

Sustainability performance data

Data excludes OPG subsidiaries unless otherwise noted.

Metric	2020	2021	2022	2023	2024	SASB Disclosure
ENVIRONMENT						
SCOPE 1 GREENHOUSE GAS EMISSIONS^{1,2,3} Includes subsidiaries.						
Total carbon dioxide equivalent (tonnes)	1,158,028	1,995,851	2,773,283	3,379,689	4,698,108	IF-EU-110a.1
Biomass – Atikokan Generating Station ⁴	17,104	28,924	20,438	18,341	14,407	IF-EU-110a.1
Natural Gas – Brighton Beach Generating Station	23,514	62,269	257,748	305,750	781,479	IF-EU-110a.1
Natural Gas – Halton Hills Generating Station	255,043	740,815	956,352	975,424	1,208,342	IF-EU-110a.1
Natural Gas – Napanee Generating Station	481,194	404,196	794,812	1,159,981	1,471,877	IF-EU-110a.1
Natural Gas – Portlands Energy Centre	303,966	618,258	613,275	807,501	1,065,291	IF-EU-110a.1
Natural Gas or Oil – Lennox Generating Station	66,945	81,184	102,515	95,799	132,613	IF-EU-110a.1
Nuclear	8,606	10,201	17,802	8,363	15,239	IF-EU-110a.1
Other facilities and sources	1,657	10,005	10,341	8,530	8,860	IF-EU-110a.1
SCOPE 1 GREENHOUSE GAS EMISSION RATES Includes subsidiaries.						
Carbon dioxide equivalent (tonnes/GWh-net OPG total generation)	14.1	25.2	35.3	41.7	57.2	
Carbon dioxide equivalent (tonnes/GWh-net biomass and gas generation)	427	416	411	404	397	
SCOPE 1 GREENHOUSE GAS EMISSIONS REGULATIONS Includes subsidiaries.						
Percentage Scope 1 emissions covered under emissions-limiting regulations	97.6	97.5	98.2	99.0	99.2	IF-EU-110a.1
Percentage Scope 1 emissions covered under emissions-reporting regulations	99.1	99.0	99.0	99.5	99.7	IF-EU-110a.1
SCOPE 2 GREENHOUSE GAS EMISSIONS⁵ Includes subsidiaries.						
Carbon dioxide equivalent (tonnes)	3,986	4,250	16,197	18,244	35,165	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
NITROGEN OXIDE EMISSIONS^{2,3,6}						
Includes emissions from stations operating under the subsidiary Atura Power.						
Total nitrogen oxides (tonnes, as nitrogen dioxide)	574	896	1,221	1,164	1,706	IF-EU-120a.1
Biomass – Atikokan Generating Station	150	144	117	143	108	IF-EU-120a.1
Natural Gas – Brighton Beach Generating Station	20	20	113	127	286	IF-EU-120a.1
Natural Gas – Halton Hills Generating Station	84	245	249	308	492	IF-EU-120a.1
Natural Gas – Napanee Generating Station	64	51	74	105	232	IF-EU-120a.1
Natural Gas – Portlands Energy Centre	135	299	509	339	396	IF-EU-120a.1
Natural Gas or Oil – Lennox Generating Station	80	89	92	112	116	IF-EU-120a.1
Nuclear	42	48	68	31	74	IF-EU-120a.1
NITROGEN OXIDE EMISSION RATES						
Includes emissions from stations operating under the subsidiary Atura Power.						
Nitrogen oxides (tonnes/GWh-net OPG total generation, as nitrogen dioxide)	0.007	0.012	0.016	0.014	0.021	
Nitrogen oxides (tonnes/GWh-net biomass and gas generation, as nitrogen dioxide)	0.20	0.18	0.17	0.14	0.14	
SULPHUR DIOXIDE EMISSIONS^{2,3,6}						
Includes emissions from stations operating under the subsidiary Atura Power.						
Total sulphur dioxide (tonnes)	117	92	103	81	43	IF-EU-120a.1
Biomass – Atikokan Generating Station	0	0	0	0	0	IF-EU-120a.1
Natural Gas – Brighton Beach Generating Station	0	0	0	0	1	IF-EU-120a.1
Natural Gas – Halton Hills Generating Station	0	0	1	1	1	IF-EU-120a.1
Natural Gas – Napanee Generating Station	0	0	1	1	1	IF-EU-120a.1
Natural Gas – Portlands Energy Centre	9	18	0	1	1	IF-EU-120a.1
Natural Gas or Oil – Lennox Generating Station	107	73	101	79	40	IF-EU-120a.1
Nuclear	0	0	0	0	0	IF-EU-120a.1

Metric	2020	2021	2022	2023	2024	SASB Disclosure
SULPHUR DIOXIDE EMISSION RATES						
Includes emissions from stations operating under the subsidiary Atura Power.						
Sulphur dioxide (tonnes/GWh-net OPG total generation)	0.001	0.001	0.001	0.001	0.001	
Sulphur dioxide (tonnes/GWh-net biomass and gas generation)	0.04	0.02	0.02	0.01	0.00	
AIR QUALITY^{6,7}						
PM10 – particulate matter <=10 micrometres (tonnes)	7.8	8.9	7.8	7.5	1.1	IF-EU-120a.1
PM2.5 – particulate matter <=2.5 micrometres (tonnes)	8.1	8.8	7.7	7.1	1.2	
Waste incinerator dioxins and furans toxicity equivalent emissions test result (pg TEQ/Rm ³) ⁸	14.2	21.1	14.7	7.6	3.9	
RADIOLOGICAL EMISSIONS						
Tritium to air (curies)	22,631	21,084	19,292	27,197	16,322	
Tritium to water (curies)	14,839	17,934	19,211	17,589	17,324	
Carbon-14 to air (curies)	84	105	96	116	114	
RADIOLOGICAL DOSE TO THE PUBLIC						
Darlington Nuclear critical group dose (microsieverts)	0.4	0.6	0.6	0.7	0.9	
Pickering Nuclear critical group dose (microsieverts)	1.2	2.0	1.9	1.5	1.4	
RADIOACTIVE WASTE MANAGEMENT						
Production of used fuel (tonnes of uranium) Includes waste produced by Bruce Power.	1,403	1,369	1,424	1,339	1,453	
Used fuel in storage (tonnes of uranium) Includes waste produced by Bruce Power.	53,002	54,372	55,790	57,241	58,617	
Used fuel bundles in storage at Darlington Nuclear	599,327	615,691	633,679	650,353	661,416	
Used fuel bundles in storage at Pickering Nuclear	800,847	818,845	837,157	855,375	875,948	
Low and intermediate level radioactive waste produced (m ³)	3,509	5,049	4,753	5,113	5,900	
HAZARDOUS WASTE GENERATION						
Solids (tonnes)	181	291	103	320	457	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
Liquids (kilolitres)	1,737	1,107	947	2,268	1,621	
WATER MANAGEMENT⁹						
Water use: hydroelectric generating station turbine water flows (million m ³)	438,359	402,713	455,558	436,396	448,295	
Water withdrawn: non-consumptive cooling and service water use at nuclear, biomass and gas generating stations (million m ³)	8,577	8,461	7,498	7,432	7,428	IF-EU-140a.1
Water withdrawn: water use by the subsidiary Atura Power (million m ³)	Not reported	Not reported	Not reported	531	721	IF-EU-140a.1
Water consumed	Negligible	Negligible	Negligible	Negligible	Negligible	IF-EU-140a.1
Percentage of water consumed in locations with high or extremely high baseline water stress. Includes subsidiaries.	Not reported	Not reported	Not reported	0	0	IF-EU-140a.1
Percentage of generation capacity in locations with high or extremely high baseline water stress. Includes subsidiaries.	Not reported	Not reported	Not reported	1.5	1.5	
Number of incidents of non-compliance associated with water quality permits, standards and regulations that resulted in formal enforcement action	0	0	0	0	0	IF-EU-140a.2
REGULATORY COMPLIANCE						
Significant environmental events ¹⁰	0	0	0	0	0	
Environmental infractions ¹¹	6	8	5	8	9	
Environmental penalties ¹²	0	0	0	0	0	
REPORTABLE SPILLS TO THE ENVIRONMENT¹³						
Category A spills – very serious	0	0	0	0	0	
Category B spills – serious	0	0	0	0	0	
Category C spills – less serious	8	10	11	10	12	
BIODIVERSITY AND WILDLIFE HABITAT						
Cumulative trees and shrubs planted since 2000 (million) ¹⁴	7.1	8.4	8.8	9.0	9.6	
Tree planting level (number of trees and shrubs planted)	68,000	325,000	343,000	247,000	533,000	
ELECTRIFICATION						
Electric charger installation level (number of chargers installed) ¹⁵	53	76	81	10	22	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
INTERNAL ENERGY EFFICIENCY						
Energy saving - cumulative since 1994 (GWh/year)	2,564	2,564	2,564	2,564	2,565	
Annual incremental energy saving (GWh/year)	5.3	0.1	0.1	0.1	0.1	
SOCIAL						
INDIGENOUS RELATIONS						
Suppliers from Indigenous communities	28	30	34	38	42	
Procurement from Indigenous businesses (millions of dollars)	Not reported	Not reported	56	142	171	
Formal business partnerships with Indigenous communities	6	5	5	5	5	
In-service generating capacity constructed in partnership with Indigenous communities (MW)	574	574	574	574	574	
Electricity generation revenues earned in partnership with Indigenous communities (millions of dollars)	245	244	251	261	263	
WORKFORCE HEALTH AND SAFETY						
Fatalities Includes contractors.	0	0	0	0	0	IF-EU-320a.1
Serious injury incidence rate (serious injuries per 200,000 hours) Includes subsidiaries. Excludes contractors.	0.01	0.02	0.02	0.00	0.02	
Total recordable injury frequency (injuries per 200,000 hours) Excludes contractors.	0.31	0.21	0.32	0.16	0.21	IF-EU-320a.1
Total recordable injury frequency (injuries per 200,000 hours) Includes subsidiaries. Excludes contractors.	0.36	0.23	0.33	0.18	0.23	IF-EU-320a.1
EMPLOYMENT						
Regular employees	9,226	9,325	9,565	10,460	11,030	
Regular employees covered by collective bargaining agreements with the Power Workers' Union and the Society of United Professionals	7,979	7,992	8,190	8,790	9,180	
Staff turnover (per cent)	3.7	5.2	6.5	3.9	4.5	
EQUITY, DIVERSITY AND INCLUSION¹⁶						
Women (per cent)	22.3	23.5	23.7	24.0	24.6	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
Indigenous Peoples (per cent)	1.8	2.2	2.2	2.1	2.5	
Racialized people (per cent)	13.8	18.2	18.6	19.3	22.9	
Persons with disabilities (per cent)	2.2	7.0	6.7	6.2	7.2	
Supply chain diversity program spending (millions of dollars)	Not reported	Not reported	19	58	81	
REPRESENTATION OF WOMEN IN LEADERSHIP¹⁷						
Women on the Board of Directors (per cent)	40.0	54.5	54.5	54.5	54.5	
Women on the Enterprise Leadership Team (per cent)	35.7	42.9	54.5	53.8	54.5	
Women on the Senior Leadership Team (per cent)	44.4	21.1	31.6	36.1	34.7	
CORPORATE CITIZENSHIP						
Community investment donations and sponsorships (millions of dollars) ¹⁸	4.14	4.04	2.35	3.32	6.02	
NUCLEAR SAFETY¹⁹						
Total number of operating nuclear power units – Darlington Nuclear	3	3	2	2	3	IF-EU-540a.1
Total number of operating nuclear power units – Pickering Nuclear	6	6	6	6	4	IF-EU-540a.1
ECONOMIC						
ELECTRICITY GENERATING CAPACITY Includes subsidiaries.						
Total in-service generating capacity (MW)	18,910	18,958	18,225	18,236	18,059	
Biomass	205	205	205	205	180	
Natural Gas	4,815	4,815	4,815	4,815	4,815	
Nuclear	5,728	5,728	4,850	4,850	4,698	
Renewable	8,162	8,210	8,355	8,366	8,366	
RENEWABLE FACILITIES CAPACITY INCREASE Includes subsidiaries.						
Renewable facilities capacity increase attributable to equipment efficiency gains, station redevelopment or rehabilitation projects (MW)	Not reported	0	135	11	0	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
Renewable facilities capacity increase attributable to acquisitions (MW)	Not reported	48	13	0	0	
NET ELECTRICITY GENERATION Includes subsidiaries.						
Total electricity generation (GWh) ²⁰	82,069	77,681	78,518	80,966	82,147	IF-EU-000.D
Biomass (net of consumption at retired station)	127	148	111	120	102	IF-EU-000.D
Natural Gas	2,557	4,502	6,570	8,208	11,667	IF-EU-000.D
Nuclear	43,829	39,600	35,281	36,112	33,003	IF-EU-000.D
Renewable	35,555	33,431	36,556	36,525	37,374	IF-EU-000.D
PERCENTAGE ELECTRICITY GENERATION Includes subsidiaries.						
Biomass (net of consumption at retired station) (per cent)	0.2	0.2	0.1	0.1	0.1	IF-EU-000.D
Natural Gas (per cent)	3.1	5.8	8.4	10.1	14.2	IF-EU-000.D
Nuclear (per cent)	53.4	51.0	44.9	44.6	40.2	IF-EU-000.D
Renewable (per cent)	43.3	43.0	46.6	45.1	45.5	IF-EU-000.D
OPERATING PERFORMANCE²¹						
Darlington Nuclear unit capability factor (per cent)	93.1	82.7	87.0	97.0	74.6	
Pickering Nuclear unit capability factor (per cent)	76.3	78.9	80.0	80.7	83.3	
Hydroelectric availability – regulated hydroelectric generation segment (per cent)	88.2	88.4	86.9	85.4	85.8	
Hydroelectric availability – contracted hydroelectric and other generation segment (per cent)	86.2	87.6	88.3	85.9	80.8	
Thermal equivalent forced outage rate – contracted hydroelectric and other generation segment (per cent)	5.3	1.4	1.6	1.8	3.8	
Thermal availability – Atura Power segment (per cent)	93.7	93.3	90.4	89.5	86.4	
FINANCIAL STRENGTH Includes subsidiaries.						
Revenue (millions of dollars)	7,240	6,877	7,349	7,434	7,187	

Metric	2020	2021	2022	2023	2024	SASB Disclosure
Net income (millions of dollars)	1,376	1,344	1,651	1,759	1,006	
Net income attributable to the Province of Ontario (millions of dollars)	1,361	1,325	1,636	1,741	988	
ECONOMIC CONTRIBUTIONS						
Spending on materials and services (billions of dollars)	2.7	3.1	3.2	3.6	4.1	
Employee compensation (billions of dollars)	1.6	1.6	1.6	1.8	2.0	
Payments to the Province of Ontario (millions of dollars) ²²	623	570	677	597	478	
ECOLOGO-CERTIFIED GREEN POWER						
Net electricity generation (GWh, net of Ecologo product sales) ²³	3	7	378	608	419	
CLEAN ENERGY CREDITS						
Total volume clean energy credit sales (TWh) ²⁴	2.8	4.1	1.9	0.6	0.3	
GREEN BONDS						
Includes Lower Mattagami Energy, an entity owned by OPG.						
Green bond offerings (millions of dollars)	1,200	375	550	0	1,500	

SASB ELECTRIC UTILITIES & POWER GENERATORS SUSTAINABILITY ACCOUNTING STANDARD

Quantitative metrics omitted based on the lack of applicability to OPG's business.

SASB Disclosure

Greenhouse gas emissions & energy resource planning – greenhouse gas emissions associated with power deliveries	IF-EU-110a.2
Air quality – air emissions of lead and mercury	IF-EU-120a.1
Coal ash management	IF-EU-150a.1
Energy affordability ²⁵	IF-EU-240a.1 IF-EU-240a.3
End-use efficiency & demand	IF-EU-420a.2 IF-EU-420a.3
Grid resiliency ²⁶	IF-EU-550a.1 IF-EU-550a.2

Number of residential, commercial, and industrial customers served	IF-EU-000.A
Total electricity delivered to residential, commercial, industrial, all other retail customers, and wholesale customers	IF-EU-000.B
Length of transmission and distribution lines	IF-EU-000.C
Total wholesale electricity purchased	IF-EU-000.E

¹ OPG continues to evaluate and enhance its Scope 1 greenhouse gas emission inventory and quantification processes to include emissions from minor sources. Scope 1 greenhouse gas emissions for Lennox and Atura Power generating stations are third-party verified annually. Atura Power generating stations include Brighton Beach Generating Station, Halton Hills Generating Station, Napanee Generating Station and Portlands Energy Centre. For discussion of OPG's plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets (per IF-EU-110a.3), refer to OPG's 2024 ESG Performance Summary.

² Total emissions may not equal the sum of subtotals due to rounding.

³ Emissions include OPG's proportionate share from co-owned facilities, as applicable. OPG acquired Halton Hills Generating Station, Napanee Generating Station and the remaining 50 per cent interest in the Portlands Energy Centre in 2020.

⁴ Atikokan Generating Station uses biomass pellets sourced from Ontario's sustainably managed forests and non-biogenic greenhouse gases and biogenic CH₄ and N₂O emissions have been reported in the table in accordance with the Greenhouse Gas Protocol. For clarity, biogenic carbon dioxide emissions (in tonnes) were 162,354 in 2020, 157,001 in 2021, 121,445 in 2022, 149,087 in 2023, and 114,375 in 2024.

⁵ OPG continues to evaluate and enhance its Scope 2 greenhouse gas emission inventory and quantification processes. OPG's Scope 2 emissions are calculated using the consumption emissions intensity for Ontario from Canada's National Inventory Report, Part 3. An adjusted emissions intensity is used for grid electricity consumed at OPG's generation facilities to avoid double counting of emissions. This emissions intensity does not account for any environmental attribute sales.

⁶ All air emissions (i.e., nitrogen oxide, sulphur dioxide, particulate matter) from OPG's natural gas, oil and nuclear generating stations are in or near areas of dense population (per IF-EU-120a.1).

⁷ For detailed information about OPG's releases to air, water and land, visit the Government of Canada's National Pollutant Release Inventory website.

⁸ The results of annual emissions testing performed at OPG's Waste Volume Reduction Facility have indicated the facility is in compliance with Ontario air quality standards.

⁹ For a description of water management risks and discussion of strategies and practices to mitigate those risks (per IF-EU-140a.3), refer to OPG's 2024 ESG Performance Summary.

¹⁰ Significant environmental events are non-compliances that have a high potential for regulatory action or cause severe environmental or health impacts, or are determined to be significant by OPG's President and Chief Executive Officer.

¹¹ Environmental infractions are non-compliances that have moderate potential for regulatory action and/or intrusive regulatory involvement, or cause moderate environmental or health impacts.

¹² Environmental penalty orders are monetary penalties that companies in Ontario may be required to pay for environmental contraventions under key environmental statutes.

¹³ OPG classifies its spills to the environment that are reportable to a regulatory authority based on the actual or potential impacts to plants, animals, human health and safety, conduct of business, and use of property. OPG's spill categories align with Ontario Ministry of the Environment, Conservation and Parks regulatory requirements for the classification of contraventions.

¹⁴ OPG's cumulative tree and shrub planting total was increased by almost one million for 2021 to include additional data from past years' planting projects and biodiversity partnerships at OPG sites.

¹⁵ Includes level 2 charging ports and level 3 chargers installed. Ivy Charging Network's deployed level 2 chargers with two ports can charge two vehicles simultaneously.

¹⁶ OPG's workforce representation values depend on employees voluntarily self-identifying. In 2024, workforce representation values were expanded to include temporary employees. For comparability, 2023 workforce representation values have been updated to also include temporary employees.

¹⁷ All Board members are included. The 2024 data for per cent women on the Board is per OPG's financial reporting. In 2024, Senior Leadership Team values were expanded to include vice presidents, or equivalent, who do not report directly to a member of the Enterprise Leadership Team.

¹⁸ In addition to OPG's Power for Change Project investments, OPG business units may have also contributed to a lesser degree on an individual basis.

¹⁹ The Canadian Nuclear Safety Commission (CNSC) issues an annual report on the regulatory oversight and safety performance for nuclear power generating sites. The report assesses how well licensees are meeting regulatory requirements and program expectations in areas such as human performance, radiation and environmental protection, and emergency management and fire protection at Canada's nuclear power plants and waste management facilities. The most recent annual report, for the 2023 year, was issued by the CNSC in the fourth quarter of 2024. In the CNSC's 2023 report on OPG's nuclear safety performance, CNSC staff determined that all 14 Safety and Control Areas for the Darlington Generating Station, Pickering Generating Station, and the Darlington, Pickering and Western waste management facilities met CNSC staff's expectations. For a description of efforts to manage nuclear safety and emergency preparedness (per IF-EU-540a.2), refer to OPG's 2024 ESG Performance Summary.

²⁰ Total electricity generation may differ slightly from the value provided in OPG's financial reporting due to differences in rounding subtotals.

²¹ Nuclear unit capability factor measures the amount of energy that the units generated over a period of time, adjusted for externally imposed constraints such as transmission or demand limitations, as a percentage of the amount of energy that would have been produced over the same period had the units produced maximum generation. Hydroelectric availability represents the percentage of time the generating unit is capable of providing service, whether or not it is actually generating electricity, compared to the total time for the respective period, weighted by unit capacity. Thermal equivalent forced outage rate is measured by the ratio of time a generating unit is forced out of service by unplanned events, including any forced deratings, compared to the amount of time the generating unit was available to operate. Thermal availability represents the percentage of time a generating unit at Atura Power's combined cycle plants is capable of providing service, whether or not it is actually generating electricity, compared to the total time for the respective period, averaged by the number of facilities owned and operated through Atura Power. The measure is calculated on a three-year rolling average basis.

²² Payments to the Province include payments in lieu of taxes, gross revenue charges, and current income tax payments.

²³ Ecologo product sales consist of sales of environmental attributes.

²⁴ Clean energy credit sales are from OPG's Ontario-sited Ecologo, large hydro and nuclear generation assets. The values reported are for sales volumes per vintage year.

²⁵ For discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory (per IF-EU-240a.4), refer to OPG's 2024 ESG Performance Summary.

²⁶ OPG does not report quantitative information related to grid resiliency. For qualitative information about various steps OPG is taking to comply with applicable standards and regulations and to manage physical and cybersecurity risks, refer to OPG's 2024 ESG Performance Summary.