

Electricity Carbon Intensity Values for 2026

This document publishes the statewide and utility-specific grid mix carbon intensity values for electricity reported as a transportation fuel in the Oregon Clean Fuels Program for the 2026 reporting year.

General methodology

The CFP calculates the carbon intensity of transportation fuels on a lifecycle basis, which means that both direct and indirect emissions are accounted for. For electricity, that means looking at both the direct emissions from the smokestacks of power plants and the indirect, upstream emissions from the extraction and transportation of the source of the electricity to the power plant.

Direct emissions

The electricity sector is required to report annually to DEQ's Greenhouse Gas Reporting Program¹. Each year, the utilities and electric generators report how much electricity they produce or procure from within and outside of Oregon and the resources used to generate their electricity, such as wind, coal, or others. The emission rates are reported in tons per megawatt-hours and then converted to grams of CO₂e per megajoule of energy by using the following factors²:

1 Metric Ton (MT) = 1,000,000 grams (g)

1 Megawatt-hour (MWh) = 1,000 Kilowatt-hour (kWh)

1 kWh = 3.6 megajoules (MJ)

Electricity consumption in other jurisdictions, like Washington state, is not included.

Indirect emissions

OR-GREET 4.0 is used to calculate the upstream or indirect emissions associated with the mix of resources generating electricity. Resources include, for example, natural gas, wind, solar, and coal. In the case of natural gas, the indirect emissions include emissions from energy used at the wellhead and throughout the transmission system, including fugitive methane emissions. In the case of coal, indirect emissions include emissions from energy used in mining and transportation to the power plant.

Source of the data

The emissions accounting is based on 2024 data reported to GHGRP by the electricity sector and 2022 data reported by the Bonneville Power Administration.

¹ The Oregon Department of Energy also uses DEQ GHG reporting program data. For more information about ODOE's use of this data, reference the [ODOE 'Data & Reports' website](#) and [ERM Visual FAQ](#).

² For more information on the GHGRPs emissions factor assignment methodology for specified sources, reference [DEQ's Specified Source Emission Factor Fact Sheet](#).

Utility-specific direct emissions

Utilities are allowed to opt in to receive a utility-specific carbon intensity value as opposed to the statewide grid mix carbon intensity value. Many of these opt-in utilities are customers of the Bonneville Power Administration and are shown in Table 1 below.

Table 1. Utility-specific direct emissions

Organization Name	MWh	MTCO ₂ e	MTCO ₂ e/MWh	gCO ₂ e/MJ
Ashland Electric Department	168,124	2,678	0.016	4.425
Blachly-Lane Electric Cooperative	192,486	4,789	0.025	6.911
Canby Utility Board	205,162	3,283	0.016	4.444
Cascade Locks	43,721	700	0.016	4.722
Central Electric Cooperative	863,614	21,166	0.025	6.808
Central Lincoln PUD	1,252,435	20,039	0.016	4.444
Clatskanie PUD	924,311	35,924	0.039	10.796
Clearwater Power Company	2,314	38	0.017	4.590
Columbia River PUD	513,487	8,216	0.016	4.444
Consumers Power	452,543	22,266	0.049	13.667
Coos-Curry Electric Cooperative, Inc	344,026	5,504	0.016	4.444
Douglas Electric Cooperative	165,618	2,650	0.016	4.444
Emerald PUD	526,091	42,510	0.081	22.445
Eugene Water & Electric Board	2,352,955	80,144	0.034	9.461
Forest Grove Light & Power	279,408	4,057	0.015	4.033
Hermiston Energy Services	112,528	1,800	0.016	4.444
Hood River Electric Cooperative	141,076	2,257	0.016	4.444
Lane Electric Cooperative	247,990	3,952	0.016	4.427
McMinnville Water & Light	732,214	11,302	0.015	4.287
Midstate Electric Cooperative	485,598	7,770	0.016	4.444
Milton-Freewater City Light & Power	107,037	1,248	0.012	3.239
Northern Wasco PUD	1,541,824	371,378	0.241	66.908
Oregon Trail Electric Cooperative	721,210	11,539	0.016	4.444
Salem Electric	324,157	5,186	0.016	4.444
Springfield Utility Board	763,493	12,216	0.016	4.444
Surprise Valley Electrification Corp	142,279	2,276	0.016	4.444
Tillamook PUD	508,962	8,105	0.016	4.423
Umatilla Electric Cooperative	8,604,130	1,138,717	0.132	36.763

Statewide mix direct emissions

Table 2 shows the aggregated calculated emissions factor and carbon intensity values for all providers of electricity that reported to GHGRP and the adjusted statewide mix after removing the energy and emissions from the utilities that have requested a utility-specific carbon intensity value.

Table 2. All providers of electricity and the adjusted statewide mix

	Units	All electricity providers	Adjusted statewide mix
Emissions Factor	MTCO _{2e} /MWh	0.265	0.372
Carbon Intensity	gCO _{2e} /MJ	73.679	103.230

Indirect emissions

Table 3 shows the statewide resource mix for 2022 since the indirect emissions are based on the statewide 2022 data. Indirect emissions are calculated using OR-GREET 4.0.

Table 3. Statewide resource mix

Fuel resource type	Percentage of the resource in the statewide mix
Hydroelectric	36.84%
Natural Gas	38.85%
Solar	3.90%
Wind	7.93%
Biomass	0.85%
Coal	8.29%
Distillate Fuel Oil	0.00%
Geothermal	0.11%
Hydrogen Fuel Cell	0.00%
Nuclear	3.23%

*"Unspecified source of electricity" or "unspecified source" means a source of electricity that is not a specified source at the time of entry into the transaction to procure the electricity. Electricity imported, sold, allocated, or distributed to end users in this state through an energy imbalance market or other centralized market administered by a market operator is considered an unspecified source. These sources are accounted for using the emission factor in OAR 340-215-0120(2)(a): The emission factor for calculating emissions from unspecified power is 0.428 MT CO_{2e}/MWh. Updated carbon intensity values for 2026.

Table 4 shows the statewide grid mix and utility-specific carbon intensity values and the corresponding fuel pathway codes to be used when reporting to DEQ.

Table 4. Statewide grid mix and utility-specific carbon intensity values

Name	Reported Direct Emissions (gCO₂e/MJ)	Modeled Indirect Emissions (gCO₂e/MJ)	Total Emissions (gCO₂e/MJ)	Fuel Pathway Code
Statewide Grid Mix	103.23	23.77	127.00	ORELC2026
Ashland Electric Department	4.42	1.56	5.99	ORELCAE26
Blachly-Lane Electric Cooperative	6.91	2.42	9.33	ORELCBL26
Canby Utility Board	4.44	1.57	6.01	ORELCFRC26
Cascade Locks	4.44	1.57	6.01	ORELCFRC26
Central Electric Cooperative	6.81	2.38	9.19	ORELCCEC26
Central Lincoln PUD	4.44	1.57	6.01	ORELCCLP26
Clatskanie PUD	10.80	4.81	15.61	ORELCCLA26
Clearwater Power Company	4.59	1.62	6.21	ORELCCPC26
Columbia River PUD	4.44	1.57	6.01	ORELCFRC26
Consumers Power	13.67	4.75	18.42	ORELCCP26
Coos-Curry Electric Cooperative, Inc	4.44	1.57	6.01	ORELCFRC26
Douglas Electric Cooperative	4.44	1.57	6.01	ORELCDEC26
Emerald PUD	22.45	8.36	30.81	ORELCEPD26
Eugene Water & Electric Board	9.46	3.52	12.98	ORELCEWE26
Forest Grove Light & Power	4.03	1.42	5.46	ORELCFG26
Hermiston Energy Services	4.44	1.57	6.01	ORELCFRC26
Hood River Electric Cooperative	4.44	1.57	6.01	ORELCFRC26
Lane Electric Cooperative	4.43	1.56	5.99	ORELCLEC26
McMinnville Water & Light	4.29	1.51	5.80	ORELCCMM26
Midstate Electric Cooperative	4.44	1.57	6.01	ORELCFRC26
Milton-Freewater City Light & Power	3.24	1.14	4.38	ORELCMF26
Northern Wasco PUD	66.91	23.11	90.02	ORELCNW26
Oregon Trail Electric Cooperative	4.44	1.57	6.01	ORELCFRC26
Salem Electric	4.44	1.57	6.01	ORELCFRC26
Springfield Utility Board	4.44	1.57	6.01	ORELCFRC26
Surprise Valley Electrification Corp	4.44	1.57	6.01	ORELCFRC26
Tillamook PUD	4.42	1.63	6.05	ORELCTPD26
Umatilla Electric Cooperative	36.76	12.69	49.45	ORELCUEC26

Contact

Please contact OregonCleanFuels@deq.oregon.gov if you have any questions.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age, sex, religion, sexual orientation, gender identity, or marital status in the administration of its programs and activities. For translations or alternate formats, visit DEQ's [Civil Rights and Environmental Justice page](#).