

# DEPARTMENT OF ENERGY

## DIVISION 180

### GREENHOUSE GAS EMISSIONS STANDARD

#### 330-180-0010

##### Purpose and Scope

These rules provide procedures to assist the governing boards of consumer-owned utilities to comply with the greenhouse gas emissions performance standard for electricity established in ORS 757.522 to 757.536.

#### 330-180-0020

##### Definitions

- (1) “Cogeneration facility” means a facility where the sequential generation of electric energy and the production of steam or other forms of useful energy (such as heat) from the same primary energy source or fuel are used for industrial, commercial, heating, or cooling purposes.
- (2) “Department” means the Oregon Department of Energy pursuant to ORS 469.020(5).
- (3) “Director” means the director of the department pursuant to ORS 469.020(6).
- (4) “Low-Carbon Emissions Resource” means a generating facility that is capable of meeting the greenhouse gas emissions standard through the use of technologies, fuels, or feedstocks that work together to result in an emissions rate at or below the emissions standard, or by sequestering a sufficient portion of greenhouse gas emissions such the net greenhouse gas emissions at the generating facility are maintained at or below the standard.
- (5) “Useful thermal energy” is the net thermal energy made available by a cogeneration facility for processes or applications other than for the generation of electricity, taking into account any portion of the total thermal energy produced that is used as part of the cogeneration process or that is discharged as waste.

#### 330-180-0030

##### Greenhouse Gas Emissions Standard

- (1) The greenhouse gas emissions standard is 1,100 pounds (0.5 metric tons) of greenhouse gases per megawatt-hour (MWh) of electricity for a generating facility as specified by ORS 757.528(1).
- (2) The greenhouse gas emissions standard includes only carbon dioxide (CO<sub>2</sub>) emissions.

(3) A governing board of a consumer-owned utility entering into a long-term financial commitment as defined at ORS 757.522(10)(a) demonstrates compliance with these rules by making a written determination that baseload electricity acquired under the long-term financial commitment entered into by the utility's governing board is produced by a generating facility that complies with the greenhouse gas emissions standard established in this rule.

### **330-180-0040**

#### **Low-Carbon Emissions Resource Plan**

(1) The governing board of a consumer-owned utility, or entity acting on behalf of one or more governing boards, may submit a plan for a generating facility to become a low-carbon emissions resource to the department. The department will make a determination as to whether the plan includes sufficient technical documentation to demonstrate that the generating facility is capable of becoming a low-carbon emissions resource within seven years of commencing operations at the generating facility. The plan must contain sufficient technical documentation to demonstrate:

(a) The net greenhouse gas emissions from the generating facility -- taking into account any greenhouse gas emissions that are captured, sequestered, or otherwise prevented from being released into the atmosphere -- will be at or below the greenhouse gas emissions standard established in this rule;

(b) Additional capacity or capability exists to lower net greenhouse gas emissions over time to meet potential reductions in the greenhouse gas emissions standard;

(c) To the extent that maintenance of the low-carbon emissions resource requires one or more feedstocks, that sufficient supply of the feedstock(s) will be available for use by the generating facility;

(d) How other conditions identified by the governing board(s) to meet and maintain the low-carbon emissions resource status over time can and will be met by the generating facility.

(2) The department determination that the plan includes sufficient technical documentation to demonstrate that the generating facility is capable of becoming a low-carbon emissions resource within seven years of commencing operations must be obtained prior to entering into a long-term commitment with that generating facility.

(3) The department will begin a review within 90 days of receipt of a plan and provide a determination to the governing board(s) as to whether the plan includes sufficient technical documentation to demonstrate that the generating facility is capable of becoming a low-carbon emissions resource within seven years of commencing operations. A plan may be re-submitted to the department for reconsideration if additional technical documentation is available.

(4) If the Oregon Public Utility Commission makes a determination pursuant to ORS 757.531(2)(c) that a plan for a generating facility to become a low-carbon emissions resource is sufficient then the governing board of a consumer-owned utility may consider that determination

to provide a sufficient demonstration for purposes of ORS 757.533(2)(c) to consider the same generating facility, utilizing the same plan and under the same time frame, as a low-carbon emissions resource in lieu of a review of that plan by the department.

(5) The department may waive the need or alter the timeline to submit a plan to become a low-carbon emissions resource for good cause shown.

### **330-180-0050**

#### **Unspecified Emissions**

(1) Long-term financial commitments consisting of contracts for electricity where the greenhouse gas emissions cannot readily be determined with any specificity are those in which:

(a) The contract does not allow for the identification of one or more generating facilities from which the contracted energy is derived; or,

(b) The contract does not provide sufficient detail about the resource mix from which the contracted energy is derived to determine the greenhouse gas emissions associated with the contracted energy.

(2) Emissions to be attributed to such contracts for purposes of determining compliance with the emissions standard in this rule are to be derived as follows:

(a) By utilizing data from greenhouse gas emissions reports or otherwise submitted to the Oregon Department of Environmental Quality or the US Environmental Protection Agency characterizing the emissions profile of the baseload electricity if that electricity is anticipated to be representative of the contracted energy in the long-term financial commitment; or,

(b) By utilizing the greenhouse gas emissions reporting protocols and emissions factors required by the Oregon Department of Environmental Quality or the US Environmental Protection Agency to estimate the expected emissions profile of the baseload electricity in the long-term financial commitment; or,

(c) If unable to use the greenhouse gas reporting data, procedures, or protocols utilized by the Oregon Department of Environmental Quality or the US Environmental Protection Agency to assign emissions to the baseload electricity by multiplying the amount of energy for which emissions cannot be determined with specificity by an emissions factor of 1,100 pounds of greenhouse gases per megawatt hour to determine the greenhouse gas emissions.

### **330-180-0060**

#### **Methodology for Calculating Greenhouse Gas Emissions**

(1) A generating facility's annual average electricity production in megawatt-hours (MWh) is the sum of the electricity available for all of the following:

- (a) Use onsite;
  - (b) Use at a host site in a commercial or industrial process;
  - (c) Sale; or
  - (d) Transmission from the generating facility.
- (2) The greenhouse gases for cogeneration facilities must include the total usable energy output of the process and includes all greenhouse gases emitted by the facility in the production of both electrical and thermal energy.
- (a) A cogeneration facility's annual average electricity production is the sum of the MWh of electricity produced and the useful thermal energy output expressed in MWh.
  - (b) The useful thermal energy output must be converted into a MWh equivalent using the standard engineering conversion factor of 3.413 MMBtu per MWh (or 3,413 Btu per kWh).
  - (3) In determining whether a generating facility complies with the emissions standard, the total emissions associated with producing energy at the generating facility must be included in determining the rate of emissions of greenhouse gases. The total emissions associated with producing electricity at the generating facility do not include emissions associated with transportation, fuel extraction or other life-cycle emissions associated with obtaining the fuel for the facility.

### **330-180-0070**

#### **Exemptions**

The requirement for a governing body to report exemptions to the department as required by ORS 757.528(7) must be in writing and may be submitted electronically or by regular mail.