICATION TOWER. A “communication tower” includes any tower designed to support commercial radio, television, and/or telecommunications receiving or broadcasting

antennas, dishes, buildings and associated commercial equipment used to transmit or receive radio, microwave, wireless communications, and other electronic signals.

HEIGHT OF WIND ENERGY SYSTEM. The “height of a wind energy system” shall be the vertical distance from the grade to the tip of a wind generator blade when the tip is at its highest point.

METEOROLOGICAL TOWER. A “meteorological tower” includes the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), temperature and pressure sensors, other weather measuring devices attached to the tower, wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit weather information at a given location.

PHOTOVOLTAIC SYSTEM. A “photovoltaic system” consists of equipment that converts sunlight into electricity and then stores or transfers that electricity. This equipment includes photovoltaic modules and panels, mounting and sun tracking hardware, foundation, inverter, wiring, batteries, or other components used in the system. A photovoltaic system may be a grid-connected or stand-alone system. A photovoltaic system does not include a system that utilizes a photovoltaic module or panel that contains a total surface area of nine square feet or fewer.

WIND ENERGY SYSTEM. A “wind energy system” consists of equipment that converts energy from the wind into usable forms of energy (such as electricity) and then stores or transfers the energy. This equipment includes any base, blade, foundation, wind generator, nacelle, rotor, wind tower, transformer, vane, wire, inverter, batteries or other component used in the system. A wind energy system may be a grid-connected or a stand-alone system.

WIND TOWER. A “wind tower” is the monopole, freestanding, or guyed structure that supports a wind generator.

Proposed additions are double underlined.

Proposed deletions are listed in ~~strikethrough~~.

Amend Polk County Zoning Ordinance Section 110.250:

110.250. GRADE (GROUND LEVEL). The lowest point of elevation of the finished surface of the ground between the exterior wall of a building, or the lowest structural component of a free standing tower, and a point 5 feet distant from said wall or free standing tower, or the lowest point of elevation of the finished surface of the ground between the exterior wall of a building or free standing tower and the property line whichever is nearest to said wall or free standing tower. In case walls or free standing towers are parallel to and within 5 feet of a public sidewalk, alley or other public way, the grade shall be the elevation of the sidewalk, alley or public way.

Amend Polk County Zoning Ordinance Sections 112.100 through 112.135:

112.100. FRONT YARD PROJECTIONS. Planter boxes, chimneys and flues, steps, cornices, eaves, gutters, belt courses, leaders, sills, pilasters, lintels and other ornamental features of not more than 24 inches from main buildings, wind energy systems, uncovered porches, covered but

unenclosed porches when not more than one story high and which do not extend more than 10 feet beyond the front walls of the building, but in no case shall such projection come closer than ten (10) feet from the property line and the floor which are not more than four (4) feet above grade, are exempt from the front yard setback provisions and need not be included when determining the average setback.

112.110. SIDE YARD PROJECTIONS.

- (A) Cornices, eaves, gutters, and fire escapes when not prohibited by any other code or ordinance, may project into a required side yard not more than one-third (1/3) of the width of the side yard, nor more than three (3) feet in any case.
- (B) Chimneys, flues, belt courses, leaders, sills, pilasters, lintels, wind energy systems, and ornamental features may project not more than one and one-half (1-1/2) feet into a required side yard, provided, however, chimneys and flues shall not exceed six (6) feet in width.
- (C) Uncovered decks and patios attached to the main building when measured directly beneath the outside edge of the deck or patio may be extended to the side yard property line when they are three (3) feet or less in height from ground level.

112.120. REAR YARD PROJECTIONS.

- (A) Chimneys, flues, belt courses, leaders, sills, pilasters, lintels, gutters, wind energy systems, and other ornamental features, may project not more than one and one-half (1-1/2) feet into a required rear yard, provided, however, chimneys and flues shall not exceed six (6) feet in width.
- (B) A fire escape, balcony, outside stairway, cornice or other unenclosed, unroofed projections may project not more than five (5) feet into a required rear yard and set back at least six (6) feet from any property line.
- (C) Planter boxes, steps, uncovered porches, covered but unenclosed porches including covered patios when not more than one (1) story high and the floor, which are not more than four (4) feet above grade and which shall not come closer than 14 feet from the rear lot line, are exempt from the minimum rear yard depth requirement. (See Accessory structures - Section 112.350.)
- (D) No permitted projection into a required rear yard shall extend within ten (10) feet of the centerline of an alley, or of a rear lot line if no alley exists, or within six (6) feet of an accessory building.
- (E) Uncovered decks and patios attached to the main building when measured directly beneath the outside edge of the deck or patio may be extended to the rear yard property line when they are three (3) feet or less in height from ground level.

112.130. HEIGHT AND OTHER EXCEPTIONS.

- (A) Chimneys may exceed the maximum height of the zone in which they are located.
- (B) ~~Electronic communication antennas and towers, such as radio, television, and telecommunications receiving antennas~~ Communication towers, non-commercial wind energy systems utilizing a tower, and meteorological towers, may exceed the height limits of the zone, but must meet provisions regulating such installation as provided in Section 112.135, and applicable provisions from the zoning district.
- (C) Ham (non-commercial) radio transmitting towers and antennas are not subject to the provisions of Section 112.135 and may exceed the height requirements for structures as required by the zone, and must meet all state and federal provisions regulating such facilities and comply with manufacturers installation requirements.

- (D) Steeples may exceed the maximum height of the zone in which they are located provided:
 - (1) That they do not contain any habitable space
 - (2) That they do not exceed 185 feet in height
 - (3) That the Planning Director permits a greater height, as a conditional use, when they are within 185 feet of or are located within the SR zone. [Amended by Ordinance #89-17, dated December 6, 1989.]
- (E) Replacement of an existing utility pole along or within the right-of-way used for electric, cable, telephone, etc., that is located along a right-of-way is permitted without land use review including the establishment of a pole that is suitable for use for wireless communication. The multi-purpose monopole must not exceed the height of other existing poles along the adjacent utility corridor by more than twenty-five (25) feet.
- (F) Co-location of a communications utility on an existing tower, with the exception of wind and meteorological towers, is not subject to the land use provisions of Section 112.135 below, however, the applicant shall submit engineering documentation that the proposed facility complies with the emission standards for maximum permissible exposure as identified in 47 C.F.R. Section 1.1307(b), or as amended or replaced in Federal Register. The applicant shall obtain any other required local permit (electrical, building, etc.). [Amended by Ordinance 01-3]

112.135 COMMUNICATION AND BROADCAST TOWER STANDARDS. The following standards apply to all new or replacement communication towers and all new or replacement non-commercial wind energy systems utilizing a tower and meteorological towers. The standards of this section are not applicable to roof-mounted, building-integrated, building-mounted and architectural wind energy systems that extend no more than an additional 5 feet above the highest ridge of the building's roof or 15 feet above the highest eave, whichever is higher, and do not exceed the height limitation of the zone. The standards of this section are also not applicable to commercial power generating facilities.

- (A) ~~All new or replacement communication towers and broadcast towers (hereafter referred to as communications towers)~~ shall be reviewed through the administrative review process as a land use determination, unless otherwise provided for in the zoning district for the proposed location. A utility provider shall be the applicant or co-applicant for any communications tower that is proposed in unincorporated Polk County, or a condition of approval shall be that the tower may not be constructed until such time as a utility provider is identified, and all other conditions have been met. Public agencies are also subject to the standards of this section. It is the intent of this section to provide for maximum compatibility between communications towers and the surrounding land uses.
- (B) All new or replacement non-commercial wind energy systems utilizing a tower and meteorological towers are subject to the standards of this section and require a land use application only when required by the zoning district in which the tower would be located and as required in Section 112.135(C).
- (A)(C) All new or replacement communications towers, non-commercial wind energy systems utilizing a tower, and meteorological towers shall comply with the following standards:
 - (1) All communication towers shall be less than 180 feet in height. Wind energy systems utilizing a tower and meteorological towers outside of a UGB shall be

150 feet or less in height. Communication towers ~~and~~ shall be a monopole type of construction unless otherwise provided. Wind and meteorological towers shall be a monopole, monopole with guy wires, lattice, or lattice with guy wires type of construction. An applicant may request modification of ~~this~~ these height limitations or types of construction (e.g. a lattice communication tower) through a Land Use Determination review process. Such height modification or type of construction shall include a demonstration for any modification requested. Such justification shall include documentation showing:

- (a) Coverage limitations,
- (b) Type of system (e.g. broadcast, FM radio, television),
- (c) Technical and engineering feasibility;
- (d) Public safety; or
- (e) Other requirements of local, state, and federal agencies.

(2) Within an Urban Growth Boundary (UGB) the following standards apply:

- (a) A communications tower shall be 40-feet or less in height. An applicant may request a modification of this height limitation. Such height modification shall include a demonstration for any modification requested. Such justification shall include documentation showing:
 - 1) Coverage limitations demonstrating that the proposed height of the tower is needed in order to meet the service type and area coverage needs. Propagation maps stamped by a professional engineer that demonstrate service type and area coverage shall be provided for the 40-foot height, and each 20-foot interval to the proposed tower height;
 - 2) Type of system (e.g. broadcast, FM radio, television);
 - 3) Other requirements of local, state, and federal agencies; and
 - 4) The location, size, design and functional characteristics of the tower are reasonably compatible with the existing conditions and vegetation at the proposed site. The tower must be designed and constructed with material to reduce visibility of the tower by:
 - i. A site-specific study of the tower site identifying a proposed stealth (i.e. camouflage) construction type that may include but is not limited to a tree, or flagpole (no external antennas).
 - ii. The proposed color and surfacing of the tower and associated fixtures.

(b) Wind energy systems utilizing a tower and meteorological towers that do not exceed 100 feet in height may be authorized under the procedure for and in accordance with the criteria provided for conditional uses in Chapter 119 of this ordinance.

(6)(3) ~~No lighting of communication towers and associated facilities is allowed, except as required by the Federal Aviation Administration or other federal or state agency. In coordination with the applicable federal or state agency, the applicant shall determine the maximum height of the tower that would not require lighting. If a proposed communications tower would require lighting,~~

the applicant shall demonstrate that a tower height that requires lighting is necessary. Such justification shall include documentation showing:

- (a) Coverage limitations,
- (b) Type of system (e.g. broadcast, FM radio, television),
- (c) Technical and engineering feasibility; and
- (d) Other requirements of local, state, and federal agencies.

If a tower height that requires lighting is justified, the applicant shall demonstrate how the lighting will be shielded from the ground. Shielding of tower lighting onto nearby properties shall be installed as part of construction of the tower.

~~(7)~~(4) The setbacks for a communication, wind, or meteorological tower shall be the setback otherwise allowed for all other structures in the zone; however, except greater setbacks shall be required as follows that:

- (a) ~~The~~ A communication tower shall be setback at least the height of the tower from an existing dwelling on adjacent property.
- (b) A wind tower base shall be setback the height of the wind energy system from all property lines. A meteorological tower base shall be setback the height of the tower from all property lines.

~~(b)~~(c) A tract (contiguous property under the same ownership) may be considered as a single parcel for purposes of setbacks.

~~(9)~~(5) Equipment areas may be enclosed by a chain link fence or equivalent with or without slats for screening.

~~(11)~~(6) Warning and safety signs, up to three square feet in area, are allowed. All other signs are prohibited.

~~(12)~~(7) If the ~~a~~ tower is discontinued from operating as a communication, wind, or meteorological tower for a period of one year, the tower shall be removed. The operator shall be responsible for removal of the ~~communication~~ tower and equipment facilities within six (6) months; however, equipment facilities accessory to wind energy systems or meteorological towers may be converted to accommodate an approved on-site use within six (6) months. The property owner shall bear the ultimate responsibility for removal of facilities. The property owner is responsible for removal of the ~~communication~~ tower and shall sign a document that is recorded in the deed history of the subject property with the Polk County Clerk recognizing such responsibility. Nothing in this subsection shall prevent the owner of the property or Polk County from requiring a bond or other security from a communication tower operator or otherwise imposing on a communication tower operator the responsibility for removal and restoration.

~~(17)~~(8) Upon receipt of an application for a ~~communication or broadcast~~ tower, the Planning Director shall mail notification to the Independence State Airport and the Oregon Department of Aviation and provide at least ten (10) days to comment on the application.

(D) Additional Communication Tower Standards

- (1) Whip antennae shall not exceed the height of the tower by more than twenty (20) feet.

- (2) Directional / parabolic antennae shall not exceed seven (7) feet in diameter or width and a rectangular type antenna shall not exceed seven (7) feet in width and fifteen (15) feet in height when attached to a tower.
- (3) The applicant shall identify all existing structures, or properties that have obtained approval for a tower or currently contain a communications antenna within two miles of the proposed tower location. The applicant shall provide evidence that co-location at all existing or approved towers and structures within two miles is not feasible, and provide documentation for locating a new tower, based on either of the following:
 - (a) Lack of available co-location space; or
 - (b) Inability to meet service coverage area needs.
- (4) The tower shall comply with all required State of Oregon and Federal licenses for communication tower facilities. The application shall include a certification that the completed installation will comply with all Federal standards. The applicant shall submit documentation demonstrating compliance with the radio frequency emission standards as set forth by the Federal Communications Commission (FCC). If the calculated radio frequency emission level at any point is calculated at more than one-third the maximum radio frequency emission level permitted by the FCC, then the documentation shall be prepared by an Oregon registered professional engineer qualified to conduct radio frequency analyses.
- (5) The applicant shall submit a site-specific study of the tower site identifying the proposed color and surfacing of the tower and associated fixtures. Based on the existing conditions and vegetation at the proposed site, the tower must be constructed with material to reduce visibility of the tower by:
 - (a) Use of non-reflective materials that minimize glare and are colored similar to the sky or adjacent background. A light gray shade is appropriate for blending the tower into the sky background. Nothing in this subsection preempts the coloring requirements of the Federal Aviation Administration or the Oregon Department of Aviation.
 - (b) Use of non-reflective materials painted to match the existing or attached structure to blend into the surrounding environment, and
 - (c) Antenna and associated equipment shall be surfaced in a non-reflective material color to match the structure on which it is located.
- (6) If access is obtained from a private road, the applicant shall be responsible as required by Oregon law for providing for improvements and maintenance to the private road that provides access to the subject property. In general, the applicant is responsible for impacts to the private road as a result of activities conducted by the applicant. The applicant shall maintain all necessary access easements and maintenance agreements for the private road as required by State law.
- (7) An Oregon registered professional engineer shall certify that the construction of the tower complies with building code structural standards.
- (8) Prior to submission of an application, the applicant must notify and hold a meeting with area property owners as outlined in (a) and (b) below. The applicant shall submit evidence of the notification and meeting with the application. The applicant must provide evidence of the following:

- (a) The applicant has mailed notification of the proposed tower to property owners that would otherwise be notified pursuant to Polk County Zoning Ordinance Section 111.350. The notification shall state that the topic has been scheduled for discussion at ~~the Area Advisory Committee meeting,~~ or a community meeting has been scheduled, as described in (b) below. The notification shall state the date, time, and location of the meeting.
 - (b) ~~The applicant has contacted the Area Advisory Committee (AAC) and attended an AAC meeting to discuss the proposed application. If there is no active AAC, t~~The applicant shall post the subject property as described in Polk County Zoning Ordinance Section 111.360 and hold a meeting with the community to allow for concerns regarding the proposed tower to be addressed. Nothing in this subsection limits the applicant from providing additional opportunity for input from area property owners and residents.
- (9) All new or replacement tower facilities under 100 feet in height shall provide for a minimum of two (2) users (the primary user and one co-location site).
 - (10) A Communication tower over 100 feet shall comply with the following:
 - (a) All new tower facilities shall provide space for a minimum of three (3) users (the primary user and 2 co-location sites),
 - (b) Prior to issuance of building permits for the tower, the applicant shall submit to the Building Official documentation from the Federal Aviation Administration and local or state agency with jurisdiction that the tower has been reviewed and is not determined to be a hazard if constructed as proposed. [Amended by Ordinances 01-3 and 04-09]

(E) Additional Wind and Meteorological Tower Standards

- (1) All new or replacement wind towers and meteorological towers shall be grey unless another color is required by state or federal law.
- (2) All wind energy system components mounted to a wind tower and all meteorological tower components attached to the meteorological tower shall remain painted or finished the color or finish that was originally applied by the manufacturer.

Add Sections 112.137 and 112.138

112.137 NON-COMMERCIAL WIND ENERGY SYSTEMS AND METEOROLOGICAL TOWERS.

- (A) Roof-mounted, building-integrated, building-mounted or architectural wind energy systems may extend an additional 5 feet above the highest ridge of the building's roof or 15 feet above the highest eave, whichever is higher, but may not exceed the height limitation of the zone. Roof-mounted, building-integrated, building-mounted or architectural wind energy systems that exceed these standards may be permitted as allowed in the zone and in accordance with this section and Section 112.135.
- (B) Wind energy systems and meteorological towers shall comply with all applicable state construction and electrical codes, and the National Electrical Code. The applicant shall obtain all necessary building and electrical permits from the Polk County Building Division prior to installation or alteration of the wind energy system.

112.138 NON-COMMERCIAL PHOTOVOLTAIC SYSTEMS.

All new or replacement photovoltaic systems, that are not commercial power generating facilities, shall be a permitted use in all zones. A land use application is not required to site a photovoltaic system. All new or replacement photovoltaic systems, that are not commercial power generating facilities, shall be subject to the following standards:

- (A) Photovoltaic systems are subject to the setback requirements of the zone.
- (B) All components of a photovoltaic system shall comply with the height restrictions of the zone. For installations mounted flush with a pitched roof, the height of the panels will not be calculated unless the panels will extend above the highest ridge of the roof.
- (C) Photovoltaic systems may be mounted to an approved on-site structure or established as a free standing structure provided that the other requirements of this section are met.
- (D) Photovoltaic systems shall comply with all applicable state construction and electrical codes, and the National Electrical Code. The applicant shall obtain all necessary building and electrical permits from the Polk County Building Division prior to installation or alteration of the photovoltaic system.