

**DIVISION 21**  
**APPLICATION FOR A SITE CERTIFICATE**

**345-021-0000**

**General Requirements**

(1) Except for facilities that the Council has determined exempt as described in OAR 345-015-0350 to OAR 345-015-0370 or for which a separate site certificate is not required according to ORS 469.320(5), a person shall not construct or expand a facility unless the Council has granted a site certificate or an amendment to an existing site certificate.

(2) Notwithstanding the definition of “energy facility,” a person may elect to apply for a site certificate for an electric power generating plant with an average electric generating capacity of less than 35 megawatts from wind energy.

(3) An applicant shall not submit an application for a site certificate before the Department of Energy has issued a project order for the proposed facility as described in OAR 345-015-0160. The applicant may submit a draft application before the issuance of a project order. The applicant must submit the application before the expiration of the notice of intent.

(4) For an expedited review granted under OAR 345-015-0300 or OAR 345-015-0310, section (3) does not apply and the applicant may submit an application for a site certificate any time after the Department determines the request for expedited review satisfies the requirements for expedited review as described in those rules.

(5) If the applicant submits a written request for waiver or modification of requirements in OAR 345-021-0010 to the Department, the Department may waive or modify those requirements that the Department determines are not applicable to the proposed facility.

(6) If there are any state or local government agency permits, licenses or certificates that are subject to the Council’s siting decision, the applicant shall include within the site certificate application all information that would otherwise be required by the state or local government agency in an application for such permit, license or certificate.

(7) If there are any federally-delegated permits that apply to the construction or operation of the proposed facility, the applicant shall submit to the Department one copy of each federally-delegated permit application. The applicant may submit the site certificate application before submitting a copy of a federally-delegated permit application if the applicant submits a schedule of the date by which the applicant intends to submit the federally-delegated permit application. The Department may not find the site certificate application to be complete before receiving copies of all federally-delegated permit applications and a letter or other indication from each agency responsible for issuing a federally-delegated permit stating that the agency has received the permit application, identifying any additional information the agency is likely to need

from the applicant and estimating the date when the agency will complete its review and issue a permit decision.

(8) If the proposed facility is a non-generating facility for which the applicant must demonstrate need under OAR 345-023-0005, in addition to the application for a site certificate described in OAR 345-021-0010, the applicant shall submit to the Department three copies of each energy resource plan or combination of plans on which the applicant relies to demonstrate need under OAR 345-023-0020, unless the applicant chooses to incorporate copies of the plan(s) as part of the application for a site certificate. The applicant shall submit the plan(s) to the Department with the site certificate application. The Department may not find the site certificate application to be complete before receiving copies of the plan(s). The plan or plans described in this section are part of the decision record for the Department's proposed order, described in OAR 345-015-0230.

(9) The applicant shall submit an application for a site certificate to the Department with 25 percent of the fee the Department determines necessary for review of the application under ORS 469.421(3), payable to the Oregon Department of Energy. The applicant shall pay the balance of the fee periodically, as specified by the Department.

(10) Until the Department determines the application to be complete as described in OAR 345-015-0190 or OAR 345-015-0310, it is a preliminary application. For the purpose of determining the applicable substantive criteria under ORS 469.504(1)(b)(A), the date the preliminary application is received by the Department is the date the application is submitted.

Stat. Authority: ORS 469.373, ORS 469.470

Stat. Implemented: ORS 469.350, ORS 469.370, ORS 469.421

## **345-021-0010**

### **Contents of an Application**

(1) The project order described in OAR 345-15-160(1) identifies the provisions of this rule applicable to the application for the proposed facility, including any appropriate modifications to applicable provisions of this rule. The applicant shall include in its application for a site certificate information that addresses each provision of this rule identified in the project order. The applicant shall designate the information with the appropriate exhibit label identified in the following subsections. If the same information is required in each of several exhibits the applicant may provide the required information in one exhibit and include appropriate references in the others. For the purpose of submitting an application for a site certificate in an expedited review granted under OAR 345-015-0300 or OAR 345-015-0310, the applicant shall include information that addresses all provisions of this rule. In such expedited reviews, analysis areas addressed in this rule are the study areas defined in OAR 345-001-0010, subject to later modification in the project order.

(a) **Exhibit A.** Information about the applicant and participating persons, including:

(A) The name and address of the applicant including all co-owners of the proposed facility, the name, mailing address and telephone number of the contact person for the application, and if there is a contact person other than the applicant, the name, title, mailing address and telephone number of that person;

(B) The contact name, address and telephone number of all participating persons, other than individuals, including but not limited to any parent corporation of the applicant, persons upon whom the applicant will rely for third-party permits or approvals related to the facility, and, if known, other persons upon whom the applicant will rely in meeting any facility standard adopted by the Council.

(C) If the applicant is a corporation, it shall give:

(i) The full name, official designation, mailing address and telephone number of the officer responsible for submitting the application;

(ii) The date and place of its incorporation;

(iii) A copy of its articles of incorporation and its authorization for submitting the application; and

(iv) In the case of a corporation not incorporated in Oregon, the name and address of the resident attorney-in-fact in this state and proof of registration to do business in Oregon.

(D) If the applicant is a wholly owned subsidiary of a company, corporation or other business entity, in addition to the information required by paragraph (C), it shall give the full name and business address of each of the applicant's full or partial owners;

(E) If the applicant is an association of citizens, a joint venture or a partnership, it shall give:

(i) The full name, official designation, mailing address and telephone number of the person responsible for submitting the application;

(ii) The name, business address and telephone number of each person participating in the association, joint venture or partnership and the percentage interest held by each;

(iii) Proof of registration to do business in Oregon;

(iv) A copy of its articles of association, joint venture agreement or partnership agreement and a list of its members and their cities of residence; and

(v) If there are no articles of association, joint venture agreement or partnership agreement, the applicant shall state that fact over the signature of each member;

(F) If the applicant is a public or governmental entity, it shall give:

(i) The full name, official designation, mailing address and telephone number of the person responsible for submitting the application; and

(ii) Written authorization from the entity's governing body to submit an application;

(G) If the applicant is an individual, the individual shall give his or her mailing address and telephone number;

(b) **Exhibit B.** Information about the proposed facility, construction schedule and temporary disturbances of the site, including:

(A) A description of the proposed energy facility, including as applicable:

(i) The nominal electric generating capacity and the average electrical generating capacity, as defined in ORS 469.300.

(ii) Major components, structures and systems, including a description of the size, type and configuration of equipment used to generate electricity and useful thermal energy.

(iii) A site plan and general arrangement of buildings, equipment and structures.

(iv) Fuel and chemical storage facilities, including structures and systems for spill containment

(v) Equipment and systems for fire prevention and control.

(vi) For thermal power plants:

(I) A discussion of the source, quantity and availability of all fuels proposed to be used in the facility to generate electricity or useful thermal energy.

(II) Process flow, including power cycle and steam cycle diagrams to describe the energy flows within the system;

(III) Equipment and systems for disposal of waste heat;

(IV) The fuel chargeable to power heat rate;

(vii) For surface facilities related to underground gas storage, estimated daily injection and withdrawal rates, horsepower compression required to operate at design injection or withdrawal rates, operating pressure range and fuel type of compressors.

(viii) For facilities to store liquefied natural gas, the volume, maximum pressure, liquefaction and gasification capacity in thousand cubic feet per hour.

(B) A description of major components, structures and systems of each related or supporting facility.

(C) The approximate dimensions of major facility structures and visible features.

(D) If the proposed energy facility is a pipeline or a transmission line or has, as a related or supporting facility, a transmission line or pipeline that, by itself, is an energy facility under the definition in ORS 469.300, a corridor selection assessment explaining how the applicant selected the corridor(s) for analysis in the application. In the assessment, the applicant shall evaluate the corridor adjustments the Department has described in the project order, if any. The applicant may select any corridor for analysis in the application and may select more than one corridor. However, if the applicant selects a new corridor, then the applicant must explain why the applicant did not present the new corridor for comment at an informational meeting under OAR 345-015-0130. In

the assessment, the applicant shall discuss the reasons for selecting the corridor(s), based upon evaluation of the following factors:

(i) Least disturbance to streams, rivers and wetlands during construction;

(ii) Least percentage of the total length of the pipeline or transmission line that would be located within areas of Habitat Category 1, as described by the Oregon Department of Fish and Wildlife;

(iii) Greatest percentage of the total length of the pipeline or transmission line that would be located within or adjacent to public roads, as defined in ORS 368.001, and existing pipeline or transmission line rights-of-way;

(iv) Least percentage of the total length of the pipeline or transmission line that would be located within lands that require zone changes, variances or exceptions;

(v) Least percentage of the total length of the pipeline or transmission line that would be located in a protected area as described in OAR 345-022-0040;

(vi) Least disturbance to areas where historical, cultural or archaeological resources are likely to exist; and

(vii) Greatest percentage of the total length of the pipeline or transmission line that would be located to avoid seismic, geological and soils hazards;

(viii) Least percentage of the total length of the pipeline or transmission line that would be located within lands zoned for exclusive farm use;

(E) For any pipeline or transmission line, regardless of size:

(i) The length of the pipeline or transmission line.

(ii) The proposed right-of-way width of the pipeline or transmission line, including to what extent new right-of-way will be required or existing right-of-way will be widened.

(iii) If the proposed corridor follows or includes public right-of-way, a description of where the facility would be located within the public right-of-way, to the extent known. If the applicant proposes to locate all or part of a pipeline or transmission line adjacent to but not within the public right-of-way, describe the reasons for locating the facility outside the public right-of-way. The applicant must include a set of clear and objective criteria and a description of the type of evidence that would support locating the facility outside the public right-of-way, based on those criteria.

(iv) For pipelines, the operating pressure and delivery capacity in thousand cubic feet per day and the diameter and location, above or below ground, of each pipeline.

(v) For transmission lines, the rated voltage, load carrying capacity, and type of current and a description of transmission line structures and their dimensions.

(F) A construction schedule including the date by which the applicant proposes to begin construction and the date by which the applicant proposes to complete construction. Construction is defined in OAR 345-001-0010. The applicant shall describe in this exhibit all work on the site that the applicant intends to begin before the Council issues a site certificate. The applicant shall include an estimate of the cost of that work. For the purpose of this exhibit, “work on the site” means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor, that the applicant anticipates or has performed as of the time of submitting the application.

(c) **Exhibit C.** Information about the location of the proposed facility, including:

(A) A map or maps showing the proposed locations of the energy facility site, all related or supporting facility sites and all areas that might be temporarily disturbed during construction of the facility in relation to major roads, water bodies, cities and towns, important landmarks and topographic features, using a scale of 1 inch = 2000 feet or smaller when necessary to show detail; and

(B) A description of the location of the proposed energy facility site, the proposed site of each related or supporting facility and areas of temporary disturbance, including the approximate land area of each. If a proposed pipeline or transmission line is to follow an existing road, pipeline or transmission line, the applicant shall state to which side of the existing road, pipeline or transmission line the proposed facility will run, to the extent this is known;

(d) **Exhibit D.** Information about the organizational expertise of the applicant to construct and operate the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0010, including:

(A) The applicant's previous experience, if any, in constructing and operating similar facilities;

(B) The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted;

(C) The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted;

(D) The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility;

(E) If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise; and

(F) If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program;

(G) If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.

(e) **Exhibit E.** Information about permits needed for construction and operation of the facility, including:

(A) Identification of all federal, state and local government permits needed before construction and operation of the proposed facility, legal citation of the statute, rule or ordinance governing each permit, and the name, address and telephone number of the agency or office responsible for each permit.

(B) A description of each permit and the reasons the permit is needed for construction or operation of the facility.

(C) For any state or local government agency permits, licenses or certificates that are subject to the Council's siting decision, evidence to support findings by the Council that construction and operation of the proposed facility will comply with the statutes, rules and standards applicable to the permit. The applicant may show this evidence:

(i) In Exhibit J for permits related to wetlands;

(ii) In Exhibit O for permits related to water rights.

(D) For federally-delegated permit applications, evidence that the responsible agency has received a permit application and the estimated date when the responsible agency will complete its review and issue a permit decision.

(E) If the applicant relies on a state or local government permit or approval issued to a third party, identification of any such third-party permit and for each:

(i) Evidence that the applicant has, or has a reasonable likelihood of entering into, a contract or other agreement with the third party for access to the resource or service to be secured by that permit;

(ii) Evidence that the third party has, or has a reasonable likelihood of obtaining, the necessary permit; and

(iii) An assessment of the impact of the proposed facility on any permits that a third party has obtained and on which the applicant relies to comply with any applicable Council standard.

(F) If the applicant relies on a federally-delegated permit issued to a third party, identification of any such third-party permit and for each:

(i) Evidence that the applicant has, or has a reasonable likelihood of entering into, a contract or other agreement with the third party for access to the resource or service to be secured by that permit;

(ii) Evidence that the responsible agency has received a permit application; and

(iii) The estimated the date when the responsible agency will complete its review and issue a permit decision.

(G) The applicant's proposed monitoring program, if any, for compliance with permit conditions.

(f) **Exhibit F.** A list of the names and mailing addresses of all owners of record, as shown on the most recent property tax assessment roll, of property located within or adjacent to the site boundary as defined in OAR 345-001-0010. The applicant shall submit an updated list of property owners as requested by the Department before the Department issues notice of any public hearing on the application for a site certificate as described in OAR 345-015-0220. In addition to incorporating the list in the application for a site certificate, the applicant shall submit the list to the Department in electronic format acceptable to the Department for the production of mailing labels. Property adjacent to the site boundary means property that is:

(A) Within 100 feet of the site boundary where the site, corridor or micro-siting corridor is within an urban growth boundary;

(B) Within 250 feet of the site boundary where the site, corridor or micro-siting corridor is outside an urban growth boundary and not within a farm or forest zone; and

(C) Within 500 feet of the site boundary where the site, corridor or micro-siting corridor is within a farm or forest zone;

(g) **Exhibit G.** A materials analysis including:

(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;

(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and

(C) The applicant's plans to manage non-hazardous waste materials during construction and operation;

(h) **Exhibit H.** Information from reasonably available sources regarding the geological and soil stability within the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0020, including:



(A) A geologic report meeting the guidance in Oregon Department of Geology and Mineral Industries open file report 00-04 “Guidelines for Engineering Geologic reports and Site-Specific Seismic Hazard Reports.”

(B) A description and schedule of site-specific geotechnical work that will be performed before construction for inclusion in the site certificate as conditions.

(C) Evidence of consultation with the Oregon Department of Geology and Mineral Industries regarding the appropriate site-specific geotechnical work that must be performed before submitting the application for the Department to determine that the application is complete.

(D) For all transmission lines, a description of locations along the proposed route where the applicant proposes to perform site specific geotechnical work, including but not limited to railroad crossings, major road crossings, river crossings, dead ends, corners, and portions of the proposed route where geologic reconnaissance and other site specific studies provide evidence of existing landslides or marginally stable slopes that could be made unstable by the planned construction.

(E) For all pipelines that would carry explosive, flammable or hazardous materials, a description of locations along the proposed route where the applicant proposes to perform site specific geotechnical work, including but not limited to railroad crossings, major road crossings, river crossings and portions of the proposed alignment where geologic reconnaissance and other site specific studies provide evidence of existing landslides or marginally stable slopes that could be made unstable by the planned construction.

(F) An assessment of seismic hazards. For the purposes of this assessment, the maximum probable earthquake (MPE) is the maximum earthquake that could occur under the known tectonic framework with a 10 percent chance of being exceeded in a 50 year period. If seismic sources are not mapped sufficiently to identify the ground motions above, the applicant shall provide a probabilistic seismic hazard analysis to identify the peak ground accelerations expected at the site for a 500 year recurrence interval and a 5000 year recurrence interval. In the assessment, the applicant shall include:

(i) Identification of the Maximum Considered Earthquake Ground Motion shown at International Building Code (2003 edition) Section 1615 for the site.

(ii) Identification and characterization of all earthquake sources capable of generating median peak ground accelerations greater than 0.05g on rock at the site. For each earthquake source, the applicant shall assess the magnitude and minimum epicentral distance of the maximum credible earthquake (MCE).

(iii) A description of any recorded earthquakes within 50 miles of the site and of recorded earthquakes greater than 50 miles from the site that caused ground shaking at the site more intense than the Modified Mercalli III

intensity. The applicant shall include the date of occurrence and a description of the earthquake that includes its magnitude and highest intensity and its epicenter location or region of highest intensity.

(iv) Assessment of the median ground response spectrum from the MCE and the MPE and identification of the spectral accelerations greater than the design spectrum provided in the Oregon Structural Specialty Code (2004 edition). The applicant shall include a description of the probable behavior of the subsurface materials and amplification by subsurface materials and any topographic or subsurface conditions that could result in expected ground motions greater than those characteristic of the Maximum Considered Earthquake Ground Motion identified above.

(v) An assessment of seismic hazards expected to result from reasonably probable seismic events. As used in this rule “seismic hazard” includes ground shaking, ground failure, landslide, lateral spreading, liquefaction, tsunami inundation, fault displacement and subsidence.

(G) An assessment of soil-related hazards such as landslides, flooding and erosion which could, in the absence of a seismic event, adversely affect or be aggravated by the construction or operation of the facility.

(H) An explanation of how the applicant will design, engineer and construct the facility to avoid dangers to human safety from the seismic hazards identified in paragraph (F). The applicant shall include proposed design and engineering features, applicable construction codes, and any monitoring for seismic hazards.

(I) An explanation of how the applicant will design, engineer and construct the facility to adequately avoid dangers to human safety presented by the hazards identified in paragraph (G).

(i) **Exhibit I.** Information from reasonably available sources regarding soil conditions and uses in the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0022, including:

(A) Identification and description of the major soil types in the analysis area.

(B) Identification and description of current land uses in the analysis area, such as growing crops, that require or depend on productive soils.

(C) Identification and assessment of significant potential adverse impact to soils from construction, operation and retirement of the facility, including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.

(D) A description of any measures the applicant proposes to avoid or mitigate adverse impact to soils.

(E) The applicant’s proposed monitoring program, if any, for adverse impact to soils during construction and operation.

(j) **Exhibit J.** Information based on literature and field study, as appropriate, about waters of the state or waters of the United States, including:

(A) A description of all areas within the site boundary that might be waters of the state or waters of the United States and a map showing the location of these features.

(B) An analysis of whether construction or operation of the proposed facility would adversely affect any waters of the state, as defined under OAR 141-085-0010, or waters of the United States, as defined under Section 404 of the Clean Water Act.

(C) A description of the significance of potential adverse impacts to each feature identified in (A), including the nature and amount of material the applicant would remove from or place in the waters analyzed in (B).

(D) If the proposed facility would not need a removal-fill authorization as described under OAR 141-085-0018, an explanation of why no such authorization is required for the construction and operation of the proposed facility.

(E) If the proposed facility would need a removal-fill authorization, information to support a determination by the Council that the Oregon Department of State Lands should issue a removal-fill permit, including information in the form required by the Department of State Lands under OAR Chapter 141 Division 85.

(F) A description of proposed actions to mitigate adverse impacts to the features identified in (A) and the applicant's proposed monitoring program, if any, for such impacts.

(k) **Exhibit K.** Information about the proposed facility's compliance with the statewide planning goals adopted by the Land Conservation and Development Commission, providing evidence to support a finding by the Council as required by OAR 345-022-0030. The applicant shall state whether the applicant elects to address the Council's land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 504(1)(b). An applicant may elect different processes for an energy facility and a related or supporting facility but may not otherwise combine the two processes. Notwithstanding OAR 345-021-0090(2), once the applicant has made an election, the applicant may not amend the application to make a different election. In this subsection, "affected local government" means a local government that has land use jurisdiction over any part of the proposed site of the facility. In the application, the applicant shall:

(A) Include a map showing the comprehensive plan designations and land use zones in the analysis area;

(B) If the applicant elects to obtain local land use approvals:

(i) Identify the affected local government(s) from which land use approvals will be sought;

(ii) Describe the land use approvals required in order to satisfy the Council's land use standard;

(iii) Describe the status of the applicant's application for each land use approval; and

(iv) Provide an estimate of time for issuance of local land use approvals;

(C) If the applicant elects to obtain a Council determination on land use:

(i) Identify the affected local government(s);

(ii) Identify the applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria;

(iii) Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals and statutes;

(iv) If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals; and

(v) If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2); and

(D) If the proposed facility will be located on federal land:

(i) Identify the applicable land management plan adopted by the federal agency with jurisdiction over the federal land;

(ii) Explain any differences between state or local land use requirements and federal land management requirements;

(iii) Describe how the proposed facility complies with the applicable federal land management plan;

(iv) Describe any federal land use approvals required for the proposed facility and the status of application for each required federal land use approval;

(v) Provide an estimate of time for issuance of federal land use approvals; and

(vi) If federal law or the land management plan conflicts with any applicable state or local land use requirements, explain the differences in the conflicting requirements, state whether the applicant requests Council waiver of the land use standard described under paragraph (B) or (C) of this subsection and explain the basis for a waiver;

(L) **Exhibit L.** Information about the proposed facility's impact on protected areas, providing evidence to support a finding by the Council as required by OAR 345-022-0040, including:

(A) A list of the protected areas within the analysis area showing the distance and direction from the proposed facility and the basis for protection by reference to a specific subsection under OAR 345-022-0040(1).

(B) A map showing the location of the proposed facility in relation to the protected areas listed in OAR 345-022-0040 located within the analysis area.

(C) A description of significant potential impacts of the proposed facility, if any, on the protected areas including, but not limited to, potential impacts such as:

(i) Noise resulting from facility construction or operation;

(ii) Increased traffic resulting from facility construction or operation;

(iii) Water use during facility construction or operation;

(iv) Wastewater disposal resulting from facility construction or operation;

(v) Visual impacts of facility structures or plumes.

(vi) Visual impacts from air emissions resulting from facility construction or operation, including, but not limited to, impacts on Class 1 Areas as described in OAR 340-204-0050.

(m) **Exhibit M.** Information about the applicant's financial capability, providing evidence to support a finding by the Council as required by OAR 345-022-0050(2). Nothing in this subsection shall require the disclosure of information or records protected from public disclosure by any provision of state or federal law. The applicant shall include:

(A) An opinion or opinions from legal counsel stating that, to counsel's best knowledge, the applicant has the legal authority to construct and operate the facility without violating its bond indenture provisions, articles of incorporation, common stock covenants, or similar agreements;

(B) The type and amount of the applicant's proposed bond or letter of credit to meet the requirements of OAR 345-022-0050; and

(C) Evidence that the applicant has a reasonable likelihood of obtaining the proposed bond or letter of credit in the amount proposed in paragraph (B), before beginning construction of the facility;

(n) **Exhibit N.** If the proposed facility is a non-generating facility for which the applicant must demonstrate need under OAR 345-023-0005, information about the need for the facility, providing evidence to support a finding by the Council as required by OAR 345-023-0005, including:

(A) Identification of the rule in Division 23 of this chapter under which the applicant chooses to demonstrate need;

(B) If the applicant chooses to demonstrate need for the proposed facility under OAR 345-023-0020(1), the least-cost plan rule:

- (i) Identification of the energy resource plan or combination of plans on which the applicant relies to demonstrate need;
  - (ii) The name, address and telephone number of the person responsible for preparing each energy resource plan identified in subparagraph (i);
  - (iii) For each plan reviewed by a regulatory agency, the agency's findings and final decision, including:
    - (I) For a plan reviewed by the Oregon Public Utility Commission, the acknowledgment order; or
    - (II) For a plan reviewed by any other regulatory agency, a summary of the public process including evidence to support a finding by the Council that the agency's decision process included a full, fair and open public participation and comment process as required by OAR 345-023-0020(1)(L), and the location of and means by which the Department can obtain a complete copy of the public record;
  - (iv) Identification of the section(s) of the short-term action plan(s) that call(s) for the acquisition of the proposed facility or, as defined in OAR 345-001-0010, a facility substantially similar to the proposed facility; and
  - (v) The attributes of the proposed facility that qualify it as one called for in the short-term action plan of the energy resource plan or combination of plans identified in subparagraph (i) or a demonstration that, as defined in OAR 345-001-0010, a facility substantially similar to the proposed facility is called for in the plan(s);
- (C) In addition to the information described in paragraph (B), if the applicant chooses to demonstrate need for the proposed facility under OAR 345-023-0020(1), the least-cost plan rule, and relies on an energy resource plan not acknowledged by the Public Utility Commission of Oregon:
- (i) The names, addresses and telephone numbers of members of any public advisory groups that participated in the preparation and review of each plan identified in paragraph (B);
  - (ii) A discussion of how the plan or combination of plans conforms to the standards in OAR 345-023-0020(1)(a) through (L) including citations to relevant portions of the plan documents or other supporting evidence; and
  - (iii) The expected annual emissions in tons of nitrogen oxides, PM-10 particulate, sulfur dioxide, carbon dioxide and mercury and a discussion of other environmental impacts, as compared to resources in the applicable energy resource plan;
- (D) In addition to the information described in paragraphs (B) and (C), if the applicant chooses to demonstrate need for a proposed natural gas pipeline or storage facility for liquefied natural gas under OAR 345-023-0020(1), the least-cost plan rule, and relies on an energy resource plan not acknowledged by the Public Utility Commission of Oregon, the applicant shall include the information described in paragraph (G) of this subsection if the energy resource

plan or combination of plans does not contain that information. If the energy resource plan or combination of plans contains the information described in paragraph (G), the applicant shall provide a list of citations to the sections of the energy resource plan(s) that contain the information;

(E) In addition to the information described in paragraphs (B) and (C), if the applicant chooses to demonstrate need for a proposed electric transmission line under OAR 345-023-0020(1), the least-cost plan rule and relies on an energy resource plan not acknowledged by the Public Utility Commission of Oregon, the applicant shall include the information described in paragraph (F) of this subsection if the energy resource plan or combination of plans does not contain that information. If the energy resource plan or combination of plans contains the information described in paragraph (F), the applicant shall provide a list of citations to the sections of the energy resource plan(s) that contain the information;

(F) If the applicant chooses to demonstrate need for a proposed electric transmission line under OAR 345-023-0030, the system reliability rule:

(i) Load-resource balance tables for the area to be served by the proposed facility. In the tables, the applicant shall include firm capacity demands and existing and committed firm resources for each of the years from the date of submission of the application to at least five years after the expected in-service date of the facility.

(ii) Within the tables described in subparagraph (i), a forecast of firm capacity demands for electricity and firm annual electricity sales for the area to be served by the proposed facility. The applicant shall separate firm capacity demands and firm annual electricity sales into loads of retail customers, system losses, reserve margins and each wholesale contract for firm sale. In the forecast, the applicant shall include a discussion of how the forecast incorporates reductions in firm capacity demand and firm annual electricity sales resulting from:

(I) Existing federal, state or local building codes, and equipment standards and conservation programs required by law for the area to be served by the proposed facility;

(II) Conservation programs provided by the energy supplier, as defined in OAR 345-001-0010;

(III) Conservation that results from responses to price; and

(IV) Retail customer fuel choice;

(iii) Within the tables described in subparagraph (i), a forecast of existing and committed firm resources used to meet the demands described in subparagraph (ii). The applicant shall include, as existing and committed firm resources, existing generation and transmission facilities, firm contract resources and committed new resources minus expected resource retirements or displacement. In the forecast, the applicant shall list each resource separately;

(iv) A discussion of the reasons each resource is being retired or displaced if the forecast described in subparagraph (iii) includes expected retirements or displacements;

(v) A discussion of the annual capacity factors assumed for any generating facilities listed in the forecast described in subparagraph (iii);

(vi) A discussion of the reliability criteria the applicant uses to demonstrate the proposed facility is needed, considering the load carrying capability of existing transmission system facilities supporting the area to be served by the proposed facility; and

(vii) A discussion of reasons why the proposed facility is economically reasonable compared to the alternatives described below. In the discussion, the applicant shall include a table showing the amounts of firm capacity and firm annual electricity available from the proposed facility and each alternative and the estimated direct cost, as defined in OAR 345-001-0010, of the proposed facility and each alternative. The applicant shall include documentation of assumptions and calculations supporting the table. The applicant shall evaluate alternatives to construction and operation of the proposed facility that include, but are not limited to:

(I) Implementation of cost-effective conservation, peak load management and voluntary customer interruption as a substitute for the proposed facility;

(II) Construction and operation of electric generating facilities as a substitute for the proposed facility;

(III) Direct use of natural gas, solar or geothermal resources at retail loads as a substitute for use of electricity transmitted by the proposed facility; and

(IV) Adding standard sized smaller or larger transmission line capacity;

(viii) The earliest and latest expected in-service dates of the facility and a discussion of the circumstances of the energy supplier, as defined in OAR 345-001-0010, that determine these dates; and

(G) If the applicant chooses to demonstrate need for a proposed natural gas pipeline or a proposed facility for storing liquefied natural gas under OAR 345-023-0040, the economically reasonable rule:

(i) Load-resource balance tables for the area to be served by the proposed facility. In the tables, the applicant shall include firm demands and resource availability for each of the years from the date of submission of the application to at least five years after the expected in-service date of the proposed facility. In the tables, the applicant shall list flowing supply and storage supply separately;

(ii) Within the tables described in subparagraph (i), a forecast of firm capacity demands for the area to be served by the proposed facility. The applicant shall separate firm capacity demands into firm demands of retail



customers, system losses and each wholesale contract for firm sale. The applicant shall accompany the tables with load duration curves of firm capacity and interruptible demands for the most recent historical year, the year the facility is expected to be placed in service and the fifth year after the expected in-service date. In the forecast of firm capacity demands, the applicant shall include a discussion of how the forecast incorporates reductions in firm capacity demand resulting from:

(I) Existing federal, state or local building codes and equipment standards and conservation programs required by law for the area to be served by the proposed facility;

(II) Conservation programs provided by the energy supplier, as defined in OAR 345-001-0010;

(III) Conservation that results from responses to price; and

(IV) Retail customer fuel choice;

(iii) Within the tables described in subparagraph (i), a forecast of existing and committed firm resources used to meet the demands described in subparagraph (ii). The applicant shall include, as existing and committed firm capacity resources, existing pipelines, storage facilities, and scheduled and budgeted new facilities minus expected resource retirements or displacement. In the forecast, the applicant shall list each committed resource separately;

(iv) A discussion of the reasons each resource is being retired or displaced if the forecast described in subparagraph (iii) includes expected retirements or displacements;

(v) A discussion of the capacity factors assumed for any storage facilities listed in the forecast described in subparagraph (iii);

(vi) A discussion of the reliability criteria the applicant uses to demonstrate the proposed facility is needed, considering the capacity of existing gas system facilities supporting the area to be served by the proposed facility;

(vii) A discussion of reasons why the proposed facility is economically reasonable compared to the alternatives described in subparagraphs (viii) or (ix). In the discussion, the applicant shall include a table showing the amounts of firm capacity available from the proposed facility and each alternative and the estimated direct cost, as defined in OAR 345-001-0010, of the proposed facility and each alternative. The applicant shall include documentation of assumptions and calculations supporting the table;

(viii) In an application for a proposed natural gas pipeline, an evaluation of alternatives to construction and operation of the proposed facility including, but not limited to:

(I) Implementation of cost-effective conservation, peak load management and voluntary customer interruption as a substitute for the proposed facility;

(II) Installation of propane storage systems, facilities to store liquefied natural gas and underground gas storage reservoirs as a substitute for the proposed facility;

(III) Direct use of electricity, solar or geothermal resources at retail loads as a substitute for use of natural gas supplied by the proposed facility; and

(IV) Adding standard sized smaller or larger pipeline capacity.

(ix) In an application for a proposed liquefied natural gas storage facility, an evaluation of alternatives to construction and operation of the proposed facility including, but not limited to:

(I) Implementation of cost-effective conservation, peak load management and voluntary customer interruption as a substitute for the proposed facility;

(II) Installation of propane storage systems, natural gas pipelines and underground gas storage facilities as a substitute for the proposed facility;

(III) Direct use of electricity, solar or geothermal resources at retail loads as a substitute for use of natural gas supplied by the proposed facility; and

(IV) Adding smaller or larger liquefied natural gas storage capacity; and

(x) The earliest and latest expected in-service date of the facility and a discussion of the circumstances of the energy supplier, as defined in OAR 345-001-0010, that determine these dates;

(o) **Exhibit O.** Information about anticipated water use during construction and operation of the proposed facility. The applicant shall include:

(A) A description of the use of water during construction and operation of the proposed facility.

(B) A description of each source of water and the applicant's estimate of the amount of water the facility will need during construction and during operation from each source under annual average and worst-case conditions.

(C) A description of each avenue of water loss or output from the facility site for the uses described in (A), the applicant's estimate of the amount of water in each avenue under annual average and worst-case conditions and the final disposition of all wastewater.

(D) For thermal power plants, a water balance diagram, including the source of cooling water and the estimated consumptive use of cooling water during operation, based on annual average conditions.

(E) If the proposed facility would not need a groundwater permit, a surface water permit or a water right transfer, an explanation of why no such permit or transfer is required for the construction and operation of the proposed facility.

(F) If the proposed facility would need a groundwater permit, a surface water permit or a water right transfer, information to support a determination by

the Council that the Water Resources Department should issue the permit or transfer of a water use, including information in the form required by the Water Resources Department under OAR Chapter 690, Divisions 310 and 380.

(G) A description of proposed actions to mitigate the adverse impacts of water use on affected resources.

(p) **Exhibit P.** Information about the fish and wildlife habitat and the fish and wildlife species, other than the species addressed in subsection (q) that could be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0060. The applicant shall include:

(A) A description of biological and botanical surveys performed that support the information in this exhibit, including a discussion of the timing and scope of each survey.

(B) Identification of all fish and wildlife habitat in the analysis area, classified by the habitat categories as set forth in OAR 635-415-0025 and a description of the characteristics and condition of that habitat in the analysis area.

(C) A map showing the locations of the habitat identified in (B).

(D) Based on consultation with the Oregon Department of Fish and Wildlife (ODFW) and appropriate field study and literature review, identification of all State Sensitive Species that might be present in the analysis area and a discussion of any site-specific issues of concern to ODFW.

(E) A baseline survey of the use of habitat in the analysis area by species identified in (D) performed according to a protocol approved by the Department and ODFW.

(F) A description of the nature, extent and duration of potential adverse impacts on the habitat identified in (B) and species identified in (D) that could result from construction, operation and retirement of the proposed facility.

(G) A description of any measures proposed by the applicant to avoid, reduce or mitigate the potential adverse impacts described in (F) in accordance with the ODFW mitigation goals described in OAR 635-415-0025 and a discussion of how the proposed measures would achieve those goals.

(H) A description of the applicant's proposed monitoring plans to evaluate the success of the measures described in (G).

(q) **Exhibit Q.** Information about threatened and endangered plant and animal species that may be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0070. The applicant shall include:

(A) Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2) or 16 USC § 1533 that may be affected by the proposed facility;

(B) For each species identified under (A), a description of the nature, extent, locations and timing of its occurrence in the analysis area and how the facility might adversely affect it;

(C) For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact;

(D) For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3);

(E) For each plant species identified under paragraph (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species;

(F) For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(G) The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species;

(r) **Exhibit R.** An analysis of significant potential impacts of the proposed facility, if any, on scenic resources identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0080, including:

(A) A list of the local, tribal and federal plans that address lands within the analysis area.

(B) Identification and description of the scenic resources identified as significant or important in the plans listed in (A).

(C) A description of significant potential adverse impacts to the scenic resources identified in (B), including, but not limited to, impacts such as:

(i) Loss of vegetation or alteration of the landscape as a result of construction or operation; and

(ii) Visual impacts of facility structures or plumes.

(D) The measures the applicant proposes to avoid, reduce or otherwise mitigate any significant adverse impacts.

(E) A map or maps showing the location of the scenic resources described under (B).

(F) The applicant's proposed monitoring program, if any, for impacts to scenic resources.

(s) **Exhibit S.** Information about historic, cultural and archaeological resources. Information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or ORS 192.501(11). The applicant shall submit such information separately, clearly marked as “confidential,” and shall request that the Department and the Council keep the information confidential to the extent permitted by law. The applicant shall include information in Exhibit S or in confidential submissions providing evidence to support a finding by the Council as required by OAR 345-022-0090, including:

(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places;

(B) For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area;

(C) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area;

(D) The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:

(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B) and (C).

(ii) The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.

(iii) A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction.

(iv) A completed copy of any permit applications submitted pursuant to ORS 358.920.

(E) The applicant’s proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility.

(t) **Exhibit T.** Information about the impacts the proposed facility would have on important recreational opportunities in the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0100, including:

(A) A description of important recreational opportunities in the analysis area considering the criteria in OAR 345-022-0100 including information on the factors listed in OAR 345-022-0100(1).

(B) A description of significant potential adverse impacts to the opportunities identified in (A) including, but not limited to, potential impacts such as:

(i) Direct or indirect loss of an opportunity as a result of construction or operation.

(ii) Noise resulting from facility construction or operation.

(iii) Increased traffic resulting from facility construction or operation.

(iv) Visual impacts of facility structures or plumes.

(C) A description of any measures the applicant proposes to avoid, reduce or otherwise mitigate the significant adverse impacts identified in (B).

(D) A map of the analysis area showing the locations of important recreational opportunities identified in (A).

(E) The applicant's proposed monitoring program, if any, for impacts to important recreational opportunities.

(u) **Exhibit U.** Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of public and private providers in the analysis area to provide the services listed in OAR 345-022-0110, providing evidence to support a finding by the Council as required by OAR 345-022-0110. The applicant shall include:

(A) The important assumptions the applicant used to evaluate potential impacts;

(B) Identification of the public and private providers in the analysis area that would likely be affected;

(C) A description of any likely adverse impact to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110;

(D) Evidence that adverse impacts described in (C) are not likely to be significant, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts; and

(E) The applicant's proposed monitoring program, if any, for impacts to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110;

(v) **Exhibit V.** Information about the applicant's plans to minimize the generation of solid waste and wastewater and to recycle or reuse solid waste and wastewater, providing evidence to support a finding by the Council as required by OAR 345-022-0120. The applicant shall include:

(A) A description of the major types of solid waste and wastewater that construction, operation and retirement of the facility are likely to generate, including an estimate of the amount of solid waste and wastewater.

(B) A description of any structures, systems and equipment for management and disposal of solid waste, wastewater and storm water.

(C) A discussion of any actions or restrictions proposed by the applicant to reduce consumptive water use during construction and operation of the facility.

(D) The applicant's plans to minimize, recycle or reuse the solid waste and wastewater described in (A).

(E) A description of any adverse impact on surrounding and adjacent areas from the accumulation, storage, disposal and transportation of solid waste, wastewater and stormwater during construction and operation of the facility.

(F) Evidence that adverse impacts described in (D) are likely to be minimal, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts.

(G) The applicant's proposed monitoring program, if any, for minimization of solid waste and wastewater impacts.

(w) **Exhibit W.** Information about site restoration, providing evidence to support a finding by the Council as required by OAR 345-022-0050(1). The applicant shall include:

(A) The estimated useful life of the proposed facility.

(B) Specific actions and tasks to restore the site to a useful, non-hazardous condition.

(C) An estimate, in current dollars, of the total and unit costs of restoring the site to a useful, non-hazardous condition.

(D) A discussion and justification of the methods and assumptions used to estimate site restoration costs.

(E) For facilities that might produce site contamination by hazardous materials, a proposed monitoring plan, such as periodic environmental site assessment and reporting, or an explanation why a monitoring plan is unnecessary.

(x) **Exhibit X.** Information about noise generated by construction and operation of the proposed facility, providing evidence to support a finding by the Council that the proposed facility complies with the Oregon Department of Environmental Quality's noise control standards in OAR 340-35-0035. The applicant shall include:

(A) Predicted noise levels resulting from construction and operation of the proposed facility.

(B) An analysis of the proposed facility's compliance with the applicable noise regulations in OAR 340-35-0035, including a discussion and justification of the methods and assumptions used in the analysis.

(C) Any measures the applicant proposes to reduce noise levels or noise impacts or to address public complaints about noise from the facility.

(D) Any measures the applicant proposes to monitor noise generated by operation of the facility;

(y) **Exhibit Y.** If the facility is a base load gas plant, a non-base load power plant, or a nongenerating energy facility that emits carbon dioxide, a statement of the means by which the applicant elects to comply with the applicable carbon dioxide emissions standard under OAR 345-024-0560, OAR 345-024-0600, or OAR 345-024-0630 and information, showing detailed calculations, about the carbon dioxide emissions of the energy facility. The applicant may present the calculations in tabular form. The applicant shall include the following information and calculations:

(A) Fuel cycle and usage including the maximum hourly fuel use at net electrical power output at average annual conditions for a base load gas plant and the maximum hourly fuel use at nominal electric generating capacity for a non-base load power plant or a base load gas plant with power augmentation technologies, as applicable;

(B) The gross capacity as estimated at the generator output terminals for each generating unit. For a base load gas plant, gross capacity is based on the average annual ambient conditions for temperature, barometric pressure and relative humidity. For a non-base load plant, gross capacity is based on the average temperature, barometric pressure and relative humidity at the site during the times of year when the facility is intended to operate. For a baseload gas plant with power augmentation, gross capacity in that mode is based on the average temperature, barometric pressure and relative humidity at the site during the times of year when the facility is intended to operate with power augmentation.

(C) A table showing a reasonable estimate of all on-site electrical loads and losses greater than 50 kilowatts, including losses from on-site transformers, plus a factor for incidental loads, that are required for the normal operation of the plant when the plant is at its designed full power operation.

(D) The maximum number of hours per year and energy content (Btu per year, higher heating value) of alternate fuel use;

(E) The total gross carbon dioxide emissions for 30 years, unless an applicant for a non-base load power plant or nongenerating energy facility proposes to limit operation to a shorter time;

(F) The gross carbon dioxide emissions rate expressed as:

(i) Pounds of carbon dioxide per kilowatt-hour of net electric power output for a base load gas plant, including operation with or without power augmentation, as appropriate, or for a non-base load power plant;

(ii) Pounds of carbon dioxide per horsepower hour for nongenerating facilities for which the output is ordinarily measured in horsepower; or

(iii) A rate comparable to pounds of carbon dioxide per kilowatt-hour of net electric power output for nongenerating facilities other than those measured in horsepower;



(G) The total excess carbon dioxide emissions for 30 years, unless an applicant for a non-base load power plant or a nongenerating energy facility proposes to limit operation to a shorter time;

(H) The excess carbon dioxide emissions rate, using the same measure as required for paragraph (F);

(I) The average annual site conditions, including temperature, barometric pressure and relative humidity, together with a citation of the source and location of the data collection devices;

(J) For a non-base load power plant (or when using power augmentation), the average temperature, barometric pressure and relative humidity at the site during the times of the year when the facility is intended to operate, together with a citation of the source and location of the data collection devices;

(K) The annual fuel input in British thermal units, higher heating value, to the facility for each type of fuel the facility will use, assuming:

(i) For a base load gas plant, a 100-percent capacity factor on a new and clean basis and the maximum number of hours annually that the applicant proposes to use alternative fuels;

(ii) For a non-base load power plant, the applicant's proposed annual hours of operation on a new and clean basis, the maximum number of hours annually that the applicant proposes to use alternative fuels and, if the calculation is based on an operational life of fewer than 30 years, the proposed operational life of the facility;

(iii) For a nongenerating energy facility, the reasonably likely operation of the facility based on one year, 5-year, 15-year, and 30-year averages, unless an applicant proposes to limit operation to a shorter time;

(L) For each type of fuel a base load gas plant or a non-base load power plant will use, the estimated heat rate and capacity of the facility measured on a new and clean basis with no thermal energy to cogeneration, consistent with the data supplied in Exhibit B;

(M) For each type of fuel a nongenerating energy facility will use, the estimated efficiency and capacity of the facility with no thermal energy to cogeneration;

(N) If the facility provides thermal energy for cogeneration to lower its net carbon dioxide emissions rate, the applicant shall include:

(i) The estimated annual useful thermal energy available from the facility for non-electric processes, annual useful thermal energy used by non-electric processes, and annual thermal energy rejected as waste heat;

(ii) For a base load gas plant or non-base load power plant, the estimated annual net electric power output and annual fuel input in British thermal units higher heating value for the facility for each type of fuel the facility will use and the basis of such estimates;

(iii) A description of the non-electric thermal processes, the names and addresses of the persons intending to use the non-electric thermal energy, and a description and an estimate of the fuel displaced by cogeneration, including supporting assumptions;

(iv) A description of the products produced and thermal energy needed for production of the primary products made by the persons intending to use the non-electric thermal energy produced by the proposed facility, supported by fuel use and steam production records or estimates, if the production facility is new;

(v) The efficiency of each boiler that the thermal energy will displace;

(vi) For each boiler, the annual fossil fuel displaced in million Btu, higher heating value, by type of fuel that will be displaced by the thermal energy;

(vii) The annual carbon dioxide offset by the cogeneration host, using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel (higher heating value) and a rate of 161 pounds of carbon dioxide per million Btu of distillate fuel (higher heating value);

(viii) The cumulative carbon dioxide offset by the steam host through the thirtieth year of facility operation, or for a shorter period if an applicant for a nongenerating facility proposes a shorter operational period;

(ix) A copy of the contractual agreement between the applicant and the cogeneration host for the use of the thermal energy;

(x) A description of the guarantees of offsets that the applicant shall provide for cogeneration projects, pursuant to OAR 345-024-0560(1) and OAR 345-024-0600(1);

(xi) A proposed monitoring and evaluation plan and an independent verification plan, pursuant to subparagraphs (O)(xix) and (O)(xx);

(xii) A copy of the instrument by which the certificate holder will transfer the offsets to the Council for it to hold in trust;

(O) If the applicant proposes to offset carbon dioxide emissions as described in OAR 345-024-0550(3), OAR 345-024-0560(2), OAR 345-024-0590(3), OAR 345-024-0600(2), OAR 345-024-0620(3) or OAR 345-024-0630(1), the applicant shall include:

(i) A description of each offset project;

(ii) A description of who will implement the offset project, including qualifications and experience;

(iii) Detailed estimates of the of carbon dioxide offset, measured in short tons, that the offset projects will achieve over the life of the project;

(iv) For each offset project, an explanation of how the applicant quantified its carbon dioxide estimates to a degree of certainty acceptable to the Council through a transparent and replicable calculation methodology;

- (v) For each offset project, evidence that the offset project would not likely have been implemented if not for the applicant's activities or funding;
- (vi) For each offset project, a description of a "Baseline" projection that does not include the proposed project and a "Project Case" projection that does. The historic Baseline shall use reliable emissions data or pre-project data available for the most recent three years unless the applicant can demonstrate that a different period more closely represents historical operations or unless it can demonstrate that another method provides a more reasonable estimate. The applicant shall show how the Baseline projection changes over time if changes from business-as-usual could be reasonably anticipated during the project life;
- (vii) For each offset project, a description, in a transparent and realistic manner, of the assumptions and methodologies used to quantify the Baseline and the Project Case projections, including a description of key parameters and data sources. This shall include a description of the formulae used to estimate carbon dioxide emissions or sequestration within the project boundary and a net change of carbon dioxide emissions or sequestration that occurs outside of the project boundary that is measurable and attributable to the project activity;
- (viii) For projects that avoid conventional electricity generation, a description of a Baseline that calculates the carbon dioxide emissions per kilowatt hour in two steps: (1) for the first five years of operation, a description of the rate based on dispatch data or models or, absent that, a weighted average of all resources in a power pool except zero-fuel-cost or must-run facilities, and (2) a description of the rate for any subsequent years based on a group of similar facilities built within the prior five years or under construction in the electrical distribution region of the project or the three most recent plants built in the region, whichever rate is lower;
- (ix) For projects that avoid conventional electricity generation, a description of avoided transmission and distribution losses, using average grid area or national losses;
- (x) A description of any guarantee for offsets from projects that the applicant proposes pursuant to OAR 345-024-0560(2), OAR 345-024-0600(2), and OAR 345-024-630(1), if the applicant chooses to offer a guarantee;
- (xi) A description of the offset project boundary. The boundary shall encompass all carbon dioxide emissions under the control of the project that are significant and reasonably attributable to the project activity. If the project is being conducted by one part of a corporation, the boundary shall include the emissions and reductions of the whole corporate entity and the carbon dioxide emissions resulting from processes and facilities that are related to the project, with identification of subsidiaries that are affected by the project;
- (xii) A description of significant risks and risk mitigation strategies, including an estimate of the range of uncertainty around the expected carbon dioxide offsets;

(xiii) For biological sequestration projects, an assessment of the risk of climate change to natural systems that are sequestering the carbon dioxide, including, if appropriate, the risks from forest fires, pest and other unplanned releases of carbon from sequestration;

(xiv) A description of whether the offset project will permanently avoid or displace emissions of carbon dioxide. If a project only temporarily sequesters carbon, an indication of the duration of sequestration or storage;

(xv) A description of the amount of funding the applicant will provide for each offset project it proposes;

(xvi) If the applicant anticipates that a project will have funding sources in addition to itself, identification of the sources of those funds, the amount of other funding that is required to implement a project, the amount of funds other parties have committed, and the risks of other funds not being available;

(xvii) If the applicant proposes that a project will have funding sources in addition to itself, a description of how ownership of the offsets will be allocated among the several funding sources;

(xviii) A copy of the instrument by which the certificate holder will transfer all the offsets to the Council for it to hold in trust;

(xix) A description of a transparent and replicable methodology for the applicant's monitoring and evaluation plan and for an independent verification plan, including (1) procedures the applicant and the independent entity will employ, (2) how the applicant will assure funds for ongoing monitoring, evaluation and verification, (3) the time frame and frequency over which the applicant will conduct monitoring and evaluation and over which the independent entity will conduct verification, including the frequency of site visits, if applicable, (4) the reporting procedures and guidelines for the plans, and (5) whether the applicant has identified the independent entity that will perform the verification;

(xx) The monitoring and evaluation plan and the verification plan shall identify the data needs and data quality with regard to accuracy, comparability, completeness and validity. It shall include methodologies to be used for data collection, monitoring, storage, reporting and management, including quality assurance and quality control provisions. It shall provide complete calculations used to calculate and estimate carbon dioxide emissions from activity within the project boundary. It shall show any formulae and assumptions the applicant used to calculate offset project leakage;

(xxi) A description of reasonably likely, significant undesirable long-term environmental impacts from the implementation of an offset project; and

(P) If the applicant elects to comply with the applicable carbon dioxide emissions standard by using the monetary path under OAR 345-024-0560(3), OAR 345-024-0600(3) or OAR 345-024-0630(2), the applicant shall include:

(i) A statement of the applicant's election to use the monetary path;  
(ii) The amount of carbon dioxide reduction, in tons, for which the applicant is taking credit by using the monetary path;

(iii) The qualified organization to whom the applicant will provide offset funds and funds for the cost of selecting and contracting for offsets. The applicant shall include evidence that the organization meets the definition of a qualified organization under OAR 345-001-0010. The applicant may identify an organization that has applied for, but has not received, an exemption from federal income taxation, but the Council shall not find that the organization is a qualified organization unless the organization is exempt from federal taxation under section 501(c)(3) of the Internal Revenue Code as amended and in effect on December 31, 1996; and

(iv) A statement of whether the applicant intends to provide a bond or letter of credit to secure the funds it must provide to the qualified organization or whether it requests the option of providing either a bond or a letter of credit.

(z) **Exhibit Z.** If the proposed facility has an evaporative cooling tower, information about the cooling tower plume, including:

(A) The predicted size and frequency of occurrence of a visible plume and an assessment of its visual impact;

(B) The predicted locations and frequency of occurrence of ice formation on surfaces and ground level fogging and an assessment of significant potential adverse impacts, including, but not limited to, traffic hazards on public roads;

(C) The predicted locations and rates of deposition of solids released from the cooling tower (cooling tower drift) and an assessment of significant potential adverse impacts to soils, vegetation and other land uses;

(D) Any measures the applicant proposes to reduce adverse impacts from the cooling tower plume or drift;

(E) The assumptions and methods used in the plume analysis; and

(F) The applicant's proposed monitoring program, if any, for cooling tower plume impacts;

(aa) **Exhibit AA.** If the proposed facility includes an electric transmission line:

(A) Information about the expected electric and magnetic fields, including:

(i) The distance in feet from the proposed center line of each proposed transmission line to the edge of the right-of-way;

(ii) The type of each occupied structure, including but not limited to residences, commercial establishments, industrial facilities, schools, daycare centers and hospitals, within 200 feet on each side of the proposed center line of each proposed transmission line;

(iii) The approximate distance in feet from the proposed center line to each structure identified in (A);

(iv) At representative locations along each proposed transmission line, a graph of the predicted electric and magnetic fields levels from the proposed center line to 200 feet on each side of the proposed center line;

(v) Any measures the applicant proposes to reduce electric or magnetic field levels;

(vi) The assumptions and methods used in the electric and magnetic field analysis, including the current in amperes on each proposed transmission line; and

(vii) The applicant's proposed monitoring program, if any, for actual electric and magnetic field levels; and

(B) An evaluation of alternate methods and costs of reducing radio interference likely to be caused by the transmission line in the primary reception area near interstate, U.S. and state highways;

(bb) **Exhibit BB.** Any other information that the Department requests in the project order or in a notification regarding expedited review;

(cc) **Exhibit CC.** Identification, by legal citation, of all state statutes and administrative rules and local government ordinances containing standards or criteria that the proposed facility must meet for the Council to issue a site certificate, other than statutes, rules and ordinances identified in Exhibit E, and identification of the agencies administering those statutes, administrative rules and ordinances. The applicant shall identify all statutes, administrative rules and ordinances that the applicant knows to be applicable to the proposed facility, whether or not identified in the project order. To the extent not addressed by other materials in the application, the applicant shall include a discussion of how the proposed facility meets the requirements of the applicable statutes, administrative rules and ordinances.

(dd) **Exhibit DD.** If the proposed facility is a facility for which the Council has adopted specific standards, information about the facility providing evidence to support findings by the Council as required by the following rules:

(A) For wind energy facilities, OAR 345-024-0010 and -0015.

(B) For surface facilities related to underground gas storage reservoirs, OAR 345-024-0030, including information required by OAR 345-021-0020.

(C) For any transmission line under Council jurisdiction, OAR 345-024-0090.

(2) Documents prepared in connection with an environmental assessment or environmental impact statement for the proposed facility under the National Environmental Policy Act of 1970, if any, may contain some of the information required under section (1) of this rule. The applicant may copy relevant sections of such documents into the appropriate exhibits of the site certificate application. The applicant may otherwise submit full copies of those documents and include, in the appropriate exhibits of the site certificate application, cross-references to the relevant sections of those documents. The applicant may use such documents only to avoid duplication. The applicant shall include additional information in

the site certificate application as needed to meet the requirements of section (1) of this rule.

(3) The applicant shall include a table of contents in the application identifying the location of each exhibit required by this rule. The applicant shall submit an original and ten copies of the application to the Department and shall prepare and distribute additional copies of the application as required by OAR 345-021-0050. In addition to the printed copies, the applicant shall submit the text (including appendices and graphical information to the extent practical) in a non-copy-protected electronic format acceptable to the Department.

Stat. Authority: ORS 469.373, ORS 469.470

Stat. Implemented: ORS 469.350, ORS 469.370, ORS 469.501, ORS 469.503, ORS 469.504

### **345-021-0020**

#### **Specific Application Requirements for Siting of Surface Facilities Related to Underground Gas Storage Reservoirs**

In addition to the requirements of OAR 345-021-0010, in an application for a site certificate for a surface facility related to an underground storage reservoir, the applicant shall include the following information:

- (1) The design rates of natural or synthetic gas injection or withdrawal;
- (2) The compression horsepower required to operate at design injection or withdrawal rates;
- (3) The fuel type of the compressor;
- (4) The estimated carbon dioxide emissions from the compressor for the projected life of the facility; and
- (5) The proposed location of all wells.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.350, ORS 469.503

### **345-021-0050**

#### **Distribution of a Preliminary Application**

(1) Until the Department determines the application to be complete as described in OAR 345-015-0190 or OAR 345-015-0310, it is a preliminary application. When the applicant submits a preliminary application to the Department of Energy, the applicant shall send a copy of the preliminary application to the reviewing agencies as defined in OAR 345-001-0010 accompanied by a memorandum from the Department as described in OAR 345-015-0180. If the applicant obtains written consent from the reviewing agency and provides a copy of that written consent to the Department, the applicant may send specified parts of the preliminary application or an electronic copy of all or specified parts of the preliminary application to the reviewing agency instead of sending a full printed copy.

(2) Upon receipt of the preliminary application, each reviewing agency shall submit written comments or recommendations to the Department that:

- (a) State whether the reviewing agency needs any additional information from the applicant to review the application under the statutes, administrative

rules or ordinances administered by the reviewing agency and describe such information; and

(b) Describe the status of applications for permits, if any, that the applicant has submitted to the reviewing agency and that are necessary for the construction and operation of the proposed facility.

(3) The Department shall, as soon as practicable, send the applicant copies of all comments submitted under section (2) that identify a need for additional information.

(4)(a) If the applicant has elected to demonstrate compliance with the Council's land use standard under ORS 469.504(1)(a), each local government with land use jurisdiction over the proposed facility shall, in the comments or recommendations submitted to the Department under section (2), describe the status of the local land use proceedings and state the date when the local government expects to issue a final land use decision.

(b) If the applicant has elected to obtain a Council determination of compliance with the Council's land use standard under ORS 469.504(1)(b), each local government with land use jurisdiction over the proposed facility shall, in the comments or recommendations submitted to the Department under section (2), include:

(A) A complete list of applicable substantive criteria from the local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application was submitted. "Applicable substantive criteria" means the criteria and standards that the local government would apply in making all land use decisions necessary to site the proposed facility in the absence of a Council proceeding;

(B) A complete list of Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3);

(C) Copies of the criteria listed in (A) and any interpretations of ambiguous terms and matters arising from the local government's land use regulations; and

(D) An assessment of the accuracy and completeness of the applicable substantive criteria the applicant identified in the site certificate application;

(c) The local government may submit its recommendations, comments and interpretations as described in subsection (b) in the form of a resolution adopted by the local governing body.

(5) The applicant shall provide additional copies of the preliminary application to the Department upon request, and copies or access to copies to any person requesting copies.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.350



### **345-021-0055**

#### **Distribution of a Complete Application**

(1) After receiving notification from the Department of Energy that the application is complete, the applicant shall prepare an application supplement that includes all amendments to the preliminary application and all additional information requested by the Department before the determination of completeness. The supplement may consist of a total revision of the application when necessary to provide a clear presentation of new information. The applicant shall submit an original and ten copies of the application supplement to the Department. In addition to the printed copies, the applicant shall submit the text (including appendices and graphical information to the extent practical) in a non-copy-protected electronic format acceptable to the Department. Except as described in OAR 345-015-0310, the applicant shall send a copy of the supplement to persons on a mailing list provided by the Department, accompanied by the notice from the Department described in OAR 345-015-0200. If the applicant obtains written consent from a person named on the mailing list and provides a copy of that written consent to the Department, the applicant may send specified parts of the supplement or an electronic copy of all or specified parts of the supplement to that person instead of sending a full printed copy.

(2) A “complete application” consists of the preliminary application together with the supplement described in section (1).

(3) The applicant shall provide additional copies of the complete application to the Department upon request and copies or access to copies to any person requesting copies.

Stat. Authority: ORS 469.373, ORS 469.470

Stat. Implemented: ORS 469.350

### **345-021-0080**

#### **Agency Coordination**

Each agency with legal authority to implement or enforce state statutes, state administrative rules or local government ordinances that must be satisfied in order for the Council to issue a site certificate for a proposed facility is encouraged to conduct its review of the application for a site certificate and other permit applications for the proposed facility filed with the agency on a time line and in a manner that enables the agency to:

(1) Make recommendations to the Department of Energy and Council about compliance of the applications with the state statutes, administrative rules or ordinances administered by the agency.

(2) Recommend conditions for inclusion in the site certificate that will ensure compliance with such statutes, rules and ordinances.

(3) Present testimony and evidence at the contested case hearing on the site certificate application.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.350

### **345-021-0090**

#### **Amendment of an Application**

(1) When the applicant is preparing to submit an amended application, the applicant shall notify the Department of Energy.

(2) The applicant may amend a preliminary application at any time.

(3) If the applicant submits an amended application after the date of filing as determined under OAR 345-015-0190 or OAR 345-015-0310, the Department may withdraw the filing of the application until the Department has reviewed the amended application for completeness as described under OAR 345-015-0190 or OAR 345-015-0310.

(4) If the applicant submits an amended application after issuance of a contested case notice under OAR 345-015-0014, the Department may, by motion, request that the contested case proceeding be terminated and the Council's hearing officer may issue an order terminating the proceeding. Upon issuance of the order, the Department may withdraw the filing of the application until the Department has reviewed the amended application for completeness as described under OAR 345-015-0190 or OAR 345-015-0310.

(5) The applicant shall submit the original and ten copies of the amended application to the Department. In addition to the printed copies, the applicant shall submit the text (and graphical information to the extent practical) in a non-copy-protected electronic format acceptable to the Department.

Stat. Authority: ORS 469.373, ORS 469.470

Stat. Implemented: ORS 469.350

### **345-021-0100**

#### **Contested Case Proceeding on the Application -- Burden of Proof**

(1) After the issuance of a notice of contested case as described in OAR 345-015-0230, the hearing officer shall conduct a contested case proceeding on the application according to the provisions of OAR Chapter 345, Division 15.

(2) The applicant has the burden of proving, by a preponderance of the evidence in the decision record, that the facility complies with all applicable statutes, administrative rules and applicable local government ordinances.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.370