

DIVISION 24
SPECIFIC STANDARDS FOR SITING FACILITIES

Specific Standards for Wind Facilities

345-024-0010

Public Health and Safety Standards for Wind Energy Facilities

To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant:

- (1) Can design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment.
- (2) Can design, construct and operate the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501

345-024-0015

Cumulative Effects Standard for Wind Energy Facilities

To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant can design and construct the facility to reduce cumulative adverse environmental effects in the vicinity by practicable measures including, but not limited to, the following:

- (1) Using existing roads to provide access to the facility site, or if new roads are needed, minimizing the amount of land used for new roads and locating them to reduce adverse environmental impacts.
- (2) Using underground transmission lines and combining transmission routes.
- (3) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations.
- (4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.
- (5) Designing the components of the facility to minimize adverse visual features.
- (6) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501

**Specific Standards for Surface Facilities Related to
Underground Gas Storage Reservoirs**

345-024-0030

**Public Health and Safety Standards for Surface Facilities Related to
Underground Gas Storage Reservoirs**

To issue a site certificate for a proposed surface facility related to an underground gas storage reservoir, the Council must make the following findings:

(1) The proposed facility is located at distances in accordance with the schedule below from any existing permanent habitable dwelling:

(a) Major facilities, such as compressor stations, stripping plants and main line dehydration stations -- 700 feet.

(b) Minor facilities, such as offices, warehouses, equipment shops and odorant storage and injection equipment -- 50 feet.

(c) Compressors rated less than 1,000 horsepower -- 350 feet.

(d) Roads and road maintenance equipment housing -- 50 feet.

(2) The applicant has developed a program using technology that is both practicable and reliable to monitor the facility to ensure the public health and safety.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501

Specific Standards for Transmission Lines

345-024-0090

Siting Standards for Transmission Lines

To issue a site certificate for a facility that includes any transmission line under Council jurisdiction, the Council must find that the applicant:

(1) Can design, construct and operate the proposed transmission line so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public;

(2) Can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501

Standards for Energy Facilities that Emit Carbon Dioxide

345-024-0500

General

To issue a site certificate, the Council must find that the energy facility complies with any applicable carbon dioxide emissions standard adopted by the Council or enacted by statute. The Council shall adopt standards for fossil-fueled power plants and may adopt carbon dioxide emission standards for other energy facilities that emit carbon dioxide.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.501, 469.503

345-024-0510

Principles for the Adoption of New Standards for Fossil-Fueled Power Plants

The council shall adopt carbon dioxide emissions standards for fossil-fueled power plants by rule. In adopting or amending such carbon dioxide emissions standards, the Council shall consider and balance at least the following principles. In the rule-making record, the Council shall include findings on these principles:

(1) Promote facility fuel efficiency;

(2) Promote efficiency in the resource mix;

- (3) Reduce net carbon dioxide emissions;
- (4) Promote cogeneration that reduces net carbon dioxide emissions;
- (5) Promote innovative technologies and creative approaches to mitigating, reducing or avoiding carbon dioxide emissions;
- (6) Minimize transaction costs;
- (7) Include an alternative process that separates decisions on the form and implementation of offsets from the final decision on granting a site certificate;
- (8) Allow either the applicant or third parties to implement offsets;
- (9) Be attainable and economically achievable for various types of power plants;
- (10) Promote public participation in the selection and review of offsets;
- (11) Promote prompt implementation of offset projects;
- (12) Provide for monitoring and evaluation of the performance of offsets;
- (13) Promote reliability of the regional electric system.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.503

345-024-0550

Standard for Base Load Gas Plants

To issue a site certificate for a base load gas plant, the Council must find that the net carbon dioxide emissions rate of the proposed facility does not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis. For a base load gas plant designed with power augmentation technology as defined in OAR 345-001-0010, the Council shall apply the standard for a non-base load power plant, as described in 345-024-0590, to the incremental carbon dioxide emissions from the designed operation of the power augmentation technology. The Council shall determine whether the base load carbon dioxide emissions standard is met as follows:

(1) The Council shall determine the gross carbon dioxide emissions that are reasonably likely to result from the operation of the proposed energy facility. The Council shall base such determination on the proposed design of the energy facility. The Council shall adopt site certificate conditions to ensure that the predicted carbon dioxide emissions are not exceeded on a new and clean basis.

(2) For any remaining emissions reduction necessary to meet the applicable standard, the applicant may elect to use any of the means described in OAR 345-024-0560, or any combination thereof. The Council shall determine the amount of carbon dioxide or other greenhouse gas emissions reduction that is reasonably likely to result from the applicant's offsets and whether the resulting net carbon dioxide emissions meet the applicable carbon dioxide emissions standard. The amount of greenhouse gas emissions means the pounds of carbon dioxide and the carbon dioxide equivalent of other greenhouse gases. For methane, one pound of methane is equivalent to 25 pounds of carbon dioxide. For nitrous oxide, one pound of nitrous oxide is equivalent to 298 pounds of carbon dioxide.

(3) If the applicant elects to comply with the standard using the means described in OAR 345-024-0560(2), the Council shall determine the amount of greenhouse gas emissions reduction that is reasonably likely to result from each of the proposed offsets. In making this determination, the Council shall not allow credit for offsets that

have already been allocated or awarded credit for greenhouse gas emissions reduction in another regulatory setting. The fact that an applicant or other parties involved with an offset may derive benefits from the offset other than the reduction of greenhouse gas emissions is not, by itself, a basis for withholding credit for an offset. The Council shall base its determination of the amount of greenhouse gas emission reduction on the following criteria and as provided in 345-024-0680:

(a) The degree of certainty that the predicted quantity of greenhouse gas emissions reduction will be achieved by the offset.

(b) The ability of the Council to determine the actual quantity of greenhouse gas emissions reduction resulting from the offset, taking into consideration any proposed measurement, monitoring and evaluation of mitigation measure performance.

(c) The extent to which the reduction of greenhouse gas emissions would occur in the absence of the offsets.

(4) Before beginning construction, the certificate holder shall notify the Department of Energy in writing of its final selection of a gas turbine vendor and shall submit a written design information report to the Department sufficient to verify the facility's designed new and clean heat rate and its nominal electric generating capacity at average annual site conditions for each fuel type. In the report, the certificate holder shall include the proposed limits on the annual average number of hours of facility operation on distillate fuel oil, if applicable. In the site certificate, the Council may specify other information to be included in the report. The Department shall use the information the certificate holder provides in the report as the basis for calculating, according to the site certificate, the amount of greenhouse gas emissions reductions the certificate holder must provide under OAR 345-024-0560.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.503

345-024-0560

Means of Compliance for Base Load Gas Plants

The applicant may elect to use any of the following means, or any combination thereof, to comply with the carbon dioxide emissions standard for base load gas plants. For a base load gas plant designed with power augmentation technology, the applicant shall comply with the standard for a non-base load power plant in the manner as described in OAR 345-024-0600 for the incremental carbon dioxide emissions from the designed operation of the power augmentation technology.

(1) Designing and operating the facility to produce electrical and thermal energy sequentially from the same fuel source and using the thermal energy to displace another source of carbon dioxide emissions from fossil fuel that would have otherwise continued to occur. The Council shall adopt site certificate conditions ensuring that the carbon dioxide emissions reduction will be achieved.

(2) Implementing offset projects directly or through a third party, pursuant to OAR 345-024-0680. The Council may adopt site certificate conditions ensuring that the proposed offset projects are implemented by the date specified in the site certificate, but shall not require that predicted levels of avoidance, displacement or sequestration of greenhouse gas emissions be achieved.

(3) Providing offset funds, directly or through a third party, in an amount deemed sufficient to produce the reduction in greenhouse gas emissions necessary to meet the applicable carbon dioxide emissions standard. The applicant or third party shall use the funds as specified in OAR 345-024-0710. The Council shall deem the payment of the monetary offset rate, pursuant to 345-024-0580, to result in a reduction of one ton of carbon dioxide emissions. The Council shall determine the offset funds using the monetary offset rate and the level of emissions reduction required to meet the applicable standard. If the Council issues a site certificate based on this section, the Council may not adjust the amount of the offset funds based on the actual performance of offsets.

(4) Any other means that the Council adopts by rule for demonstrating compliance with the carbon dioxide emissions standard.

(5) If the Council or a court on judicial review concludes that the applicant has not demonstrated compliance with the applicable carbon dioxide emissions standard under sections (1), (2) or (4) of this rule, or any combination thereof, and the applicant agrees to meet the requirements of section (3) for any deficiency, the Council or a court shall find compliance based on such agreement.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.503

345-024-0570

Modification of the Standard for Base Load Gas Plants

The Council may by rule modify the carbon dioxide emissions standard for base load gas plants in OAR 345-024-0550 if the Council finds that the most efficient stand-alone combined cycle, combustion turbine, natural gas-fired energy facility that is commercially demonstrated and operating in the United States has a net heat rate of less than 6,955 Btu per kilowatt hour higher heating value adjusted to ISO conditions. In modifying the carbon dioxide emission standard, the Council shall determine the rate of carbon dioxide emissions per kilowatt hour of net electric output of such energy facility, adjusted to ISO conditions and reset the carbon dioxide emissions standard at 17 percent below this rate.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.503

345-024-0580

Monetary Offset Rate

The monetary offset rate is \$1.27 per ton of carbon dioxide emissions. After two years from June 1, 2007, the Council may by rule increase or decrease the monetary offset rate, subject to the requirements of ORS 469.503.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.503

345-024-0590

Standard for Non-Base Load Power Plants

To issue a site certificate for a non-base load power plant, the Council must find that the net carbon dioxide emissions rate of the proposed facility does not exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis.

For a base load gas plant designed with power augmentation technology as defined in OAR 345-001-0010, the Council shall apply this standard to the incremental carbon dioxide emissions from the designed operation of the power augmentation technology. The Council shall determine whether the carbon dioxide emissions standard is met as follows:

(1) The Council shall determine the gross carbon dioxide emissions that are reasonably likely to result from the operation of the proposed energy facility. The Council shall base such determination on the proposed design of the energy facility, the limitation on the hours of generation for each fuel type and the average temperature, barometric pressure and relative humidity at the site during the times of the year when the facility is intended to operate. For a base load gas plant designed with power augmentation technology, the Council shall base its determination of the incremental carbon dioxide emissions on the proposed design of the facility, the proposed limitation on the hours of generation using the power augmentation technology and the average temperature, barometric pressure and relative humidity at the site during the times of the year when the facility is intended to operate with power augmentation technology. The Council shall adopt site certificate conditions to ensure that the predicted carbon dioxide emissions are not exceeded on a new and clean basis; however, the Council may modify the parameters of the new and clean basis to accommodate average conditions at the times when the facility is intended to operate and technical limitations, including operational considerations, of a non-base load power plant or power augmentation technology or for other cause.

(2) For any remaining emissions reduction necessary to meet the applicable standard, the applicant may elect to use any of the means described in OAR 345-024-0600 or any combination thereof. The Council shall determine the amount of carbon dioxide or other greenhouse gas emissions reduction that is reasonably likely to result from the applicant's offsets and whether the resulting net carbon dioxide emissions meet the applicable carbon dioxide emissions standard. The amount of greenhouse gas emissions means the pounds of carbon dioxide and the carbon dioxide equivalent of other greenhouse gases. For methane, one pound of methane is equivalent to 25 pounds of carbon dioxide. For nitrous oxide, one pound of nitrous oxide is equivalent to 298 pounds of carbon dioxide.

(3) If the applicant elects to comply with the standard using the means described in OAR 345-024-0600(2), the Council shall determine the amount of greenhouse gas emissions reduction that is reasonably likely to result from each of the proposed offsets. In making this determination, the Council shall not allow credit for offsets that have already been allocated or awarded credit for greenhouse gas emissions reduction in another regulatory setting. The fact that an applicant or other parties involved with an offset may derive benefits from the offset other than the reduction of greenhouse gas emissions is not, by itself, a basis for withholding credit for an offset. The Council shall base its determination of the amount of greenhouse gas emission reduction on the following criteria and as provided in 345-024-0680:

(a) The degree of certainty that the predicted quantity of greenhouse gas emissions reduction will be achieved by the offset.

(b) The ability of the Council to determine the actual quantity of greenhouse gas emissions reduction resulting from the offset, taking into consideration any proposed measurement, monitoring and evaluation of mitigation measure performance.

(c) The extent to which the reduction of greenhouse gas emissions would occur in the absence of the offsets.

(4) Before beginning construction, the certificate holder shall notify the Department of Energy in writing of its final selection of an equipment vendor and shall submit a written design information report to the Department sufficient to verify the facility's designed new and clean heat rate and its nominal electric generating capacity at average annual site conditions for each fuel type. For a base load gas plant designed with power augmentation technology, the certificate holder shall include in the report information sufficient to verify the facility's designed new and clean heat rate, tested under parameters the Council orders pursuant to section (1), and the nominal electric generating capacity at average site conditions during the intended use for each fuel type from the operation of the proposed facility using the power augmentation technology. The certificate holder shall include the proposed limit on the annual average number of hours for each fuel used, if applicable. The certificate holder shall include the proposed total number of hours of operation for all fuels, subject to the limitation that the total annual average number of hours of operation per year is not more than 6,600 hours. In the site certificate, the Council may specify other information to be included in the report. The Department shall use the information the certificate holder provides in the report as the basis for calculating, according to the site certificate, the gross carbon dioxide emissions from the facility and the amount of greenhouse gas emissions reductions the certificate holder must provide under OAR 345-024-0600.

(5)(a) Every five years after commencing commercial operation, the certificate holder shall report to the Council the facility's actual gross carbon dioxide emissions. The certificate holder shall calculate actual gross carbon dioxide emissions using the new and clean heat rate and the actual hours of operation on each fuel during the five-year period or shall report to the Council the actual measured or calculated carbon dioxide emissions as reported to either the Oregon Department of Environmental Quality or the U.S. Environmental Protection Agency pursuant to a mandatory carbon dioxide emissions reporting requirement.

(b) The certificate holder shall specify its election of method used to measure or calculate carbon dioxide emissions in the notification report described at section (4) of this rule. That election, once made, shall apply for each five year period unless the site certificate is amended to allow a different election. If the certificate holder calculates actual carbon dioxide emissions using the new and clean heat rate and the actual hours of operation, the certificate holder shall also report to the Council the facility's actual annual hours of operation by fuel type. If the actual gross carbon dioxide emissions exceed the projected gross carbon dioxide emissions for the five-year period calculated under section (4), the certificate holder shall offset any excess emissions for that period and shall offset estimated future excess carbon dioxide emissions using the monetary path as described in OAR 345-024-0600(3) and (4) or as approved by the Council

(6) For a base load gas plant designed with power augmentation technology, every five years after commencing commercial operation, the certificate holder shall report to the Council the facility's actual hours of operation using the power augmentations technology for each fuel type. If the actual gross carbon dioxide emissions, calculated using the new and clean heat rate, tested under parameters the Council orders pursuant to section (1), and the actual hours of operation using the power augmentation technology on each fuel during the five-year period exceed the projected gross carbon dioxide emissions for the five-year period calculated under section (4), the certificate holder shall offset any excess emissions for that period and shall offset estimated future excess carbon dioxide emissions using the monetary path as described in OAR 345-024-0600(3) and (4) or as approved by the Council.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.501, 469.503

345-024-0600

Means of Compliance for Non-Base Load Power Plants

The applicant may elect to use any of the following means, or any combination thereof, to comply with the carbon dioxide emissions standard for non-base load power plants or for the incremental carbon dioxide emissions from the operation of a base load gas plant with power augmentation technology:

(1) Designing and operating the facility to produce electrical and thermal energy sequentially from the same fuel source and using the thermal energy to displace another source of carbon dioxide emissions from fossil fuels that would have otherwise continued to occur. The Council shall adopt site certificate conditions ensuring that the carbon dioxide emissions reduction will be achieved.

(2) Implementing offset projects directly or through a third party, pursuant to OAR 345-024-0680. The Council may adopt site certificate conditions ensuring that the proposed offset projects are implemented by the date specified in the site certificate, but shall not require that predicted levels of avoidance, displacement or sequestration of greenhouse gas emissions be achieved.

(3) Providing offset funds, directly or through a third party, in an amount deemed sufficient to produce the reduction in greenhouse gas emissions necessary to meet the applicable carbon dioxide emissions standard. The applicant or third party shall use the funds as specified in OAR 345-024-0710. The Council shall deem the payment of the monetary offset rate, pursuant to 345-024-0580, to result in a reduction of one ton of carbon dioxide emissions. The Council shall determine the offset funds using the monetary offset rate and the level of emissions reduction required to meet the applicable standard. If the Council issues a site certificate based on this section, the Council may not adjust the amount of the offset funds based on the actual performance of offsets.

(4) Notwithstanding sections (1), (2) or (3), if the certificate holder exceeds the projected gross carbon dioxide emissions calculated under OAR 345-024-0590(4) during any five-year reporting period described in 345-024-0590(5) and (6), the certificate holder shall offset excess emissions for the specific reporting period according to subsection (a) and shall offset the estimated future excess emissions according to subsection (b). The certificate holder shall offset excess emissions using

the monetary path as described in subsection (c) and 345-024-0710 or as approved by the Council.

(a) In determining the excess carbon dioxide emissions that the certificate holder must offset for a five-year period, the Council shall credit the certificate holder with offsets equal to the difference between the carbon dioxide emissions allowed by the site certificate in previous periods and actual emissions, if actual emissions were lower than allowed. Once a certificate holder has used a credit, the certificate holder shall not use it again.

(b) The Council shall specify in the site certificate a methodology for estimating future excess carbon dioxide emissions. The Department of Energy shall calculate estimated future excess emissions. To estimate excess emissions for the remaining period of the deemed life of the facility, the Department shall use the annual average number of hours of operation during the five-year period in which the certificate holder exceeded the estimated gross carbon dioxide emissions described in OAR 345-024-0590(5) and the new and clean heat rate and capacity for the facility, adjusted for the average temperature, barometric pressure and relative humidity at the site during the times of the year when the facility is intended to operate. If the annual average hours exceed 6,600, the Department shall estimate emissions at 100 percent capacity for the remaining period of a deemed 30-year life of the facility. At the request of the certificate holder, the Council may, by amendment of the site certificate, use an alternative methodology to estimate future excess carbon dioxide emissions.

(c) The certificate holder shall pay for the net excess carbon dioxide emissions calculated pursuant to subsections (a) and (b) at the monetary path offset rate in real dollars for the quarter and year in which the Council issued the final order that applied the carbon dioxide standard. The Council shall specify in the site certificate the methodology for calculating the real dollar value of the monetary offset rate. The Department shall calculate the net excess carbon dioxide emissions and notify the certificate holder of the amount of the monetary path payment required to offset them. The certificate holder shall pay fully the required amount to the qualified organization within 60 days of notification by the Department of the amount. The certificate holder shall not be eligible for a refund of any monetary path payments due to the calculations in this rule.

(5) Any other means that the Council adopts by rule for demonstrating compliance with the carbon dioxide emissions standard.

(6) If the Council or a court on judicial review concludes that the applicant has not demonstrated compliance with the applicable carbon dioxide emissions standard under sections (1), (2) or (5) of this rule, or any combination thereof, and the applicant agrees to meet the requirements of sections (3) and (4) for any deficiency, the Council or a court shall find compliance based on such agreement.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.501, 469.503

345-024-0610

Modification of the Standard for Non-Base Load Power Plants

The Council may by rule modify the carbon dioxide emissions standard for non-base load power plants in OAR 345-024-0590 so that the standard remains equivalent to the standard for the net carbon dioxide emissions rate of a base load gas plant, subject to the principles described in 345-024-0510.

Stat. Authority: ORS 469.470, 469.503

Stat. Implemented: ORS 469.501, 469.503

345-024-0620

Standard for Nongenerating Energy Facilities

To issue a site certificate for a nongenerating energy facility that emits carbon dioxide, the Council must find that the net carbon dioxide emissions rate of the proposed facility does not exceed 0.504 pounds of carbon dioxide per horsepower hour. The Council shall determine whether the carbon dioxide emissions standard is met as follows:

(1) The Council shall determine the gross carbon dioxide emissions that are reasonably likely to result from the operation of the proposed energy facility. The Council shall base such determination on the proposed design of the energy facility. In determining gross carbon dioxide emissions for a nongenerating facility, the Council shall calculate carbon dioxide emissions for a 30-year period unless the applicant requests, and the Council adopts in the site certificate, a different period. The Council shall determine gross carbon dioxide emissions based on its findings of the reasonably likely operation of the energy facility. The Council shall use 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), if the applicant proposes to use such fuel. If the applicant proposes to use any other fossil fuel, the Council shall adopt by rule an appropriate carbon dioxide content rate for the fuel.

(2) For any remaining emissions reduction necessary to meet the applicable standard, the applicant may elect to use any of the means described in OAR 345-024-0630 or any combination thereof. The Council shall determine the amount of carbon dioxide or other greenhouse gas emissions reduction that is reasonably likely to result from the applicant's offsets and whether the resulting net carbon dioxide emissions meet the applicable carbon dioxide emissions standard. The amount of greenhouse gas emissions means the pounds of carbon dioxide and the carbon dioxide equivalent of other greenhouse gases. For methane, one pound of methane is equivalent to 23 pounds of carbon dioxide. For nitrous oxide, one pound of nitrous oxide is equivalent to 296 pounds of carbon dioxide.

(3) If the applicant elects to comply with the standard using the means described in OAR 345-024-0630(1), the Council shall determine the amount of greenhouse gas emissions reduction that is reasonably likely to result from each of the proposed offsets. In making this determination, the Council shall not allow credit for offsets that have already been allocated or awarded credit for greenhouse gas emissions reduction in another regulatory setting. The fact that an applicant or other parties involved with an offset may derive benefits from the offset other than the reduction of greenhouse

gas emissions is not, by itself, a basis for withholding credit for an offset. The Council shall base its determination of the amount of greenhouse gas emission reduction on the following criteria and as provided in 345-024-0680:

(a) The degree of certainty that the predicted quantity of greenhouse gas emissions reduction will be achieved by the offset.

(b) The ability of the Council to determine the actual quantity of greenhouse gas emissions reduction resulting from the offset, taking into consideration any proposed measurement, monitoring and evaluation of mitigation measure performance.

(c) The extent to which the reduction of greenhouse gas emissions would occur in the absence of the offsets.

(4) Before beginning construction, the certificate holder shall notify the Department of Energy in writing of its final selection of an equipment manufacturer and shall submit a written design information report to the Department sufficient to verify the facility's designed rate of fuel use and its nominal capacity for each fuel type. In the site certificate, the Council may specify other information to be included in the report. The Department shall use the information the certificate holder provides in the report as the basis for calculating, according to the site certificate, the amount of greenhouse gas emissions reductions the certificate holder must provide under OAR 345-024-0630.

(5) In the site certificate, the Council shall specify the schedule by which the certificate holder shall provide offsets. In the schedule, the Council shall specify the amount and timing of offsets the certificate holder must provide to an offset credit account. In determining the amount and timing of offsets, the Council may consider the estimate of total offsets that may be required for the facility and the minimum amount of offsets needed for effective offset projects. The Department shall maintain the record of the offset credit account.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501, 469.503

345-024-0630

Means of Compliance for Nongenerating Energy Facilities

The applicant may elect to use any of the following means, or any combination thereof, to comply with the carbon dioxide emissions standard for nongenerating energy facilities:

(1) Implementing offset projects directly or through a third party, pursuant to OAR 345-024-0680. The Council may adopt site certificate conditions ensuring that the proposed offset projects are implemented by the date specified in the site certificate, but shall not require that predicted levels of avoidance, displacement or sequestration of greenhouse gas emissions be achieved.

(2) Providing offset funds, directly or through a third party, in an amount deemed sufficient to produce the reduction in greenhouse gas emissions necessary to meet the applicable carbon dioxide emissions standard according to the schedule set forth pursuant to OAR 345-024-0620(5). The applicant or third party shall use the funds as specified in 345-024-0710. The Council shall deem the payment of the monetary offset rate, pursuant to 345-024-0580, to result in a reduction of one ton of carbon dioxide emissions. The Council shall determine the offset funds using the monetary offset rate

and the level of emissions reduction required to meet the applicable standard. If the Council issues a site certificate based on this section, the Council may not adjust the amount of the offset funds based on the actual performance of offsets.

(3) Any other means that the Council adopts by rule for demonstrating compliance with the carbon dioxide emissions standard.

(4) Each year after beginning commercial operation, the certificate holder shall report to the Department of Energy data showing the amount and type of fossil fuels used by the facility and its horsepower-hours of operation. The Council shall specify in the site certificate how the Department shall use those data to calculate the gross carbon dioxide emissions from the facility during the report year and the net emissions in excess of the carbon dioxide emissions standard. The Department shall then subtract excess emissions from the offset credit account. The Council shall specify in the site certificate the minimum amount of offset credits that a certificate holder shall provide to establish the offset credit account. The Council may specify an amount of offset credits equal to the total offsets required for the facility. The Council shall specify the minimum amount of offset credits that a certificate holder must maintain in the account and the minimum amount of offset credits the certificate holder shall provide to replenish the account. The Department shall notify the certificate holder when it must replenish its offset credit account according to the conditions in the site certificate. The certificate holder shall maintain a positive balance in the offset credit account for 30 years, unless the Council specifies a different period in the site certificate.

(5) If the certificate holder is replenishing its offset credit account by meeting the monetary path payment requirement described in OAR 345-024-710, the certificate holder may replenish its offset credit account without amending the site certificate by using the calculation methodology detailed in conditions that the Council adopts in the site certificate.

(6) If the certificate holder proposes to replenish the offset credit account under OAR 345-024-0630(1), the Council may amend the site certificate conditions to ensure that the proposed offset projects are implemented.

(7) If the Council or a court on judicial review concludes that the applicant has not demonstrated compliance with the applicable carbon dioxide emissions standard under sections (1), (3) or (6) of this rule, or any combination thereof, and the applicant agrees to meet the requirements of section (2) for any deficiency, the Council or a court shall find compliance based on such agreement.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501, 469.503

345-024-0640

Modification of the Standard for Nongenerating Energy Facilities

The Council may by rule modify the carbon dioxide emissions standard for nongenerating energy facilities in OAR 345-024-0620 so that it remains equivalent to the standard for the net carbon dioxide emissions rate of a base load power plant.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501, 469.503

345-024-0680

Offset Projects

This rule applies if the applicant elects to meet the applicable carbon dioxide emissions standard in whole or in part under OAR 345-024-0550(3), 345-024-0560(2), 345-024-0590(3), 345-024-0600(2), 345-024-0620(3), or 345-024-0630(1).

(1) Types of offset projects include, but are not limited to: energy efficiency, including demand-side management measures for electricity and natural gas; electricity generation from renewable energy; fuel switching; carbon dioxide sequestration through afforestation, reforestation, forest management and forest conservation; flue gas carbon dioxide sequestration; methane capture and destruction from landfill and biogas methane (animal waste and waste water) or from fugitive methane emissions from existing or abandoned coal mines; nitrogen fertilizer management in agricultural applications; and vehicle carbon dioxide emissions reductions.

(2) In order to approve an offset project, the Council must find that:

(a) The offset project is likely to result in an avoidance, reduction or displacement of actual greenhouse gas emissions from fossil fuels or the sequestration of greenhouse gas emissions resulting from specific and identifiable actions;

(b) The Council can quantify the amount of greenhouse gas offsets, taking into consideration any proposed measurement, monitoring, evaluation and verification of offset project measure performance;

(c) The offsets are not susceptible to double-counting. For offsets from demand-side management measures reducing use of utility-provided electricity or natural gas, it may suffice that the certificate holder or its agent notify the utility that the certificate holder claims ownership of the greenhouse gas reductions;

(d) The applicant will own all greenhouse gas offsets that it proposes to provide;

(e) The applicant has provided a form of the instrument, satisfactory to the Council, through which the applicant will transfer all offsets from a project that an applicant will own to the Council for the Council to hold in trust;

(f) The applicant has the financial and institutional capability to deliver the project for its duration; and

(g) The applicant has provided an adequate monitoring and evaluation plan and an adequate plan for independent verification of the offsets. The monitoring and evaluation plan and the verification plan shall detail the record-keeping, data collection, data storage, data management program, and reporting guidelines and procedures.

(3) If the applicant proposes to implement a project in partnership with other parties or through contracts with other parties, the Council must find that:

(a) The other parties have the financial and institutional capability to deliver the project; and

(b) The applicant has a firm commitment from the other parties to participate in the project.

(4) If the applicant is proposing an offset project in another country, the Council must find that the host country has approved the transfer of the ownership of the greenhouse gas offsets to the applicant for the Council to hold in trust.

(5) The Council shall adjust its estimates of offsets to account for leakage, which is the extent to which events occurring outside the offset project boundary affect an offset project's total greenhouse gas emissions.

(6) The Council shall not approve any offsets related to nuclear power.

(7) The Council may reject an offset project based on undesirable long-term environmental impacts from the implementation of the offset project that the Council considers to be significant and reasonably likely to occur.

(8) The applicant may propose offset projects that provide offsets for up to 30 years after beginning commercial operation of a facility, or if an applicant proposes to provide offsets for more than 30 years after the beginning of commercial operation of a facility, the Council must find that:

(a) There will be a viable organization that will continue to manage an offset project for a longer period than the duration of the site certificate;

(b) The Council can maintain oversight of the project and hold the responsible organization to the requirements of the site certificate; and

(c) The responsible organization will transfer offsets to the Council after the certificate holder retires the energy facility.

(9) The certificate holder shall begin implementation of projects approved in the site certificate before beginning construction of its facility, and:

(a) The certificate holder shall provide the Council copies of executed contracts or binding agreements with offset providers, including steam hosts for cogeneration if proposed, before beginning construction of its facility, and

(b) The certificate holder shall ensure that offset project implementation begins immediately upon execution of a contract or binding agreement with an offset provider and that the measures are fully implemented within five years, unless the Council approves a longer implementation period through a site certificate condition.

(10) The certificate holder shall not sell or trade its offsets or allow any other entity to report or use the offsets.

(11) The Council shall hold the offsets in trust for the benefit of the State of Oregon.

(12) If the Council approves, a certificate holder may use offsets in a future national regulatory regimen if the Council determines that such use does not undermine the integrity of the Council's carbon dioxide standard. Such approval shall not require an amendment of the site certificate.

(13) The site certificate holder shall report to the Council annually on the performance of offset projects, pursuant to the monitoring and evaluation plan and to the verification plan, and shall explain changes from the offset benefits projected in the Council's analysis of the offset projects.

(14) The certificate holder shall provide copies of all monitoring and evaluation reports and any verification reports from the independent entity to the Department of Energy.

(15) The certificate holder shall provide any raw data upon the request of the Department.

(16) The site certificate holder shall make its offset project financial records available for the life of the facility for auditing by the Council or by a party that the Council designates.

Stat. Authority: ORS 469.470, 469.501

Stat. Implemented: ORS 469.501, 469.503

345-024-0710

Monetary Path Payment Requirement

(1) If the applicant elects to meet the applicable carbon dioxide emissions standard in whole or in part under OAR 345-024-0560(3), 345-024-0600(3) or 345-024-0630(2), (4) and (5), the applicant shall provide a bond or letter of credit in a form reasonably acceptable to the Council to ensure the payment of the offset funds and the additional funds required under section (4) of this rule. The applicant shall provide such security by the date specified in the site certificate. In the site certificate, the Council shall specify a date no later than the commencement of construction of the facility for base load gas plants and non-base load power plants. For nongenerating facilities, the Council shall specify a date no later than the commencement of construction of the facility for providing the initial bond or letter of credit, and the Council shall specify conditions for providing subsequent incremental payments to meeting the monetary path payment requirement. The certificate holder for a nongenerating facility must meet its incremental monetary path payment requirements before exhausting its offset credit account, as described in 345-024-0630(4). In no case shall the applicant diminish the bond or letter of credit or receive a refund from a qualified organization based on the calculations of the facility's emissions on a new and clean basis for a fossil-fueled power plant or any other measure for a nongenerating energy facility. A qualified organization shall not refund any offset funds to a certificate holder based on the operation or performance of a non-base load power plant during any five-year period reported under 345-024-0590(5) or, for a nongenerating facility, on any offset credits the certificate holder provided under 345-024-0620(5).

(2) In the site certificate, the Council shall require the certificate holder to disburse the offset funds and other funds required as specified in sections (3) and (4), unless the Council finds that no qualified organization exists, in which case the Council shall require the certificate holder to disburse the offset funds as specified in OAR 345-024-0720(2).

(3) When the certificate holder receives written notice from the qualified organization certifying that the qualified organization is contractually obligated to pay any funds to implement offsets using the offset funds, the certificate holder shall make the requested amount available to the qualified organization unless the total of the amount requested and any amounts previously requested exceeds the offset funds, in which case the certificate holder shall make available only the remaining amount of the offset funds. The qualified organization shall use at least 80 percent of the offset funds for contracts to implement offsets. The qualified organization shall assess offsets for their potential to qualify in, generate credits in or reduce obligations in other regulatory settings. The qualified organization may use up to 20 percent of the offset funds for

monitoring, evaluation, administration and enforcement of contracts to implement offsets.

(4) At the request of the qualified organization and in addition to the offset funds, the certificate holder shall pay the qualified organization an amount equal to 10 percent of the first \$500,000 of the offset funds and 4.286 percent of any offset funds in excess of \$500,000. The certificate holder for a base load gas plant shall pay not less than \$50,000, unless the Council specifies a lesser amount in the site certificate. In the site certificate, the Council may specify a minimum amount that other fossil-fueled power plants or nongenerating energy facilities must pay. This payment compensates the qualified organization for its costs of selecting offsets and contracting for the implementation of offsets.

(5) Notwithstanding any provision to the contrary, a certificate holder subject to this rule has no obligation with regard to offsets, the offset funds or the funds required by section (4) other than to make available to the qualified organization the total amount required under OAR 345-024-0560(3), 345-024-0600(3) and (4), 345-024-0630(2), (4) and (5), and section (4) of this rule. The Council shall not base a revocation of the site certificate or any other enforcement action with respect to the certificate holder on any nonperformance, negligence or misconduct by the qualified organization.

(6) For monetary path payments a certificate holder must make before beginning construction, the certificate holder shall make all offset fund payments and all payments required by section (4) to the qualifying organization in real dollars of the year in which the Council issues a final order applying the carbon dioxide emissions standard to the energy facility. In the site certificate, the Council shall specify an appropriate inflation index for calculating real dollars. For a non-base load power plant, if a certificate holder must make a payment as described in OAR 345-024-0600(4), the certificate holder shall make a payment that has the same present value per ton of carbon dioxide as the monetary path offset rate of the year in which the Council issued the final order applying the carbon dioxide standard. In the site certificate, the Council shall specify the methodology for calculating present value. If the certificate holder of a nongenerating facility must make payments as described in 345-024-0630(4) and (5), the Council shall specify in the site certificate the method for calculating the rate for the dollar value per ton of carbon dioxide required according to subsection (a) or (b) below:

(a) Unless the applicant and the Council agree to the methodology in subsection (b), the certificate holder shall make payments that have the same present value per ton of carbon dioxide as the monetary path offset rate of the year in which the Council issued the final order applying the carbon dioxide standard. The Council shall set an appropriate discount rate for calculating the present value, using the cost of capital most recently approved by a state utility regulatory commission for that utility or a similar utility as a guide; or

(b) If the applicant requests and the Council agrees, the certificate holder shall make payments at the monetary path offset rate in effect on the date the certificate holder makes the payment.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.501, 469.503

345-024-0720

Qualified Organization

(1) If the applicant elects to meet the applicable carbon dioxide emissions standard in whole or in part under OAR 345-024-0560(3), 345-024-0600(3) and (4), or 345-024-0630(2), (4) and (5), the applicant shall identify the qualified organization. The applicant may identify an organization that has applied for, but has not received, an exemption from federal income taxation, but the Council may 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 September 18, 2015.

(2) If the Council finds there is no qualified organization, the certificate holder shall disburse the offset funds according to one or more contracts for implementation of offsets as determined by the following process:

(a) The Council shall establish criteria for selection of offsets, based on the reduction of net carbon dioxide emissions and the criteria set forth in OAR 345-024-0550(3) for base load plants, 345-024-0590(3) for non-base load power plants and 345-024-0620(3) for nongenerating facilities. The Council may consider the costs of particular types of offsets in relation to the expected benefits of such offsets. In establishing criteria, the Council shall not require the certificate holder to select particular offsets and shall allow the certificate holder a reasonable range of choices in selecting offsets.

(b) Based on the criteria established by the Council, the certificate holder shall select one or more offsets. The certificate holder shall give written notice of its selections to the Council and to any person requesting notice. For the purposes of this rule, the date of notice is the date the certificate holder places the notice in the United States mail, with first-class postage prepaid.

(c) On petition by the Department of Energy or by any person adversely affected or aggrieved by the certificate holder's selection of offsets, or on the Council's own motion, the Council may review the selection. The petition must be received by the Council within 30 days of the date of notice.

(d) The Council shall approve the certificate holder's selection unless it finds that the selection is not consistent with criteria established under subsection (a).

(e) The certificate holder shall execute one or more contracts to implement the selected offsets within 18 months after commencing construction of the facility unless the Council allows additional time based on a showing of good cause by the certificate holder. If a certificate holder would have made a payment to a qualified organization as described in OAR 345-024-0600(4) or 345-024-0630(4) or (5), the certificate holder shall instead execute one or more contracts to implement the selected offsets, by a method acceptable to the Council, within 18 months after reporting to the Council as described in 345-024-0590(5) or within 18 months after the Department notifies the certificate holder that the certificate holder must replenish the offset credit account as described in 345-024-0630(4). The certificate holder shall, under such contracts, obligate the expenditure of at least 85 percent of the offset funds for the implementation of offsets. The certificate holder may spend no more than 15 percent of the offset funds on monitoring, evaluation and enforcement of such contracts.

(f) The certificate holder's financial liability for implementation, monitoring, evaluation and enforcement of offsets under this subsection (2) is limited to the amount of any offset funds not already contractually obligated. The Council shall not base a revocation of the site certificate or any other enforcement action with respect to the certificate holder on any nonperformance, negligence or misconduct by the entity or entities implementing, monitoring or evaluating the selected offsets.

(3) Every qualified organization that has received funds under this rule shall, at five-year intervals beginning on the date of receipt of such funds, provide the Council with the information the Council requests about the qualified organization's performance. The Council shall evaluate the information requested and, based on such information, shall make recommendations to the Legislative Assembly that the Council deems appropriate.

Stat. Authority: ORS 469.470

Stat. Implemented: ORS 469.501, 469.503