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COMMERCIAL ENERGY FACILITIES**

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IDEAS TO FOLLOW UP ON

-Should we require pre-notice for STS applications to allow adjacent property owners the ability to comment on the proposed development in addition to the ability to appeal?

(We should determine what the STS standards are before we decide this.)

-The standards below are based on acreage. Should we include any requirements or limitations for properties which go through a less restrictive review process based on acreage but then later divide the property to an acreage which would have required them to go through a more restrictive process? Such as:

-Require the more restrictive process as a requirement of being able to divide the land.

-Require them to meet all of the property development standards (such as additional setbacks for towers) as a requirement of being able to divide the land. This could include the following. **(At meeting #5 we were leaning toward this and not making them go through another energy related review.)**

-Chapter 4 – Supplemental Provisions

Section 4.070 – General Exceptions to Building Height Requirements

Make appropriate changes to this section with regards to energy projects. Either reference specific uses or generally reference Chapter 19. Note: This section cites “Building Height Requirements” and not “Structural Height Requirements”. Either make it clear this is not applicable to structures or change the language to reference structural height requirements as well.

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.
- **Focus development in areas which minimize conflict with other permitted uses.**
- **Protect investments in property by ensuring that incompatible uses do not occur on adjacent properties.**

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? No, this should be subject to the overall development standard height restriction.**

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 including any attachments to the tower that are above the highest point on the tower structure. (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 wherever installed. - (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. Transmission, maintenance and operations centers, repair equipment storage, substations, etc.

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?)

Shouldn't this just be a specific type of met tower, rather than a separately defined term?

~~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

A. Overview of Review Processes - Non-commercial **energy projects** shall be reviewed pursuant to one of the following processes:

1. Ministerial Review: The proposed **use** must meet all property development standards as well & non-discretionary standards listed in **Section XXXX below**.

This review involves an evaluation by Planning and Development staff but only requires formal zoning approval if the use is required to meet building codes approval. If the use does not require formal zoning approval but that is requested by the applicant for future documentation they will be charged the appropriate ministerial review fee.

2. Subject to Standards Review: The proposed **use** must meet all property development standards, non-discretionary standards listed in **Section XXXX below**, as well as the discretionary standards listed in **Section XXXX below**.

3. Conditional Use Review: The proposed **use** must meet all property development standards, non-discretionary standards listed in **Section XXXX below**, the discretionary standards listed in **Section XXXX below** as well as Chapter 5 conditional use standards.

B. Tower Review Processes (Free Standing **including Meteorological Towers** or Roof Mounted)

Tower Height	Property Size			
	<2 Acres	2 - <5 Acres	5 - <10 Acres	>=10 Acres
<35' in height	*Ministerial	*Ministerial	Ministerial	Ministerial
35' - < 50' in height	STS	STS	Ministerial	Ministerial
50' - < 100' in height	CUP	STS	STS	STS
100' - < 200' in height	CUP	CUP	STS	STS
>=200' in height	CUP	CUP	CUP	CUP

*The 4th tower sited on the property shall elevate the review from a ministerial to an STS.

(Shearers Sprayers indicated that even though they fly as low as 12 feet they said 50' would be a trigger where they would like notification of new towers.)

C. Photovoltaic/Solar System Review Processes

System Size	Property Size				
	<2 Acres	2 - <5 Acres	5 - <10 Acres	10 - < 40 Acres	> = 40 Acres
Roof Mounted & < = 35' in height	Ministerial	Ministerial	Ministerial	Ministerial	Ministerial
*Roof Mounted & >35' in height	STS	STS	STS	Ministerial	Ministerial
**Ground Array <500 sq. ft.	Ministerial	Ministerial	Ministerial	Ministerial	Ministerial
**Ground Array 500 - <1,500 sq. ft.	STS	STS	STS	STS	Ministerial
**Ground Array >=1,500 sq. ft.	CUP	CUP	CUP	CUP	STS

*Roof mounted photovoltaic/solar Systems exceeding 35' in height shall be allowed without a variance pursuant to either Chapter 6 or 7.

**Ground Arrays are limited to 35' in height. Ground Arrays exceeding 35' in height will be required to apply for a variance pursuant to either Chapter 6 or 7.

Small (less than 10 square feet) photovoltaic/solar systems that are accessory to other uses including but not limited to gates, electric fences & lights are not subject to the standards of chapter 19. They shall be subject to the same standards and review process as the use to which they are accessory as outlined in the applicable zone.

Multiple panels, multiple arrays and supporting equipment providing energy to the same structure or use shall be considered one (1) system in determining the applicable review process. If a portion of the system is already installed and the applicant is creating an addition to the system, the applicable review process shall be based on the total size of the system.

-Current Rule of thumb is 100 square feet per kw of solar.

-NWPUD and Wasco Electric both limit net-metering at 25kw

-A typical residential consumer uses about 15,000 kwh during the year.

D. Hydroelectric Review Processes

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 Wasco County Planning and Development Department as long as they are being reviewed by the Oregon Department of Water Resources. (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 below but are subject to Section 3.740, Flood Hazard Overlay even if they are being reviewed by the Oregon Department of Water Resources.

E. Transmission

Not yet researched. Look at Umatilla County information. Any transmission associated with any use must meet all other listed or referenced standards. Even for exempt uses such as hydro.

F. Additional Non-Commercial Energy Development Review Processes

The review process for energy projects other than those listed below will be decided by the Planning Director based on an evaluation of the primary purpose of the zone, the size of the subject property and surrounding properties, the proposed location of the use and its potential impact to adjacent properties. Impacts include but are not limited to noise, vibration, smell, emissions, visibility, or physical footprint.

Section 19.XXX Non-Commercial Non-Discretionary Review Standards

A. General Standards: The following are applicable to all non-commercial energy facilities in addition to meeting the property development standards of the zone and any other listed or referenced standards.

1. Lawful Use - Power will be for a lawfully established use or use that is in the process of being reviewed by the Wasco County Planning Department.
2. Setback/Buffers - Unless otherwise specified, all uses shall meet the property line setbacks of the zone in which they are located, natural resource buffers, as well as any additional setbacks required below. (This duplicates the zoning information and may or may not be needed here.)
3. Height – Unless otherwise specified, all uses shall meet the height limits of the zone in which they are located. Height shall be measured from the average elevation of the finished grade to the top of the structure. (This is applicable to uses mounted on another structure. Compare this to Chapter 4.)

4. Color/Visibility – Energy Systems and their accessory electrical control equipment shall be either the stock color from the manufacturer or painted in a non-reflective, unobtrusive color that blends in with the surrounding environment unless otherwise required by the Federal Aviation Administration or Oregon State Aeronautics Division.
5. Interconnect Agreement (Net Metering Only) - The applicant shall provide an interconnect agreement (or submitted request) with a local utility. (Work with Wasco Electric and NWPUD to determine what is appropriate)
6. Closed System (Non-Commercial Stand Alone Only) - The applicant shall provide a plan or diagram that proves the proposal is a closed system and will not tie into a utility.
7. Health & Safety –
 - a. Any uses or structures that are dangerous will be designed and constructed to limit access.
 - b. Warning and safety signs, up to three square feet in area, are allowed unless further specified.
 - c. All ground mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
 - d. The manual electrical and/or overspeed shutdown disconnect switch(es) shall be clearly labeled.
 - d. Uses and structures shall be designed and constructed to not impair emergency response. (Is this discretionary? Should this be here or in Conditional Use? Is it already covered by Chapter 5?)
8. Advertising - No commercial or advertising markings shall be allowed except those of the manufacturer & installer.
9. Decommissioning/Removal - Any facility that is inoperable for more than 12 months shall be deemed discontinued. Removal of the equipment and facilities shall occur within six (6) months of the discontinuance time frame unless all or a portion of the equipment and facilities are converted to an approved use within this same time frame.
10. Other Authority - The applicant shall obtain all necessary local, state and federal authorizations/permits prior to constructing the use.

11. Noise - Manufacturer's sound level estimate shall not exceed 60 decibels, and operation of the system shall be in compliance with noise regulations established by the Oregon Department of Environmental Quality in OAR Chapter 340, Division 35. (This clarifies it will not exceed the decibel level from the source if based on manufacturer. What if it will exceed it from the source but not the property boundary? De we require an STS To prove it?)
12. Vibration: Vibrations shall not be produced which are humanly perceptible beyond the property on which the energy facility is located.
13. Communication Interference - Energy systems shall be designed, constructed and operated so as not interfere with communication systems such as, but not limited to, radio, telephone, television, satellite, microwave or emergency communication systems.
14. Maintenance: Energy systems must be kept and maintained in good repair and condition at all times and shall not pose a potential safety hazard.
15. Electrical Lines and Wires - All control wiring, grounding wires, power lines shall be placed underground within the boundary of each property at a depth designed to accommodate the existing land use to the maximum extent practicable as well as local, state, and federal electrical codes. (This is different than Chapter 10. See Transmission 101 document for clarification)

B. Specific Standards

1. Tower Standards –

a. Setbacks –

- (1) The base of the tower shall be set back from all property lines, public-rights-of-ways, and above ground public utility lines a distance equal to the height of the tower. The setback shall be measured to the center of the tower's base.
- (2) Towers shall be allowed closer to a property line, public-right-of-way, or above ground public utility line than the height of the tower without a variance if granted written permission from the property owner, road authority, or utility.

Notwithstanding receiving permission from an adjacent property owner, road authority or utility, towers shall still be required to meet the setback and buffer requirements of the zone in which they are located unless a variance is granted pursuant to either Chapter 6 or 7.

- (3) Any guys wires associated with a tower shall be require to meet the

property and buffer setbacks of the zone in which they are located.

b. Minimum Height – The lowest extension of any exposed blade or other exposed moving component shall be at least fifteen (15) feet above the ground (at the highest point of the grade level within fifty (50) feet of the base of the tower) and, in addition, at least fifteen (15) feet above any outdoor surfaces intended for human occupancy, such as balconies, that are located directly below the blade.

c. Safety –

(1) WECS shall be equipped with an automatic braking, governing or feathering system to prevent uncontrolled rotation, over-speeding and excessive pressure on the tower structure, rotor blades and other wind energy components unless the manufacturer certifies that a braking system is not necessary.

(2) Towers shall be equipped with lightning protection.

(3) The tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of 8 feet above the ground.

(4) "Danger" signs shall be posted at the height of five feet on the tower if it has a climbing apparatus.

~~(4) "No Trespassing" signs shall be attached to any perimeter fence at the base of tower or adjacent to the tower.~~ (With the danger sign requirement I don't think this is needed.)

d. Aircraft Safety - To ensure visibility of the towers to aircraft, the tower must comply with these precautions to be completed at the time of siting each tower over 100' tall or over 50' tall in an exclusive farm use zone or an area devoted to agriculture. (This may need to be parsed out between ministerial review, STS review, height of tower, size of property and agricultural use or not)

(1) All guy wires shall be sheathed in a bright orange or yellow color covering them from a height of three above ground to eight feet above ground.

(2) Place one 55-gallon barrel (or equivalent visible marker) painted Aviation Orange at each of the outermost guy wire anchors. (Maybe limit this to towers over 50' tall in a resource zone)

(3) Paint the top 30 feet of each tower with 5 foot bands of alternating colors of Aviation Orange and Aviation White. (At what height should this start

for towers less than 100'? Waiting to hear back from Oregon Aviation)

- h. Lighting - No lighting of towers is allowed except as required by the Federal Aviation Administration or other federal or state agency. If lighting is required it shall be shielded from the ground in a manner that prevents the lighting from projecting onto adjacent properties, roadways, waterways, as well as preventing the lighting from noticeably contrasting with the surrounding landscape. (This may need to be relocated to STS section if lighting is not required below 50')
 - i. Natural Resource Protections - Bird deflectors shall be placed on all guy wires to minimize the risk of collisions by birds and bats.
2. Photovoltaic/Solar Energy System Standards:
- a. Glare - Photovoltaic/Solar energy systems shall be located such that any glare is directed away from an adjoining property or roadway. (Should this be less than an all or nothing such as "significant glare" since the angle of the sun changes over the course of the day and by month?)
 - b. Solar Access Rights - The granting of a permit or the creation of a photovoltaic/solar energy system consistent with the requirements of this ordinance shall (not) constitute solar access rights. (We need to decide if we want to establish solar access rights or not. If so I need to include additional rules associated with this. If not we should include this language to be clear.)
 - c. Safety – Roof mounted solar panels shall be installed in a manner that maintains adequate fire department access to the roof, with an unobstructed path from the structures eaves to structure components located on roof (ie. Chimney, stove pipe, other room mounted appliances). Contact your local fire official for specific requirements and guidance. (Developed in Conjunction with Dan Hammel, MCFR Fire Marshal)
3. Transmission Standards: This is not needed because it will be limited to Private Utility Facility Service Lines which are covered by chapter 10. See Transmission 101 document for clarification.

Section 19.XXX Non-Commercial Discretionary Review Standards

- A. General Standards: The following are applicable to all non-commercial energy facilities in addition to meeting the property development standards of the zone and any other listed or referenced standards. (Evaluate non-discretionary review standards to see if any should be here instead.)

1. Noise – If they proposed to exceed noise threshold from the source but not the property they need to do a study to prove this.
2. Visual - ?
3. Smell - ?
4. Natural Resource Impacts - ?

B. Specific Standards:

1. Tower Standards: (May want to distinguish standards for all towers and WECS specific standards for easier Met tower review if that is included)

a. Visual Impact

(1) Shadowing/Flicker - WECS' shall be sited in a manner that does not result in significant shadowing or flicker impacts. The applicant has the burden of proving that this effect does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation. (Should this be here or in the STS section or not included at all?)

(2) Where available, towers shall be set against a visual backdrop that, because of color, texture or topography, helps the tower blend into its surrounding environment. (This probably won't be applicable in most circumstances and may conflict with the need to site a tower in a specific location)

(3) Compatibility - Do we want some other criterion relating to compatibility and impacting the character of the area? This is in the existing CUP criteria.

- b. Natural Resource - Do we limit lattice towers which attract birds to perch and can then be struck by one of the blades?

- c. Notice - Local Aerial Sprayers, the Oregon State Aeronautics Division & Federal Aviation Administration will be provided notice of the proposed tower prior to making a decision. (This won't be needed if we decide to do a pre-notice for all STS applications. This also may need to be distinguished if ODA doesn't want notice for towers 50' like Shearers Sprayers.)

2. Solar/Photovoltaic Standards:

- a. Height Exceeding 35'(roof mounted, or free standing subject to variance) will be visually compatible with the surrounding environment.

b. Scale of Project (Square Footage) Do we want some other criterion relating to compatibility and impacting the character of the area? This is in the existing CUP criteria.

c. Glare – Do we need any other standards beyond the non-discretionary?

3. Transmission Standards:

Section 19.XXXX Conditional Use Standards

Do we need or want to have any additional review criteria beyond what already existing in Chapter 5?

Transmission or

PROPERTY SIZES

Typical Residential Development Requirements

Septic Drainfield = 7,000 square feet
 House Foot Print = 3,500 square feet
 Well = 100 square feet (estimated)
 Driveway 25' long X 12' wide = 500 square feet
 Total = 11,100 square feet

Property Dimension & Square Footage Comparisons: Included are the full dimensions and square footage by acres as well as those dimensions reduced based on the average residential development included above.

Property Size	Property Dimensions	Available Dimensions	Property Square Footage	Available Square Footage
½ Acre	147' x 147'	103' X 103'	21,780	10,680
1 Acre	209' x 209'	180' X 180'	43,560	32,460
2 Acres	295' X 295'	275 X 275	87,120	76,020
5 Acres	466' X 466'	454' X 454'	217,800	206,700
10 Acres	660' X 660'	651' X 651'	435,600	424,500
80 Acres	1,866' X 1,866'	1,863' X 1,863'	3,484,800	3,473,700
160 Acres	2,640' X 2,640'	2,637' X 2,637'	6,969,600	6,958,500

OTHER APPLICABLE ORDINANCE CRITERIA

Chapter 3 – Overlay Zones

- 3.740 – Flood Hazard Overlay
 - 3.750 – Geologic Hazards Overlay
 - 3.760 – Airport Impact Overlay
 - 3.770 – Cultural & Historic Overlay
 - 3.800 – Aggregate Overlay
 - 3.910 – Natural Areas (Wild & Scenic Rivers)
 - 3.920 – Sensitive Wildlife Habitat (Big Game Winter Range)
 - 3.960 – Sensitive Bird Sites
 - 3.970 – Western Pond Turtle Habitat Overlay
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Chapter 5 - Conditional Use Review

SECTION 5.020 Authorization to Grant or Deny Conditional Uses, and Standards and Criteria Used

- A. The proposal is consistent with the goals and objectives of the Comprehensive Plan and implementing Ordinances of the County.
- B. Taking into account location, size, design and operational characteristics of the proposed use, the proposal is compatible with the surrounding area and development of abutting properties by outright permitted uses.
- C. The proposed use will not exceed or significantly burden public facilities and services available to the area, including, but not limited to: roads, fire and police protection, sewer and water facilities, telephone and electrical service, or solid waste disposal facilities.
- D. The proposed use will not unduly impair traffic flow or safety in the area.
- E. The effects of noise, dust and odor will be minimized during all phases of development and operation for the protection of adjoining properties.
- F. The proposed use will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along streambanks and will not subject areas to excessive soil erosion.
- G. The proposed use will not adversely affect the air, water, or land resource quality of the area.

- H. The location and design of the site and structures for the proposed use will not significantly detract from the visual character of the area.
- I. The proposal will preserve areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community.
- J. The proposed use will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to or available for farm and forest use. (Revised 1-92)
- K. The proposed use will not force a significant change in accepted farm or forest practices on surrounding lands devoted to or available for farm or forest use. (Revised 1-92)

SECTION 5.040 Revocation of Conditional Use Permit (added 2-89)

Noncompliance with any condition placed on a conditional use permit shall be grounds for revocation of the permit. Revocation of a conditional use permit shall be considered a land use action and reviewed by the Planning Commission. The following procedures shall be completed at least twenty (20) days prior to the date of the revocation hearing: (Revised 1-92)

- A. A notice of violation pursuant to Section 15.090 shall be sent to the owner of the property on which the conditional use takes place.
- B. Notice of public hearing pursuant to Section 2.080 shall be sent.

The opportunity for review of the Planning Commission decision, pursuant to Section 2.170 shall be available.

Chapter 20 Site Plan Review Applicable Sections

SECTION 20.030 Contents of the Site Plan

SECTION 20.040 Approval Standards

SECTION 20.050 Off-Street Parking

SECTION 20.055 BICYCLE PARKING REQUIREMENTS

SECTION 20.060 Public Parking Area

SECTION 20.070 Off-Street Loading

SECTION 20.080 General Provisions - Off-Street Parking and Loading