

GHG EMISSIONS AND METHODOLOGY



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Overview and Boundaries

Greenhouse gas reporting is the process of documenting the amount of greenhouse gases (GHGs) emitted by our organization. Total emissions are calculated annually from a variety of sources, including equipment fuel consumption and building energy consumption to inform business practices and disclose to stakeholders.

Measuring our GHG emissions through an annual inventory process provides us with insights into the impact of our operations that we can report transparently to stakeholders. It also allows us to track our emissions over time and identify forward-looking pathways for reducing our emissions in line with our reduction targets and the Paris Agreement goal of keeping global warming below 1.5C.

Principles

Aecon's GHG inventory is prepared in accordance with the Greenhouse Gas Protocol (the GHG Protocol) and aligned with ISO 14064-1:2018¹. The principles of GHG accounting in the GHG Protocol were used to guide the quantification and ensure that Aecon's inventory represents a faithful, true and fair account of our company's GHG emissions:

- **Relevance:** Aecon's GHG emissions inventory report presents the key GHG emissions and relevant information to assist stakeholders—both internal and external—in their decision-making
- **Completeness:** Aecon accounted for all relevant GHG sources within the inventory boundary and time period where data was readily available. Omitted emission sources have been clearly stated in public disclosures
- **Consistency:** The methodologies and assumptions used to estimate and calculate GHG emissions are consistent with industry best practices
- **Accuracy:** The quantification process was conducted with the objective of identifying and minimising areas of uncertainty to the extent possible
- **Transparency:** The GHG inventory was prepared in a coherent manner and discloses relevant methodologies, assumptions, estimations and omissions. We addressed all relevant issues in a factual and coherent manner, based on a clear audit trail

The GHG Protocol requirements for reporting contents were also used to structure our disclosure.

Organizational boundaries

Aecon's GHG emissions inventory covers the reporting period from January 1, 2025 to December 31, 2025. We use an equity share approach, as defined by the GHG Protocol, to establish organizational boundaries for the inventory. Using this approach requires accounting for all GHG emissions from projects according to our share of equity in the operation. This approach ensures that emissions linked to our work on joint venture projects are

¹ ISO 14064-1:2018 - Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

accounted for, based on our revenue share in the project. Aecon reports GHG data for all subsidiaries maintained under Aecon Group Inc. and Aecon Construction Group Inc.

Operational boundaries

The GHG Protocol assists companies to identify direct and indirect GHG emissions to better understand the full spectrum of its risks and opportunities and avoid any potential double counting. For this purpose, GHG emissions are divided into three scopes:

- **Direct GHG emissions or Scope 1**, include the emissions generated directly from Aecon’s operations, including fuel combustion in vehicles and stationary equipment
- **Indirect energy-related GHG emissions or Scope 2**, include location-based emissions indirectly associated with electricity used in Aecon’s activities
- **Other indirect GHG emissions or Scope 3**, include emissions indirectly associated with Aecon’s business activities
- **Biogenic**: Emissions generated directly by Aecon through the consumption of biofuels by vehicles and equipment on our project sites; biogenic CO₂ emissions do not contribute to Aecon’s total scope 1, 2 and 3 emissions

Greenhouse gases and emission factors

Emissions of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) are calculated using emission factors and conversions provided by the Government of Canada, the United States Environmental Protection Agency and international bodies like the Intergovernmental Panel on Climate Change (IPCC). There were no emissions from HFCs, PFCs, NF₃ and SF₆ separately reported in this inventory, although they may be captured when using emission factors in units of CO₂ equivalents.

We used the total global warming potential (GWP) from the IPCC’s 5th Assessment Report (AR5), which is consistent with the GWPs used in Canada’s latest National Inventory Report as of February 2026.

Included sources

The GHG inventory assessment covers regional corporate headquarters, business divisions, major and joint venture projects, fleet vehicles, as well as relevant scope 3 categories.

Aecon conducted a GHG emission scan in 2021 to provide an order-of-magnitude view of total scope 1, 2 and 3 GHG emissions and to identify material emissions sources for reporting and target-setting. The scan considered scope 1, 2 and all 15 scope 3 emission categories defined by the GHG Protocol. The results of this scan were also validated by the Science Based Targets initiative (SBTi) during the target-setting process in 2023/2024. Aecon’s material GHG emission sources are outlined in [Table 1](#) below.

TABLE 1. GHG EMISSIONS SCOPE FOR EACH EMISSIONS SOURCE

Emission source	Scope of CO ₂	Scope of other GHGs
Electricity consumption	Scope 2	Scope 2
Natural Gas combustion	Scope 1	Scope 1
Diesel combustion	Scope 1	Scope 1
Gasoline combustion	Scope 1	Scope 1
Propane combustion	Scope 1	Scope 1

Ethanol combustion	Biogenic	Scope 1
Renewable diesel combustion	Biogenic	Scope 1
Biodiesel combustion	Biogenic	Scope 1
Acetylene combustion	Scope 1	Scope 1
Fugitive emissions from asphalt production	Scope 1	Scope 1
Purchased goods and services	Scope 3 – 1	Scope 3 – 1
Upstream fuel and energy-related activities	Scope 3 – 3	Scope 3 – 3
Upstream transportation and distribution services	Scope 3 – 4	Scope 3 – 4
Business travel	Scope 3 – 6	Scope 3 – 6

Omitted Sources

Fugitive emissions of refrigerants and from compressed gas canisters were omitted from this year’s scope 1 and 2 emissions (estimated to account for <0.1% of total scope 1 and 2 emissions). The scope 3 emission sources listed in [Table 1](#) were estimated to account for greater than 90% of Aecon’s scope 3 emissions according to the latest emission scan conducted in 2023/2024.

Aecon intends to conduct an updated GHG emission scan every five years to confirm our GHG boundaries still capture all material emissions sources, in alignment with SBTi requirements.

Base Year

Aecon has set 2020 as the base year for our GHG management program and existing GHG reduction targets. Aecon has also set a separate base year of 2022 for our SBTi target.

Market Instruments

Renewable electricity certificates (RECs), power purchase agreements (PPAs), avoidance based carbon offset credits (offsets) and carbon removal credits (CDRs) are market instruments that enable companies to claim the environmental attributes of purchased renewable power and Offset / CDR projects.

Aecon does not currently procure any of these market instruments.

Methodology

Aecon’s inventory is prepared in accordance with the GHG Protocol in collaboration with a third-party consultant.

Data sources

Aecon uses invoice data, utility meters, supplier data and fuel tracking systems to quantify its GHG emissions. Data sources for each major activity in Aecon’s GHG inventory are defined in [Appendix A](#).

Estimates

Aecon’s 2025 scope 1 and 2 GHG emissions are based on 85% actual data. The remaining 15% of missing data was estimated in the sequence defined in the [Table](#) below. These estimates are applied to enable Aecon to report a complete inventory and are applied in a manner that seeks to minimize the uncertainty in the result.

Nine percent (9%) of Aecon’s 2024 scope 3 GHG emissions are based on actual data. The remaining 91% is estimated through cost-based estimates using supply chain emission factors published by the EPA.

TABLE 2. AECON'S APPROACH TO ESTIMATING GHG EMISSIONS

Estimation process	Use case	Approach	% of total emissions
Cost-based estimates	Only purchase spend data is available	Estimate consumption by dividing spend by the average price for the reporting year (e.g., \$/kWh of electricity) from a relevant regional source	0.5%
Time-gap estimates	Source data is available a portion of the reporting year, but not all	Estimate missing data using average consumption/day for adjacent months or rest of year, depending on availability	0.4%
Area-gap estimates	Consumption data for Aecon buildings is unavailable	Estimate building energy consumption by multiplying building floor area by benchmark energy intensities	4%
Revenue-gap estimates	No GHG data available for select Aecon project	Estimate missing consumption by multiplying the missing revenue by emissions intensity per revenue factors from similar project types (calculated based on actual or otherwise-estimated data and covered revenue from the reporting year)	10%

Calculating GHG emissions

The GHG quantification process, involves multiplying consumption data by the appropriate GHG emissions factor. GHG emission factors vary based on emission source (e.g., electricity vs. diesel) and location (e.g., Ontario vs. Alberta) and are updated annually to align with the latest available sources.

GHG emissions are then categorized as either scope 1, 2, 3 or biogenic based on the definitions outlined in the [Operational Boundaries](#) subsection.

Inventory Results

2025 Results

Aecon's total emissions for the reporting year 2025 were 649,574 tCO₂e (tonnes of carbon dioxide equivalent). Breakdowns by constituent gas are provided in [Table](#) and [Table](#)

TABLE 3: BREAKDOWN OF 2025 GHG EMISSION BY GAS

Gas	Scope 1	Scope 2	Scope 3	Total	Biogenic
Carbon dioxide (tCO ₂)	96,520	4,241	480,785	581,546	6,736
Methane (tCH ₄)	2.93	0.76	1,443.68	1447.37	0
Nitrous oxide (tN ₂ O)	1.06	0.08	40.15	41.30	0
Other GHGs (tCO ₂ e)**	0	0	16,558	16,558	0
Total (tCO₂e)	96,884	4,285	548,406	649,574	6,736

*May include other gases. In cases where emission factors were not split-out by gas (i.e. only a CO₂e factor was provided) they have been reported under Carbon dioxide

**Other includes emissions from several HFCs and PFCs based on EPA supply chain emission factors used for purchased goods and services emission calculations

TABLE 4: BREAKDOWN OF 2025 GHG EMISSION BY GAS IN CO₂e

Gas	Scope 1	Scope 2	Scope 3	Total	Biogenic
Carbon dioxide (tCO ₂ e)*	96,520	4,241	480,785	581,546	6,736
Methane (tCO ₂ e)	82	21	40,423	40,526	-
Nitrous oxide (tCO ₂ e)	282	22	10,639	10,944	-
Other GHGs (tCO ₂ e)**	-	-	16,558	16,558	-
Total (tCO₂e)	96,884	4,285	548,406	649,574	6,736

*May include other gases. In cases where emission factors were not split out by gas (i.e. only a CO₂e factor was provided) they have been reported under Carbon dioxide

**Other GHGs includes emissions from several HFCs and PFCs based on EPA supply chain emission factors used for purchased goods and services emission calculations

Restatement of Historical Emissions

To maintain a like-for-like comparison of GHG emissions over time, historic emissions results are reviewed each year and recalculated to account for any material or significant change, including:

- Adjustments due to structural changes such as mergers, acquisitions and dispositions
- Restatements due to changes to quantification methodology, improved data quality, new information sources, and corrections

The threshold for determining material or significant changes is a 5% cumulative change relative to previously stated emissions. This threshold was surpassed for the 2024 reporting year. As a result, Aecon has restated historical emissions for all years (Table). The restated emissions results reflect the following changes:

- The acquisition of [Bodell Construction](#), and [Trinity Industrial Services](#)
- Improved data quality due to newly available data sources
- Correction to remove double-counted fuel consumption in 2023 and 2024 inventories identified during the 2025 quality assurance process

TABLE 5. RESTATEMENT OF HISTORICAL SCOPE 1, 2 AND 3 EMISSIONS IN TCO₂E

Scope	2020	2021	2022	2023	2024
Original					
Scope 1	146,898	129,796	165,313	170,381	107,693
Scope 2	2,661	3,776	3,274	2,782	3,522
Scope 3	698	855	486,743	515,255	484,151
Total	150,257	134,427	655,330	688,418	595,366
Restated					
Scope 1	149,767 (+2%)	131,899 (+2%)	170,129 (+3%)	170,497 (+0.1%)	93,465 (-13.2%)
Scope 2	2,719 (+2%)	3,777 (+0.1%)	3,271 (-0.1%)	2,786 (+0.2%)	3,533 (+0.3%)
Scope 3	698 (0%)	855 (0%)	486,743 (0%)	515,255 (0%)	478,009 (-1%)
Total	153,184 (+2%)	136,531 (+2%)	660,143 (+1%)	688,539 (-0.0%)	575,008 (-3%)

Progress towards targets

In addition to quantifying GHG emissions annually, Aecon has set an external GHG emission reduction target:

Aecon has committed to a 30% reduction in direct CO2 emissions (Scopes 1 and 2) by 2030, as compared to a 2020 baseline. This is an intensity-based target, based on economic output and represents tonnes of CO2 per million dollars of revenue.

Aecon has also had the following targets approved by the [Science Based Target initiative](#) (SBTi):

Overall Net-Zero Target

Aecon Group Inc. commits to reach net-zero GHG emissions across the value chain by 2050 from a 2022 base year.

Near-Term Targets

Aecon Group Inc commits to reduce absolute scope 1 and 2 GHG emissions 50.4% by 2032 from a 2022 base year*. Aecon Group Inc also commits to reduce absolute scope 3 GHG emissions from purchased goods and services and fuel- and energy-related activities 30% within the same timeframe.

* The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks

Long-Term Targets

Aecon Group Inc commits to reduce absolute scope 1 and 2 GHG emissions 90% by 2050 from a 2022 base year*. Aecon Group Inc also commits to reduce absolute scope 3 GHG emissions from purchased goods and services, fuel- and energy-related activities, and upstream transportation and distribution by 90% within the same timeframe.

* The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks

As of 2025 Aecon has made the following progress towards our targets:

- 53% reduction in scope 1 and 2 intensity since 2020, based on economic output
- 42% reduction in absolute scope 1 and 2 emissions since 2022
- 7% increase in absolute scope 3 emissions since 2022

Appendix A: GHG emissions methodology by emission source

Scope	Emission sources*	Calculation method
Scope 1	Natural gas combustion for building heating	Total natural gas paid for by Aecon (utility bills) multiplied by regional emission factor
	Fuel combustion for mobile / stationary equipment (including biogenic)	Total fuel paid for by Aecon (fuel tracking, fuel cards and utility bills) multiplied by regional emission factor (separated by fuel type)
Scope 2	Emissions indirectly associated with electricity consumption at Aecon's offices and project sites	Total electricity paid for by Aecon (utility bills) multiplied by regional emission factor using the location-based method
Scope 3 – 1 – Purchased goods and services	Upstream emissions associated with consumables and services purchased for corporate, and construction operations e.g. concrete, steel, subcontractors)	The following methods were used depending on data availability 1. Supplier-specific physical GHG intensity (e.g. tCO ₂ e/tonne of concrete) multiplied by the quantity of the product / service purchased by Aecon

		<p>2. Supplier specific financial GHG intensity (tCO₂e/revenue) multiplied by the amount Aecon spent with the supplier</p> <p>3. Total spent by Aecon for each spend category multiplied by a supply chain emission factor</p>
Scope 3 – 3 – Fuel- and energy-related activities not included in scope 1 and 2	Extraction, production, and transportation of purchased fuels and energy	Total fuel and electricity paid for by Aecon multiplied by regional upstream emission factor (separated by energy type)
Scope 3 – 4 – Upstream transportation and distribution	Transportation services paid for by Aecon	Total spent by Aecon on upstream transportation and distribution multiplied by supply chain emission factor
Scope 3 – 6 – Business travel	<p>Transportation and travel accommodation of employees for business related activities</p> <p>Non-air business travel and hotel accommodation emissions deemed immaterial based on GHG emission scan. Omitted from inventory and target.</p>	Flight distances calculated based on routing data and multiplied by distance-based emission factors. Different emission factors are used depending on flight distance (e.g., short- vs. long-haul)

*Aecon does not have material sources of the following categories of scope 3 emissions: 2, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15