

PLANNING FOR LOCALLY-REGULATED ENERGY FACILITIES

**A Guidebook for Oregon Cities and Counties on Siting Wind, Solar and
Cogeneration Energy Facilities, Electric Power Transmission and Distribution Lines
and Natural Gas and Petroleum Pipelines**

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PLANNING FOR LOCALLY-REGULATED ENERGY FACILITIES

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I. INTRODUCTION

The Oregon Office of Energy has prepared this guidebook to encourage and facilitate consideration of energy planning needs at the city and county level. In cities and urban areas, the usefulness of this guidebook may be limited to the siting of power lines, pipelines and industrial cogeneration facilities. Most new locally-regulated electric generation facilities would be located in farm, forest or other rural zones. Therefore, this guidebook may be more useful at the county level in planning for future energy facility development.

In general, local regulation at a city or county level applies to energy facilities below a certain size or generating capacity. Large energy facilities, with some exceptions, are subject to review and permit approval by the Oregon Energy Facility Siting Council (“Siting Council”). The thresholds for Siting Council jurisdiction are determined by the Legislature and are defined in Oregon Revised Statutes (ORS) 469.300. The Siting Council has no jurisdiction over hydroelectric facilities. Instead, the Oregon Water Resources Commission has the authority to appropriate water and issue licenses for hydroelectric projects.

However, to say that local planning is limited to “small” energy facilities would be misleading. For example, some counties may need to plan for wind energy facilities with a capacity of up to 105 megawatts. These facilities consist of many large wind turbines spread over many acres of land. Moreover, even “small” energy facilities could potentially cause large adverse impacts.

Adoption of local land use ordinances for energy facilities is of value, even though the regulatory authority of cities and counties is limited. Both the Siting Council and the Water Resources Commission apply local land use ordinances in making siting decisions for “large” energy facilities. Thus, cities and counties have an opportunity to establish local public policy that will apply not just to locally-regulated facilities, but also to all energy facilities within the local area.

Cities and counties may face planning decisions for the following types of energy facilities:

- Thermal power or combustion turbine electric generation facilities having a nominal electric generating capacity of less than 25 megawatts.
- Electric generation facilities having a nominal electric generating capacity greater than 25 megawatts found to be exempt from Siting Council jurisdiction under ORS 469.320(2).
- Wind or solar electric generating facilities having a peak generating capacity of less than 105 megawatts.
- Geothermal electric generating facilities with a peak generating capacity of less than 38.8 megawatts.
- Electric transmission and distribution lines carrying less than 230 kilovolts.
- Electric transmission and distribution lines less than 10 miles in length.
- Natural gas or petroleum pipelines less than 16 inches in diameter.
- Natural gas or petroleum pipelines less than 5 miles in length.

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- Petroleum product pipelines less than 6 inches in diameter.
- Petroleum product pipelines less than 5 miles in length.
- Wind measurement devices.

Local planners should take a broad view of local energy resources. Energy “resources” may in this sense include not only energy-producing resources, such as wind, solar and water power, but also energy-related facilities or structures such as industrial thermal loads, transmission line and pipeline corridors and existing small power plants used in cogeneration or other on-site electricity generation.

The model energy facility siting ordinances discussion in Section II are the centerpiece of this guidebook. This guidebook focuses on cogeneration facilities, renewable energy facilities, transmission lines and pipelines. Although this guidebook includes “model” ordinance language, what is important is not the particular words but rather the ordinance concepts. Local governments and their planning agencies can adapt the model ordinance language to the style and format of existing local land use ordinances. They can use the concepts presented in this guidebook as a framework for discussion of public policies that suit local circumstances and address local energy resources.

In addition, the Office of Energy hopes this guidebook will also:

- Increase understanding of energy facility siting needs and issues common to Oregon cities and counties.
- Increase local regulatory options and local influence in the siting of large energy facilities through the Siting Council and Water Resources Commission.
- Increase understanding of federal and state laws and their relationships to local land use planning.
- Help cities and counties coordinate with federal and state agencies in the development of energy facilities.
- Promote city and county energy resource planning; and
- Increase the effectiveness of local land use regulations applicable to the siting of energy facilities.

II. MODEL ENERGY FACILITY SITING ORDINANCES

In this section, we discuss a model ordinance for locally-regulated energy facilities. In the subsections that follow, we will first discuss concepts and then provide model ordinance language to illustrate the concepts. Our comments describe the intent and rationale of the ordinances, note policy issues and describe options.

The concepts expressed in the model ordinances would likely fit into the conditional use or special use provisions of a city or county development code. However, some broader policy statements, such as those included in the “Energy Resource Policies” section, might belong more appropriately in the local government’s comprehensive plan. Matters of writing style, formatting and whether a concept “belongs” in an ordinance or in the comprehensive plan are matters best left to local authorities to decide. Our purpose is to engender discussion of some of the issues that may arise in planning for the development of energy facilities.

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1. Energy Resource Policies

A city or county may adopt policy statements as official expressions of intent concerning resource conservation and energy facility development. If adopted, these policies would guide and provide context for the more specific provisions of the planning code. In addition, energy resource policies provide guidance for state and federal authorities in the interpretation of the jurisdiction's energy facility siting ordinances.

A. Energy Resource Planning

1. The County/City recognizes the need for new energy resources to support the existing and future economy of the County/City. Energy resources include potential sites for generation of energy (hydropower, cogeneration, wind energy and solar energy) and transmission and distribution of electricity, natural gas and petroleum. The County/City shall inventory and protect energy resource sites to ensure their continued availability and productivity.
2. The County/City shall plan for the development of energy resource sites so that development occurs in a timely and orderly manner, with mitigation of any adverse environmental impacts that cannot be avoided.
3. The County/City shall coordinate its energy resource planning with utilities and independent developers and with state and federal agencies, including the Oregon Office of Energy, the Water Resources Commission, the Northwest Power Planning Council, Bonneville Power Administration, the Bureau of Land Management and the Forest Service.

B. Protecting Resource Sites

1. The County/City shall inventory and evaluate energy resources and energy facility sites. The County/City shall identify significant energy resource sites, as defined in Statewide Planning Goal 5. The County/City shall seek resource inventory data from appropriate public and private organizations in the course of revision of its comprehensive plan.
2. The County/City shall maintain an inventory of energy resources sites as a reference for comprehensive plan amendments, zone changes, conditional use permitting, partitioning and subdividing.
3. The County/City shall manage significant energy resource sited to preserve the continued availability and productivity of the site for energy.

C. Energy Facility Siting

1. The County/City shall require land use siting review for proposed energy facilities that are capable of generating electricity for public use by sale and that have a nameplate capacity of at least 50 kilowatts.
2. The County/City shall avoid duplicating the siting work of other governmental agencies to the extent the county standards or equivalent standards have been addressed by those agencies. During review of a proposed energy facility, the County/City may adopt the reports and findings of other government agencies.
3. The County/City shall be the lead coordinating agency in siting energy facilities according to all applicable laws, ordinances and regulations, except in siting energy facilities within the jurisdiction of the Oregon Energy Facility Siting Council, the Water Resources Commission or the federal government.
4. The County/City, where possible, shall apply its own siting standards through zoning and land development ordinances without conflicting with the applicable standards of other government agencies.

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2. Purpose

This ordinance section describes the need for energy facility regulation. It may refer to compliance with the local Comprehensive Plan and the Statewide Planning Goals. A “Purpose” section such as this is common to most land use ordinances.

D. Purpose

The regulatory standards in this section are intended to ensure timely, orderly and environmentally-sound development of energy facilities to meet county and regional energy and economic needs. These standards allow the County/City to protect the public health, safety and general welfare of its citizens. These standards comply with the comprehensive land use plan and with the Statewide Planning Goals.

3. Exempt Energy Facilities

A city or county might consider exemption of some small-scale energy facilities. Some facilities may be small enough and have such minimal environmental impacts that they should be exempt from the detailed standards and additional review steps required of other energy facilities. The exempt facilities are typically smaller energy producing facilities designed for individual property-owner, agricultural or business use rather than for commercial power generation.

The 50-kilowatt capacity limit in paragraph (1) is illustrative. A higher capacity limit may be appropriate depending on typical capacities of commercially-available small-scale turbines. The 200-foot height restriction in sections (1) and (2) reflect the aviation safety requirements for warning lights on structures 200-feet-tall or greater. The 400-square-foot photovoltaic panel size restriction in section (4) is illustrative. A larger or smaller area restriction may be appropriate depending on the typical panel sizes of commercially-available photovoltaic equipment.

Customer-owned, small energy generation facilities that are eligible for “net metering” would be exempt, even though some of their output may be distributed by the local utility company to other users. Oregon’s net metering law (ORS 757.300) applies to solar, wind, hydroelectric and fuel cell systems that have a generating capacity of 25 kilowatts or smaller. Net metering allows electricity to flow through a single meter to and from customers who generate their own power, which allows an offset of the electricity the customer uses. The utility credits the customer at the end of the billing period for the offsets at the full retail rate or, if the utility installs a second meter to measure generator output, at the avoided cost rate.

E. Energy Facilities Exempt from Review

The following energy facilities have minimal impact to land, air, water, wildlife, community service and cultural resources and are exempt from the standards and conditions in this Chapter/Section:

1. Individual wind turbines intended primarily for residential or agricultural use that have a generating capacity of less than 50 kilowatts and that are less than 200 feet in height. A single tax parcel may have more than one exempt wind turbine.
2. A wind measurement device that is less than 200 feet in height and intended for temporary use for a period not to exceed 18 months.
3. Photovoltaic panels that are mounted on the roof of residential, commercial or industrial structures and that generate power for that structure.

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4. Photovoltaic panels mounted on poles or the ground that do not exceed 400 square feet in area and that generate power for an adjacent residential, commercial or industrial use.

4. Covered Energy Facilities

The city or county ordinances may list the types and size of energy facilities subject to local development standards and permitting. ORS 469.300 establishes the jurisdictional thresholds for the state Siting Council permitting process. The descriptions in this section are energy facilities that are below the Siting Council threshold. Note that the Legislature may revise Siting Council jurisdiction in the future. The city or county may need to revise the ordinance from time to time to conform to statutory changes. References to the statutes shown below could be omitted from the city or county ordinance. We include the statutory references to provide background information. Hydroelectric facilities are not included because the Oregon Water Resources Department and Water Resources Commission have essentially complete review and approval authority over hydroelectric projects. The heading of this section could cross-reference applicable sections of the planning code.

F. Energy Facilities Subject to Sections G through I

The review and approval standards in Sections G through I apply to the following types of energy facilities, except for facilities exempt from review under Section E:

1. Thermal power or combustion turbine electric power generating plant with a nominal electric generating capacity of less than 25 megawatts. [ORS 469.300(10)(a)(A)]
2. Electric generation facilities having a nominal electric generating capacity greater than 25 megawatts found to be exempt from Oregon Energy Facility Siting Council jurisdiction under ORS 469.320(2).
3. A wind energy facility with a nominal electric generating capacity of less than 105 megawatts. [ORS 469.300(5) and 469.300(10)(a)(J)]
4. A solar energy facility with a nominal electric generating capacity of less than 105 megawatts. [ORS 469.300(5) and 469.300(10)(a)(J)]
5. A geothermal electric generating with a nominal electric generating capacity of less than 38.85 megawatts. [ORS 469.300(5) and 469.300(10)(a)(J)]
6. Electric transmission and distribution lines carrying less than 230 kilovolts or less than 10 miles in length. [ORS 469.300(10)(a)(C)]
7. Natural gas or petroleum pipelines of less than 16 inch diameter or less than 5 miles in length [ORS 469.300(10)(a)(E)(ii)].
8. Wind measurement devices more than 200 feet in height or intended to be used for more than 18 months.

5. General Standards

In general, the planning approach of the model ordinance assumes that local governments would review energy facilities to assess potential conflicts or impacts and to establish site-specific conditions, rather than allow the use outright in a zone. However, the local government may want to allow some types of energy facilities in some zones or may want to prohibit some types of energy facilities in some zones.

“General Standards” adopted by a city or county would apply to all locally-regulated energy facilities described in the model ordinance or in the local code. These standards cover typical concerns that a local planning office and citizens will have about energy facilities. These

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standards must be satisfied in order for the city or county to approve any proposed energy facility. In addition, certain types of energy facilities must comply with the “Specific Standards” in Section H of the model ordinance.

G. General Standards for Energy Facilities

The following standards apply to review and approval of all types of all types of energy facilities listed in Section F. The applicant for a Conditional Use/Special Use permit must demonstrate that these standards are met.

To issue a Conditional Use/Special Use permit, the planning authority must find that:

[Subsections G.1 through G.21 would follow this introductory phrase. The subsections are described separately below.]

(a) Comprehensive Plan

Paragraph (a) of this standard is for a facility proposed to be located in an area that the local government has determined appropriate for energy facilities, based on an inventory and evaluation. Paragraph (b) of the standard provides an alternative if the adopted comprehensive plan does not designate specific areas where energy facilities can be sited or if an inventory of suitable sites has not been completed and adopted. Paragraph (b) is not intended to allow energy facilities in areas where the comprehensive plan specifically prohibits such use.

G.1. Comprehensive Plan

The site of the proposed facility:

- a) Is in an area that the comprehensive land use plan designates as suitable for an energy facility of the size and type proposed, or
- b) Complies with other applicable policies of the local comprehensive plan and with the Statewide Planning Goals.

(b) Federal and State Land

Except in limited circumstances, energy facilities are prohibited in federal and state “protected areas” or on special resource lands such as parks, wildlife refuges, scenic areas, research areas and similar areas. Rather than burdening the local planning office with the decision of whether a proposed site on federal or state land is appropriate, the model ordinance requires the responsible management agency to sign the permit application. This puts the burden on the appropriate federal or state agency to decide if the proposed energy facility should be sited on lands the agency administers.

G.2. Federal and State Land

The proposed site of the facility is not on federal or state protected lands or special resource areas. If the facility is proposed for national or state protected lands or special resources areas, the applicant must provide written documentation from the federal or state agency or agencies responsible for management of the proposed site and surrounding area that either:

- a) The agency responsible for managing the land has reviewed the proposed facility, and the agency, by signing the permit application as “land owner,” has authorized the facility developer to proceed, or
- b) The proposed facility is an accessory facility to an existing permitted use on the federal or state land, and the responsible agency will permit a change or addition to the existing use.

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(c) Coordination and Documentation

A developer of an energy facility will need various state or federal permits, licenses, or authorizations that cover conditions or concerns that are beyond scope of local planning. This section requires the applicant to submit documentation of applications and approvals at the time the local land use application is made or within 30 days thereafter. The information in such state and federal applications could address local issues that are also addressed in the local energy facility ordinances. Requiring submittal of the documents at the beginning of the local review will help local government conduct a timely review.

If the applicant cannot submit all the needed documentation within 30 days of making the local application, then the city or county should ask the applicant to request an extension to the respective 120-day (ORS 227.178) or 150-day (ORS 215.427) timeline to act on a land use application.

G.3. Coordination and Documentation.

The applicant has provided the county with copies of all state and federal permits and licenses, all applications for state and federal permits and licenses, documentation of biological opinions, records of decision, memoranda of understanding, exemptions, variances and other similar authorizations or approvals related to the construction or licensing of the facility or to any significant change to the facility. The applicant shall provide copies of these documents when submitting County Conditional Use/Special Use application or within 30 days after the application submittal date.

(d) Exclusive Farm Use land

The state's exclusive farm use (EFU) zoning laws (ORS 215.203 *et seq.*) make commercial power generating facilities and some transmission towers subject to approval of the governing body. OAR 660-033-0120 references a table of uses allowed on EFU land. "Commercial utility facilities for the purpose of generating power for public use by sale" are allowed on EFU land subject to acreage limits in OAR 660-033-0130 (12 acres on high value farmland and 20 acres on non-high-value farmland, unless a Goal 3 exception is taken). In practice, the application of this provision requires the permitting authority to decide whether to treat some components of the proposed project as separate from the "power generation facility" for purposes of OAR 660-033-0130.

G.4. Exclusive Farm Use Land

- a) If the site of a proposed energy generating facility is in an Exclusive Farm Use zone, the proposed facility complies with the standards in ORS 215.296(1) and OAR 660-033-130(17) or 660-033-130(22).
- b) If the facility is a transmission line or pipeline, the proposed facility complies with the standards in ORS 215.275.

(e) Forest land

This standard reflects administrative rules regarding how much land can be used for a non-forest use. OAR 660-006-0025(4)(j) allows a "power generation facility" in forest land, subject to a limit of ten acres, unless a Goal 4 exception is taken. OAR 660-006-0025(4)(q) allows electric transmission lines with right-of-way widths of up to 100 feet and new "distribution lines" (including gas or oil lines) with rights-of-way of 50 feet or less in width.

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G.5. Forest Land

If the site of a proposed energy facility is in a forest zone or mixed farm and forest zone, the proposed facility complies with OAR 660-006-0025(4).

(f) Overlay or Combining Zones

This standard recognizes that there may be local resource overlay zones that have separate land use standards. If a proposed energy facility is located within an overlay zones (such as flood hazard areas, steep slope areas, riparian protection corridors, conservation reserve areas or scenic corridors), this section would apply the standards of the overlay zone to the energy facility, unless the facility siting standards were more restrictive.

G.6. Overlay or Combining Zones

If the site of the proposed energy facility is in an overlay zone, the location and design of the proposed energy project and related facilities meet or exceed the applicable standards in the overlay zone. If the standards in this Chapter are more restrictive than those in the overlay zone, then the standards in this Chapter apply.

(g) Air Safety

This standard applies to tall structures such as exhaust stacks and wind turbine towers over 200 feet in height. The Federal Aviation Agency and the Oregon Department of Aviation require these structures to have lighted warning beacons.

G.7. Air Safety

For all structures that are more than 200 feet above grade or that exceed airport imaginary surfaces as defined in OAR Chapter 738, Division 70, the proposed facility complies with the air hazard rules of the Oregon Department of Aviation. The applicant shall verify compliance by written approval from the Department of Aviation.

(h) Interference with Communications

An energy generating facility or transmission line may cause interference with wireless communications. Although a facility may be designed to prevent such interference, it may not be possible to determine whether such an effect occurs until after the facility is operating.

G.8. Interference with Communications

The energy facility would not create conditions that unduly reduce or interfere with public or private television, radio, telemetry or other electromagnetic communication signals. If undue reduction or interference occurs, the applicant must restore reception to the quality that existed before construction of the facility.

(i) Noise

Oregon Department of Environmental Quality (DEQ) administrative rules regulate noise from industrial facilities, including energy facilities. Local governments may rely on the DEQ rules or adopt their own local noise standards. Although the DEQ rules are in effect, the DEQ no longer has resources to administer the noise regulation program. Therefore, enforcement is a matter of local authority. This standard requires compliance with the DEQ rules.

For wind facilities in particular, determination that a proposed facility will comply with the DEQ noise standards is difficult. The city or county planning agency will need to carefully review, and independently verify, the analysis that the applicant submits.

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G.9. Noise

The proposed facility would comply with the noise regulations of the Oregon Department of Environmental Quality in OAR Chapter 340, Division 35. The applicant must submit a qualified expert's analysis and written report.

(j) Visual Impact

This standard allows the city or county to consider standards to mitigate the visual impact of an energy facility in a designated scenic area or corridor. Some of these general visual impact standards may not be appropriate for wind energy facilities. There are other visual standards for wind energy facilities in Section H.2. The city or county may need to designate scenic resources it considers important or significant and include that information in the comprehensive plan. The Oregon Department of Forestry designates type D and F streams under OAR 629-635-0200.

G.10. Visual Impact

The applicant has reduced the visual impact of construction and operation of the proposed facility to the extent practical, by methods which may include, but are not limited to, the following:

- a) Avoiding ridgelines, state or federal scenic areas and unique or significant views and vistas listed in the comprehensive plan.
- b) Building the facility near the edge of contiguous timber areas or using the natural topography to obscure the facility.
- 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) Setting the facility back from the edge of public arterial rights-of-way, Type F and Type D streams, viewpoints and other significant visual resources identified in the comprehensive plan and retaining or planting vegetation to obscure views of the facility from those areas.

(k) Scenic Area Corridor

This standard requires the applicant to consider the effect of a proposed facility on nearby local, state or federal scenic corridors. Many parts of Oregon have designated state or federal scenic highways or scenic byways, and an energy facility within or near a corridor could adversely affect the purpose of the corridor. The city or county may need to designate scenic resources it considers important or significant and include that information in the comprehensive plan.

G.11. Scenic Area Corridor.

The proposed site is not within a scenic corridor. Scenic corridors include federal or state scenic byways, scenic highways, scenic areas, scenic waterways and local scenic view corridors listed in the comprehensive plan. A proposed project that is adjacent to a scenic corridor may be approved if the applicant proposes mitigation measures that would protect the resource values of the designated scenic corridor. Such measures may include, but are not limited to, using colors that blend with the background, setting the development back from a right-of-way or stream corridor, using the natural topography to screen the facility and retaining or planting vegetation that would obscure the view of the facility.

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(l) Fish and Wildlife

The first part of this standard provides for the protection of fish and wildlife habitat and species. The city or county code may already have special overlay zones (such as zones for habitat protection or migratory corridors), and the standards applicable to those overlay zones would apply under Section G.6.

The last part of this standard allows the local government to use the Oregon Department of Fish and Wildlife (ODFW) recommendations for habitat protection and mitigation. ODFW has adopted rules and standards to “mitigate impacts to fish and wildlife habitat caused by land and water development actions” in OAR Chapter 635, Division 415.

G.12. Fish and Wildlife Protection

The proposed facility can be designed, constructed and operated to avoid significant adverse impact to fish and wildlife resources. The applicant must design, operate and monitor the facility so that the facility does not adversely affect fish and wildlife habitat, migratory routes or state or federally-listed threatened or endangered species. The City/County may impose conditions requiring wildlife monitoring after construction of the facility to assess the facility’s impact on wildlife. The City/County may impose other conditions to mitigate adverse impacts on fish and wildlife habitat based on Oregon Department of Fish and Wildlife recommendations.

(m) Fire Protection

Many rural areas have volunteer fire protection districts. Some sparsely populated areas may not have any organized fire protection district. This standard provides some standards to help protect the facility and surrounding public lands.

G.13. Fire Protection

The applicant has proposed fire protection measures for the construction and operation of the facility that are acceptable to the county and other land management agencies adjacent to the proposed facility, if any. For electric generating facilities, the applicant must have an approved fire prevention or protection plan in place with the county or local fire protection district during construction and operation.

(n) Access and Parking

This standard reduces the impact from new road construction and provides for year-round access by emergency vehicles. The city or county could add a cross-reference here to other parking or access ordinances in the local code.

G.14. Access and Parking

The applicant would implement adequate plans to:

- a) Use existing roads for access to the extent practical and avoid construction of on-site roadways as much as possible.
- b) Restore the natural grade and revegetate temporary access roads, equipment staging areas and field office sites used during construction of the facility. The applicant must specify the type and amount of seed or plants used to revegetate the disturbed areas and a timeline to complete this work.
- c) Construct and maintain access roads for all-weather use to assure adequate, safe and efficient emergency vehicle and maintenance vehicle access to the site.

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(o) Local Roads

This standard provides for the county or state to control access points to and from a facility or operations area. Besides the normal concerns about sight distance and conflicting turning moves, the construction of an energy facility may require the use of large trucks and cranes that need a larger turning radius. In addition, the size and weight of construction equipment may damage local roads – particularly the edges and shoulders – and bridges. A local government may want to include a condition requiring the applicant to repair any road damage from construction vehicles.

G.15. Local Roads

The applicant has secured, or can secure, all necessary approvals from the County or the State Highway Division for access points for project roads and parking facilities at the project site.

(p) Protection of Historical and Cultural Resources

This standard requires the applicant to protect historical and cultural resources identified by the state or in a local comprehensive plan inventory and to have a plan on file that describes how newly discovered artifacts would be cataloged and protected. If traditional tribal lands could be affected, the city or county might include a requirement of consultation with the affected tribes. If artifacts are discovered during construction, State law requires a halt to construction activities and notification of the Oregon State Historic Preservation Officer to protect previously unidentified cultural resources (ORS 97.745 and 358.920). The ordinance could require notification of the city or county in addition.

G.16. Protection of Historic and Cultural Resources

Construction and operation of the proposed energy facility is not likely to cause significant adverse impact to historic and cultural resources identified by the State Historic Preservation Office or identified in the local comprehensive plan. The applicant must implement a plan to preserve any previously undiscovered archeological, historical or cultural artifacts discovered during construction or operation of the facility in compliance with applicable county, state and federal law.

(q) Erosion and Sediment Control

Ground disturbance caused by the construction of the energy facility and associated access roads, pipelines or transmission lines can lead to erosion and add sediment to waterways. An NPDES 1200-C storm water runoff permit is required for construction on any site that is one acre or more in area (OAR 340-045-0033(10)(i)). This standard requires that an erosion and sediment control plan be in place before construction. Typical mitigation and control measures are straw bales or rounds, erosion control fences, topography change and seeding of disturbed areas. This section could include cross-references to existing ordinances that address erosion.

G.17. Erosion and Sediment Control

The applicant would conduct all roadwork and other site development work in compliance with the Oregon Department of Environmental Quality National Pollutant Discharge Elimination System (NPDES) permit for all parts of the project. The applicant must have an NPDES permit and an erosion and sediment control plan before beginning construction. The plan must include both general “best management practices” for erosion control during and after construction and permanent drainage and erosion control measures to prevent damage to local roads or adjacent areas and to minimize sediment run-off into waterways.

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(r) Weed Control

Ground disturbance during construction of the energy facility and associated access roads, pipelines or transmission lines exposes areas for weeds to become established. The spread of noxious weeds is a serious problem in some rural areas of the state. For counties with a large agricultural base, an invasion of weeds can affect cropland. The city or county may have an established a local weed control authority. This standard requires the applicant to implement plan for weed control. This section could also include cross-references to existing ordinances that address weed control.

G.18. Weed Control

The applicant would implement a plan for weed control during construction and operation of the proposed facility.

(s) Dust Control

In the dryer parts of the state, blowing dust can be a health and safety issue. Requiring a rock base for roadways and staging areas reduces dust from vehicles and construction activity. In addition, construction contractors may have to use water for dust suppression, especially in windy areas.

G.19. Dust Control

The applicant would construct all non-paved temporary or permanent on-site roads and staging areas using compacted base-rock and gravel. During the site development and construction, the applicant must regularly water roads and staging areas to minimize dust and wind erosion.

(t) Signs

This standard allows for project identification signs but prohibits other advertising or display signs for businesses or events unrelated to the facility. There is an exception for warning or safety signs. The city or county could include in this section a cross-reference to existing ordinances regarding signage.

G.20. Signs

The applicant would not allow any outdoor displays, signs or billboards within the energy facility site. There may be no more than two signs relating to the name and operation of the facility on the facility site. Signs required for facility safety or otherwise required by law are allowed.

(u) Termination and Decommissioning

An applicant might begin, but fail to complete, construction. There are many circumstances under which a completed energy facility might cease to operate. A non-operating energy facility could have lasting impacts. This standard requires restoration of the site if the facility is closed. It provides financial protection to the city or county if the facility operator fails to restore the site.

G.21. Termination and Decommissioning

The applicant would comply with the following requirements before beginning construction of the proposed facility:

- a) The applicant agrees to submit to the City/County a written plan for decommissioning the facility and restoring the project site. The applicant must submit the plan at least 12

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months before permanent cessation of facility operation. The plan must include removal of aboveground and underground equipment, structures and foundations (to a depth of at least 3 feet). The plan must include a schedule for completion of site restoration work. The plan must provide for the protection of public health and safety and for protection of the environment and natural resources during site restoration. For any part of the facility on leased property, the decommissioning plan may incorporate agreements with landowners regarding leaving access roads, fences, gates or buildings in place or regarding restoration of agricultural or forest resource land.

b) The facility operator must submit a bond or letter of credit in a form and amount satisfactory to the City/County, assuring the availability of adequate funds to restore the site to a useful, non-hazardous condition, if the operator fails or is otherwise unable to restore the site.

6. Specific Standards

In addition to the General Standards described above, the energy facility siting ordinances could include Specific Standards applicable to particular types of energy facilities. To illustrate this concept, we provide model ordinances for the following types of energy facilities: cogeneration facilities, wind energy facilities, solar electric facilities, transmission lines and natural gas or petroleum product pipelines.

H. Specific Standards for Energy Facilities

The following standards are specific to the type of energy facility project being proposed. These standards apply in addition to the General Standards in Section G.

(a) Cogeneration Facilities

A cogeneration facility should be in an industrial, commercial or mixed-use zone and related to an existing or approved conforming use in the zone. If the fuel supply pipeline or the electric transmission or distribution line do not use existing linear facilities, then the specific standards for transmission lines and pipelines, discussed in Sections H.4 and H.5 below would apply to the proposed accessory facilities.

H.1. Cogeneration Facilities

To issue a Conditional Use/Special Use permit for a proposed cogeneration facility, the planning authority must find that:

- a) The proposed facility is located in an existing industrial, commercial or mixed-use zone.
- b) The proposed facility is associated with, and directly adjacent to, an existing or approved industrial or commercial facility or plant that is a permitted or conditional use in the zone.
- c) Except as allowed in this section, any electric transmission line or natural gas or petroleum pipeline necessary for the cogeneration facility is an upgrade to an existing transmission line or pipeline or is constructed in an existing right-of-way or utility easement. If a proposed electric transmission line or natural gas or petroleum product pipeline is not an upgrade to an existing transmission line or pipeline, the transmission line or pipeline must comply with the standards in Sections H.4 or H.5.

(b) Wind Energy Facilities

The model ordinance exempts wind turbines intended primarily for residential or agricultural use that have a generating capacity of less than 50 kilowatts and that are less than 200 feet in height. However, a city or county may want to develop ordinances related to these

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small-scale facilities. The model language below addresses commercial-scale wind turbines. These turbines are likely to be large – possibly exceeding 200 feet in overall height. Wind energy facilities are likely to include many turbines operated together within the facility site.

The visual impact of wind energy facilities can be an issue of concern, especially when the applicant proposes to locate wind turbines near residential or urban areas. A city or county may restrict the location of wind energy facilities through zoning designations. Within an approved zone, little can be done to mitigate the visual impact of large wind turbines. To effectively use the wind resource, turbines must be placed in open terrain. The turbine towers must be of sufficient height to operate efficiently and safely.

Adverse impacts on wildlife, particularly avian wildlife, have been a significant issue in the siting of wind energy facilities. Baseline wildlife surveys are necessary to determine whether a proposed site is appropriate. Such surveys identify the species of wildlife present (including any threatened or endangered species) and patterns of habitat use by wildlife. Baseline surveys can provide information about migratory species and nesting areas. Using this information, the wind facility developer can avoid locating turbines or accessory facilities in areas likely to cause adverse impact. The city or county should consult with the Oregon Department of Fish and Wildlife about the potential impacts of a proposed facility on wildlife and wildlife habitat.

Although large-scale wind energy equipment is designed to be safe in operation, the city or county may want to include specific standards to protect public safety. Setback requirements provide a buffer between wind turbines and neighboring properties or areas accessible to the public. Most existing wind energy facilities have been located on private land so that the area in proximity to turbine towers is not accessible without landowner permission. The city or county may find that the existing setback ordinances are adequate. In remote rural areas, exceptions to the setback requirements may be justified.

H.2. Wind Energy Facilities

To issue a Conditional Use/Special Use permit for a proposed wind energy facility, the planning authority must find that:

- a) Visual Impact: The wind energy facility to the extent practical:
 - i) Uses underground electric collection lines (from the turbines to the substation).
 - ii) Uses turbine towers of uniform design, color and height.
 - iii) Use the minimum lighting necessary for safety and security purposes and uses appropriate techniques to prevent casting glare from the site.
 - iv) Uses existing roads to provide access to the facility site, or if new roads are needed, minimizes the amount of land used for new roads and locates them to reduce visual impact and other adverse environmental impacts such as erosion.
 - v) Uses existing substations, or if new substations are needed, minimizes the number of new substations.

- b) Wildlife Resources: The design and construction of the proposed wind energy facility is not likely to cause significant adverse impact to wildlife. The applicant's design for the facility uses reasonable methods to protect wildlife resources that may include, but are not limited to, the following:
 - i) Conducting at least one year of baseline wildlife surveys in the areas affected by the proposed facility.
 - ii) Designing turbine towers to reduce horizontal surfaces for perching.

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- iii) Designing turbine towers and pad-mounted transformers to avoid creation of artificial habitat or shelter for raptor prey.
 - iv) Spreading gravel on turbine pad areas to minimize weeds and avoid creation of habitat for raptor prey.
 - v) Using anti-perching protection devices on transmission line support structures.
 - vi) Locating turbines away from saddles in long ridges.
 - vii) Locating turbines on the downwind side of ridges and set back from the upwind side.
 - viii) Avoiding construction activities near nesting locations during sensitive breeding periods and using appropriate no-construction buffers around nest sites.
- c) Public Safety: The applicant can design and operate the proposed facility to protect public safety by measures that may include, but are not limited to, the following:
- i) Designing turbine blades so that at the closest point, the sweep of the blades is at least 20 feet above the tallest existing or foreseeable obstruction to blade movement.
 - ii) Designing, constructing and operating the facility to exclude the public from close proximity to turbine blades and electrical equipment.
 - iii) Designing, constructing and operating the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and procedures to warn of impending failure and to minimize the consequences of such failure.
 - iv) Restricting public access to the interior of tubular turbine towers by installing locked access doors.
- d) Setback: All parts of the proposed wind turbine structures are set back from property lines a distance that is at least 1.5 times the height of the wind turbine structure including the blades.

(c) Solar Electric Facilities

The model ordinance exempts solar electric facilities (photovoltaic panels) that are mounted on the roof of residential, commercial or industrial structures and that generate power solely for that structure. It also exempts photovoltaic panels mounted on poles or on the ground that do not exceed a specified size limit and that generate power solely for an adjacent residential, commercial or industrial use.

Currently there are no large-scale solar electric facilities in Oregon. However, some areas of the state may be suitable for such facilities. With current technology, any large-scale solar electric facility would require several acres of land to be cost effective. The city or county might choose to limit the size of such facilities as a matter of public policy. The acreage limits in the model ordinance language below are illustrative, although the 20-acre limit is consistent with the EFU standard for non-high value farmland (OAR 660-033-0130). For solar-photovoltaic facilities that passively capture solar energy rather than direct solar rays onto a thermal heating component, the model ordinance allows more acreage. A city or county adopting an ordinance for large-scale solar electric facilities should replace these illustrative acreages with numbers that reflect current technology information.

Leveling of the ground surface may be necessary for effective use of the solar resource. However, the ordinance could provide for minimizing such ground disturbance. Wildlife protection provisions specific to the characteristics of large solar energy facilities may be

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included to supplement the general standard on fish and wildlife protection. The city or county should consult with the Oregon Department of Fish and Wildlife about the potential impacts of a proposed facility on wildlife and wildlife habitat.

Solar-thermal facilities operate by using reflective mirrors (heliostats) to direct concentrated solar rays on a thermal heating component. For these facilities, the ordinance addresses the risk to public safety from misdirected solar rays. Given the possibility that either the heliostats of a solar thermal facility or the reflective surface of photovoltaic panels might create a safety hazard, we have included a provision excluding large-scale solar facilities from airport control zones. The city or county should consult with the FAA or the Oregon Department of Aviation for advice concerning possible restrictive over-flight regulations near the facility.

To maintain optimal efficiency of the equipment, the operator of a solar energy facility may need to clean heliostats or photovoltaic panels frequently. The model language includes a provision to reduce adverse impacts to the soil, plants, animals and ground water from the use of cleaning chemicals and solvents.

H.3. Solar Electric Facilities

To issue a Conditional Use/Special Use permit for a proposed solar electric energy facility, the planning authority must find that:

a) Acreage:

i) Solar-thermal facilities: The proposed solar facility is:

a) Less than 25 acres in size within existing commercial or industrial-zoned property, or

b) Less than 20 acres in size within a non-commercial or non-industrial zone

ii) Solar photovoltaic facilities: The proposed solar facility is less than 50 acres in size, including all area within the site boundary and all associated roads and structures.

b) Ground Leveling: The applicant can design and construct the proposed facility so that ground leveling affects only those areas needed for effective solar energy collection and so that the natural ground contour is otherwise undisturbed to the greatest extent possible.

c) Wildlife Resources: The design and construction of the proposed solar energy facility is not likely to cause significant adverse impact to wildlife. The applicant's design for the facility uses reasonable methods to protect wildlife resources that may include, but are not limited to, the following:

i) Designing foundations and support structures for solar equipment to avoid creation of artificial habitat or shelter for raptor prey.

ii) Controlling weeds to avoid the creation of artificial habitat suitable for raptor prey.

iii) Using anti-perching protection devices on transmission line support structures.

iv) Avoiding construction activities near nesting locations during sensitive breeding periods and using appropriate no-construction buffers around nest sites.

v) For solar thermal facilities: the use of suitable methods such as coloration or sound-producing devices to discourage birds from entering areas of concentrated solar energy.

d) Misdirection of Solar Rays: For solar-thermal facilities, the design and operation of the proposed facility prevents the misdirection of concentrated solar rays onto nearby

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property, public roads or other areas accessible to the public. The applicant must implement a plan of operating procedures to prevent access to hazardous areas.

e) Airport Proximity: The proposed solar facility is not located adjacent to, or within, the control zone of any airport.

f) Cleaning Chemicals and Solvents: The applicant would implement operational procedures requiring that all chemicals or solvents used to clean photovoltaic panels or heliostats are low in volatile organic compounds. The procedures would require the use of recyclable or biodegradable products to the extent possible.

(d) Electric Transmission Lines

The ordinance reflects a preference for locating new transmission (or distribution) lines within or adjacent to existing rights of way. These provisions aim to minimize the creation of new transmission corridors. If any part of a proposed new route is in an area zoned exclusive farm use (EFU), the applicant must address the requirements of ORS 215.275. If the proposed transmission or distribution line is within an EFU or forest use zone, the acreage standards in the administrative rules apply. See OAR 660-033-120(17) and (22) for EFU lands and OAR 660-006-0025(4)(j) and (4)(q) for forest lands.

For proposed transmission lines that run near or across a water body, the model ordinance has standards to protect waterfowl. The identification of “critical bird habitat” could be addressed in the comprehensive plan or could be established in consultation with ODFW.

H.4. Electric Transmission or Distribution Lines

To issue a Conditional Use/Special Use permit for a proposed electric transmission or distribution line, the planning authority must find that:

a) Use of Existing Routes: To the extent practical, the proposed transmission or distribution line uses developed or approved road and utility rights-of-way or easements that can safely accommodate the proposed line.

b) Adjacent to Existing Routes: If all of part of the proposed transmission or distribution line is outside an existing route, the site of the proposed line is 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 of part of the proposed transmission or distribution line is outside an existing route or not adjacent to an existing route:

- i) The proposed new route serves an existing or proposed energy generation facility that is not adjacent to an existing right-of-way or easement, or
- ii) The proposed new route would result in less adverse energy, environmental, economic and social consequences than would result from using an existing route.

The permanent right-of-way for any new transmission line route must not exceed 50 feet in width.

d) Avian Habitat: The proposed transmission or distribution line protects nearby wetlands or water bodies identified as critical bird habitat by suitable measures, such as:

- i) Locating the transmission line at least 50 feet from the edge of the nearest wetland or water body.
- ii) Separating the transmission line from the nearest wetland or water body by topography or substantial vegetation.
- iii) Locating the transmission line parallel to the prevailing winds.

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(e) Natural Gas or Petroleum Pipelines

The first three subsections mirror the provisions for electric transmission lines. Although the preference for existing rights-of-way given above for transmission lines is copied here, public safety concerns may make placement of natural gas or petroleum product pipelines in the right-of-way less desirable.

As with transmission lines, if any part of a proposed new pipeline route is in an area zoned exclusive farm use (EFU), the applicant must address the requirements of ORS 215.275. If the proposed transmission or distribution line is within an EFU or forest use zone, the acreage standards in the administrative rules apply if the presence of the pipeline would preclude agricultural or forest use. See OAR 660-033-120(17) and (22) for EFU lands and OAR 660-006-0025(4)(j) and (4)(q) for forest lands.

The model ordinance includes a standard for protection of fish-bearing streams or rivers that are important habitat for a threatened or endangered species. Identification of potential impact on threatened or endangered species would be required under general standard G.12 discussed above. Consultation with ODFW would be necessary to determine a suitable crossing method for a proposed pipeline in a particular case. For example, the new pipeline might be hung on an existing road bridge to keep it out of the streambed.

H.5. Natural Gas or Petroleum Product Pipelines

To issue a Conditional Use/Special Use permit for a proposed natural gas or petroleum product pipeline, the planning authority must find that:

- a) Use of Existing Routes: To the extent practical, the proposed pipeline uses developed or approved road rights-of-way or easements that can safely accommodate the proposed pipeline.
- b) Adjacent to Existing Routes: If all of part of the proposed pipeline is outside an existing route, the site of the proposed pipeline is adjacent to an existing public road or utility right-of-way or easement and would not increase the width of 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:
 - i) The proposed new route serves an existing or proposed energy generation facility that is not adjacent to an existing right-of-way or easement, or
 - ii) The proposed new route would result in less adverse energy, environmental, economic and social consequences than would result from using an existing route.

The permanent right-of-way for any new pipeline route must not exceed 40 feet in width.

- 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.

7. Review Procedures

It is likely that all cities and counties already have ordinances that describe a process for receiving and reviewing a land use application. However, we have included a procedure section to highlight some aspects of the permitting process that a city or county should consider when

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developing or amending ordinances for siting energy facilities. The model ordinance provisions below may provide ideas for amendment of the city or county review process, if the existing ordinances do not already include some of these procedures.

The local government should have a procedure for meeting with a potential applicant before the applicant submits a land use application. Such advance communication helps the planning department understand the scope of the project. It also provides an opportunity to answer the applicant's questions about standards and application requirements. This will help ensure that the applicant submits adequate information in the application.

Because of the size and complexity of an energy facility project, the county or city should require sufficient maps, documentation of other permits and licenses needed, development plans, and other information the city or county will need to review the request. Much of this information may not be in the standard list of material to be submitted for other types of conditional or special uses. The model language lists some of the materials that are helpful in reviewing a proposed energy facility. A city or county can modify the list based on local experience and other land use ordinances that may apply.

An energy facility may cover several acres, and linear facilities may even cross zoning boundaries. The model ordinance makes the applicant responsible for compiling a list of nearby property owners for the purpose of notification. If the scope of the proposed project is very large, the city or county may want to establish a broader notification area than the minimum in the local code.

Some energy projects may proceed in phases or use linear facilities or other components previously approved to reduce the cumulative impacts of the facilities. The model language allows an applicant to include by reference studies or information previously submitted for other projects.

Cities and counties typically have a fee structure that is adopted by resolution or ordinance. An energy facility may require a higher than normal fee to cover staff time, issuance of notice and public hearings. The local government may want to establish a special fee rate. The ordinance might include a cross-reference to the existing ordinance section that lists processing fees.

The model ordinance refers to the standard procedures for review and action on a Conditional Use or Special Use Permit and applies those review procedures to energy facilities. An appropriate cross-reference should be added. If the normal procedures do not include public hearings, a local government may want to amend the procedure ordinances to require that energy facilities be subject to a public hearing before the planning commission or hearings officer.

The model ordinance applies the standard public and legal notice requirements to the review of energy facilities. An appropriate cross-reference should be added. Due to the potential short-term and long-term impacts of energy facilities, a city or county may want to establish different or additional public notice procedures. If public hearings are part of the review procedures, then additional measures, such as published notice, should be incorporated into special notice requirements for review of an energy facility.

Many cities or counties may limit the duration of a Conditional Use or Special Use approval to a 12-month period. That is, construction must begin within one year or the approval will lapse. The time needed for completion of construction of an energy facility depends on the demand for energy, negotiation of a power sales contract, the wholesale price for electricity, the

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processing time needed for other state or federal permits or approvals and other factors. The model ordinance suggests allowing two years for beginning construction, but this time-period is illustrative. The city or county may want to establish a deadline for construction to begin that is longer, or shorter, than the two years suggested in the model ordinance provision.

The model ordinance incorporates by reference the “standard” procedures for modifying a siting decision. An appropriate cross-reference should be added. If the existing city or county code does not have a procedure for modification or amendment of a Conditional Use or Special Use permit, then such a procedure should be added for energy facilities. If a county or city adopts special notification or review procedures for energy facilities, then there may be a need for similar special notification procedures to modify a condition or term of the approval.

I. Review Procedures for Proposed Energy Facilities

I.1. Application Contents

An application for approval of an energy facility must include text and maps sufficient to show that the proposed facility would comply with the General Standards in Section G and the applicable Specific Standards in Section H. The application should include the following:

- a) Maps showing physical features and land uses of the project area, both before and after construction of the proposed facility. The applicant must include at least one map that is printed on a standard 8 1/2" x 11" page. The applicant must include large maps or color photographs that show:
 - i) The project area boundaries.
 - ii) The location, height and dimensions of all existing and proposed structures and fencing.
 - iii) The location, grades and dimensions of all temporary and permanent on-site roads and access roads from the nearest county or state-maintained road.
 - iv) State and federal resource lands and other protected areas in the vicinity of the project site.
 - v) Existing topography with contours that vary depending on the size and slope of the site.
 - vi) Water bodies, waterways, wetlands and drainage channels.
 - vii) The location of and distance to residences and other noise sensitive properties, public or private airports or airstrips, and other uses or structures relevant to the standards or criteria for the energy facility.
 - viii) For a wind energy facility, copies of all baseline wildlife studies applicable to the project site.
 - ix) For a wind energy facility, the direction of prevailing winds across the project area.
- b) A list of permits, approvals or other actions related to the proposed facility that the applicant has requested or will request from other public agencies and utilities serving the site and a schedule of when the applicant has applied or intends to apply for those actions. In addition:
 - i) The applicant must give written notice of the application to each listed agency and utility and provide a copy of the notice to the county.

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- ii) The applicant must include a summary of the permits, authorizations and other actions the applicant has requested or will request from other public agencies or utilities.
 - iii) The applicant must include a description of studies, analyses and other data collection the applicant will perform to provide evidence that the proposed facility complies with agency requirements and copies of all written comments and decisions about the proposed facility made by officials of those agencies.
- c) An explanation of all construction and other development associated with the proposed facility and how that construction and development complies with the approval standards.
 - d) A construction management plan including a plan showing how construction vehicles would access the site.
 - e) A revegetation plan for restoring areas temporarily disturbed during construction.
 - f) A drainage and erosion control plan for construction and operation.
 - g) A fire protection plan for construction and operation of the facility.
 - h) A plan to protect any archaeological, historical or cultural sites or artifacts found at the site.
 - i) A description of how the site could be restored to a useful, non-hazardous condition upon project termination and the estimated cost of site restoration.

I.2. Avoidance of Duplication

The applicant may incorporate by reference any information developed or submitted in any other application if the applicant submits a copy or summary of the referenced material, identifies the proceeding in which it was submitted and the outcome of that proceeding and explains the relevance of the information to the approval standards.

I.3. List of Property Owners.

The applicant must submit, with the application, a list of the names and mailing addresses of all property owners within 500 feet of the project area (including the route of any related electric transmission or distribution lines or natural gas or petroleum pipelines).

I.4. Notice

The planning office shall notify affected property owners and the public of the pending review of the Conditional Use or Special Use Permit application for an energy facility.

I.5. Application Fee

The applicant must pay the appropriate fee when the application is submitted to the county. However, if the applicant is a federal agency, the applicant may pay the county's actual cost of processing an application at any time before the effective date of the county decision.

I.6. Decisions

The procedures and standards for review and action for a Conditional Use or Special Use Permit, including public hearings, apply to locally-regulated energy facilities described in this chapter.

I.7. Duration

The applicant must begin substantial construction or development of an energy facility within two years from the date of final Conditional Use or Special Use approval.

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I.8. Modification

The standard procedures for modification of the terms and conditions of a Conditional Use or Special Use permit apply to energy facilities.

III. ENERGY RESOURCES AND STATEWIDE PLANNING GOAL 5

The purpose of Statewide Planning Goal 5 is to protect natural resources and conserve scenic and historic areas and open spaces. Under Goal 5, energy sources are among the natural resources that qualify for protection. “Energy sources” are natural resources used for the generation of energy, including natural gas, hydroelectric dam sites and geothermal, solar and wind resource areas (OAR 660-023-0190).

Goal 5 requires local governments to “adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations.” Although Goal 5 does not impose substantive criteria for siting an energy facility, cities and counties need to be aware of Goal 5 in planning for energy facilities.

Local governments are required to adopt comprehensive plan provisions and land use regulations to implement a Goal 5 program (OAR 660-023-0050). In general, to achieve the objectives of Goal 5, local governments are obliged to inventory and determine the significance of natural resource sites within their jurisdiction (OAR 660-023-0030). Then the local government must identify conflicting land uses within an “impact area” around significant resource sites and decide whether to allow, limit or prohibit those conflicting uses (OAR 660-023-0040). The local government must base its Goal 5 program on “an analysis of the economic, social, environmental, and energy consequences that could result from a decision to allow, limit, or prohibit a conflicting use.”

For energy sources, protection means limiting new conflicting uses within the impact area and authorizing the present or future development of the energy source at the site (OAR 660-023-0190(1)(b)). Measures to protect a resource site from conflicting uses must contain clear and objective standards (OAR 660-023-0050(2)). Energy sources “applied for or approved through the Oregon Energy Facility Siting Council” are automatically deemed significant.

The local government may adopt a program to evaluate conflicts and develop a protection program for energy sources on a case-by-case basis (OAR 660-023-0190(2)). A case-by-case Goal 5 evaluation would be triggered by an application to develop an energy source within the local government’s jurisdiction. For energy facilities approved by the Energy Facility Siting Council, the local government must amend its comprehensive plan and land use regulations to implement the Siting Council decision.

IV. ENERGY FACILITIES AND SITING ISSUES

In this section, we provide some additional information about different types of energy facilities. We discuss some of the issues that apply to siting these facilities. However, we have not attempted to address all possible siting issues that may arise. We have included this section to provide background information for city or county personnel who may not be familiar with energy technology.

1. Cogeneration Facilities

Facilities that produce both electricity and useful thermal energy are called “cogeneration” facilities (sometimes called combined heat and power or “CHP” systems). Steam turbines or combustion turbines produce electricity using natural gas or other fuels, such as fuel oil or biomass. In a typical cogeneration energy facility, a steam turbine turns a shaft that is coupled to an electric generator. Operation of the steam turbine produces electricity. The exhaust steam from the turbine is piped to a “thermal host,” such as a manufacturer or other industrial facility, that needs the thermal energy for an industrial process.

Instead of a steam turbine, an energy facility fueled by natural gas may use a combustion turbine. Combustion turbines are derived from the aircraft industry (essentially, they are jet engines). The combustion turbine drive shaft is coupled to a generator to generate electricity. The exhaust from a gas combustion turbine may be used to turn water into steam that, in turn, can be used in a steam turbine to generate additional electrical energy. This two-stage process is called a “combined-cycle combustion turbine” facility (sometimes known by the acronym “CCCT”). If a thermal host uses the exhaust steam from a combustion turbine or a combined-cycle facility, then the combustion turbine or CCCT would be considered a cogeneration facility.

Cogeneration is an efficient use of fuel with reduced environmental impacts compared to less efficient alternatives. Usually, the critical land use planning issues are the effect on air quality from emissions, water consumption, operation noise and construction impact on local roads. There may be other site-specific issues, including impacts on wetlands or fish and wildlife habitat.

Because cogeneration facilities are necessarily located close to the thermal host, they are likely to be proposed for areas already developed for industrial use. Likely thermal hosts for cogeneration facilities are existing industrial plants with older boilers that have been used to supply steam alone. A new cogeneration facility will have lower emissions, use water more efficiently and displace older, less efficient equipment. Emissions from cogeneration facilities are lower than the combined emissions would be from separate power and steam production plants. Depending largely on the size of the proposed facility, the result of replacing an old boiler with a cogeneration plant may result in an overall reduction of adverse environmental impacts while producing both electricity and steam for industrial use. Air quality improvements resulting from replacing old equipment with cogeneration may allow for additional industrial or commercial development in some areas where air quality is limited. Air quality permits are under the jurisdiction of the Oregon Department of Environmental Quality (or, in Lane County, the Lane Regional Air Pollution Authority).

Depending on the size of the proposed cogeneration facility, new transmission lines and natural gas and water supply pipelines may be necessary. Often, public concerns will focus on these associated linear facilities rather than on the cogeneration facility itself. We discuss the potential impacts from linear facilities below.

In the future, a new form of cogeneration, based on fuel cells, may become commonplace. Fuel cells use hydrogen, or hydrogen-rich fuels such as natural gas, ethanol and methanol. In a fuel cell, hydrogen reacts with oxygen in air. The products are electricity and hot water. The inner workings of a fuel cell are too complex to describe in any detail here, but the process is similar to what happens in a battery, except that the fuel cell needs an external fuel supply. The hot water produced by a fuel cell could be used for space heating or for other

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applications requiring thermal energy. If a fuel-cell based system produces both electricity and useful thermal energy, it is a cogeneration system.

Cities or counties may encounter siting applications for fuel cells or fuel cell cogeneration systems. Industries such as semi-conductor manufacturing may propose to build on-site fuel cell plants because of the high-quality power the fuel cells produce. Fuel-cell facilities may replace emergency back-up diesel power plants and may include a tank of propane or other back-up fuel to supplement natural gas. Fuel cell facilities are small and quiet, and they produce reliable power. Siting review of proposed cogeneration facilities using fuel cells should be relatively simple, because of small size and minimal resource impacts.

2. Wind Energy Facilities

Commercial-scale wind energy facilities are now operating in several Oregon counties. In commercial-scale facilities, each wind turbine can have an electric generation capacity of as much as 1.6 megawatts, and even larger turbines may soon be available to developers of wind energy facilities. Local governments could receive land use applications for wind energy facilities of up to 105 megawatts of generating capacity. A facility with that much total generating capacity could consist of as many as 100 or more turbines and cover several square miles of land. Larger facilities are required to apply for a site certificate from the Energy Facility Siting Council.

Construction of commercial-scale wind facilities can have local impacts. Excavation, trenching and road construction could result in dust emissions and erosion unless appropriate measures are taken to minimize these risks. Ground disturbance may also allow the spread of noxious weeds unless control measures are imposed.

Construction of wind energy facilities may have both temporary and permanent impacts on wildlife habitat. During operation, avian fatalities from collision with turbine towers or blades have been a matter of concern. It is unwise to locate wind energy facilities in known migratory bird routes or in areas of frequent use by raptors for foraging or nesting. Siting turbines away from saddles between ridges and downwind of ridgelines can reduce avian impacts. The planning authority should consider imposing post-construction monitoring conditions to assess avian fatalities.

The visual impact of a wind turbine or string of wind turbines is unavoidable. The need for high towers and exposure to open terrain is inherent in the function wind turbines. However, at a distance, wind energy facilities tend to blend into the background. In general, it is better to avoid siting commercial-scale wind energy facilities near residential areas or within important scenic areas.

Public safety risks, such as broken turbine blades, fire or electrical hazards from commercial wind turbines, can be addressed by enforcement of building and electrical codes and by limiting public access to the facility. A wind energy facility may pose an air traffic hazard. Typically, commercial-scale wind turbines exceed 200 feet in height (including the length of turbine blades). If the overall height of a structure is 200-feet or more, Federal Aviation Administration and Oregon Department of Aviation regulations require warning lights.

Small-scale wind turbines are commercially available and have been installed by Oregon property owners to generate power for on-site use. These systems currently range from 1 to 20 kilowatts of generating capacity and may be mounted on towers up to 120 feet tall. Larger, higher-capacity systems may become available in the near future. Although a city or county may

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choose to exempt small wind turbines from the energy facility siting ordinances, other existing land use ordinances may apply, such as structure height and setback requirements. The local government could amend these ordinances to refer specifically to small-scale wind turbines.

Unobstructed access to a consistent wind resource is necessary for safe, efficient operation of a wind facility. Wind access can be protected through property setback requirements and structure height limits. Oregon law also allows landowners to secure a “wind energy easement” to ensure the undisturbed flow wind across a site (ORS 105.900).

3. Solar Electric Facilities

There are two types of solar electric generating facilities: photovoltaic panels and solar-thermal systems. Photovoltaic cells convert solar energy directly to electrical energy. Although photovoltaic technology and solar cell efficiency is steadily improving, the cost of photovoltaic electric generation is still too high for widespread use or for large facilities.

Photovoltaic systems have been installed in remote locations in Oregon and in demonstration projects. Photovoltaic panels can be a lower-cost power option in remote areas where building electric power distribution lines would be more costly. For example, a photovoltaic system is in use on an Oregon ranch to provide power for pumping water from a creek to a stock-watering pond. This use of solar energy has the added benefit of protecting water quality by keeping cattle away from stream banks and preserving riparian area vegetation.

Solar-thermal technology uses the sun’s energy to power a conventional steam turbine. In one design of this technology, an array of mirrors, called “heliostats,” concentrates solar energy onto a boiler. Another design uses rows of mirrors to heat water in pipes that go to a boiler. In either case, the heat generated by the concentration of solar rays produces steam. The steam drives a turbine that is coupled to a generator to produce electricity. The exhaust steam condenses to water, which is recycled into the boiler. A cooling process, using water or cooling fans, is needed to condense the steam. Solar facilities of this type require significant land area to collect sufficient solar energy to operate the steam turbine component. There are no solar-thermal energy facilities in operation in Oregon.

Review of a proposed solar energy facility should include analysis of possible negative impacts on wildlife and methods of mitigating such impacts. Interception of the sun’s energy could affect plant and animal life, and in a sensitive habitat – such as a desert ecosystem – the environmental effects might be significant. Photovoltaic panels or heliostats for a solar-thermal system could create artificial habitat for prey species. Raptors and other predators attracted to the facility site to forage risk injury if they pass within the focused sunlight of a mirror array. Permit conditions should require the developer to implement measures to avoid creating prey habitat. Also, weed control measures should be required at the site to prevent non-native plant species from gaining a foothold within the shelter of shaded areas of ground.

4. Electric Transmission and Distribution Lines

Growth in population and industrial activity will generate demand for new or upgraded electric transmission and distribution lines throughout Oregon. In addition, interstate electricity sales and balancing the electric transmission grid may require the development of new transmission lines. We use the broader term “transmission line” in this discussion, but the issues apply as well to distribution lines, which carry power from the transmission grid to end-users.

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The “linear” nature of transmission lines (and pipelines, discussed below) leads to several unique considerations. Long transmission lines can cross city or county land use boundaries, requiring coordination with neighboring jurisdictions. They may cross zoning district boundaries. In addition, transmission lines may require associated structures such as access roads or substations.

Inappropriately located transmission line corridors could impede other development. Upgrades to existing transmission lines or placement of a new line in an existing corridor or public road right-of-way could reduce the impacts compared to creation of a new corridor. Local governments should contact the Bonneville Power Administration and regional utilities to determine where new or upgraded transmission lines might be needed in the future.

Siting new transmission lines in forested areas requires clearing trees within the corridor. A major new transmission line route through forest land may require an exception to Statewide Planning Goal 4 if the cleared area is more than 100 feet wide (OAR 660-006-0025(4)(q)). In agricultural areas, transmission line support structures displace relatively small areas of farmland, but poorly-placed support structures may obstruct farm machinery.

Wildlife effects of transmission facilities can be significant during construction. Wildlife effects also occur from the maintenance of corridors – for example, when herbicides are used. Long-term effects can be reduced by siting facilities away from habitat of protected species, replanting cleared areas and limiting public and vehicular access. The goals and standards of the Oregon Department of Fish and Wildlife provide guidance on mitigating for habitat lost to facility development.

Air quality impacts of transmission facilities are insignificant, unless maintenance of the transmission line corridor includes aerial spraying of herbicides. Except where access routes or tower sites come near to, or cross over, water bodies or wetlands, the water quality impacts of transmission facilities also are generally insignificant. Local governments can reduce water quality effects from sedimentation and erosion by imposing conditions regarding construction techniques and site access.

Public safety is an issue to be considered in siting transmission lines. Compliance with applicable building and electrical codes protects public health and safety. Geologic and soil conditions should be analyzed to avoid building a transmission line on unstable soils. The operation of high-voltage transmission lines produces electric and magnetic fields in the immediate vicinity of the line. Transmission lines can generally be designed to meet the electric field standard that Energy Facility Siting Council has adopted in OAR 345-024-0090. Magnetic fields around transmission lines can induce electric currents in metal structures in the immediate area. Fences, gates, cattle guards, trailers or other objects or structures could become charged with electricity and should be grounded throughout the life of the line. Numerous studies have explored whether magnetic fields can cause health effects on humans living or working near high-voltage lines. The Energy Facility Siting Council has concluded that there is insufficient scientific evidence to establish a magnetic field standard. However, as a matter of “prudent avoidance,” transmission lines should be located at least 200 feet from any residence or occupied place of business.

The use of natural terrain, vegetation and appropriate support structure construction materials can mitigate the visual impact of transmission lines. Transmission line support structures can be designed to “ladder” or hang other telephone, cable or power service lines

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below the main transmission lines. Where the use of multi-line structures is possible, the need for separate utility corridors can be avoided.

5. Natural Gas and Petroleum Pipelines

Underground natural gas and petroleum product pipelines present siting issues that are similar those arising from siting transmission lines. For example, pipelines may cross local jurisdictional or zoning boundaries. Decisions made about siting a new pipeline affect the location and need for future pipeline development or expansion. Some pipelines may need associated development such as access roads or compressor stations. Permanent easements are needed to assure access to the pipeline and associated structures. Because buried pipelines are out of sight, it is extremely important to enforce easements and setbacks when reviewing new proposals for adjacent development. Utility line locates and marking should be required before excavation or construction near any pipeline corridor.

Areas prone to erosion or landslides are unsuitable for pipelines carrying high-pressure flammable gas or liquid. Safety requirements of state and federal agencies must be followed. The Oregon Department of Geology and Mineral Industries (DOGAMI) has maps of areas prone to landslides and other geological risks. Local governments should consult DOGAMI during their review of proposed pipeline facilities.

Erosion control measures should be implemented during pipeline construction. Permit conditions should include revegetation of disturbed areas and follow-up monitoring to assure successful restoration. Pipeline construction may cause significant wildlife impacts. Adverse impacts on wildlife may occur after construction if corridor maintenance includes the use of herbicides. Siting facilities away from protected species habitat, replanting cleared areas and restricting public and vehicular access can reduce long-term effects on wildlife. The goals and standards of the Oregon Department of Fish and Wildlife provide guidance for mitigation of habitat lost to pipeline development.

Water quality impacts of pipelines can be significant where access routes or pumping stations come near to or cross water bodies and wetlands. Water or wetland crossing must be done according to the requirements of state and federal agencies. In Oregon, the Division of State Lands must approve a wetland disturbance or the crossing of a navigable waterway. Directional drilling beneath a riverbed is possible and should be considered if downstream sedimentation would damage critical habitat. Leak detection systems help prevent accidental pollution of surface or ground water from petroleum product pipelines.

Clearing trees for pipeline corridors and access easements can cause significant loss of timberland. To minimize this loss, pipelines should use existing developed rights-of-way and easements to the extent possible. Any major new pipeline route through forest land with rights-of-way more than 50 feet wide would require an exception to Statewide Planning Goal 4 (OAR 660-006-0025(4)(q)). In some cases, it may be possible to avoid creating new pipeline corridors by increasing the operating pressures of existing pipelines so more gas can be transported. Local governments should contact interstate pipeline companies and local gas utilities to determine where new or upgraded pipelines might will be needed in the future.

6. Hydroelectric Facilities

There is overlapping state and federal authority over hydroelectric facilities. Oregon's hydroelectric licensing authority lies with the Water Resources Department and the Oregon

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Water Resources Commission. Since 1993, the Oregon Energy Facility Siting Council has had no jurisdiction over hydroelectric facilities. A developer must comply with relatively complex federal and state permit processes before building a hydroelectric facility.

To achieve coordination with federal and state agencies, cities and counties must consider imposing conditions to ensure that a proposed hydroelectric facility complies with the local comprehensive plan. To be most effective, local planning should precede state and federal review. Local governments should participate in federal and state agency reviews to assist in meeting the objective of consistency between federal or state action and the local comprehensive plan.

Federal licenses issued to hydroelectric dams by the Federal Energy Regulatory Commission expire after 50 years. Many of the older hydroelectric facilities in Oregon are reaching the stage of license renewal. The license renewal process is a unique opportunity for local government to participate in updating the conditions of the license. Local governments should contact the Water Resources Department for more information.

Hydroelectric facilities have both positive and negative environmental, economic and safety effects. The electric generation and flood control benefits of dams are a demonstrated positive economic and safety effect. On the other hand, construction of new hydroelectric facilities may conflict with other land and water uses and may create environmental problems for riparian areas, vegetation and wildlife. The impacts of hydroelectric facilities are site-specific and need case-by-case analysis.

V. THE ENERGY FACILITY SITING COUNCIL

In Oregon, the Energy Facility Siting Council (“Council”) decides whether large energy facilities may be built. The Council has jurisdiction over all large energy facilities, except for hydroelectric facilities and some relatively large wind facilities that are subject to local permitting, as discussed above. The Oregon Water Resources Commission has review and permitting authority over hydroelectric projects.

For facilities under Council jurisdiction, an energy facility developer must apply to the Council for a “site certificate” and must supply information about the proposed facility and the proposed site. The energy facility siting statutes, beginning at ORS 469.300, make the Council siting process different from the permitting process in other states and different from the permitting practices of many other state and local agencies in Oregon. The Office of Energy web site (www.energy.state.or.us) includes the Council’s siting standards and a description of the process. Key provisions are listed below:

- The use of specific standards for issuing a site certificate.
- A “one-stop” process in which the Council determines compliance with not only its own standards but with local ordinances and the regulations and permitting requirements of other state agencies.
- Opportunity for public participation through comment periods at the front end of the process, followed by a public hearing and a more formal contested case proceeding.
- Appeal directly to the Supreme Court for judicial review

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If a proposed facility meets the standards, the Council must issue a site certificate. If the facility does not meet one or more of the standards, the Council cannot issue a site certificate except in unusual circumstances based on a finding that the public benefits of siting the energy facility outweigh the damage to the resource protected by the unmet standard.

In making the siting decision, the Council applies not only its own standards but also relevant rules and ordinances of state and local agencies. The Council's decision is binding on all state and local agencies if they issue permits that are addressed in the Council's review (ORS 469.401(3)). This binding effect of the site certificate applies to issuance of conditional use or special use permits by local governments. However, the Council's decision does not apply to federally-delegated permits, such as permits under federal air quality or water quality programs (ORS 469.503(3)). The site certificate addresses siting issues only. Local building permits and other permits and approvals related to construction or operation are not part of the Council's review (ORS 469.401(4)).

The standard Council siting process has two major phases, which are described in more detail below. In the first phase, the applicant submits a notice of intent to the Office of Energy. The notice of intent describes the proposed facility in general terms, allows the Office to gather public comment and enables state and local agencies to identify laws, regulations and ordinances that apply to the proposed facility. The second phase begins when the applicant submits an application to the Office and ends when the Council decides whether or not to issue a site certificate.

The Council has two forms of expedited siting review (OAR 345-015-0300 and -0310). The principal difference between standard and expedited review is the absence of the notice of intent phase in an expedited review.

As a part of the application for a site certificate, the applicant must choose whether to seek land use approval from the local jurisdiction or to have the Council make the land use determination. Either way, city or county participation is essential. If the applicant chooses to seek land use approval at the local level, then the applicant must follow the local procedures. The Council will issue a site certificate for the project only if the local jurisdiction has approved the proposed land use. If the local land use decision comes after the applicant has submitted a notice of intent, then any appeal of the land use decision is through an appeal of the Council's decision on the site certificate.

If the applicant chooses instead to have the Council make the land use determination, the Council must make findings on compliance with the local land use ordinances. In this case, participation by the local government involves identification of the applicable substantive land use criteria in the local land use ordinances and comprehensive plan. The local government can recommend site certificate conditions (addressing matters that would normally be included in a conditional use permit) and offer other comments about the proposed energy facility.

1. The Notice of Intent

OAR 345-020-0011 describes the required content of a notice of intent ("NOI"). The NOI must describe the proposed site, the proposed energy facility and the possible impacts of development in enough detail for the Office and other reviewing agencies to identify the applicable statutes, rules and local ordinances. The NOI must include proposed routes for linear facilities, such as gas pipelines or electric transmission lines.

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The Office issues public notice of the NOI, and copies of the NOI are distributed to other state agencies for review. The NOI enables the Office and other agencies to identify issues and determine staffing needs for the review process. It provides the first opportunity for public comment. Public and agency comments on the notice of intent alert the Office and the applicant to issues that the applicant will need to address.

2. Application for a Site Certificate

An application for a site certificate includes a detailed description of the proposed site, the proposed facility and the anticipated impacts. The applicant must show how the proposed facility complies with the Council's standards. The general content requirements for a site certificate application are listed in OAR 345-021-0010. Cities or counties that are considering amendments to their local land use permit procedures to address energy facility siting may find it useful to review this rule and adapt parts of it to the local process.

When an applicant submits the application, the applicant must choose whether to seek land use approval from the local jurisdiction or to have the Council make the land use determination. The choice is final. After submitting the application, the applicant cannot choose a different path for the land use decision.

3. Filing the Application

The date that an applicant submits the application to the Office is not the same as the date of "filing." The Office reviews the application to determine if it is complete. Copies of the application are distributed to affected state agencies and to local and tribal governments for review. These "reviewing agencies" help the Office determine whether the application is complete; that is, whether it contains enough information to support findings by the Council as to whether the facility meets the Council's siting standards and applicable state and local regulations. Numerous changes or additions to site certificate applications are common at this stage, either in response to Office requests for more information or as the result of changes in the applicant's plans.

The application is "filed" when the Office determines it is complete. Upon filing, the Office issues a public notice, as described in OAR 345-015-0190.

4. Draft Proposed Order

The Office conducts a thorough review of the filed application. The Office consults with the other state and local government agencies and requests their comments and proposed site certificate conditions. After completing its review, the Office issues a "draft proposed order." If the Office concludes that the proposed facility can meet the Council's standards and other applicable regulations, the draft proposed order would propose findings of fact, determinations of compliance and site certificate conditions for design, construction, operation and retirement of the facility. The draft proposed order reflects the recommendations of Office staff and the comments from other state and local agencies.

After public notice of the draft proposed order, the Office holds a public hearing. Anyone having a concern in opposition to the proposed facility must raise the issue at this hearing or in writing by the close of the hearing. Only those issues that are raised at the hearing can be addressed later in the contested case proceeding (ORS 469.370).

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5. Contested Case Proceeding

After the public hearing, the Council meets to review the draft proposed order. Based on the comments by the Council, public comment at the hearing, written comments and consultation with other governmental agencies, the Office then issues a “proposed order” and public notice of a contested case proceeding. The contested case proceeding is mandatory (ORS 469.370(5)).

The Council appoints an independent hearing officer to conduct the contested case proceeding. Aside from the applicant and Office staff, anyone else wanting to participate in the contested case proceeding must request party status from the hearing officer. The hearing process includes presentation of evidence, rebuttal, cross-examination, rights to discovery and appeal.

Following the hearing, the hearing officer issues a proposed contested case order, and the parties in the contested case proceeding may file exceptions. The Council then considers the hearing officer’s proposed contested case order and any exceptions along with the Office of Energy’s proposed order before deciding whether or not to issue a site certificate. At least four members of the seven-member Council must vote to approve a site certificate before the Council can issue the certificate.

6. Appeal

After the Council’s decision and final order, any party to the contested case has 30 days to apply for a rehearing. A party may petition for judicial review within 60 days after the date of service of the Council’s final order (or within 30 days after the date a petition for rehearing is denied). The Oregon Supreme Court has exclusive jurisdiction for judicial review of the Council’s decision.

VI. OREGON WATER RESOURCES COMMISSION

It is the policy of the State of Oregon “to protect the natural resources of this state from possible adverse impacts caused by the use of the waters of the state for the development of hydroelectric power” (ORS 543.015). To carry out this policy, the Oregon Water Resources Commission (“Commission”) has authority to review and approve new or expanded hydroelectric facilities. The Commission considers the expertise of other state agencies, such as the Energy Facility Siting Council and the Department of Environmental Quality, in reviewing a proposed hydroelectric project. The Commission applies the standards in OAR 690-051-0170 to 690-051-0290 in reviewing hydroelectric applications

1. Application Procedures

Any non-municipal company or person who proposes to operate, develop or expand a hydroelectric project must apply to the Oregon Water Resources Department (“Department”) for a state “preliminary permit.” The definition of a hydroelectric “project” is broad and includes the water rights, structures, rights-of-way, lands used for the facility and the transmission lines to the point of junction with a distribution system (ORS 543.010).

An application for a hydroelectric project will not be accepted if the project is in a designated federal or state resource area such as a park, scenic area or wildlife refuge listed in OAR 690-051-0030. An application is exempt from this restriction if the applicant has a valid lease from the agency managing the resource.

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When the Department receives an application to appropriate water for a hydroelectric project or for a hydroelectric permit or license, it must determine if the project has “cumulative” impacts with the impacts of other proposed other pending hydro projects or with existing hydroelectric projects in the same basin (ORS 543.255). If the Department determines that the project has cumulative impacts, the Commission must conduct a consolidated review as a contested case hearing under ORS 183.310 to 183.550.

2. Consultation with Public Agencies

An applicant for a hydroelectric license or permit must consult with appropriate public and private agencies before filing an application with the Department. By rule, an applicant must consult with the planning offices of affected local governments on matters that involve scenic resources, recreation resources, land use and access (OAR 690-051-0060).

3. Notice and Public Hearing

After an application for a preliminary permit has been accepted and referred to a hearing, the Commission gives written notice to adjacent land owners, to any city or county interested or affected by the project and to other interested parties. The Commission also publishes notice for at least four consecutive weeks in a newspaper of general circulation in the county in which the project is located (ORS 543.220).

The Commission holds a contested case hearing for any “major project” (a hydroelectric project of more than 100 theoretical horsepower). A contested case hearing may be held on lower-capacity “minor projects” if the Commission determines that it is in the public interest to do so (ORS 543.225 and OAR 690-051-0130).

A public hearing normally is held in a community near the proposed project, but the hearing can be held in Salem if no one files a protest or objection within the period announced in the notice. The governing body and the planning offices of any affected city and county must receive notice of the public hearing. Owners of property near the project also receive notice.

4. Issuance of Permits and Licenses

If the Commission finds that the applicable standards have been met, the Commission can issue a preliminary permit. The preliminary permit is issued for a period not to exceed three years. The holder of a preliminary permit can make application for a license to build and operate the hydroelectric facility. The license specifies terms and conditions under which the project can be built and operated and is valid for a period not exceeding 50 years (ORS 543.250 and 543.260).