

SECTION 19.030 Commercial Power Generating Facilities Review Processes & Approval Standards

**LAST UPDATED 4 August 2010
Meeting #10**

A. Review Processes – Commercial Generating Facilities & Related Uses (energy facilities) shall be reviewed pursuant to the following. Where standards are less restrictive than comparative standards in other sections, the more restrictive shall govern.

1. Review Authority:

a. Planning Commission - Unless otherwise specified all energy facilities reviewed pursuant to this section shall be initially heard and decided upon by the Planning Commission in a public hearing.

b. Planning Department

(1) Small Scale Commercial Power Generating Facilities - A commercial power generating facility shall be considered small scale if it falls within either the tower or solar matrix listed in Section 19.020, Non-Commercial Energy Facilities and shall be reviewed by the Planning pursuant to the standards of Section 19.020 and not this section.

For non-resource zones solar arrays shall be limited to $\frac{1}{4}$ acre and towers to no more than 150' in height and no more than 4 towers per property. For resource zones solar arrays shall be limited to $\frac{1}{2}$ acre and towers to under 250' in height and no more than 4 towers per property. Beyond these limits the energy facility will not be considered small scale and will only be allowed pursuant to the standards in this section.

(2) Community Projects – Locally owned renewable projects of 10MW or less shall be initially heard and decided upon by the Planning Department.

(3) Post EFSC Review - Pursuant to ORS 469.401, after issuance of a site certificate by EFSC pursuant to subsection c. below, and subject to receiving the proper fees, Planning Staff 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 proceeding (Type I review).

(4) Hydroelectric Energy Facilities - See subsection d. below.

c. EFSC

- (1) EFSC has regulatory authority over all energy facilities 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. (Do we want to define the county's process anymore? If yes should that be appealable? This is not required pursuant to ORS 46.504. We made this process public for the UPC application due to citizen concerns over the project but we did not do this with Summit Ridge. EFSC gives the county's rules deference with regards to this. How much should we include the public in this process?)
 - (2) An applicant can elect to have EFSC review their energy facility 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 facility to EFSC notwithstanding it is less than the threshold designated by ORS 469.300 (Legal?).
- d. OWRD - Hydroelectric Energy Facilities
- (1) Not Located within an Area of Special Flood Hazard - Hydroelectric energy facilities 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. OWRD confirmed the proposed language is acceptable to them.)
 - (2) Located within an Area of Special Flood Hazard - Hydroelectric energy facilities 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 a Section 3.740, Flood Hazard Overlay review by the Planning Department 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.
2. 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 defers completion of one or more required discretionary elements such as the wildlife plan and all of its required baseline studies.

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 six years to begin construction from the date of the initial approval?).

The deferred discretionary items or plans will be the only items reviewed and decided upon during the final approval hearing.

3. Modifications – Energy facility requirements shall be facility specific, but can be amended as long as the facility does not exceed the boundaries of the Wasco County conditional use permit where the original facility was constructed.

An amendment to the conditional use permit shall be required if the proposed facility changes would:

- a. Require an expansion of the established facility boundaries;
- b. Increase the number of towers;
- c. Increase generator output by more than 25 percent relative to the generation capacity authorized by the initial permit due to the repowering or upgrading of power generation capacity.

No amendment would be required if an expansion of power-generating capacity is due to technology upgrades installed within the existing boundaries of the established Wind Power Generation Facility. Notification by the facility owner/operator to the Wasco County Planning Department of changes not requiring an amendment are encouraged, but not required. An amendment to a Site Certificate issued by EFSC will be governed by the rules for amendments established by EFSC.

B. Non-Resource Zone Standards

1. Small Scale Commercial Energy Facilities - Pursuant to Subsection A(1)(b)(1) above, commercial energy facilities that are considered small scale will be allowed on non-resource zones subject to the standards of Section 19.020.

2. Large Scale Commercial Energy Facilities - Except for related or supporting facilities, large scale commercial energy facilities shall not be allowed on non-resource zones.
3. Related or Supporting Facilities (Reasonable Alternatives Analysis) - If any 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 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. The related or supporting facilities will be consistent in size scale and impact as other existing or allowed developments in the non-resource zone;
 - b. Technical and engineering feasibility of siting the energy facility as a whole;
 - c. Availability of existing rights-of ways and public roads and proximity to transmission lines and interconnections;
 - d. Environmental impacts associated with avoiding non-resource zoned land; and
 - e. Protection of farm and forest resources.

C. General Standards - The following standards apply to all energy facilities in addition to meeting the Conditional Use Standards listed in Chapter 5:

1. Air Safety - All structures that are more than 200 feet above grade or, exceed airport imaginary surfaces as defined in OAR Chapter 738, Division 70, shall comply with the air hazard rules of the Oregon Department of Aviation and/or Federal Aviation Administration. The applicant shall notify the Department of Aviation and the Federal Aviation Administration of the proposed facility and shall promptly notify the County of the responses from the Oregon Department of Aviation and/or Federal Aviation Administration.

Aerial Sprayers and operators who have requested to be notified will receive all notifications associated with the energy facility as required by Chapter 2, Development Approval Procedures.

2. Interference with Communications - Energy facilities shall be designed, constructed and operated so as to avoid any material signal interference with communication systems such as, but not limited to, radio, telephone, television, satellite, microwave or emergency communication systems. Should any material interference occur, the applicant must develop and implement a mitigation plan in consultation with the County.

3. Noise - Energy facilities shall comply with the noise regulations in OAR Chapter 340, Division 35. The applicant may be required to submit a qualified expert's analysis and written report. (If after a wind turbine has been installed it does not comply with the noise standard, mitigation can occur to still allow the tower to remain and meet the standards. This can be done by programming it to change the cut in/start up speed so the noise from the blades is mitigation by the noise from the wind.)
4. Visual Impact - The applicant has reduced the visual impact of construction and operation of the energy facility to the extent practical by methods that may include, but are not limited to, the following:
 - a. The proposed energy facility is not within a formally-designated state or federal scenic area, scenic byway, scenic corridor, scenic waterway or significant visual resources listed in the Comprehensive Plan;
 - b. Building the energy facility near the edge of contiguous timber areas or using the natural topography to obscure the project;
 - c. Using materials and colors that blend with the background unless otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation; and
 - d. Retaining or planting vegetation to obscure views of the energy project.
5. Natural Resource/Wildlife Protection - The energy facility has been designed and will be constructed and operated without significant adverse impact to natural resources identified in the Wasco County Comprehensive Plan, Wasco County Land Use and Development Ordinance or by any local, state or federal wildlife agency. The applicant agrees to implement monitoring and mitigation actions that Wasco County determines appropriate after consultation with the Oregon Department of Fish and Wildlife, or other local, state or federal wildlife agencies. Measures to reduce significant impact may include, but are not limited to, the following:
 - a. Providing information pertaining to the energy facility's potential impacts on:
 1. Wildlife (all potential species of reasonable concern);
 2. Wildlife Habitat;
 3. Endangered Plants; and
 4. Wetlands & Other Water Resources.
 - b. Conducting biologically appropriate baseline surveys in the areas affected by the proposed energy facility to determine natural resources present and patterns of habitat use.

- c. Selecting locations to reduce the likelihood of significant adverse impacts on natural resources based on expert analysis of baseline data.
 - d. Utilizing towers designed to reduce horizontal surfaces for perching.
 - e. Utilizing towers designed so the foundation and support structures avoid the creation of artificial habitat or shelter for raptor prey.
 - f. Controlling weeds to avoid the creation of artificial habitat suitable for raptor prey such as spreading gravel on turbine pad.
 - g. Using anti-perching protection devices on transmission line support structures and appropriate spacing of conductors.
 - h. Avoiding construction activities near raptor nesting locations during sensitive breeding periods and using appropriate no construction buffers around known nest sites.
 - i. Using suitable methods such as coloration or sound producing devices to discourage birds from entering areas of concentrated solar energy near solar-thermal mirrors or other devices that concentrate solar radiation.
 - j. Locating transmission lines or electrical lines associated with the facility at least 50 feet from the edge of the nearest wetland or water body.
 - k. Separating transmission lines or electrical lines associated with the facility from the nearest wetland or water body by topography or substantial vegetation.
 - l. Locating transmission lines or electrical lines associated with the project parallel to the prevailing winds to the extent practical.
 - m. Developing a plan for post-construction monitoring of the facility site using appropriate survey protocols to measure the impact of the project on identified natural resources in the area.
6. Protection of Historical and Cultural Resources – The applicant shall complete a cultural resources survey of areas where there will be temporary or permanent disturbance. During construction, the applicant shall flag and avoid cultural resources and monitor construction activities to ensure that all cultural resources are avoided. The applicant shall develop an inadvertent discovery plan (IDP) that must outline the procedures to be followed in the case previously undiscovered archeological, historical or cultural artifacts are encountered during construction or operation of the energy project, in compliance with ORS 358.905-358.955 and any other applicable local, state and federal law.

7. Fire Protection & Emergency Response - The applicant shall develop and implement a fire protection and emergency response plan in consultation with the applicable fire district or department and/or land management agency to minimize the risk of fire and respond appropriately to any fire or emergency that occurs onsite for all phases of the life of the facility. In developing the plan the applicant shall take into account, among other things, the terrain, dry nature of the region, address risks on a seasonal basis, and identify the locations of fire extinguishers, nearby hospitals, telephone numbers for emergency responders, and first aid techniques.
8. Public Safety: The applicant shall develop and implement a public safety plan to prevent public access to hazardous areas.
9. Transportation Plan – The applicant shall develop a Transportation Plan in consultation with the Wasco County Road Department and/or the Oregon Department of Transportation (ODOT). The plan shall be consistent with any applicable requirements from the Wasco County Transportation System Plan and also address:
 - a. The size, number, and location of vehicle access points off of public roads;
 - b. Use of existing roads to the extent practical to minimize new access roads; and
 - c. Restoring the natural grade and revegetating all temporary road cuts, used during construction of the energy facility. The applicant shall specify the type and amount of native seed or plants used to revegetate the disturbed areas and a timeline to complete this work.
10. Road Use Agreement – Where applicable, the applicant agrees to enter into a Road Use Agreement with Wasco County to set out the terms of use for the applicant’s operation and any maintenance, repair or improvements to the county road rights-of way necessitate by the applicant’s operation.
11. Onsite Access Roads and Staging Areas – The applicant shall limit the impact of onsite access roads and staging areas by:
 - a. Constructing and maintaining onsite access roads for all-weather use to assure adequate, safe and efficient emergency vehicle and maintenance vehicle access to the site;
 - b. Using existing onsite access roads to the extent practical and avoiding construction of on-site access roads as much as possible; and
 - c. Restoring the natural grade and revegetating all temporary access roads, road cuts, equipment staging areas and field office sites used during

construction of the energy facility. The applicant shall specify the type and amount of native seed or plants used to revegetate the disturbed areas and a timeline to complete this work.

12. Dust Control - The applicant agrees to construct all non-paved temporary or permanent on-site roads and staging areas using compacted baserock and gravel. During the site development and construction, the applicant must regularly water roads and staging areas as necessary or apply an approved dust suppression agent such as Earthbind 100 to minimize dust and wind erosion.
13. Erosion and Sediment Control - The applicant shall conduct ground disturbing activities in compliance with a National Pollutant Discharge Elimination System (NPDES) permit as may be required by Oregon Department of Environmental Quality. Prior to construction, the applicant must have an NPDES permit and a Wasco County Soil and Water Conservation District approved erosion and sediment control plan. The plan must include best management practices for erosion control during construction and operation and permanent drainage and erosion control measures to prevent damage to local roads or adjacent areas and to minimize sediment run-off into waterways.
14. Weed Control - The applicant shall develop and implement a plan for weed control during construction and operation of the energy facility. The plan shall be developed in consultation with the Wasco County Weed Department.
15. Signs - The applicant shall not erect outdoor displays, signs or billboards within the energy facility site, except:
 - a. Signs required for public or employee safety or otherwise required by law; and
 - b. No more than two signs relating to the name and operation of the energy project of a size and type to identify the property for potential visitors to the site, but not to advertise the product. i.e. for public safety, not for advertising purposes.
16. Undergrounding Systems - Where reasonably practicable, power collector and communication systems shall be installed underground, at a minimum depth of 3 feet. Shallower depths may be authorized where notification and safety measures are taken and wires are placed in schedule 40 conduit. Elsewhere the cable collector system shall be installed to prevent adverse impacts on agriculture operations and natural resources.
17. Operation & Maintenance Buildings - Required permanent maintenance/operations buildings shall be located on-site in the same zone as the primary facility, except that such a building may be constructed off-site if:
 - a. The building is designed and constructed generally consistent with the

character of similar buildings used in the surrounding area; and

- b. The building will be removed or converted to another approved use upon decommissioning of the Energy Facility consistent with the provisions of this section.

18. Coordination and Documentation - Prior to commencement of any construction, all other necessary permits shall be obtained, e.g. building permit, rural address, road approach, utility and other permits from the Wasco County Public Works Department, and/or from ODOT as well as any other applicable local, state or federal permits or approvals.

19. Socioeconomic Impact Assessment - A socioeconomic impact assessment of the energy facility, evaluating such factors as, but not limited to, the project's effects upon the social, economic, public service (including the utility in whose service territory the project is proposed to be located), cultural, visual, and recreational aspects of affected communities and/or individuals. These effects can be viewed as either positive or negative. In order to maximize potential benefits and to mitigate outcomes that are viewed as problematic, decision-makers need information about the socioeconomic impacts that are likely to occur. (This seems pretty broad and appears to summarize the overall review process and duplicate standards that are already proposed. Do we want to limit the scope of this such as evaluating the impacts to the utility whose service territory the project is proposed to be located?)

20. Termination and Decommissioning

- a. A description of actions the facility owner proposes to take to restore the site to a useful, non-hazardous condition, including options for post-dismantle or decommission land use, information on how impacts on fish, wildlife and the environment would be minimized during the dismantling or decommissioning process, and measures to protect the public against risk or danger resulting from post-decommissioning site conditions in compliance with the requirements of this section.
- b. A current detailed cost estimate, a comparison of that estimate with present funds set aside for dismantling or decommissioning, and a plan for assuring the availability of adequate funds for completion of dismantling or decommissioning. The cost estimate will be reviewed and be updated by the facility owner/operator on a 5 year basis.
- c. The applicant agrees to the following as conditions of the land use permit:
 - (1) If the applicant ceases operation of the energy facility or begins, but does not complete, construction of the project, the applicant shall restore the site according to a plan approved by Wasco County. The applicant shall submit a plan that ensures that the site will be restored to a useful, non-

hazardous condition without significant delay, including but not limited to the following:

- (a) Removal of aboveground and underground equipment, structures and foundations to a depth of at least three feet below grade (four feet if cropland). Underground equipment, structures and foundations need not be removed if they are at least three feet below grade and do not constitute a hazard or interfere with agricultural use or other resource uses of the land. Restoration of the surface grade and soil after removal of aboveground structures and equipment.
 - (b) Removal of graveled areas and access roads and restoration of surface grade and soil.
 - (c) Revegetation of restored soil areas with native seed mixes, plant species suitable to the area, consistent with Wasco County's weed control plan.
 - (d) For any part of the energy facility on leased property, the plan may incorporate agreements with the landowner regarding leaving access roads, fences, gates or buildings in place or regarding restoration of agricultural crops or forest resource land. Said landowner will be responsible for maintaining said facilities for purposes permitted under applicable zoning.
 - (e) The underground power collector and communication lines need not be removed if at a depth of three feet or greater. These cables can be abandoned in place if they are deemed not a hazard or interfering with agricultural use or other consistent resource uses of the land.
 - (f) The plan must provide for the protection of public health and safety and for protection of the environment and natural resources during site restoration.
 - (g) The plan must include a schedule for completion of site restoration work.
- (2) Before beginning construction of the energy facility, the applicant must submit in a form and amount satisfactory to Wasco County, assuring the availability of adequate irrevocably committed funds to restore the site to a useful, non-hazardous condition naming Wasco County and the landowner as beneficiary or payee. The form may include, but not be limited to posting a bond, issuing an irrevocable letter of credit, purchasing a paid up insurance policy, or by other means as may be proposed by the applicant and found acceptable by the County.

- (3) The amount of the bond or letter of credit or other such form of guarantee shall be adjusted for inflation using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast," or by any successor agency (the "Index"). The applicant shall increase the amount of the bond or letter of credit annually by the percentage increase in the Index and shall pro-rate the amount within the year to the date of retirement. If at any time the Index is no longer published, Wasco County shall select a comparable index for adjusting the amount. The amount of the bond or letter of credit account shall be prorated within the year to the date of decommissioning. (Is this criterion practical? What guarantee is there that someone will have the capacity to increase the LOC annually, for example?)
 - (4) The certificate holder shall describe the status of the bond or letter of credit in an annual report submitted to Wasco County.
 - (5) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the energy facility site.
 - (6) If any disputes arise between Wasco County and the landowner on the expenditure of any proceeds from the bond or the letter of credit, either party may request non-binding arbitration. Each party shall appoint an arbitrator, with the two arbitrators choosing a third. The arbitration shall proceed according to the Oregon statutes governing arbitration. The cost of the arbitration (excluding attorney fees) shall be shared equally by the parties.
21. Final Location - The actual latitude and longitude location or Oregon State Plane NAD83 HARN (international feet) coordinates of each turbine tower, power collector lines, communication lines and transmission lines, or pipelines shall be provided to the Wasco County GIS Department once commercial electrical production begins. Alternatively, this information could be provided in GIS layer consistent with the datum referenced above.

A. Annual Review

- a. Within 120 days after the end of each calendar year the facility owner/operator shall provide Wasco County an annual report including the following information:
 - (1) Facility Status - An overview of site conditions, the status of facilities under construction, and a summary of the operating experience of facilities that are in operation. In this section of the annual report, the permit holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during

the year and that had a significant adverse impact on the facility. (Is this really something we are interested in?)

- (2) Reliability and Efficiency of Power Production - For electric power plants, the plant availability and capacity factors for the reporting year. The permit holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems. (Is this really something we are interested in?)
- (3) Fuel Use - For thermal power plants: (A) The efficiency with which the power plant converts fuel into electric energy. If the fuel chargeable to power heat rate was evaluated when the facility was sited, the certificate holder shall calculate efficiency using the same formula and assumptions, but using actual data; and (B) The facility's annual hours of operation by fuel type and, every five years after beginning operation, a summary of the annual hours of operation by fuel type. (Is this really something we are interested in?)
- (4) Status of Surety Information - Documentation demonstrating that bonds or letters of credit as described in the permit are in full force and effect and will remain in full force and effect for the term of the next reporting period. (An annual report may not be necessary. There is already a reporting condition proposed in the decommissioning plan.)
- (5) Monitoring Report - A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with permit terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes. (An annual report may not be necessary if the monitoring specifics are included in any mitigation conditions such as wildlife or revegetation & restoration work.)
- (6) Compliance Report - A description of all instances of noncompliance with any permit condition. (Is this really something we are interested in?)
- (7) Facility Modification Report - A summary of changes to the facility that the permit holder has determined do not require a permit amendment. (We do not require this for other uses so I am not sure why we would require it for energy facilities. We put in a standard condition that an applicant cannot go beyond what was approved. If they do it is a violation.)
- (8) Nongenerating Facility Carbon Dioxide Emissions - For nongenerating facilities that emit carbon dioxide, a report of the annual fuel use by fuel

type and annual hours of operation of the carbon dioxide emitting equipment. (Is this really something we are interested in?)

- b. The annual report requirement may be discontinued or required at a less frequent schedule by the County. The reporting requirement and/or reporting schedule shall be reviewed, and possibly altered, at the request of the facility owner/operator.

D. Specific Standards - The following standards apply to specific types of energy facilities as described, in addition to the General Standards in Section D above.

1. Wind Energy Generation

- a. Visual Impact: To the extent practical, the proposed wind energy project has been designed to minimize visual impact upon open space and natural landscape by:

- (1) Using underground communication and power collector lines (transmission lines that connect each turbine to a substation);
- (2) Using turbine towers of uniform design, color and height;
- (3) Lighting - Using the minimum lighting necessary for safety and security purposes in addition to aviation warning lights required by federal or state law. To the extent possible, the lighting shall be shielded from the ground in a manner that prevents it from projecting onto adjacent properties, roadways, waterways, as well as preventing it from noticeably contrasting with the surrounding landscape;
- (4) Using existing roads to provide access to the site, or if new roads are needed, minimizing the amount of land used for new roads and locating roads to reduce visual impact and other adverse environmental impacts such as erosion;
- (5) Using existing substations, or if new substations are needed, minimizing the number of new substations; and

- (6) Shadow Flicker – Wind turbines shall be sited to minimize the adverse impact of shadow flicker to any existing dwellings on non-participating landowners property. (If a wind turbine does create an adverse shadow impact there are mitigation options. Computer models can determine the days and time of shadow flicker based on sun position and the turbine can be programmed to be non-operational during that period. A tree can also be planted near the house which would effectively screen the shadow flicker).

Towers shall be allowed to create an adverse shadow flicker impact to an existing dwelling on a non-participating landowner's property if granted written permission from the property owner. Said written permission shall be made part of the deed records of the non-participating landowner's property.

Additional Visual Options – The advisory group discussed the potential visual impact to local, state and federal scenic areas, waterways, corridors etc... The more widely known are the Columbia River Gorge National Scenic Area, the Deschutes Scenic Waterway, the John Day Scenic Waterway, and the White River Scenic Waterway. There was no consensus by the advisory group and it is anticipated there will be varied opinions about this issue when general notification is sent out and we begin the hearings process. The following represent several options on how to address this issue going from least subjective to most subjective.

Option 1 – Do not require visual impact analysis beyond existing scenic designated lands or buffers.

Subsection D(4) in the General Standards above states:

“The proposed energy facility is not within a formally-designated state or federal scenic area, scenic byway, scenic corridor, scenic waterway or significant visual resources listed in the Comprehensive Plan.”

If we do not add any more language in the Wind Energy Facility section or any other location it will be the finding/interpretation of Wasco County that as long as the facility is not located within any of these areas there is no visual impact. That will also be the finding/interpretation for the following Conditional Use standard as well:

“The location and design of the site and structures for the proposed use will not significantly detract from the visual character of the area.”

Option 2 – Create Visual Buffers beyond the existing designated boundaries or buffers. This could involve several different elements.

-Create one buffer distance for all designated areas or individual buffer distances based on some analysis of potential impact to the designated area.

-Do not allow any wind turbines within the additional buffer at all unless it can be shown they would be topographically screened from the designated area.

-Do not allow any wind turbines within the additional buffer unless based on a visual impact analysis unless it can be shown they would not detract from the visual character of the area. If it can be shown a wind tower would be topographically screened no additional visual impact analysis would be required for that tower.

-Beyond the additional buffers no additional visual impact analysis would be required.

Option 3 – Use standards more consistent with EFSC for Protected Areas & Scenic Resources

OAR- 345-022-0040 - Protected Areas

(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for a proposed facility located in the areas listed below. To issue a site certificate for a proposed facility located outside the areas listed below, the Council must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact to the areas listed below.

(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et seq. and areas recommended for designation as wilderness areas pursuant to 43 U.S.C. 1782

(h) *National recreation and scenic areas, including but not limited to Oregon Dunes National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon Cascades Recreation Area, and Columbia River Gorge National Scenic Area*

(i) *State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway*

(k) *Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed as potentials for designation;*

(o) *Bureau of Land Management areas of critical environmental concern, outstanding natural areas and research natural areas*

(p) *State wildlife areas and management areas identified in OAR chapter 635, division 8*

(2) *Notwithstanding section (1), the Council may issue a site certificate for a transmission line or a natural gas pipeline or for a facility located outside a protected area that includes a transmission line or natural gas or water pipeline as a related or supporting facility located in a protected area identified in section (1), if other alternative routes or sites have been studied and determined by the Council to have greater impacts. Notwithstanding section (1), the Council may issue a site certificate for surface facilities related to an underground gas storage reservoir that have pipelines and injection, withdrawal or monitoring wells and individual wellhead equipment and pumps located in a protected area, if other alternative routes or sites have been studied and determined by the Council to be unsuitable.*

(3) *The provisions of section (1) do not apply to transmission lines or natural gas pipelines routed within 500 feet of an existing utility right-of-way containing at least one transmission line with a voltage rating of 115 kilovolts or higher or*

containing at least one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of 125 psig.

OAR 345-022-0080 - Scenic Resources

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.

(2) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 (Certain Natural Gas Energy Facilities) without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

b. Public Safety: The applicant shall design, construct, and operate the wind energy facility to protect public safety by measures that may include, but are not limited to, the following:

(1) Installing the tower so at the closest point, the sweep of any exposed blade or other exposed moving component is at least 20 feet above the tallest existing or foreseeable obstruction to blade movement unless based on the proposed location and site specific circumstances, the tower will not represent a safety hazard; and

(2) Designing, constructing and operating the facility to exclude the public from close proximity to turbine blades and electrical equipment;

(3) Designing, constructing and operating the facility to protect against structural failure of the turbine tower or blades that could endanger the public safety and have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure; and

(4) Restricting public access to the interior of tubular turbine towers by installing locked access doors.

c. Setbacks

(1) Property Boundaries - Wind Turbines and all of their above-ground parts shall be set back from the property line of any abutting property by a distance that is at least 1.5 times the height of the wind turbine structure. If the wind energy project extends onto the abutting property neither the wind turbine setback nor the property line setbacks of the zone in which they are located are applicable.

Towers shall be allowed closer to a property line, public-right-of-way, or above ground public utility line than 1.5 times the height of the tower without a variance pursuant to either Chapter 6 or 7 if granted written permission from the property owner, road authority, or utility or an easement pursuant to ORS 105.900-915. Said written permission shall be made part of the deed records to any private property.

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

- (2) Natural Resources - Notwithstanding any other provision in this chapter, all wind turbines, their above ground parts and applicable related and accessory facilities shall meet all natural resource buffers unless a variance is granted pursuant to Chapter 6 or 7.
- (3) Dwellings - Wind turbines shall not be constructed closer to any non-participating landowners residence than 1.5 times the tower height or the distance required to meet the noise standard in Subsection D(3) above, whichever is greater.
- (2) Non-Resource Properties - Wind turbines shall be setback from all non-resource zoned property boundaries and the urban growth boundary or urban reserve area of any incorporated city a minimum of one (1) mile or the distance required to meet the noise standard in Subsection D(3) above, whichever is greater.
- (5) Related or Supporting Facilities - Except for linear facilities such as power collector lines and roads, all related or supporting facilities shall meet the property development setbacks of the zone in which they are located.
- (6) Downwind Properties - The establishment of a commercial wind energy facility consistent with the requirements of this ordinance shall not constitute wind access rights that are protected by this ordinance beyond the following setback requirement.

If a turbine 200' in height or taller has been previously placed on a downwind property that is not part of the project, the closest tower on the upwind property shall be set back fifteen rotor diameters from the downwind tower location unless it can be demonstrated that a lesser setback can protect the wind access for the downwind property tower.

2. Solar Energy Systems

- a. Ground Leveling - The applicant shall design and construct the solar energy facility to minimize ground leveling and to the extent reasonably practicable, limit ground leveling to those areas needed for effective solar energy collection.
- b. Misdirection of Solar Radiation - The applicant shall design, construct, and operate the solar energy facility to prevent the misdirection of concentrated solar radiation onto nearby properties, public roadways or other areas accessible to the public.
- c. Glare - The applicant shall design, construct and operate the solar energy facility such that any significant or prolonged glare is directed away from any nearby properties or public roadways.
- d. Cleaning Chemicals and Solvents - During operation of the solar energy facility, all chemicals or solvents used to clean solar panels or heliostats shall be low in volatile organic compounds and to the extent reasonably practicable, the permit holder shall use recyclable or biodegradable products.

3. Cogeneration

- a. The cogeneration facility would supply thermal energy to an existing or approved industrial or commercial use.
- b. Except as allowed in this section, an electric transmission line or natural gas or petroleum pipeline necessary for the cogeneration facility must be an upgrade to an existing transmission line or pipeline or must otherwise be constructed in an existing right-of way or utility easement. If the proposed electric transmission line or natural gas or petroleum product pipeline necessary for the proposed cogeneration project is not an upgrade to an existing transmission line or pipeline, the transmission line or pipeline must comply with the standards in **subsection 4 or 5 below**.

4. Electrical Transmission Facilities

- a. Use of Existing Routes/Co-Locating - The development uses available developed or approved road and utility rights-of-way, easements or transmission facilities 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.
- b. Adjacent to Existing Routes - To the extent practical, any part of the proposed transmission or distribution line outside an existing route would be adjacent to an existing public road or utility right-of way or easement and would not

increase the width of the clearing for the existing right-of-way or easement by more than [50] percent and not beyond a maximum width of [125] feet.

- c. New Routes - If all or part of the proposed transmission line is outside an existing route or not adjacent to an existing route, the permanent right-of-way for the new transmission line route would not exceed [50] feet in width, and:
 - (1) The proposed new route would serve an existing or proposed electric generation project that is not adjacent to an existing right-of-way or easement, or
 - (2) The proposed new route would result in less adverse energy, environmental, economic and social consequences than would result from using an existing route.
- d. Visual Effects - The facility considers visual effects by means including but not limited to the following:
 - (1) Avoiding ridgelines, scenic areas, unique or significant views and vistas, hilltops, or other high or visually prominent areas.
 - (2) 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.
 - (3) 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.
- e. In-Stream Towers - A transmission tower may be permitted in a Class I or II stream if it complies with (1) and (2) below.
 - (1) Adjoining towers and conductors cannot safely and economically support the transmission line(s) that span the stream without an in-stream tower.
 - (2) The transmission line cannot be safely and economically placed under the water or streambed.
- f. Setbacks to dwellings - New electrical transmission lines shall not be constructed closer than 500 feet to an existing dwelling without prior written approval of the owner, said written approval to be made part of the deed to that property.

5. Natural Gas or Petroleum Product Pipelines

- a. Use of Existing Routes - To the extent practical, the proposed pipeline would use developed or approved road and utility rights-of way or easements that can safely accommodate the proposed line.
- b. Adjacent to Existing Routes - To the extent practical, any part of to an existing public road or utility right-of-way or easement and would not increase the width of the clearing for the existing right-of way or easement by more than [50] percent and not beyond a maximum width of [75] feet.
- c. New Routes - If all of part of the proposed pipeline is outside an existing route or not adjacent to an existing route, the permanent right-of-way for the new transmission line route would not exceed [40] feet in width, and:
 - (1) The proposed new route would serve an existing or proposed electric generation project that is not adjacent to an existing right-of-way or easement, or
 - (2) The proposed new route would result in less adverse energy, environmental, economic and social consequences than would result from using an existing route.
- d. Stream crossings: If the proposed pipeline would cross a stream or river that is important habitat for a state or federally-listed threatened or endangered species, the applicant must use a crossing technique or method approved by the Oregon Department of Fish and Wildlife.