# Chapter 750 WIND POWER GENERATION FACILITIES

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### **750.01** Purpose.

Baker County recognizes valuable wind power resources are in rural areas. Development of these resources may provide jobs, may expand the local tax base and may keep energy dollars in the local area. Therefore, the purpose of this chapter is to clarify existing rules governing the siting and development of wind generators with the intention to address wind power renewable energy resource development.

#### 750.02 Definitions.

- A. Commercial Wind Power Generation Facility: Commercial wind power generation facilities consist of one or more wind turbine generators or other such devices and their related or supporting facilities, operated as a single wind power generation facility that has a combined generating capacity of greater than 10 MW of electric power from wind and are constructed, maintained, or operated as a contiguous group of devices. Related and supporting devices also include all roads exclusively used for the wind power operation and any other structure that takes land out of production.
- B. Community Wind Power Generation Facility: Community wind power generation facilities consist of one or

- more wind turbine generators or other such devices and their related or supporting facilities, operated as a single wind power generation facility that has a combined generating capacity of between greater than 100 kW through 10 MW of electric power from wind and are constructed, maintained, or operated as a contiguous group of devices. Related and supporting devices also include all roads exclusively used for the wind power operation and any other structure that takes land out of production.
- C. Residential Wind Power Generation Facility: An activity carried out using one or more wind turbine generators or other such devices operated as a single wind power generation facility that has a combined generating capacity of 5 kW or less and is 50 feet in height or less.
- D. Small Wind Power Generation Facility: Small Wind Power Generation Facilities consist of one or more wind turbine generators or other such devices operated as a single wind power generation facility that has a combined generating capacity of 100 kW or less.
- E. Wind Power Generation Tower: A freestanding support structure, designed and constructed to support wind power generation equipment.
- F. Total Height: the vertical distance from ground level to the tip of a wind generator blade when the tip is at its highest point.
- G. Wind Shadow: an area of still air created behind a wind turbine. It is typically a cone whose length across the

land is 7-10 times the diameter of the wind turbine rotor.

### 750.03 Designated Areas.

- A. Residential Wind Power Generation Facilities may be located in any zone. In residential zones listed under Chapter 510, only one wind turbine per residence (excluding temporary dwellings) is allowed.
- B. Small, Community and Commercial Wind Power Generation Facilities shall be located on property zoned EFU, T/G, or I.
- C. No portion of a Small, Community or Commercial facility shall be within 2000 feet of properties zoned for residential use or designated on the Comprehensive Land Use Plan Map as residential. (For clarification purposes of this section, EFU, T/G, and I zones are not considered zoned for residential use.) Furthermore, no portion of a Wind Power Generation Tower that is part of a Small, Community or Commercial Facility shall be located within 2000 feet of an existing dwelling, with the exception of a dwelling on the same parcel the facility will be located on if written permission from the landowner is submitted allowing the facility to be closer than 2000 feet to the dwelling.
- D. Excepting residential wind power generation facilities, all Wind Power Generation Towers shall have a setback of 1.5 times the total height of the tower from all existing dwellings, property lines, public roads, and utility lines not exclusive to the Wind Power Generation Facility.
- E. When the potential exists for adjacent landowners to develop their Small,

Community, or Commercial wind resource, the setback from the property line shall be a minimum of 1000 feet or 4 rotor diameters of the proposed Wind Turbine Generators, whichever is greater, in the direction of the prevailing wind, unless a variance is obtained. This shall be to control the effect of wind shadow on the adjacent landowner's right to develop.

- F. All wind power generation facilities are subject to the standards of this section, with the following exceptions:
- 1. Generation facilities located on lands wholly owned by any branch of the United States government.

### 750.04 Application Requirements.

- A. The following information shall be provided by the applicant as part of the application for Type III Residential or Small Wind Power Generation Facilities:
  - 1. A General Description of the proposed wind power generation facility, including:
    - a. A tentative construction schedule.
    - b. Legal description of the property on which the facility will be located.
    - c. The direction of the prevailing winds across the project area.
  - 2. Site Plans conforming to the requirements of Section 205.10(C)(2), also including:
    - a. The location, height and dimensions of all existing and proposed structures and fencing;
    - b. Adjacent roads:
    - c. Setbacks of all existing and proposed structures from property lines and a vicinity map

- showing adjacent properties, land uses, zoning, existing buildings and roadways within 1000 feet of the proposed facility.
- d. The location of any water bodies, waterways, wetlands, and drainage channels on the site.
- e. The location of and distance to residences and other noise sensitive properties that could be affected by noise generated by the proposed project.
- f. The location and distance to public or private airports or airstrips.
- 3. <u>Identification of potential conflicts</u>, if any, with:
- a. Other resource operations and practices on adjacent lands including wind power generation facilities on such adjacent lands; and
- b. Accepted farm or forest practices on surrounding resource land, including the nature and the extent of the impact of the proposed facility on the cost of such practices.
- 4. Covenant Not to Sue. A Covenant Not to Sue with regard to generally accepted farming practices shall be recorded with the County. Generally accepted farming practices shall be consistent with the definition of Farming Practices under ORS 30.930. The applicant shall covenant not to sue owners, operators, contractors, employees, or invitees of property zoned for farm use for generally accepted farming practices.
- 5. Socioeconomic Impact Assessment. A socioeconomic impact assessment of the facility shall be submitted, evaluating such factors as, but not limited to, the project's effects upon the social, economic, public service, cultural, visual, tourism, and recreational aspects

- of affected communities and/or individuals.
- 6. <u>Goal Exception</u>. A power generation facility shall not preclude more than ten acres from use as a commercial forest operation unless an exception is taken pursuant to OAR chapter 660, division 004. [OAR 660-006-0025 (4)(j)]
- B. The following information shall be provided by the applicant as part of the application for Commercial or Community Wind Power Generating Facilities:
- 1. <u>A General Description</u> of the proposed Commercial or Community Wind Power Generation Facility, including:
  - a. A tentative construction schedule.
  - b. Legal description of the property on which the facility will be located.
  - c. Demonstration of compliance with the provisions of Section 750.05.
  - d. The direction of the prevailing winds across the project area.
  - e. A revegetation plan for restoring all areas temporarily disturbed during construction.
  - f. A plan to protect and archeological, historical or cultural sites or artifacts found at the site.
  - g. A visual simulation of the project from key observation points.
  - h. An accurate graphic map of existing wind generation facilities within one mile of the property under consideration.
- 2. Site plans conforming to the requirements of Section 205.10(C)(2), also including:
  - a. The location, height and dimensions of all existing and proposed structures and fencing;

- b. Adjacent roads;
- c. Parking, circulation and access;
- d. Areas of existing and proposed vegetation to be added, retained, replaced or removed;
- e. Setbacks of all existing and proposed structures from property lines and a vicinity map showing adjacent properties, land uses, zoning and roadways within 500 feet of the proposed facility.
- f. The location of any water bodies, waterways, wetlands, and drainage channels on the site.
- g. The location of and distance to residences and other noise sensitive properties that could be affected by noise generated by the proposed project.
- h. The location and distance to public or private airports or airstrips.
- i. Location of all proposed overhead and underground transmission lines.
- j. Location of all proposed overhead and underground transmission lines.
- k. A visual simulation of the project from key observation points.
- An accurate graphic map of existing wind generation facilities within one mile of the property under consideration.
- 3. <u>Identification of potential conflicts</u>, if any, with:
- Other resource operations and practices on adjacent lands including wind power generation facilities on such adjacent lands; and
- b. Accepted farm or forest practices on surrounding resource land, including the nature and the extent of the impact of the proposed facility on the cost of such practices.
- 4. <u>Transportation Plan</u>. A plan that describes the impacts from the proposed facility on the local and regional road

- system during and after construction. plan shall be created consultation with Baker County Roadmaster. The plan will designate the size, number, location and nature of vehicle access points. The plan shall also include the location, grades and dimensions of all temporary and permanent on-site roads.
- 5. Wildlife Plan. Awildlife plan must be prepared for all wind power generation facilities with a capacity of 1 MW of electricity from wind or larger. A wildlife plan shall be designed by the applicant's wildlife professional and approved by the Baker County Planning Director. The plan shall be administered by the applicant's wildlife professional. For projects being sited by EFSC, EFSC's compliance with avian monitoring requirements will be deemed to meet this requirement. The plan must include:
  - a. Avian
  - b. Bat
  - c. Big game species
  - d. All other wildlife species of reasonable concern
  - e. Impacts to wildlife habitat
  - f. Habitat mitigation proposed
  - g. Monitoring plan, and proposed mitigation if necessary

The Oregon Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines or similar guidelines are recommended standards for wildlife studies.

6. Covenant Not to Sue. A Covenant Not to Sue with regard to generally accepted farming practices shall be recorded with the County. Generally accepted farming practices shall be consistent with the definition of Farming Practices under ORS 30.930. The applicant shall

covenant not to sue owners, operators, contractors, employees, or invitees of property zoned for farm use for generally accepted farming practices.

- 7. Fire Protection & Emergency Response Plan. A fire prevention and emergency response plan shall be provided for all phases of the life of the facility. The plan shall address the major concerns associated with the terrain, dry conditions, and limited access, and address the fire siting standards for the applicable zone.
- 8. Erosion Control Plan. An erosion control plan shall be provided. The plan shall be developed in consultation with the Baker County Planning Department. It shall include the seeding of all road cuts or related bare road areas as a result of all construction. demolition rehabilitation with an appropriate mix of native vegetation or vegetation suited to the area. This requirement will be satisfied if the applicant has an NPDES Pollution (National Discharge Elimination System) permit.
- 9. Weed Control Plan. A weed control plan shall be presented, addressing the prevention and control of all Baker County identified noxious weeds directly resulting from the Wind Power Generation Facility during preparation, construction, operation and demolition/rehabilitation, subject to the Baker County Weed Department's recommendation.
- 10. Socioeconomic Impact Assessment. A socioeconomic impact assessment of the facility shall be submitted, evaluating such factors as, but not limited to, the project's effects upon the social, economic, public service, cultural, visual, tourism, and recreational aspects

- of affected communities and/or individuals.
- 11. <u>Goal Exception</u>. A power generation facility shall not preclude more than ten acres from use as a commercial forest operation unless an exception is taken pursuant to OAR chapter 660, division 004. [OAR 660-006-0025 (4)(j)]

#### 12. Analysis of impacts on:

- a. Wetlands;
- b. Criminal Activity (vandalism, theft, trespass, etc.) and proposed actions, if any to avoid, minimize or mitigate negative impacts.
- 13. <u>Decommissioning</u> <u>Plan.</u> A decommissioning plan shall be presented including all components of the Commercial or Community Wind Power Generation Facility, submitted by the landowner(s), subject to the requirements of 750.07 of this section.
- 14. All information submitted as required by this section shall be reviewed by the Planning Department and all other appropriate agencies. All agencies shall be given 21 days to reply or comment on the completed application. At such time as all agencies have responded or when the time limit has expired, the completed application and all replies or comments on the application shall be summarized transmitted to the **Planning** Commission and the applicant. This information shall become a part of the record of the public hearing on the proposed Wind Power Generation Facility.

#### 750.05 Construction Standards.

A. Prior to commencement of any construction, all other necessary permits shall be obtained, e.g., building permit,

rural address, road access and any other permits from the Building Official, Baker County Road Department and/or from the Oregon Department of Transportation, among others.

- B. The following construction standards shall apply to all new or replacement wind generation facilities.
- 1. A Wind Power Generation Facility shall comply with the Specific Safety Standards for Wind Facilities delineated in OAR 345-024-0010 (as adopted at the time of application).
  - a. No lighting of wind power generation towers is allowed under normal operating conditions, except as required by the Federal Aviation Administration, Oregon Department of Aviation, or as a condition of approval by the Planning Commission. If lighting is required, the most technologically advanced devices, including shielding and Wind Turbine Collision Avoidance Systems, shall be used to eliminate lighting under night normal operating conditions.
- 2. Based on the existing conditions and vegetation at the proposed site, the wind generation facility shall be constructed or surfaced with materials to reduce visibility of the facility by the use of non-reflective materials that minimize glare and blend the structure into the surrounding environment.
- 3. Any and all associated equipment located on the structure shall be surfaced in a non-reflective material color to match the structure on which it is located. Nothing in this paragraph preempts the coloring requirements of

- the Federal Aviation Administration or the Oregon Department of Aviation.
- 4. Warning and safety signs, up to three square feet in area, are allowed. All other signs are prohibited.
- 5. The turbine towers shall be designed and constructed to discourage bird nesting and wildlife attraction.
- 3. The wind turbine generators shall be designed to minimize noise or other detrimental effects.
- 4. Reasonable efforts shall be taken to protect and to preserve existing trees, vegetation, water resources, or other significant natural resources.

#### 750.06 Amendments.

- A. The Wind Power Generation Facility requirements shall be facility specific, but can be amended as long as the facility does not exceed the boundaries of the Baker County conditional use permit where the original facility was constructed.
- B. An amendment to the conditional use permit shall be required if proposed facility changes would:
- 1. Increase the land area taken out of agricultural production by an additional 20 acres;
- 2. Increase the land area taken out of agricultural production sufficiently to trigger taking a Goal 3 exception;
- 3. Require an expansion of the established facility boundaries;
- 4. Increase the number of towers:

5. Increase generator output by more than 10 percent relative to the generation capacity authorized by the initial permit due to the re-powering or upgrading of power generation capacity. Notification by the facility owner/operator to the Baker County Planning Department of changes not requiring an amendment are required. An amendment to a Site Certificate issued by EFSC will be governed by the rules for amendment established by EFSC.

### 750.07 Dismantling/Decommissioning.

The applicant's dismantling of uncompleted construction and/or decommissioning plan for a Commercial or Community Wind Power Generation Facility shall include the following information:

- A. dismantling and/or plan for decommissioning that provides for completion dismantling of decommissioning of the facility without significant delay and protects public health, safety and environment in compliance with the restoration requirements of this section.
- A description of actions the facility owner proposes to take to restore the to a useful. non-hazardous condition, including options for postdismantle 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 postdecommissioning site conditions in compliance with the requirements of this section.

- C. Restoration of the site shall consist of the following:
- 1. Dismantle turbines, towers, padmounted transformers, meteorological towers and related aboveground equipment. All concrete turbine pads shall be removed to a depth of at least three feet below the surface grade.
- 2. The underground collection and communication cables need not be removed if at a depth of three feet or greater. These cables at a depth of three feet or greater can be abandoned in place if they are determined not to be a hazard or interfering with agricultural use or other consistent resources uses of the land.
- 3. Gravel shall be removed from areas surrounding turbine pads.
- 4. Access roads shall be removed by removing gravel and restoring the surface grade and soil.
- 5. After removal of the structures and roads, the area shall be graded as close as reasonably possible to its original contours and the soils shall be restored to a condition compatible with farm uses or consistent with other resource uses. Re-vegetation shall include planting by applicant of native plant seed mixes, planting by applicant of plant species suited to the area, or planting by landowner of agricultural crops, as appropriate, and shall be consistent with a weed control plan approved by Baker County.
- 6. Improvements may be left in place by modification of the decommissioning plan approved by the Planning Commission.

#### 750.08 Abandonment.

- A. Determination of abandonment will be made by the Director, who shall have the right to demand documentation from the facility owner or agent regarding facility use.
- B. Upon determination of abandonment, the facility owner shall have one year to:
- 1. Reuse the facility or transfer the facility to another owner who will reuse it within 1 year of the determination of abandonment; or
- 2. Remove the facility.
- C. If the facility is not reused within one year of the determination of abandonment, county authorization for the use shall expire. Once authorization for the use has expired, the facility shall be removed from the property as per the requirements of Section 750.07 within 1 year. If the facility is not removed within 1 year, the county may remove the facility at the expense of the facility owner or agent, or, in the alternative, at the property owner's expense.