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## CHAPTER 19 STANDARDS FOR NON COMMERCIAL ENERGY FACILITIES & COMMERCIAL ENERGY FACILITIES

### SECTION 19.010 Purposes

This chapter describes the requirements for establishing non-commercial and commercial **energy facilities** in Wasco County. The goals of this chapter are to:

- Encourage renewable energy production;
- Utilize clear and objective standards;
- Establish a clear, consistent and accountable application process;
- Collaborate and coordinate with agencies and other stakeholders;
- Protect the public health, safety and general welfare of the citizens of Wasco County; and
- Protect resources identified in the Wasco County Comprehensive Plan.

The uses described in this chapter are only allowed if listed in the zoning section in Chapter 3 applicable to the subject property.

### 19.020 Definitions (Either included in Chapter 1 or Chapter 19. Compare to existing definitions)

Underline = Proposed Definitions

Ambient Sound Level - The amount of background noise at a given location **prior to the installation of an Energy System** which may include, but not be limited to, traffic, machinery, lawnmowers, human activity, and the interaction of wind with the landscape. The ambient sound level is measured on the dB(A) weighted scale as defined by the American National Standards Institute.

Anemometer – A device to measure the wind speed.

Building Mounted WECS - A WECS mounted or attached to a building. **Do we need to define what the height of a building mounted WECS is?**

Blade - An element of a WECS rotor which forms an aerodynamic surface or surfaces to convert movement of air into mechanical energy or torque.

BOCC - Wasco County Board of County Commissioners. (Add this to Chapter 1)

Commercial Power Generating Facility (Utility Facility For The Purpose Of Generating Power) - A facility for the production of energy and its related components that

- a. Generates energy using means listed in ORS or OAR such as solar power, wind power, fuel cells, hydroelectric power, thermal power, geothermal power, landfill gas, digester gas, waste, dedicated energy crops available on a renewable basis or low-emission, nontoxic biomass based on solid organic fuels from wood, forest or field residues; and
- b. Is intended to provide energy for sale

See “Net Metering Facility” and “Non-Commercial/Stand Alone Power Generating Facility” for additional definitions related to energy production.

Communication Tower - 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.

Downwind - On the opposite side from the direction from which the wind blows.

Energy - The amount of work that can be performed by a force.

Energy Development - A building or construction operation making a significant change in the use or appearance of a structure or land for an energy facility; and the clearing, excavation, filling, grading, and road building in connection with the operation.

Energy Facility or System - A hydroelectric, wind energy, biomass, geothermal or transmission facility with a nominal electric generating capacity of 25 MW or less or carrying 230 kV or less.

Equipment that converts and then stores or transfers energy from into usable forms of energy and includes all necessary component used in the system except transmission lines.

Energy Facility Project Area - The proposed location of an energy facility, any structure adjacent to and associated with an energy facility, including associated transmission lines, reservoirs, intake structures, road and rail access, pipelines, barge basins, office or public buildings, and commercial and industrial structures proposed to be built in connection with the energy facility, and the area affected by the facility.

EFSC - Oregon Energy Facility Siting Council. The Council includes seven members appointed by the governor and confirmed by the Oregon Senate with the responsibility for overseeing the development of large energy facilities.

FERC - Federal Energy Regulatory Commission – The United States federal agency

with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas (LNG) terminals, interstate natural gas pipelines and non-federal hydropower projects.

Grid - The utility distribution system. The network that connects electricity generators to electricity users.

Guy Wire - A cable or wire used as a semi-flexible tension support between a guy anchor and a tower.

Height Of Tower - The height of the vertical distance from the grade at the base of the tower or pole to the tallest point of the tower (what about antenna?). For a WECS the height shall be measure to the uppermost vertical extension of any blade or to the maximum height reached by any part of the WECS.

Horizontal Axis WECS - A WECS on which the rotor axis substantially is parallel to the ground.

Inverter - A device that converts direct current (DC) to alternating current (AC).

Joule - Amount of work done by a force of one newton moving an object through a distance of one meter.

Kilowatt-hour (kWh) - A measure of energy equal to the use of one kilowatt in one hour.

Kilovolt (kV) - The unit of voltage of potential difference which equals 1,000 volts.

Kilowatt (kW) - A measure of power for electrical current (1,000 watts).

Megawatt (MW) - The electrical unit of power which equals 1,000,000 watts.

Meteorological Tower - 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.

Nacelle -The structure which houses all of the generating components, gearbox, drive train and other components of the WECS.

Net Metering Facility - A facility for the production of power that:

- a. Generates energy using means listed in ORS or OAR such as solar power, wind power, fuel cells, hydroelectric power, landfill gas, digester gas, waste, dedicated energy crops available on a renewable basis or low-emission, nontoxic biomass based on solid organic fuels from wood, forest or field residues;
- b. Is intended to offset part of the customer-generator's requirements for energy;
- c. Will operate in parallel with a utility's existing transmission and distribution facilities;
- d. Is consistent with generating capacity as specified in ORS 757.300 and/or OAR 860-039-0010 as well as any other applicable regulations;
- e. 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.

See "Non-Commercial/Stand Alone Power Generating Facility" and "Commercial Power Generating Facility" for additional definitions related to energy production.

#### Non-Commercial/Stand Alone Power Generating Facility –

- a. Generates energy using means listed in ORS or OAR such as solar power, wind power, fuel cells, hydroelectric power, landfill gas, digester gas, waste, dedicated energy crops available on a renewable basis or low-emission, nontoxic biomass based on solid organic fuels from wood, forest or field residues;
- b. Is intended to provide all of the generator's requirements for energy for the tract or the specific lawful accessory use that it is connected to;
- c. Operates as a standalone power generator not connected to a utility grid; and
- d. 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.

See "Net Metering Facility" and "Commercial Power Generating Facility" for additional definitions related to energy production.

Non-Resource Zones - Zones within the jurisdiction of this ordinance that are not protected by either Oregon Land Use Planning Goal 3, Agricultural Lands or Goal 4, Forest Lands.

OWRD - Oregon Water Resources Department.

Photovoltaic System – A system which converts solar energy for electricity generation, space heating, space cooling or water heating and which consists of solar panels, photovoltaic laminates, electrical lines, pipes, batteries, mounting brackets, frames, foundation and other appurtenances or devices necessary for the operation of the system. (Do we need definitions for roof mounted and ground arrays?)

Planning Department - Wasco County Planning and Development Department.

Planning Commissioner – Wasco County Planning Commission.

Power - The rate at which work is performed or energy is converted.

Prevailing Wind Direction - Within 45 degrees of the direction from which wind flows for at least 20 percent of the year based on at least one year's site-specific recorded wind data.

PURPA - Public Utility Regulatory Policies Act (1978), (1) 16 USC § 824a-3; (2) 18 CFR § 292; (3) ORS 758.505-555; (4) OAR 860, Division 029.

Related and Supporting Facilities to a Commercial Energy Facility – What does this include? It does not include things such as existing road networks that are necessary to access the development site.

Resource Zones - Zones within the jurisdiction of this ordinance that are protected by either Oregon Land Use Planning Goal 3, Agricultural Lands or Goal 4, Forest Lands.

Rotor - 1) A system of rotating aerodynamic elements and hub assembly attached to a shaft that converts the kinetic energy in the wind into mechanical energy; 2) Rotating element in an electrical generator.

Rotor Diameter - Twice the distance from the center of rotation to the outermost point of the blade.

Shadow Flicker - The moving shadow created by the sun shining through the rotating blades of a WECS.

Significant Interference With Wind Access - A ten (10) percent decrease in wind speed caused by an obstruction(s).

Solar Access - The right of a property owner to have sunlight shine onto the property owner's land.

Solar Energy System - See "Photovoltaic System".

Swept Area - Area perpendicular to the wind velocity that a rotor will cover during one complete rotation.

Theoretical Horsepower - The product of the flow used by a hydroelectric facility, expressed in cubic feet per second, multiplied by the head, expressed in feet, divided by 8.8.

Tower - monopole, freestanding, or guyed structure.

Tower Mounted WECS - A Wind Energy System mounted or attached to a tower, pole or similar structure which is not a building. (Is this term used in the standards?)

Total WECS Height - The height of a WECS measured from ground level to the highest vertical extension of a WECS.

**(For transmission look at Umatilla County information)**

Transmission Facility - The conductors, lines, structures, buildings, corridor, and construction staging and assembly areas associated with the transmission of electricity from major power sources to the regional power grid and from the regional power grid to the local power distribution system. Such a facility operates at a current of 230 kilovolts (230kV) or less. Such a facility does not include electric power substations, switching stations, or generating facilities.

Upwind - On the same side as the direction from which the wind is blowing – windward.

Utility Facilities Necessary for Public Service - Facilities for providing communication, water, sewers or transportation and facilities accessory to energy facilities.

Utility Facility Service Lines - Utility lines and accessory facilities or structures that end at the point where the utility service is received by the customer and that are located on one or more of the following:

- a. A public right of way;
- b. Land immediately adjacent to a public right of way, provided the written consent of all adjacent property owners has been obtained; or
- c. The property to be served by the utility.

Vertical Axis WECS - A WECS which rotor axis is vertical.

Watt - A unit of measure for the rate of energy conversion. Equal to 1 joule of energy per second.

WECS (Wind Energy Conversion System) - ~~A device that converts the kinetic energy in the wind into electric energy. The WECS includes all parts of the system except transmission lines.~~

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 except transmission lines.

WECS Site - The lot or lots upon which a WECS is situated. If abutting lots are used primarily for WECS, the WECS site encompasses all such abutting lots.

WECS Tower - Subsystem of a WECS that supports the rotor, or other collection device, above-ground.

Wind Energy Facility - A WECS or group of WECS including all parts of the system except transmission lines. ~~Such a facility has a nominal electric generating capacity of 25 MW or less.~~

~~Wind Farm - A cluster or array of three or more electrical WECS which are under the same ownership or management.~~

Wind Measurement Device - An instrument for measuring wind speed and/or direction, including the tower or pole upon which it is mounted. ~~(This could be different than a meteorological tower should we make the distinction or amend this definition so it is not a meteorological tower?)~~

Wind generator – The blades and associated mechanical and electrical conversion components mounted on top of the tower.



SECTION 19.030 Non-Commercial Review Processes & Approval Standards

These are being reviewed through a separate group and will be incorporated into the Chapter at a later date.

SECTION 19.040 Commercial Review Processes & Approval Standards

A. Review Processes

1. Review Authority:

a. Planning Commission - Unless otherwise specified all commercial projects shall be initially heard by the Planning Commission in a public hearing.

b. Planning Department

(1) Post EFSC Review - Pursuant to ORS 469.401, after issuance of a site certificate by EFSC and subject to receiving the proper fees, the Planning Department must promptly issue any permits, licenses and certificates addressed in the site certificate subject only to conditions set forth in the site certificate but without hearings or other proceedings.

(2) PURPA - Should we allow PURPA projects to be reviewed by the Planning Department instead of the Planning Commission? This would streamline the process and eliminate a public hearing. If the project looked to be controversial we would have the opportunity to take it directly to the Planning Commission.

Do we want to describe a subset of review criteria or some other expedited process for PURPA projects? Where does 10 MW limitation come from? I didn't see it in either the ORS or OAR. See PURPA definition.

(3) Hydroelectric Projects – See d. below.

(4) Other - Should any other type of level of project be reviewed administratively instead of the Planning Commission?

c. EFSC

(1) EFSC has regulatory authority over all energy and related projects exceeding thresholds designated by ORS 469.300. However, pursuant to ORS 469.480 EFSC shall designate the BOCC as a special advisory group

who may participate in the siting process pursuant to the role established in ORS 469. (I am not sure if necessary to include the special advisory group language but it is educational.)

- (2) An applicant can elect to have EFSC review their energy or related project notwithstanding it is less than the threshold designated by ORS 469.300.
- (3) If for any reason the BOCC desires, they may defer regulatory authority of energy or related project to EFSC notwithstanding it is less than the threshold designated by ORS 469.300 (Legal?).

d. OWRD - Hydroelectric Energy Projects

- (1) Not Located within an Area of Special Flood Hazard - Hydroelectric energy projects not located within an Area of Special Flood Hazard are not required to meet property development standards within the zone they are being located and are allowed without any review by the Planning Department as long as they are being reviewed by OWRD or FERC. (OWRD has a robust review process pursuant to ORS 543 & OAR 690-051-0060 which requires consultation with all applicable state, federal and local agencies. Hydro facilities are precluded in certain areas subject pursuant OAR 690-051-0030.)
- (2) Located within an Area of Special Flood Hazard - Hydroelectric energy projects located within an Area of Special Flood Hazard are not required to meet property development standards within the zone they are being located or any additional criteria in B. or C. below but are subject to Section 3.740, Flood Hazard Overlay even if they are being reviewed by OWRD.

- e. FERC – FERC has regulatory authority over all energy or related projects of a size, scale or interest to the federal government pursuant to Title 18, Conservation of Power and Water Resources, of the Code of Federal Regulations. (County's role???)

2. Zone Requirements

- a. Resource zones – Unless otherwise specified, all commercial energy projects including transmission only projects located entirely or partially within a resource zone shall meet the applicable standards of C. General Standards, D. Specific Standards, Chapter 5 Conditional Use Review Standards and applicable Chapter 20 Site Plan Review Standards.
- b. Non-Resource Zones – Unless otherwise specified, all commercial energy projects including transmission only projects located entirely or partially within a

non-resource zone shall meet the applicable standards of B. Non-Resource Zone Standards, C. General Standards, D. Specific Standards, Chapter 5 Conditional Use Review Standards and applicable Chapter 20, Site Plan Review Standards.

3. County Decision Options: As part of the application materials the applicant shall indicate if they are requesting final or tentative approval.
  - a. Final Approval: A final approval will be issued when the applicant has submitted all of the required application materials and Wasco County has issued final approval which includes only non-discretionary conditions that can be submitted for staff review and verification.
  - b. Tentative Approval: A tentative decision may be issued when the applicant has submitted most of the required application materials but would prefer to defer completion of some limited discretionary review elements of the project including one or more prescribed plans such as weed, erosion control, soil de-compaction, or wildlife plans.

The tentative approval shall specify a time limit or expiration date within which all deferred discretionary review elements or plans shall be reviewed for final approval. (Do both the tentative and final approval get the full two years and the one time two year extension? This would give eight years to begin construction?).

The deferred items or plans will be the only items up for consideration and not the entire project.

#### B. Non-Resource Zone Standards

If the energy facility or system will entirely or partially be sited in a non-resource zone it will be required to meet either 1. Related or Supporting Facilities, or 2. Community Interest Test below.

##### 1. Related or Supporting Facilities (Reasonable Alternatives Analysis)

If all of the primary **commercial energy facility** is to be sited on resource zoned properties and part or all of the related or supporting facilities are proposed to be sited on non-resource zoned properties, they shall be allowed upon a showing that such related or supporting facilities are necessary for siting the **commercial energy facility**. To demonstrate that the related or supporting facilities are necessary within the meaning of this section, an applicant must show that reasonable alternatives have been considered and that the related or supporting facilities must be sited in a non-resource zone after considering the following criteria:

- a. Technical and engineering feasibility of siting the commercial energy facility as a whole;
- b. Availability of existing rights-of ways and public roads and proximity to transmission lines and interconnections;
- c. Environmental impacts associated with avoiding non-resource zoned land; and
- d. Ability to address and satisfy Section 3.210(J)(17) (EFU protection standards) and similar Forest zone protections standards while minimizing the potential impacts to non-resource zoned land.

**2. Community Interest Test (If this test is required 1. above is not required.)**

Non-resource zoned lands are designated for higher density uses which may be incompatible with an energy project depending on the scope, scale and location of the project. To ensure compatibility, if all or part of the primary energy facility is proposed to be located on non-resource zoned properties, it shall be allowed if the facility is in the community interest. To demonstrate that the energy facility is in the community interest, an applicant must meet the following criteria:

- a. The applicant is a community group within the meaning of this section, or is associated or partnered with a community group;

**Community Group** – Individuals who are elected or appointed to represent property owners within a defined geographic area where the energy project is proposed including but not limited to a homeowner's association, fire district board, water district board, or irrigation district board. A community group could also be a majority (or 75%) of the property owners of the geographic area where the project will be located and those property owners within the notification area of the project pursuant to Section 2.080, Notice.

- b. The commercial energy facility will provide an identifiable benefit to property owners within the geographic area the community group represents; and (this could be power, money, or jobs if associated with a business)
- c. The community group shall notify all members within the geographic area of the community they represent and conduct a public meeting to solicit feedback regarding the proposed commercial energy development project prior to submitting a land use application. The applicant shall then include the notification list, agenda, and minutes of the meeting as part of the application.