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CHAPTER 19 STANDARDS FOR ENERGY FACILITIES AND COMMERCIAL ENERGY FACILITIES

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CHAPTER 19 STANDARDS FOR ENERGY FACILITIES AND COMMERCIAL ENERGY FACILITIES

SECTION 19.005 Purposes

This chapter describes how to apply for county approval of a proposed hydroelectric, wind energy, biomass, or geothermal facility. If outside of the A-1 zone county review authority shall be limited to facilities with a nominal rated electric capacity of 25 MW or less, or transmission facilities carrying 230 kV or less. If inside the A-1 Zone county review authority shall extend to the capacity allowed by ORS 469.300, or if the applicant or the County Court so desires for any reason, review authority shall be given to the Oregon Department of Energy who shall decide the matter. It also describes how the county will consider the energy, environmental, economic, and social consequences of a proposed energy facility. A use approved by the county under this chapter will protect the public health, safety, and general welfare, comply with the Statewide Planning Goals and Guidelines, and comply with the Wasco County Comprehensive Plan.

SECTION 19.010 Classification of Energy Facilities

- A. Permitted Subject to Standards. A proposed energy facility shall be approved by the Planning Director as a use permitted subject to standards if the proposed facility complies with the applicable standards of subsection 19.030 (A) through (C) and section 19.040, subject to the applicable conditions of section 19.050.
- B. Conditional Use. A proposed energy facility that is not permitted subject to standards may be approved by the Planning Commission as a conditional use if the proposed facility complies with the applicable standards of subsection 19.030 (D) through (F) and section 19.040, subject to the conditions of section 19.050 and other conditions found necessary to fulfill the purpose of this chapter.

SECTION 19.020 Other Energy Facilities

Energy facilities and commercial energy facilities other than hydroelectric, wind energy, and transmission facilities are subject to the provisions of Chapter 5.

SECTION 19.030 Standards for Approval

- A. A Hydroelectric Facility as a Use Permitted Subject to Standards. A proposed hydroelectric facility is a use permitted subject to standards if it complies with part 19.030 (A)(1) and with part (A)(2), or part (A)(3) below, and the applicable conditions of Section 19.050.

1. Location. The facility shall comply with subsection 19.040(A) through (D).
 2. Capacity and Source of Water. The facility will comply with either subpart 19.030(A)(2)(a) or (b).
 - a. The facility will produce 100 theoretical horsepower (thp) or less, or
 - b. The facility takes water from and returns water to a man-made water conveyance system, without increasing the system's use of surface and ground waters.
 3. Other Small Scale Facilities. A facility other than one in part 19.030(A)(2) with a maximum generating capacity of 5 megawatts (MW) shall comply with all of the following:
 - a. Does not increase the maximum surface area of an impoundment at an existing dam or diversion or does not impound more than two acre feet at a new impoundment or diversion.
 - b. Does not change the prevailing regime of storage and release or impede fish management. Changes which improve fish management or existing adverse effects of the dam or diversion may be permitted.
 - c. Does not require development of more than one mile of new vehicular access routes.
 - d. Does not require construction of a transmission line in a new right-of-way or easement that results in clearing of a right-of-way or easement with a length exceeding one mile or with an average cleared width exceeding 50 feet in the zone.
 - e. Does not use a diversion or intake structure the height of which is more than twice the diameter of the penstock or ten feet, whichever is less.
 - f. Does not increase naturally-occurring head by more than five percent.
- B. A Transmission Facility as a use Permitted Subject to Standards. A transmission facility is a use permitted subject to standards if it complies with part 19.030(B)(1) or with parts (B)(2) and (B)(3), and the applicable conditions of section 19.050.
1. Location and Height.
 - a. The facility shall comply with subsections 19.040(B) and (C), and

- b. The facility shall result in clearing of a right-of-way or easement with an average width not greater than 50 feet in the F-F and F-1 zones, or
 - c. The facility shall not increase the extent to which the right-of-way or easement is in an area listed in parts 19.040(A)(1) through (3), except as permitted by part 19.040(A)(4).
 - d. The facility is less than 200 feet.
- 2. Existing Use. The facility shall be built in or adjoining an existing public road or utility right-of-way or easement, and
 - 3. Width. The facility will not increase the average width of the clearing for the existing right-of-way or easement by more than 50% nor result in clearing of a right-of-way or easement with an average width greater than 125 feet, whichever is less, and
- C. A Wind Facility as a Use Permitted Subject to Standards. A proposed wind facility is a use permitted subject to standards if it complies with parts 19.030(C)(1) through (8). A wind measurement device is a use permitted subject to standards if it complies with subpart 19.030(C)(3)(b) and parts (C)(5), (C)(7) and (C)(8). In addition, a WECS and a wind measurement device are subject to the standards of subsection 19.040(A) through (C) and the applicable conditions of section 19.050.
- 1. WECS Height. The total WECS shall not exceed 200 feet.
 - 2. Density. No more than two WECS shall be on the same site and under the same ownership or management.
 - 3. Setbacks.
 - a. A WECS shall be setback from all adjoining property lines as described in (1) and (2) below. An easement that complies with ORS 105.900 through .915 may be substituted for required setbacks. The setback shall be measured from the center point of the tower or pedestal.
 - 1. A horizontal axis WECS shall be setback at least five rotor diameters.
 - 2. A vertical WECS shall be setback the total WECS height.
 - b. The furthest horizontal extension of a WECS or wind measurement device (including guy wires) shall not extend into yards required in the underlying zones or be closer than twelve feet to any major structure, or right-of-way or easement for above-ground telephone, electrical transmission and distribution lines.

4. Minimum Height. The lowest point in the sweep of a WECS blade shall be a minimum height above the tallest current or foreseeable obstruction within a horizontal, 500 foot radius of a WECS or a radius of 10 rotor diameters (for horizontal axis) and 5 WECS heights (for vertical axis), whichever is greater, as described in (a), (b), and (c) below. The radius shall be measured from the center point of the tower.
 - a. At least 30 feet for a horizontal axis WECS on a site without site-specific wind direction data or representative off-site data.
 - b. At least 30 feet above current or foreseeable obstructions within 45 degrees of the direction(s) of prevailing wind for a horizontal axis WECS on a site with site-specific wind direction data or representative off-site data.
 - c. At least six feet for a vertical axis WECS.
5. Public Access. Public access to a vertical axis WECS shall be limited using (c) below. Public access to a horizontal axis WECS shall be limited using one or a combination of the following methods:
 - a. Removal of tower climbing fixtures to 12 feet from the ground,
 - b. Installation of a locking, anti-climb device on the tower, or
 - c. Installation of a protective fence at least six feet tall with a locking gate.
6. Visual Effects. Except when the applicant demonstrates that such measures will significantly interfere with wind access over the life of the WECS, a WECS shall be sited to reduce visual impacts using means including, but not limited to, the following:
 - a. Setting the WECS against a visual backdrop that, because of color, texture or topography, helps the WECS blend into its surrounding environment.
 - b. Using non-reflective materials and colors that blend into the background unless otherwise required by the Federal Aviation Administration or Oregon State Aeronautics Division.
 - c. No advertising shall be placed on the WECS. Advertising does not include the manufacturer's label or other signs required by law.
 - d. Setting the WECS back from scenic highways and zones containing any of the protected areas listed in subsections 19.040(A) and (B).

7. Notice. The following signs shall be clearly visible on the WECS tower and accessory facilities.
 - a. "No Trespassing" signs shall be attached to any perimeter fence.
 - b. "Danger" signs shall be posted at the height of five feet on WECS towers and accessory structures.
 - c. A sign shall be posted on the tower showing an emergency telephone number.
 - d. The manual electrical and/or overspeed shutdown disconnect switch(es) shall be clearly labeled.
 8. Guy Wires. All guy wires shall be sheathed in a bright orange or yellow covering from three to eight feet above the ground.
- D. Conditional Use Standards for a Hydroelectric Facility. A hydroelectric facility shall be approved if it complies with the following standards and section 19.040, subject to the conditions of section 19.050.
1. Fish, Wildlife, and Plant Resources. The facility shall not have a significant adverse effect on endangered or threatened fish, wildlife, or plant species or their critical habitats or on other significant habitats identified in the comprehensive plan.
 2. Visual Effects. The facility considers visual effects by means including, but not limited to, the following.
 - a. Using materials and colors that blend with the background.
 - b. Setting development back from the edge of public arterial rights-of-way, viewpoints, and other significant visual resources identified in the comprehensive plan, and setting accessory facilities back from Class I and II streams.
 - c. Retaining or planting vegetation to obscure views of the development from significant viewpoints identified in the comprehensive plan.
 3. Water Use. Use of water for the facility is not detrimental to the public interest or contrary to the achievement of an integrated, coordinated program for water management. A Water Resources Department or Water Policy Review Board decision to grant or approve use of the amount of water proposed for the use shall be conclusive proof that the facility complies with this standard, unless the approval has expired.

- E. Conditional Use Standards for a Transmission Facility. A transmission facility shall be approved if it complies with the following standards and section 19.040, subject to the conditions of section 19.050.
1. Use of Existing Routes. The development uses available developed or approved road and utility rights-of-way or easements that can accommodate the proposed facility. New routes are permitted if more adverse energy, environment, economic, and social consequences would result from using an existing route than development of other rights-of-way or easements.
 2. Visual Effects. The facility considers visual effects by means including but not limited to the following.
 - a. Avoiding ridgelines, scenic areas, unique or significant views and vistas, hilltops, or other high or visually prominent areas.
 - b. Building the facilities near the edge of contiguous timber areas or in swales, dips, and depressions that provide a backdrop for or obscure the facility to the extent these features are available between the ends of the facility.
 - c. Using materials and colors that blend with the background unless otherwise required by the Federal Aviation Administration or Oregon State Aeronautics Division.
 - d. Setting development back from the edge of public arterial rights-of-way, Class I and II streams, viewpoints, and other significant visual resources identified in the comprehensive plan and retaining or planting vegetation to obscure views of the development from those areas.
 3. In-Stream Towers. A transmission tower may be permitted in a Class I or II stream if it complies with (a) and (b) below.
 - a. Adjoining towers and conductors cannot safely and economically support the transmission line(s) that span the stream without an in-stream tower.
 - b. The transmission line cannot be safely and economically placed under the water or streambed.
- F. Conditional Use Standards for Wind Facilities. A wind energy conversion system (WECS) shall be approved if it complies with parts 19.030(C)(6), (C)(7), (C)(8) and the standards in (F)(1) through (6) below. In addition, a WECS is subject to the standards in section 19.040 and the applicable conditions of section 19.050.
1. Setbacks. WECS shall comply with subparts (a), (b) and (c) below.

- a. WECS shall comply with the requirements of subparts 19.030(C)(3)(a) and (b).
- b. A WECS tower or pedestal shall be setback as described in (1) and (2) below from the edge of a public arterial right-of-way and property lines of downwind lots. An easement that complies with ORS 105.900 through .915 may be substituted for required setbacks. The setback shall be measured from the center point of the tower or pedestal.
 - (1) A horizontal axis WECS shall be setback at least five rotor diameters or 100 feet, whichever is greater.
 - (2) A vertical axis WECS shall be setback at least the total WECS height.
- c. A WECS shall be set back from lots in residential zones and significant visual resources identified in the comprehensive plan one quarter mile or as described in (1) and (2) below, whichever is less.
 - (1) At least 20 rotor diameters for a horizontal axis WECS.
 - (2) At least 10 WECS heights for a vertical axis WECS.

2. Minimum Height.

- a. A horizontal axis WECS shall comply with subpart 19.030(C)(4)(b). However, a WECS in a windfarm is not an obstruction to other WECS on-site.
- b. A vertical axis WECS shall comply with subpart (D)(3)(d)(3).

3. Public Access. Public access to WECS shall be limited using one or a combination of the methods contained in section 19.030(C)(5) and a protective fence at least six feet tall enclosing the site.

4. Wind Resources. The site shall have site-specific data documenting wind speed and direction or off-site data from within the same topoclimatological zone as the proposed site.

5. Fish, Wildlife, and Plant Resources. The facility shall not have a significant adverse effect on endangered species or their critical habitats or on other significant habitats identified in the comprehensive plans.

6. Bonding. An applicant who is not the owner of the proposed site shall post a bond or an alternative acceptable to the county which is sufficient to guarantee removal

and disposal of the wind farm components and restoration of the land in case of noncompliance with the provisions of the ordinance.

SECTION 19.040 Additional Approval Standards for Energy Facilities and Commercial Energy Facilities

- A. Protected Areas. An energy facility may not be sited in the areas listed in part 19.040(A)(1) through (3) unless the facility complies with part (A)(4) below.
1. National parks, national monuments, national wildlife refuges, BLM Outstanding Natural Areas, BLM Areas of Critical Environmental Concern, Federal Research Natural Areas, U.S. Forest Service Special Interest Areas, Wilderness areas under the Federal Wilderness Act and areas recommended for designation as wilderness areas pursuant to section 603 of the Federal Land Policy Management Act of 1976, Federally designated Wild and Scenic Rivers or any rivers recommended for designation by the National Park Service.
 2. State of Oregon parks, waysides, refuges, wildlife management areas, and natural area preserves, scenic waterways and adjacent lands designated pursuant to ORS 309.845, wild fish streams designated by the Oregon Department of Fish and Wildlife, and experimental areas established by the Rangeland Resources Programs, School of Agricultural, OSU.
 3. Areas which the comprehensive plan designates as not suitable for a given type and size of energy facility, because the area contains significant open space, mineral resources, fish and wildlife habitat, scenic views and sites, waterbodies, wilderness, cultural, geologic, historic, botanical, research, or recreational resources that cannot be protected from the adverse consequences of the facility.
 4. Exceptions. An energy facility may be permitted in an area listed in parts 19.040(A)(1) through (3) above if it complies with at least one of the following exceptions, and it will be compatible with adjacent uses and resources. However, a hydroelectric dam or diversion is not permitted in a scenic waterway or adjacent lands designated pursuant to ORS 390.825.
 - a. Accessory Use. A proposed energy facility is accessory to a permitted use.
 - b. Authority Granted by Management. The public agency responsible for designation or management of a protected area in which an energy facility is proposed has authorized the application or approved the proposed facility. However, this is not an exception for areas listed in part 19.040 (A)(3).

- c. Substantially Equivalent Substitute. The applicant provides resources equal or better in quantity and quality to those adversely affected by the energy facility.
 - d. Comprehensive Plan Designation. The comprehensive plan designates the site for an energy facility of the scale and type proposed.
- B. Conditionally Protected Areas. An energy facility or commercial energy facility in an area which the comprehensive plan designates as conditionally suitable for the scale and type of facility proposed shall comply with the conditions provided for the facility in the comprehensive plan.
- C. F-1 Zone. A transmission facility that results in a clearing with an average width greater than 50 feet, a hydroelectric facility on a site where the average slope of the land within 200 feet of the edge of the project area exceeds 20 percent or uses an impoundment containing not more than 1000 acre feet, and a wind facility on a site which occupies not more than 50 acres on land zoned F-1 shall comply with parts 19.040(C)(1) through (4), except a facility that is accessory to a permitted use.
- 1. The facility is sited on land that is generally unsuited for forest use, or use of predominant forest areas is warranted for the safe, economical, and efficient operation of the facility;
 - 2. Will not significantly affect forest uses on the site or surrounding land;
 - 3. Will not alter the stability of the land use pattern in the area; and
 - 4. Will be consistent with forest policies of the comprehensive plan.
- D. Compliance with the Comprehensive Plan. The facility shall comply with the applicable policies of the comprehensive plan.

SECTION 19.050 Conditions of Approval

Approval of an energy facility shall be subject to the following conditions. In addition, the approval authority may require an energy facility that is approved as a conditional use to comply with other conditions as necessary to fulfill the purpose of this chapter.

A. Coordination

- 1. Continuing Notice. The applicant shall provide the county with a copy of all applications for, or notices of, state or federal permits, licenses, exemptions, or variances in conjunction with the construction and licensing of the facility and proposed significant changes to the facility. The applicant shall make a good faith effort to provide the copy at the earliest possible time.

2. State and Federal Authority. The applicant should demonstrate that all necessary state and federal permits, licenses, exemptions, variances, or authority are approved before initiating construction of the facility.
 3. Other Terms & Conditions. The terms and conditions of the following authorities satisfy substantially similar standards and conditions of this chapter and supersede inconsistent county conditions.
 - a. A dredge and fill permit is granted by the Division of State Lands under ORS 541.615;
 - b. The proposed action is a forest operation that complies with the Forest Practices Act under ORS 526 - 527 and the Rules of Forest Practices;
 - c. Written approval of development within the Oregon Scenic Waterways System is granted by the Department of Transportation under ORS 390.800, the Energy Facility Siting Council under ORS 469.430-469.570, or the Water Resources Department under ORS 537.130 through 537.450;
 - d. Written approval of the Department of Environmental Quality when air or water quality discharge permits, exemptions, or variances are granted; or
 - e. The facility complies with substantially similar standards of the special districts listed in section (F)(4) below.
 4. Consistency with Service Districts and Special Purpose Agencies. The development shall comply with the hazardous or solid waste, flood, surface, or groundwater, soil conservation, or resource management program(s) adopted by the appropriate emergency management authority, drainage district, soil conservation agency, or resource management agency(ies).
- B. Environmental Protection Overlay Districts. An energy facility or commercial energy facility in the following overlay, combining, or floating districts shall comply with applicable terms of those districts:
1. The Flood Hazard Overlay district,
 2. The Geologic Hazard Overlay district,
 3. The Mineral Resources Overlay district,
 4. The Cultural, Historic and Archaeological Overlay district,

5. The Sensitive Wildlife Habitat district,
6. The Columbia Gorge Overlay district,
7. The Airport Impact Overlay district, and
8. The Natural Areas Overlay district.

C. Protection of Water Quality.

1. The development shall comply with the water quality standards for dissolved oxygen and temperature adopted by the Oregon Environmental Quality Commission (EQC) and codified in OAR 340-41 and shall not increase turbidity. Water quality effects of forest operations shall comply with the Oregon Rules for Forest Practices (ORFP) and the Forest Practices Act.
2. To the extent not inconsistent with EQC and ORFP rules, the Planning Director may allow these standards to be exceeded for a specified short time when necessary to accommodate essential construction, emergency, or other permitted uses and actions.

D. Protection of Water Bodies and Wetlands. The development will incorporate mitigation and conditions to protect Class I and Class II streams and wetlands and the banks and vegetation along those streams and wetlands affected.

E. Soil Protection. Development shall not cause a significant increase in erosion or sedimentation based on the topography, use and soil classification of the site and access to it. Practices to reduce or avoid erosion and sedimentation include but are not limited to the following.

1. Structures and access avoid areas of steep slopes where high cuts and fills are required and shall use natural contours.
2. The smallest practical area of land is to be exposed for the shortest practical time during development.
3. Measures are used such as seeding and sodding, temporary use of straw or fabric cover, aggregate cover, diversions authorized by state permit, sediment basins, and filters.

F. Health and Safety.

1. Drinking Water. No water sources shall be used for consumption unless approved in writing by the Oregon State Health Division.
2. Toilets. Field toilets approved by the county sanitarian or Oregon Department of Environmental Quality shall be available at construction sites in the vicinity and upstream of Class I or Class II streams or other water supplies.
3. Grounding. All structures which may be charged with lightning shall be grounded according to the Oregon State Electrical Specialty Code.
4. Electrical Safety. Transmission lines associated with the facility shall not generate an electrical field greater than 9 kV per meter measured at grade and shall comply with the National Electrical Safety Code, based on a written decision by the Public Utility Commissioner.
5. Air Safety. Any structure that is more than 200 feet above grade or exceeds airport imaginary surfaces defined in OAR 738, shall comply with the air hazard rules of the Oregon State Aeronautics Division (OSAD) and Federal Aviation Administration (FAA), based on a written action by those agencies.
6. Communications. The proposed facility shall not unduly reduce or interfere with electromagnetic communication signals. If undue reduction or interference occurs, the applicant shall return reception levels to pre-facility levels.
7. Noise. Construction and operation of the proposed facility shall comply with the noise regulations of the Oregon Department of Environmental Quality (DEQ) in OAR 340-35, based on a written decision by DEQ. In addition, a wind farm application shall identify noise sensitive property(ies) and ambient noise levels prior to construction.
8. Public Roads. Mud and other debris from related construction, road wear from related vehicles, or facility operation shall not create a hazard on public roads and highways. Mud and debris that fall onto a county road should be removed by the applicant as soon as possible.

G. Fish and Wildlife.

1. The applicant shall consult with the Oregon Department of Fish and Wildlife (ODFW) concerning the facility and shall provide information as requested to ODFW. The development shall be subject to ODFW recommendations that are consistent with the county decision regarding the facility.
2. A transmission line sited adjacent to wetlands or water bodies identified as critical bird habitat in the comprehensive plan shall comply with (a), (b), or (c) below:

- a. The line is lower than the level of surrounding treetops.
- b. The line is at least 50 feet from the edge of the nearest wetland or water body.
- c. The line is separated from the nearest wetland or water body by topography or substantial vegetation, does not use static or lightning wires, does use marker balls or flags on the line, or is perpendicular to the prevailing winds.