

# Greenhouse Gas Reporting Protocols

## Investor-owned Utilities and Electricity Service Suppliers

### Overview

Investor owned utilities and electricity service suppliers providing electricity for use in Oregon are required to report greenhouse gas emissions to DEQ.

### Applicability

Oregon rules require all investor owned utilities and electricity service suppliers that import, sell, allocate, or distribute electricity to end users in Oregon to annually register and report greenhouse gas emissions from the generation of the electricity provided in the state during the previous year.

### Registration and Deadlines

Reports are due annually by June 1<sup>st</sup> following the emissions year.

### Reporting Protocols

Investor owned utilities and electricity suppliers must register and report greenhouse gas emissions according to the processes described below using the applicable form found on the DEQ [GHG reporting program website](#).

The following is a summary of the greenhouse gas reporting requirements for investor owned utilities and electricity service suppliers and the protocols for implementing these requirements. Persons required to report should review the greenhouse gas reporting rules to identify additional elements of the reporting program such as recordkeeping requirements.

### Emissions from electricity generated by the reporting company

Oregon rules require each investor owned utility and electricity service supplier to report greenhouse gas emissions from electricity they imported, sold, allocated or distributed to end users in Oregon where that electricity was generated from facilities they own or operate. Companies must report these emissions using the form provided by DEQ. This form includes space for the company to input the generating fuel type, facility specific information, the quantity of electricity distributed for use in Oregon, and corresponding facility anthropogenic and biogenic emission factors. The form automatically calculates total emissions from this information.

### Calculating emission factors for generated electricity

Each company needs to determine emission factors for electricity generated at facilities owned or operated by the company. The company will need to determine the emissions factors in metric tons of carbon dioxide equivalent per megawatt-hour. Companies must use a 2 percent transmission loss correction factor when determining emission factors for electricity not measured at the busbar of the generating facility. Companies reporting emissions from geothermal energy may use the default greenhouse gas emission factor published by the U.S. Energy Information Administration or derive an emission factor using engineering estimates based on monitoring data or other information specific to the facility.

Each company must also provide supplemental documentation that explains how the emission factors were calculated, including the necessary information for DEQ to verify these calculations. The supplemental documentation can be emailed with the completed form, or mailed with the signed summary page from the form.



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### **Emissions from electricity purchased by the reporting company**

Oregon rules require investor owned utilities and electricity service suppliers to report greenhouse gas emissions from the generation of electricity they purchase and distribute to end users in Oregon. These rules also require reporting of certain additional information about these purchases including the number of megawatt-hours of electricity purchased and distributed to end users in Oregon and if known, the original generating fuel type or types, information on the seller and origin of the electricity and facility specific emission factors.

### **Calculating emission factors for purchased electricity**

If available, utilities must report facility specific emission factors from purchased electricity delivered to end users in Oregon. If facility specific emission factors are unknown but generating fuel type is known the utility must report the generating fuel type and calculate emissions factors utilizing default emission factors from [40 C.F.R. Part 98 Subpart C](#), finalized by the U.S. Environmental Protection Agency Nov. 29, 2013 and average heat rate data published by the Energy Information Agency.

EIA only publishes national average heat rates for coal and natural gas. Companies do not need to report greenhouse gas emissions for purchases of electricity generated by other known fuel types when facility specific emission factors are unknown. For purchases of electricity generated by a known fuel type that is not coal or natural gas, companies only need to report megawatt-hours provided in Oregon, the generating fuel type, and known identifying information on the seller. Companies must use a 2 percent transmission loss correction factor when calculating emissions for electricity not measured at the busbar of the generating facility.

### **Unspecified purchases**

Electricity purchased from an unknown seller or from a seller who is unable to identify the generating fuel type, must be reported on worksheet 3 of the form for Investor Owned Utilities and Electricity Service Suppliers. Companies must report the total megawatt-hours of these electricity purchases from unknown generating sources.

### **Supplemental Documentation**

For each electricity purchase, the company must provide supplemental documentation with information about the seller, if known, including the name of the company, contact information at that company, and the location of the generating facility. If any of this information is not known, this must be indicated in the supplemental documentation or in the space provided on the form.

In addition, submit documentation that explains how emission factors were derived, including the necessary information for DEQ to verify the calculations.

### **Renewable energy credit sales**

Oregon rules require companies to report the number of megawatt-hours of electricity purchased for which a renewable energy certificate under ORS 469A.130 has been issued but subsequently transferred or sold to another entity at the time of reporting. The form includes a worksheet to record this information separately from and in addition to emissions reported for electricity purchases.

### **Sulfur hexafluoride (SF<sub>6</sub>) emissions**

Investor owned utilities and electricity service suppliers must determine SF<sub>6</sub> emissions from transmission and distribution equipment they own or operate pursuant to methodologies included in [40 CFR Part 98, Subpart DD](#) with a modification to delineate emissions for Oregon. While EPA's protocols require reporting of the total emissions for all equipment owned or operated by the company, each company must estimate the emissions associated with their provision of electricity to Oregonians in their report to DEQ. Each company must do this by calculating the SF<sub>6</sub> emissions based upon the portion of electricity they supply to Oregon end users. Companies must do this by first calculating the total SF<sub>6</sub> emissions from all their transmission and

distribution equipment pursuant to 40 CFR Part 98, Subpart DD, and then multiplying these emissions by the ratio of the amount of electricity the utility supplied to Oregon end users compared to the total electricity the utility supplied within its jurisdiction.

An example would work as follows: A utility owns two substations and the associated switchgear and gas-insulated lines. This equipment emitted 90 metric tons CO<sub>2</sub> equivalent of SF<sub>6</sub> during 2011. The utility transmitted 100 MWh of electricity to all its customers during this period, of which the utility transmitted 40 MWh to Oregon end users. In this example, the utility would report 40 percent of the emissions from its equipment, or 36 metric tons CO<sub>2</sub> equivalent.

### **Multi-jurisdictional utilities**

Oregon rules authorize an investor owned utility serving jurisdictions both inside and outside of Oregon to rely upon a cost allocation methodology approved by the Oregon Public Utility Commission for allocating emissions associated with the generation of electricity distributed in Oregon. Utilities utilizing the approved cost allocation approach must report utilizing DEQ's form for multi-jurisdictional reporting. A multi-jurisdictional utility should report the amount of electricity the utility provided in Oregon (in megawatt-hours) and the emission factor (using metric tons of carbon dioxide equivalent per megawatt-hour) the utility derived using the approved cost-allocation methodology according to DEQ's form.

The utility must also provide supplemental documentation with the form that explains how the emission factor(s) was derived, including the necessary information for DEQ to verify the calculations used to derive this emission factor. This supplemental documentation can be either emailed electronically with the completed form, or mailed with the signed summary page from the form.

### **Contact Information**

If you have questions email the program at [GHGReport@deq.state.or.us](mailto:GHGReport@deq.state.or.us) call Elizabeth Elbel at 503-229-6476. You may call DEQ toll-free in Oregon at 800-452-4011

### **Accessibility**

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).