

DEQ Greenhouse Gas Reporting: Electricity Suppliers

November 22, 2023

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Agenda

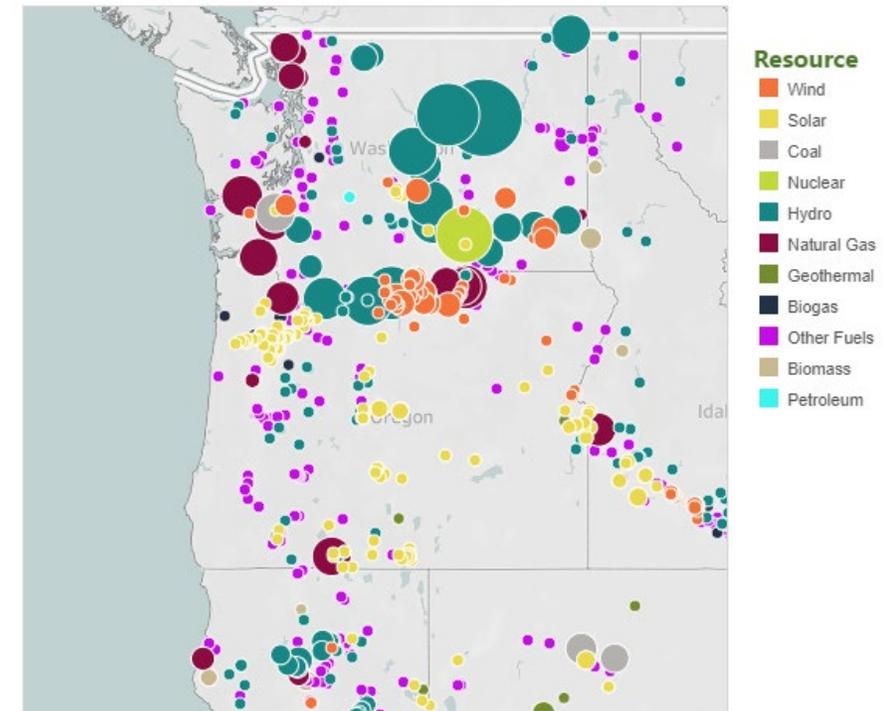
Topic
Oregon GHG Reporting Requirements
GHG Emission Factors for Electricity
Overview of Oregon Electricity Sector Emission Reduction Requirements
Questions

Applicability

Electricity suppliers. All investor-owned utilities, multi-jurisdictional utilities, electricity service suppliers, consumer-owned utilities, and other persons that import, sell, allocate, or distribute electricity **to end users in the state** must register and report in compliance with this division.

- Each entity reports emissions from generation of electricity they source to supply Oregonians, regardless of where that generation occurs

Western Generation



Regulated electricity suppliers

- **Investor owned utilities (IOU) (3):** An investor-owned utility (IOU) is owned by stockholders who may or may not be customers and who may or may not live in the service area.
 - Pacific Power – (multi-jurisdictional)
 - Idaho Power – (multi –jurisdictional)
 - Portland General Electric
- **Electricity Service Suppliers (~5) –** Supplies direct access customers in utility territory
- **Consumer Owned Utilities (39):**
 - **Cooperative Electric Utilities** – A cooperative is owned by its members, and in the case of an electric cooperative the members are also the consumers.
 - **People’s Utility Districts** – PUDs are formed by a vote of the people who live within the District, and are directed, managed and operated locally.
 - **Municipal Electric Utilities** - A public power system is owned by a city, state or federal government.

Reporting requirements

DEQ's GHG reporting rules require electricity suppliers to report the **megawatt-hours** and **associated greenhouse gas emissions from generation** of electricity supplied to Oregon.

They must:

- Separately report emissions from each specified source and unspecified power
- Use DEQ assigned emission factors for calculating direct GHG emissions based on generating resource.
- Apply a 2 % transmission loss correction factor for power not measured at the busbar

Multi-jurisdictional utilities - report data and emissions based on a cost allocation approach approved by Oregon PUC

Specified Source Emission Factors

Specified source means a facility or unit which is allowed to be claimed as the source of electricity delivered and includes:

- Facilities or units where the regulated entity is a full or partial owner, or
- Where there is a written power contract to procure electricity generated by that facility or unit.
- Electricity procured from an asset-controlling supplier is a specified source

DEQ assigns facility-specific emission factors to each specified source annually based on facility specific data.

- **Non-emitting sources:** For non-emitting resources such as solar, wind, hydro, and closed-loop geothermal, the emission factor is zero, as no direct emissions are produced from those generation types.
- **GHG-emitting sources:** DEQ totals the facility-level emissions for the calendar year from electricity generation and divide that by the net electricity generation at the facility.

$$\frac{\text{Source Annual GHG Emissions } MTCO_2e}{\text{Source Annual Net Generation } MWh} = \text{Facility Specific Emission Factor } \left(\frac{MTCO_2e}{MWh} \right)$$

Resource: [Specified source emission factor methods](#)

Unspecified Sources

A source of electricity that is not a specified source at the time of entry into the transaction to procure the electricity.

Unspecified source emission factor

GHG RP rules require the use of the default emission factor of **0.428 (MTCO₂e/MWh)** for energy originating from an unspecified source.

Energy Markets: The GHG RP rules currently assign the default unspecified emission factor rate to power purchases from the energy imbalance or other centralized markets.

Non-retail sales adjustments

Utilities account for non-retail sales for reporting purposes based on the nature of the supplier and specificity of the sale:

- Non-retail sales of a specified power resource are subtracted from the electricity supplier's report based on the amount of specified source power sold and any associated emissions
- For non-retail sales of power not specified at the time of sale:
 - Electricity suppliers adjust power and emissions sold by proportionately subtracting it across the supplier's overall resource mix for that year.
 - This does not apply to multi-jurisdictional who report a share of their system based on a cost allocation approach

Multi-jurisdictional Utility Reporting

The Multi-Jurisdictional (MJ) approach applies to an electricity supplier that is a retail provider to customers in Oregon and at least one other state.

They must report total MWh and greenhouse gas emissions from the generation of electricity from specified and unspecified sources in the **utility's service territory or power system** and report the following:

- (A) Wholesale electricity purchased and taken from specified sources (MWh);
- (B) Wholesale electricity purchased from unspecified sources (MWh);
- (C) Wholesale electricity sold from specified sources (MWh); and
- (D) Retail sales (MWh) to customers in Oregon's portion of the utility's service territory or power system

To calculate total emissions from a multijurisdictional entity, the DEQ calculated system emission factor is applied to the MWh delivered to end-users in Oregon.

$$\text{Oregon CO}_2\text{e} = \text{MWh delivered in OR} \times \text{TLF} \times \text{system emission factor}$$

Oregon Emission Reduction Requirements

House Bill 2021 (2021) sets greenhouse gas (GHG) emissions reduction targets and specifically requires certain electricity providers to reduce the greenhouse gas emissions associated with the electricity they provide in Oregon

Required Reduction from Baseline	Target Year
80%	2030
90%	2035
100%	2040

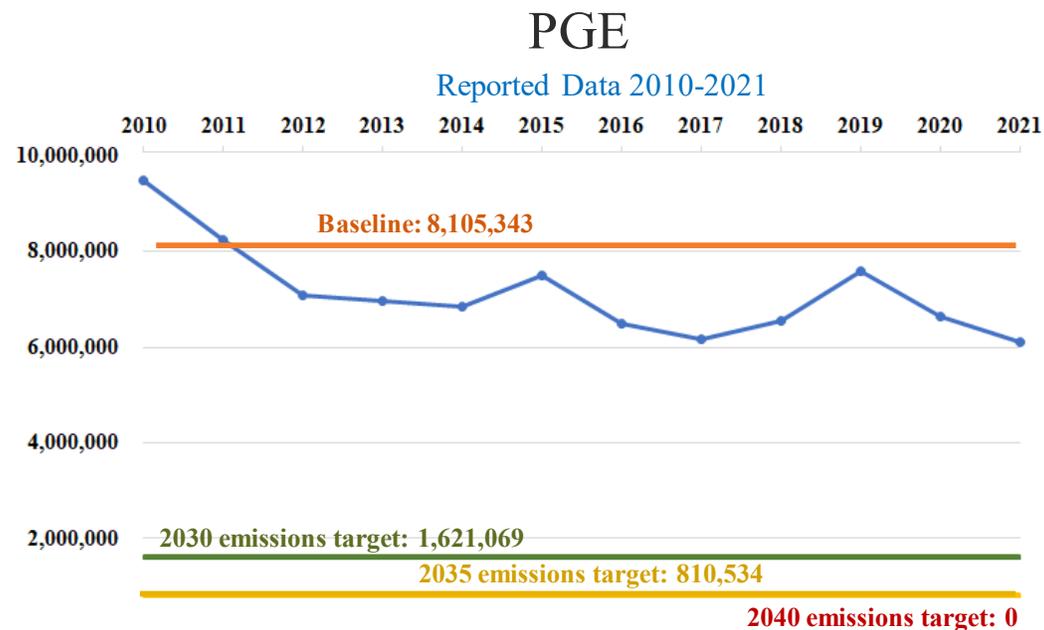
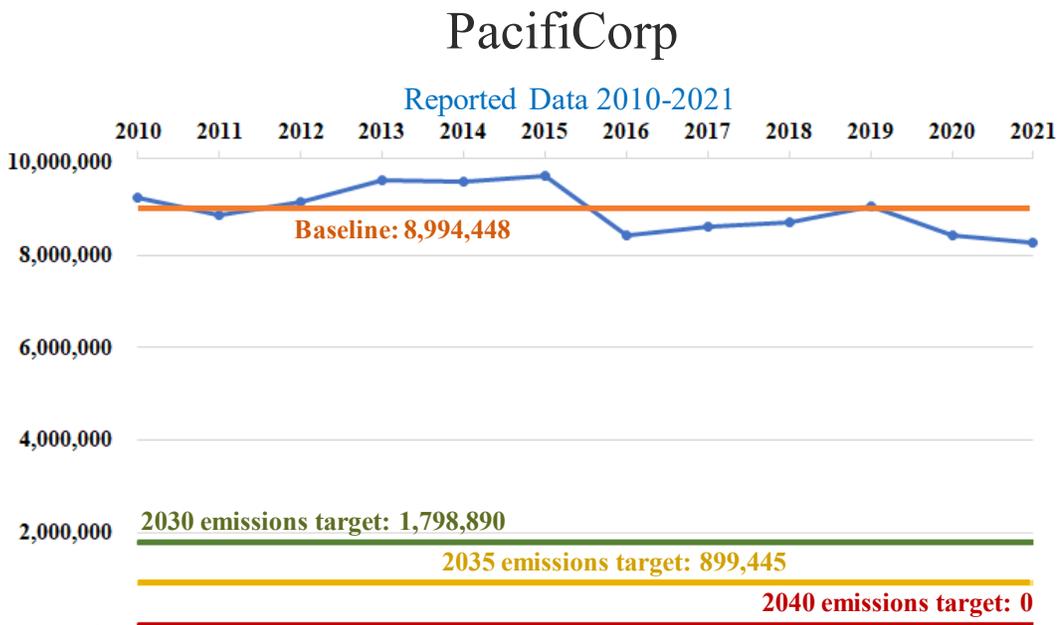
This impacts Oregon's two largest utilities, PacifiCorp, Portland General Electric (PGE), and all Electricity Service Suppliers (ESS).

Resource: [DEQ Clean Energy Targets Webpage](#)

Baseline Emissions: PacifiCorp & PGE

Baseline emissions levels for PGE and PAC are the average annual anthropogenic emissions of greenhouse gas for the years 2010, 2011 and 2012 as reported to DEQ.

Metric Tons of Carbon Dioxide Equivalent



Resource: [Annual GHG Reported Emissions Data](#)

Thank you!

Resources:

- [DEQ Greenhouse Gas Reporting Program](#)
- [Overview of HB 2021 emissions quantification methodology](#)
- [DEQ specified source emission factor methodology](#)
- [Overview of HB 2021 emissions quantification methodology](#)

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