

synergy

Annual GHG Inventory  
Graphic Office Interiors

October 1<sup>st</sup>, 2024 – September 30<sup>th</sup>, 2025

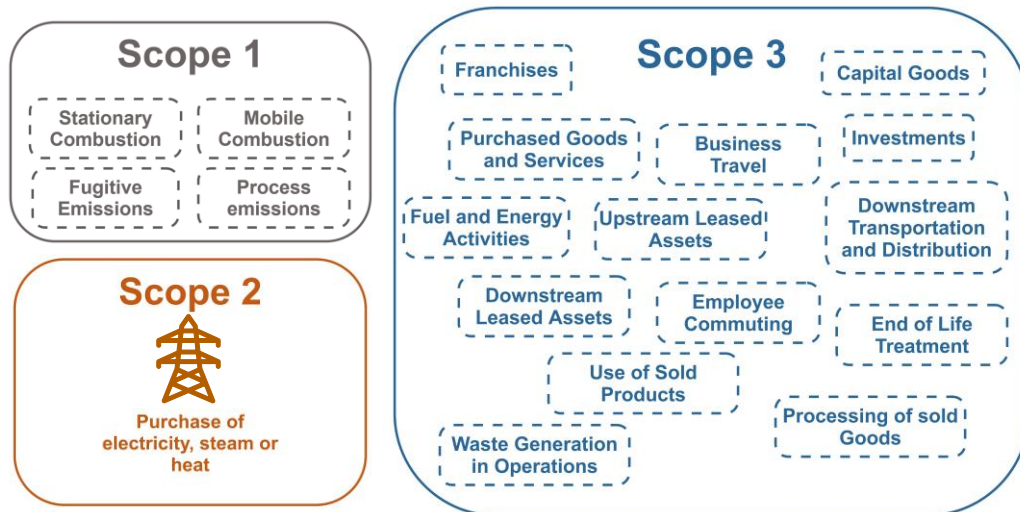
**GRAPHiC**  
OFFICE INTERIORS

# What is a GHG Inventory?

The purpose of a greenhouse gas (GHG) inventory report is to measure Graphic Office Interiors' impact on climate change by measuring GHG emissions produced in company operations. Frequent measurement is essential for identifying key areas where emissions increase or decrease over time, making it possible to develop targeted strategies to curb those emissions. This GHG emissions report details the emissions generated by Graphic Office Interiors throughout the reporting period. Preparing the report involves four key steps:

- **Scoping:** Determining the relevant emission sources that must be measured.
- **Data Collection:** Gathering all the necessary activity data.
- **Calculation and Report Writing:** Converting the activity data into GHG emission figures and compiling the final report.
- **Review:** Discussing the report and validating all assumptions.

## GHG Protocol Scope Examples



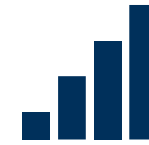
## Project Steps



Scoping



Data Collection



Calculate & Report



Review

In this report emissions are categorized into three scopes, Scope 1, 2, and 3, to reflect Graphic Office Interiors level of control.

- **Scope 1** covers direct GHG emissions from sources a Graphic Office Interiors owns or controls, such as fuel combustion in its vehicles.
- **Scope 2** covers indirect GHG emissions from purchased electricity or steam.
- **Scope 3** includes all other indirect emissions resulting from Graphic Office Interiors' operations but not from company-owned assets, such as employee commuting or business travel.

While Graphic Office Interiors has the most direct control over Scope 1 emissions and the least over Scope 3, it can still have significant influence over Scope 3 emissions by, for example, lobbying key suppliers to reduce their emissions intensity.

An aerial photograph of a beach with waves crashing onto the shore. The water is a mix of light and dark blue, with white foam from the waves. The sand is a light tan color. The text "2025 GHG Inventory Results" is overlaid in the center in a dark blue font.

# 2025 GHG Inventory Results

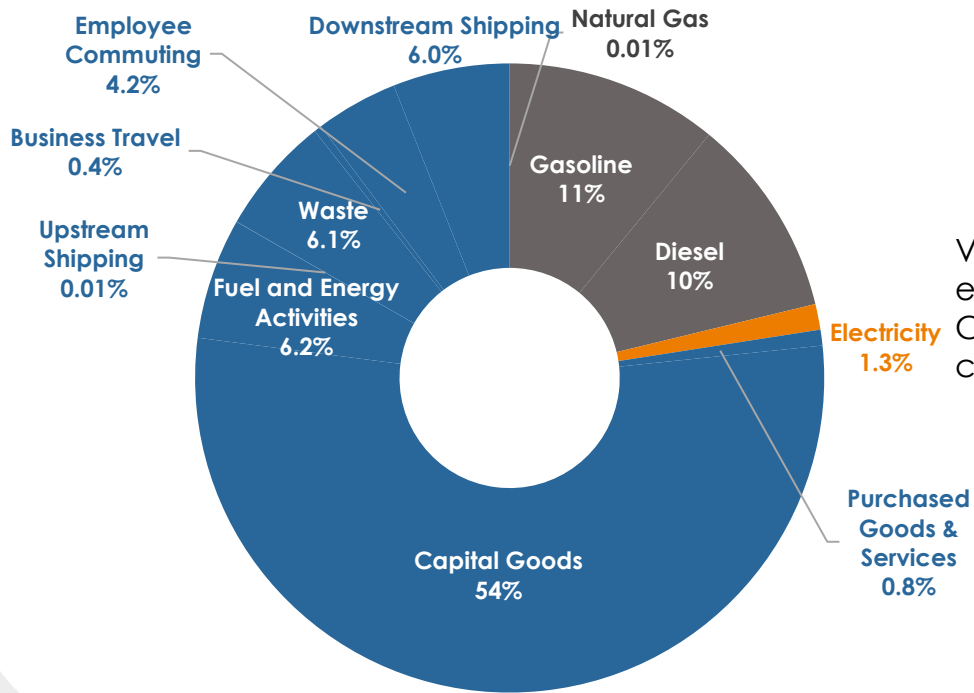
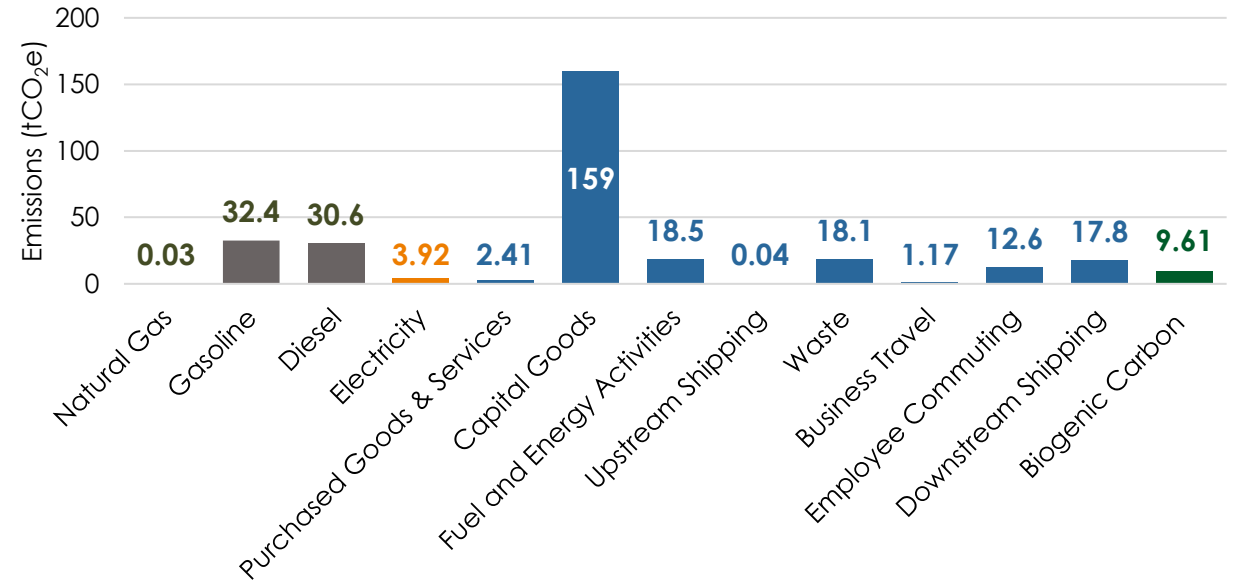
# Executive Summary

Graphic Office is a locally owned office design and furnishing company that has been serving Vancouver Island since 1966. The company is composed of one office location, a showroom, a warehouse, and 15 vehicles, based in Saanichton, BC. They have measured, reported and offset their carbon footprint annually for five years.

This is the first year that Graphic Office utilized heat pumps in its operations, which has reduced natural gas usage. There were also notable reductions in diesel use and waste generated in operations in comparison to the previous inventory.

Scope 1: **21%**      Scope 3: **78%**  
 Scope 2: **1.3%**      Biogenic

## Emissions by Activity



Vehicle purchases had the largest effect on emissions in FY 2025, increasing capital goods emissions with a total of 8 new vehicles purchased, two of which are electric vehicles. Continuing to electrify the vehicle fleet will see reductions in scope 1 emissions, by using the clean electrical grid in British Columbia.

**307**  
Total tCO<sub>2</sub>e

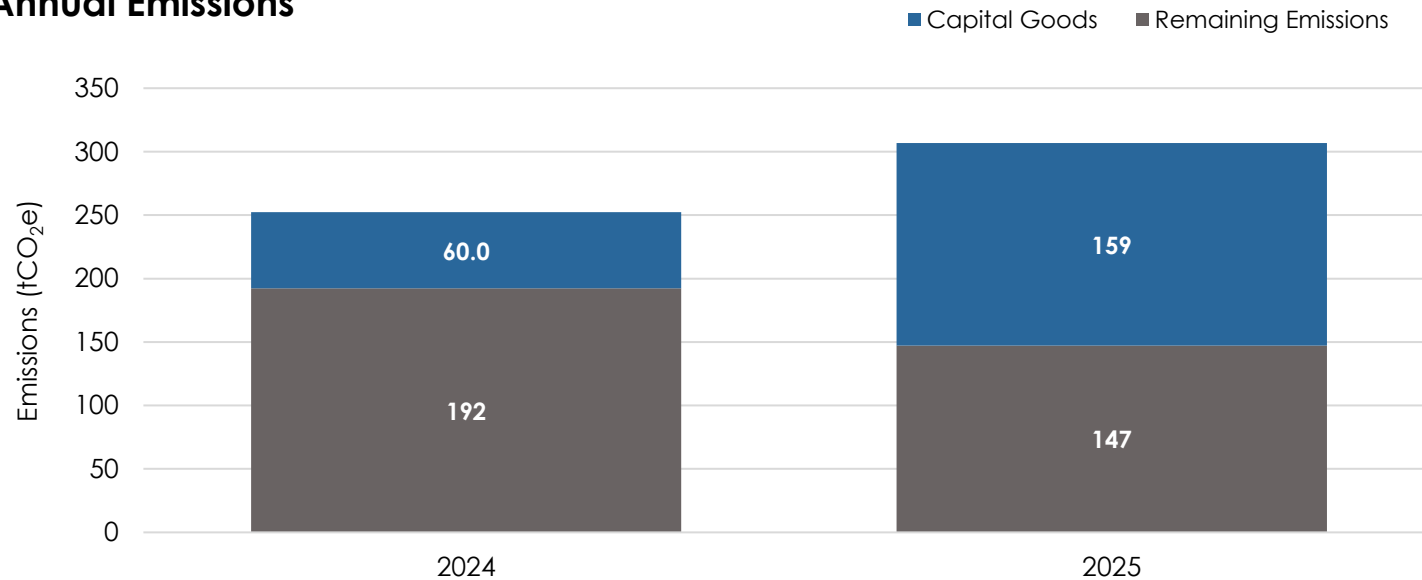
**22%**  
% change from previous year

# Year Over Year Analysis

Graphic Office's scope expanded in 2024, with new categories including purchased goods and services, capital goods, fuel and energy activities, and downstream shipping. As such, 2024 serves as the new base year for Graphic Office's GHG inventories, which enables more accurate year-over-year comparability. In 2024, capital goods represented 24% of the total footprint, whereas capital goods emissions in 2025 increased to 54% of 2025's total footprint.

The remaining emissions sources in the 2025 inventory have reduced by 23%, representing meaningful reductions in Graphic Office's footprint. Contributing factors include the use of electric vehicles which reduce fuel use, the implementation of heat pumps for heating, and reducing waste generation.

## Annual Emissions



Capital goods measures and reports emissions from major purchases. In 2025, the purchase of eight vehicles to the fleet saw capital goods emissions increase from 60 tCO<sub>2</sub>e to 159 tCO<sub>2</sub>e.

# Reduction Targets

Reduction Target

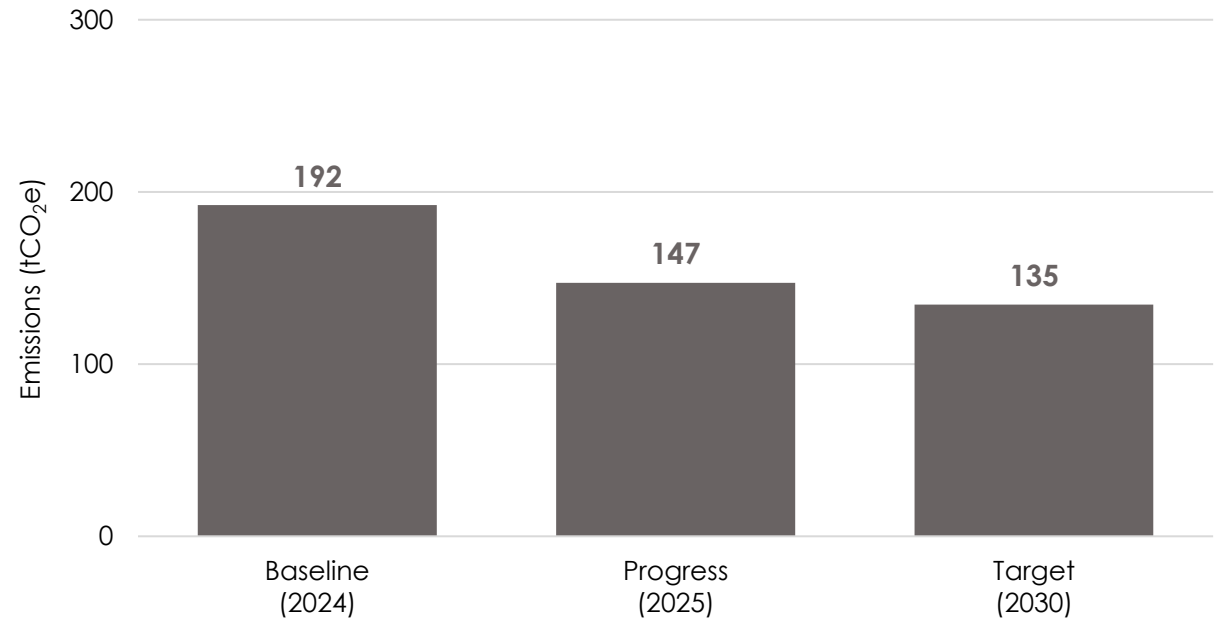
**30%**  
By 2030

% Decreased

**23%**  
In 2025

Over 2024 Base Year

## Emissions

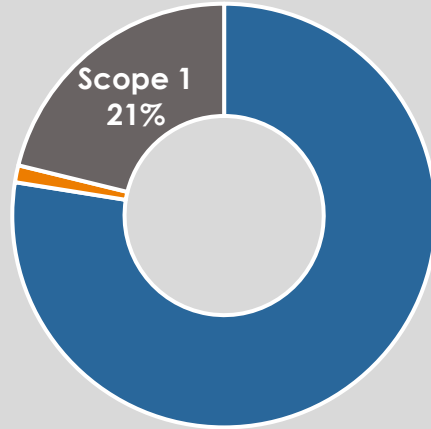


### Notes on Targets

Graphic Office has committed to reducing its emissions by 30% by 2030, with 2024 now serving as the base year for comparison. In 2025, total emissions decreased over the base year, by 23%.

In 2025, the target was adjusted to exclude capital goods emissions due to the fluctuating totals year-over-year, based on the needs of a company to invest in growth and operational capacity. Going forward, target progress will not include capital goods emissions and have also been retroactively removed from the target setting graph in 2024, for comparison.

The decrease in all other emissions within scope is due to reductions in each Scope 1 category, and scope 3 categories that include waste generation and purchased goods and services.



## Scope 1: Direct Emissions

Scope 1 includes direct emissions from combustion, process and fugitive emissions owned or controlled by the company. This includes emission sources such as natural gas, company vehicles, and refrigerants.

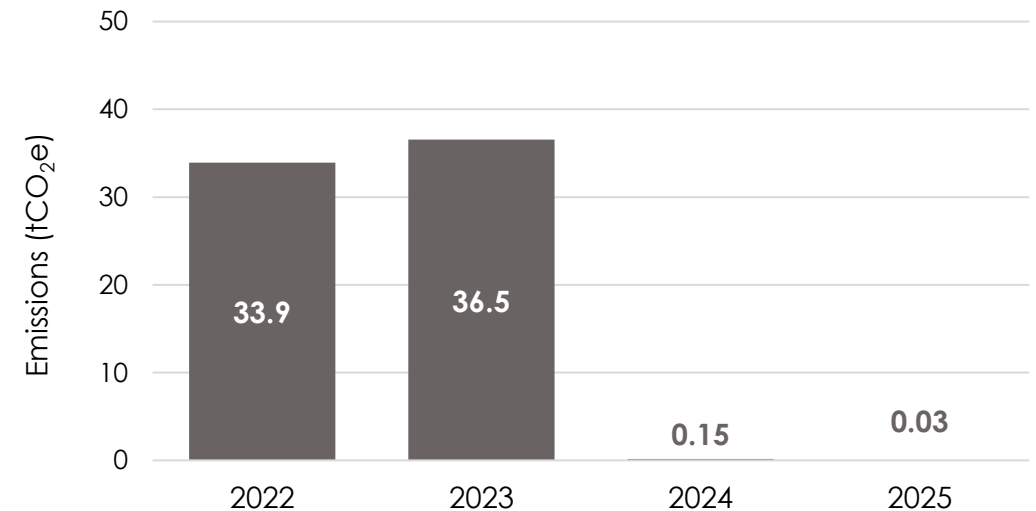
## Scope 1: Natural Gas

**0.03**  
Total tCO<sub>2</sub>e

**<1%**  
% of Total

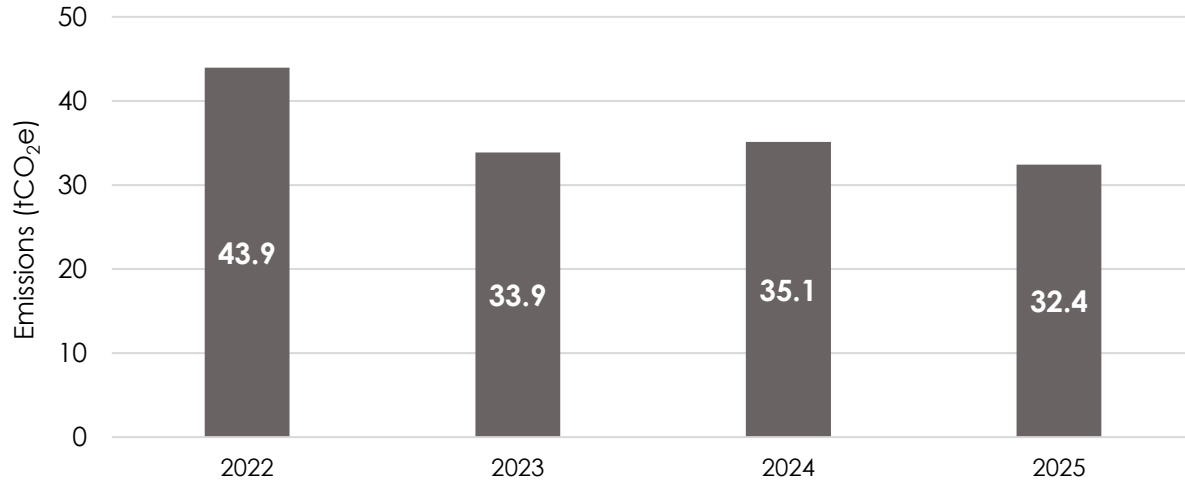
Natural gas emissions are generated from heating the buildings in which Graphic Office Interiors operates. 2025 marks the first year that air source heat pumps have been introduced for heating purposes, which reduced the overall consumption of natural gas. The natural gas that was consumed within the reporting period was 100% renewable, leading to 0.03 tCO<sub>2</sub>e.

### Annual Natural Gas Emissions



# Scope 1: Gasoline

## Gasoline Emissions



In 2025, overall gasoline consumption decreased 7.9% since 2024. This is the lowest emissions total for gasoline usage since Graphic Office began tracking emissions.

Out of the vehicles in the fleet, five vehicles run on gasoline, while the remaining vehicles consume either diesel or use electricity.

**32.4**  
Total tCO<sub>2</sub>e

**11%**  
% of Total

# Scope 1: Diesel

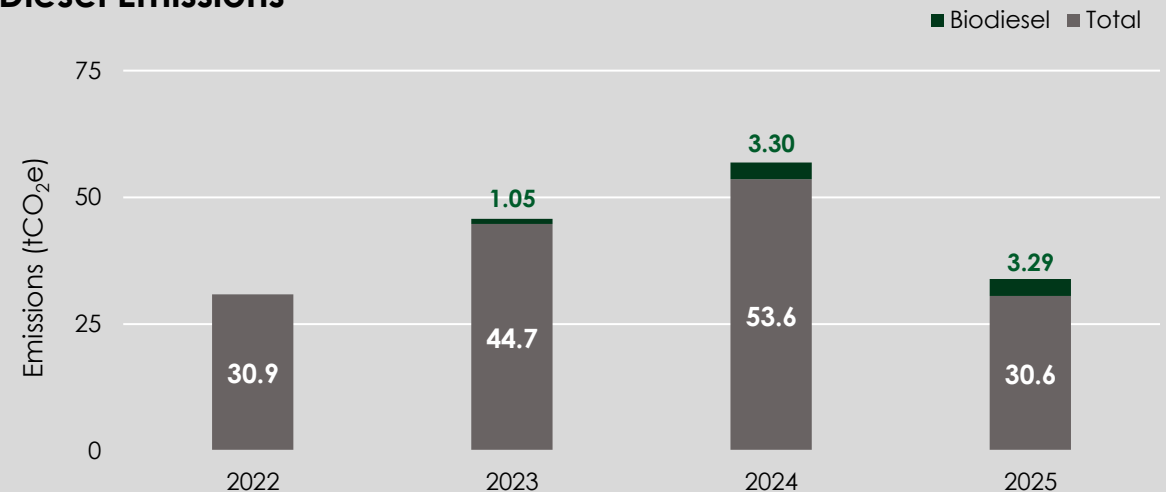
**30.6**  
Total tCO<sub>2</sub>e

**10%**  
% of Total

In 2025, overall diesel production decreased 43% since 2024, the lowest emissions total for diesel usage since Graphic Office began tracking emissions.

Just under 400 litres of biodiesel were purchased for vehicles in 2025, which lowers the carbon intensity of fuel used. Purchasing a biodiesel blend decreases overall emissions from diesel use, even while litres consumed may increase as operational capacity grows.

## Diesel Emissions



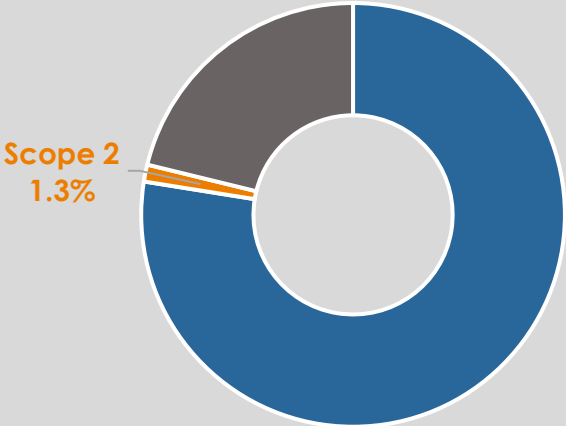
# Scope 2: Electricity

**3.92**

Total tCO<sub>2</sub>e

**1.3%**

% of Total



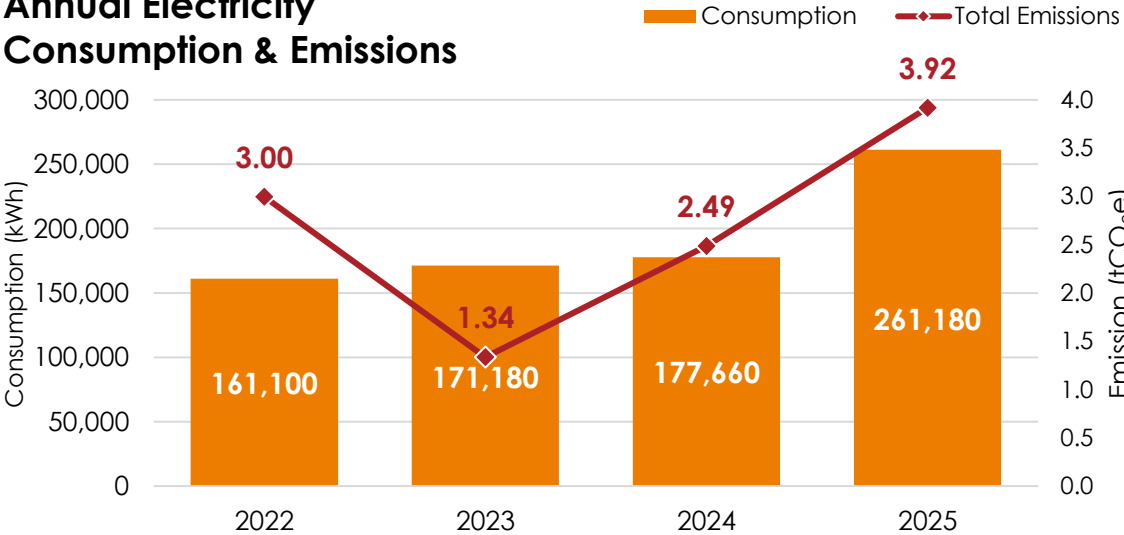
In 2025, electricity emissions increased 47% since 2024, while consumption – in kWh – also increased 47%. Two additional vehicles are now fully electric within the fleet, along with the use of air source heat pumps, which can explain the increase in emissions.

The change in emissions year over year is due to the changing factors around BC's electrical grid, as consumption has only slightly increased since the baseline.

## Scope 2: Indirect Emissions

Scope 2 includes indirect emissions from the generation of purchased electricity, steam, or heat at sources not owned or controlled by the reporting company.

### Annual Electricity Consumption & Emissions



## Scope 3: Purchased Goods & Services

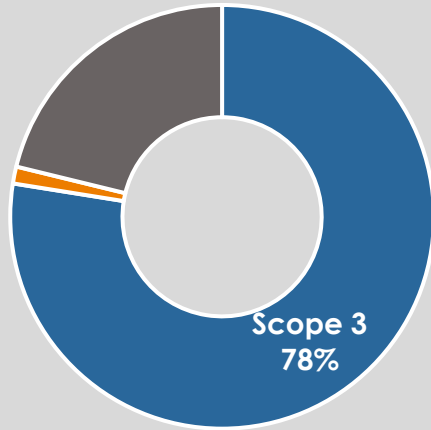
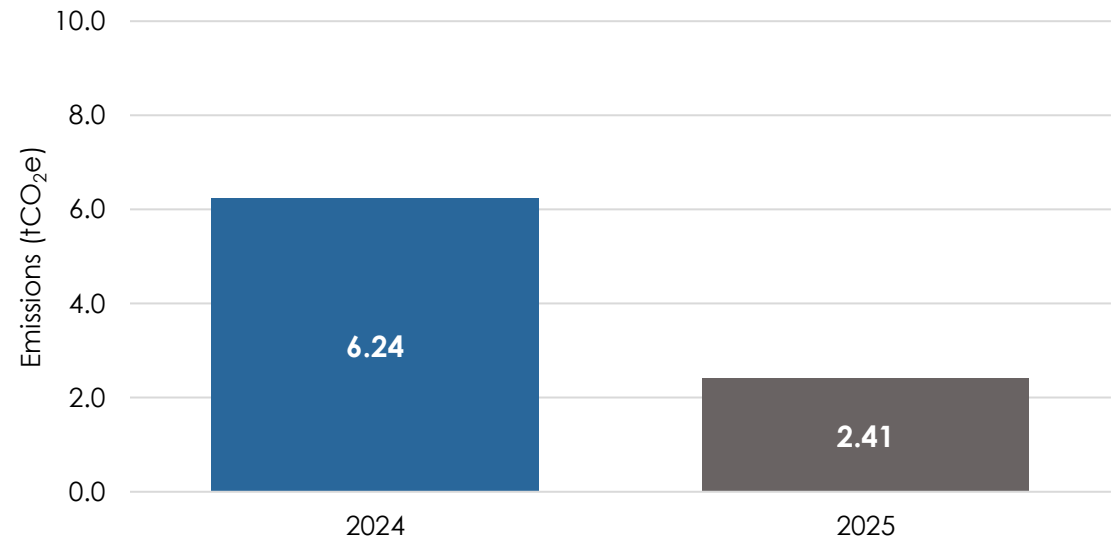
**2.41**  
Total tCO<sub>2</sub>e

**0.8%**  
% of Total

In 2025, purchased goods and services account for 0.8% of the total footprint. Operational purchases included in this year's inventory are related to IT and computer upgrades. The inclusion of operational purchases provides a more comprehensive view of Graphic Office's value chain.

2025 saw a 78% reduction, in comparison to the first year of measuring in 2024. This is directly tied to less purchasing for operational needs in comparison to the previous year,

### Purchased Goods Emissions



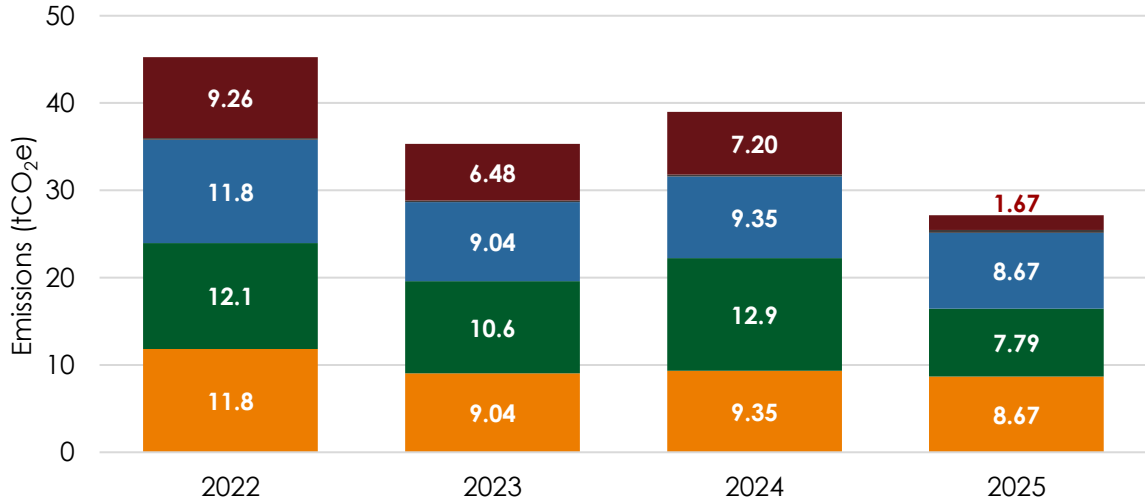
## Scope 3: Indirect Emissions

Scope 3 includes all remaining indirect emissions generated through business operations. This includes emission sources such as business travel, commuting, and purchased goods & services.

# Scope 3: Fuel & Energy Activities

## Fuel and Energy Emissions by Source

Gasoline Diesel Gasoline T&D Natural Gas



Fuel and energy activities includes the upstream emissions impact from the consumption of fuel and electricity.

Well-to-Tank (WTT) is a term used to define the emissions from extraction, processing and transportation of fuel. Whereas transmission and distribution (T&D) losses refer to the electricity loss as a result of the transport of electricity to the consumer. All fuel and energy activity emissions are proportional to the consumption of fuels and electricity.

**18.5**  
Total tCO<sub>2</sub>e

**6.2%**  
% of Total

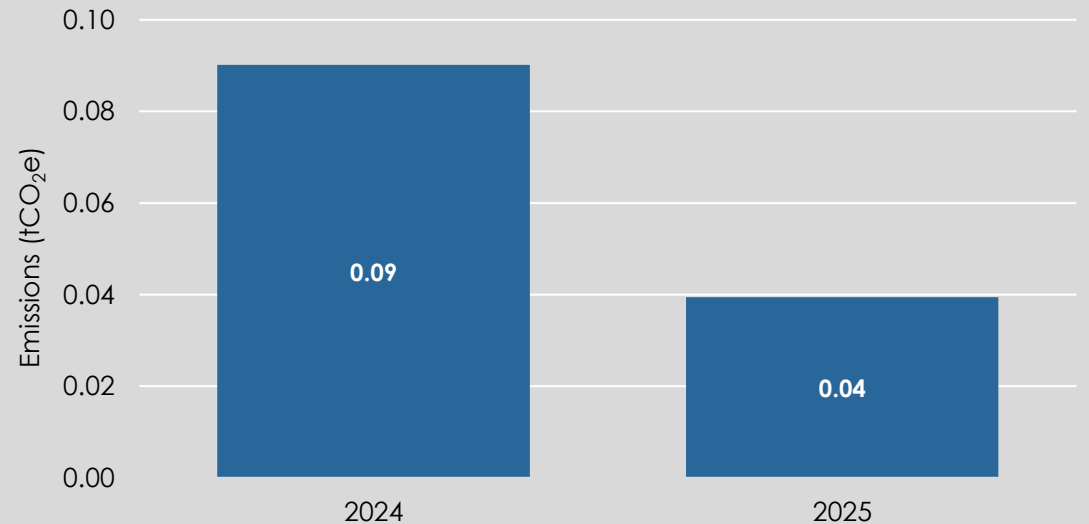
# Scope 3: Upstream Shipping

**0.04**  
Total tCO<sub>2</sub>e

**0.01%**  
% of Total

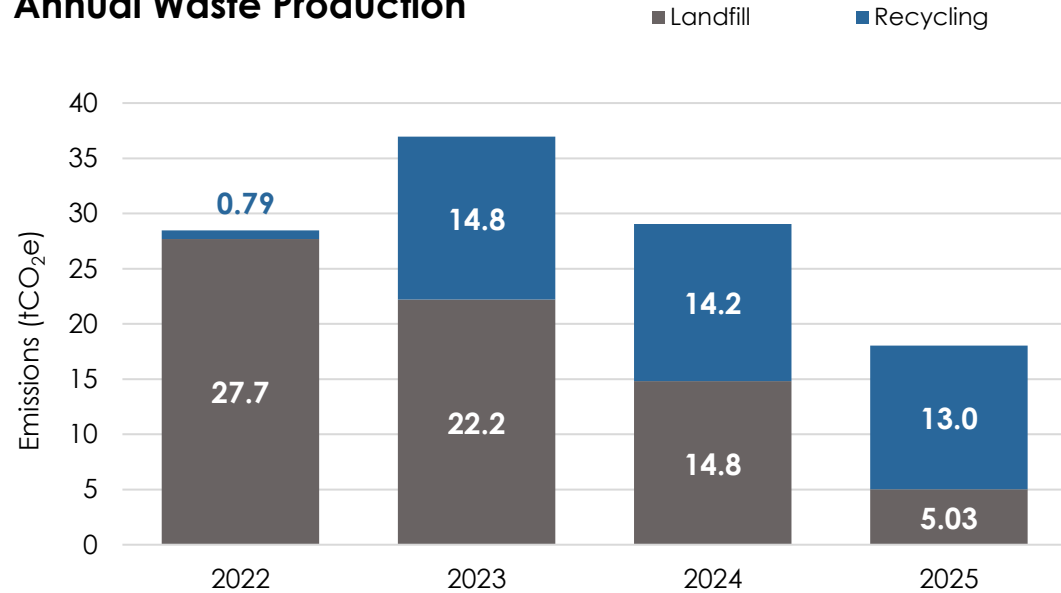
Upstream shipping does not contribute significantly to Graphic Office's footprint, totaling 0.04 tCO<sub>2</sub>e in 2025. Upstream shipping saw a slight decrease in comparison to 2024, and represents less than 1% of the total footprint.

## Annual Shipping Emissions



# Scope 3: Waste Generation

Annual Waste Production



In 2025, overall waste production decreased 38% since 2024. The waste diversion rate increased to 94%, in comparison to 86% in the previous year. Landfill saw the biggest decrease of 66%, followed by recycling (8.6% reduction).

**18.1**  
Total tCO<sub>2</sub>e

**6.1%**  
% of Total

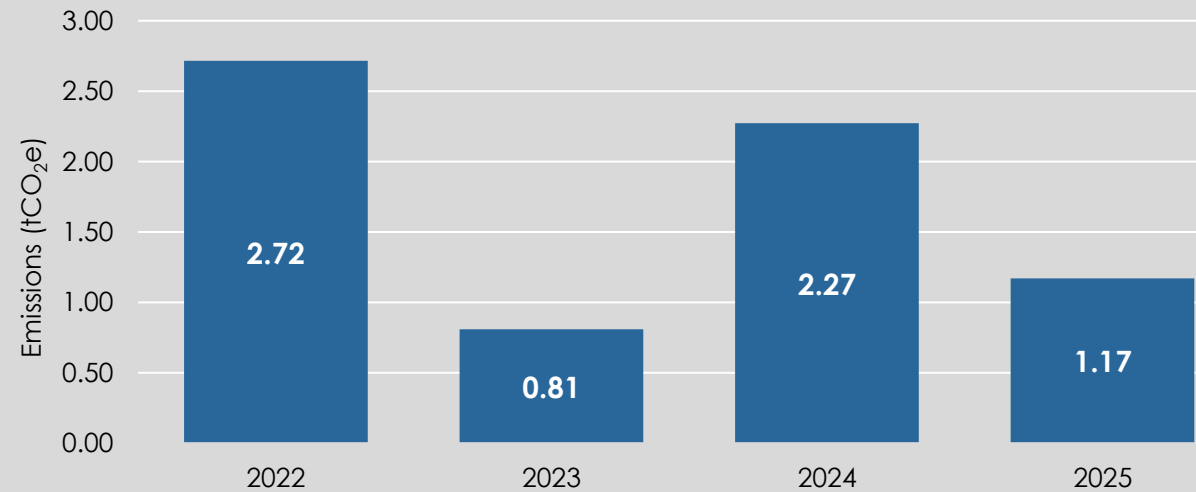
# Scope 3: Business Travel

**1.17**  
Total tCO<sub>2</sub>e

**0.4%**  
% of Total

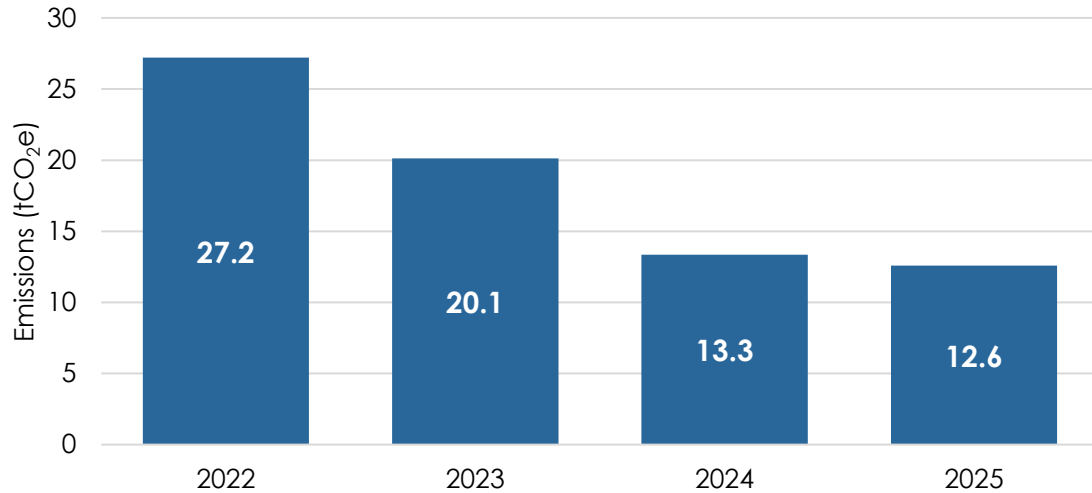
Business travel decreased by 48% in 2025, mainly due to a reduction in accommodations booked. Total accommodation nights decreased by 60% in comparison to 2024. Even as flights resumed in 2025, only 4 two-way flights taken in total contributed minimally to the overall footprint.

Annual Travel Emissions



# Scope 3: Staff Commuting

## Annual Commuting Emissions



Graphic Office has 21 full-time employees (FTEs), of which 13 responded to a staff commuting survey, resulting in an 62% response rate. Staff commuting contributes to xx% of the total footprint, an xx% increase from 2024. This increase is due to an estimate being applied to account for the lower response rate to the survey. Of the 21 full-time employees, eight employees commute directly to sites using company vehicles, which results in their full use being captured under scope 1 emissions

**12.6**  
Total tCO<sub>2</sub>e

**4.2%**  
% of Total

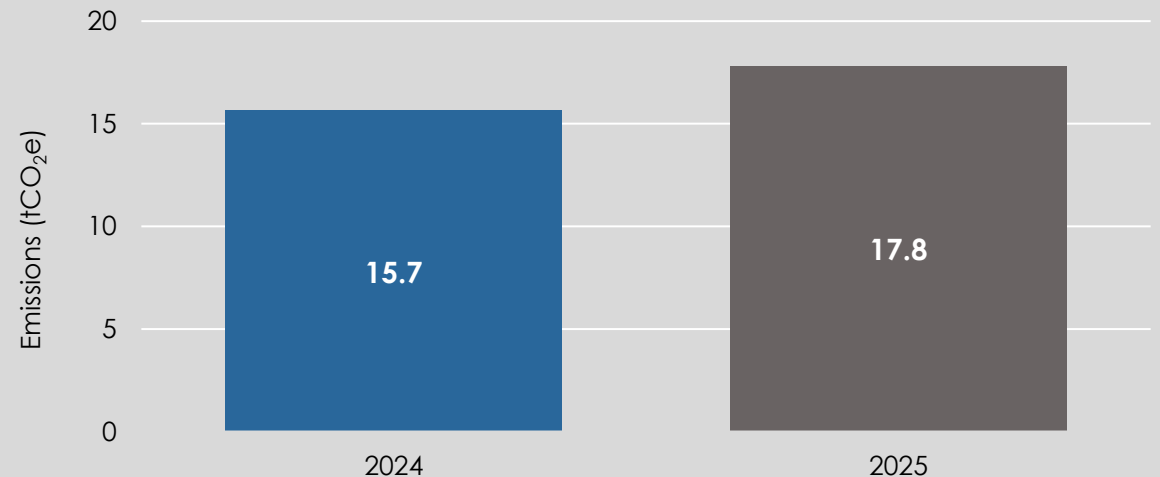
# Scope 3: Downstream Shipping

**17.8**  
Total tCO<sub>2</sub>e

**6.0%**  
% of Total

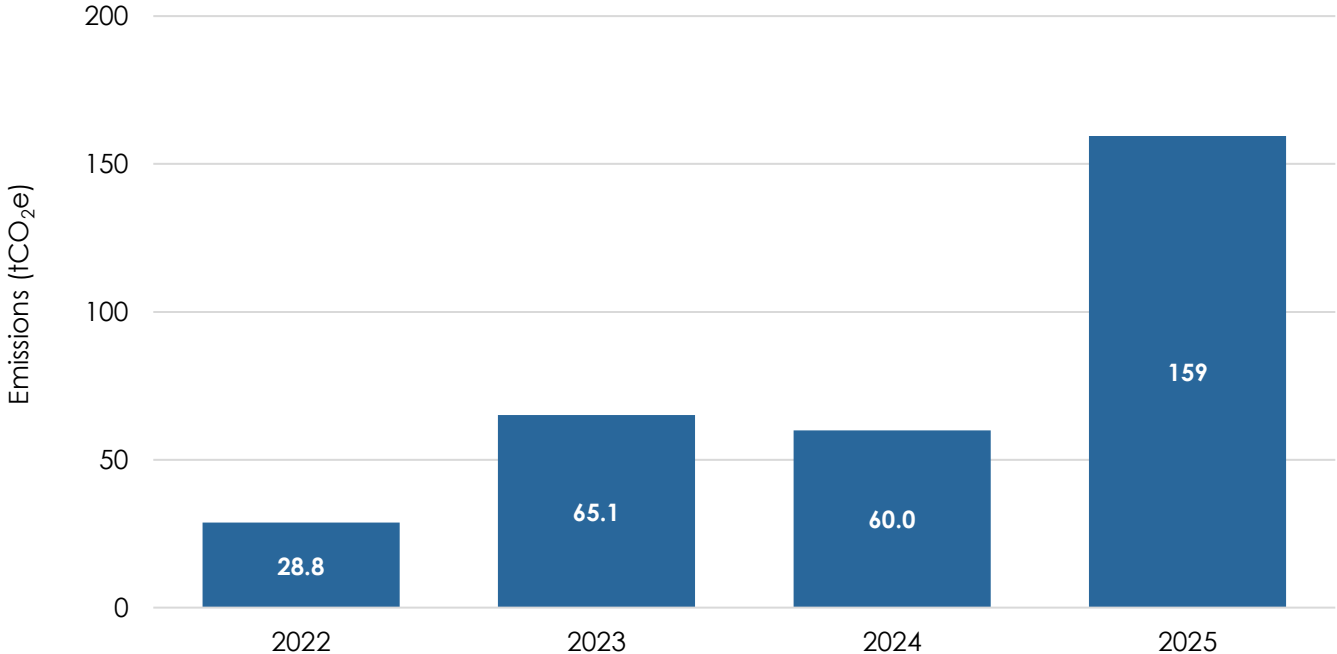
Downstream shipping emissions began measurement in 2024 for Graphic Office, which tracks and measures emissions from Steelcase purchases. Each of the 132 shipments are calculated as ground shipments from a warehouse location in Washington State. Downstream shipping accounts for 5.9% of the total footprint.

## Annual Shipping Emissions



# Scope 3: Capital Goods

## Annual Capital Goods Emissions



In 2025, capital goods emissions increased to 159 tCO<sub>2</sub>e, all of which come from the purchase of new vehicles. The purchase of vehicles are in conjunction with a replacement schedule for Graphic Office's fleet, with two new electric vehicles added.

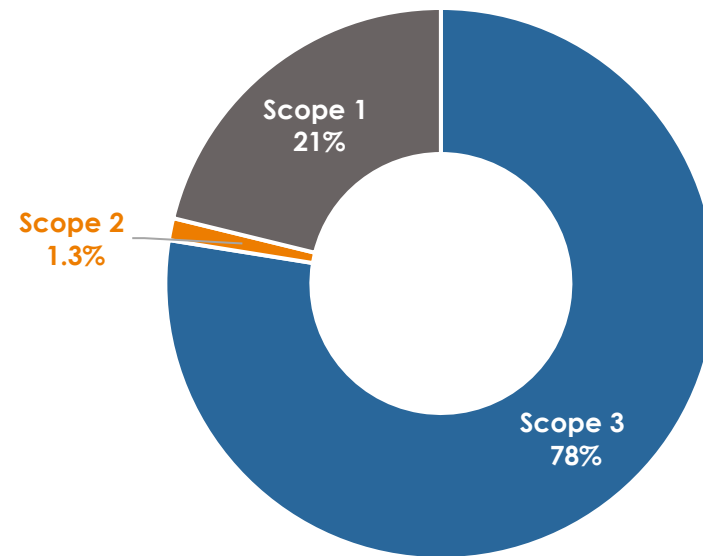
Capital goods emissions were retro-actively attributed to previous inventories due to the emissions in 2024, which are represented in the graph. Capital goods emissions enable further insight into the value chain Graphic Office operates in and are prone to fluctuation year-to-year.

**159**  
Total tCO<sub>2</sub>e

**53%**  
% of Total

# Conclusion

Total emissions came to 252 tCO<sub>2</sub>e in 2024 and 307 tCO<sub>2</sub>e in 2025. The highest emissions sources for both years were capital goods, followed by gasoline and diesel use. These emissions make up 73% of the total footprint. Graphic Office has continued a pattern of reducing emissions by purchasing EVs, installing electric charging stations, and having a no-idling policy. The use of air source heat pumps has reduced scope 1 emissions, along with reducing fuel consumption from the fleet of vehicles, have proven as milestones in reducing emissions.



An aerial photograph of a sandy beach with waves crashing onto the shore. The water is a mix of light and dark tones, with white foam from the waves. The sand is a light beige color. The word "Appendices" is overlaid in a dark blue font on the left side of the image.

# Appendices

# Inventory Information

**Company Name:** Graphic Office Interiors  
**Contact:** Steve Nagy, [snagy@graphicoffice.com](mailto:snagy@graphicoffice.com)

**Company Description:** Victoria, BC, with a main office, a showroom, a warehouse, and a fleet of 15 vehicles.

**Reporting Period:** October 1 2024 to September 31 2025

**Scope 2 Approach:** Location based Emissions Calculations

**Consolidation approach:** Operational Control: Accounting for 100% of emissions from operations over which the company has operational control

**Primary Measurement:** Greenhouse gas emissions measured in Carbon Dioxide Equivalent (CO<sub>2</sub>e)

**Reporting Guidelines:** Aligned with those defined in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition* (*The GHG Protocol*, [www.ghgprotocol.org](http://www.ghgprotocol.org)).

21%

Scope 1	tCO <sub>2</sub> e	% of total
Natural Gas	0.03	0.01%
Gasoline	32.4	11%
Diesel	30.6	10%
<b>TOTAL:</b>	<b>63.0</b>	<b>21%</b>

1.2%

Scope 2	tCO <sub>2</sub> e	% of total
Purchased Electricity (BC Hydro)	3.92	1.3%
<b>TOTAL:</b>	<b>3.92</b>	<b>1.3%</b>

78%

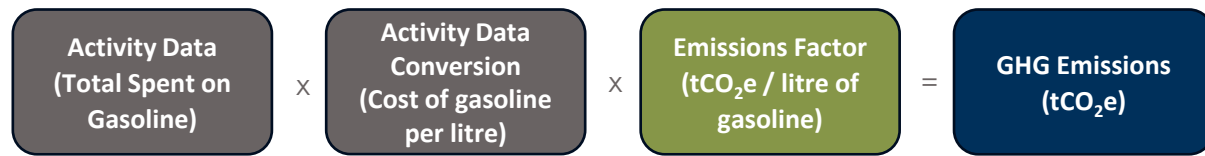
Scope 3	tCO <sub>2</sub> e	% of total
Purchased Goods & Services (IT & Computers)	2.41	0.8%
Capital Goods (Vehicles)	159	54%
Fuel and Energy Activities (WTT and T&D)	18.5	6.2%
Upstream Shipping	0.04	0.01%
Waste (Landfill & Recycling)	18.1	6.1%
Business Travel	1.17	0.4%
Employee Commuting	12.6	4.2%
Downstream Shipping	17.8	6.0%
<b>TOTAL:</b>	<b>230</b>	<b>78%</b>

# Measurement Methodology

This report was put together as a collaborative effort by Synergy Enterprises and Graphic Office Interiors. Synergy Enterprises is responsible for managing the project, conducting a thorough scoping assessment of Graphic Office Interiors' emission sources, supporting data collection by flagging any issues or risks, calculating emissions and producing a GHG inventory report in accordance with the GHG protocol. Graphic Office Interiors is responsible for providing comprehensive understanding of the company's activity and providing accurate data on activity within the reporting period. As a collaboration it is the responsibility of both parties to set the inventory boundaries, scope the GHG inventory and validate the final report.

Greenhouse gas (GHG) emissions are measured in carbon dioxide equivalent (CO<sub>2</sub>e), which represents the amount of carbon dioxide (CO<sub>2</sub>) that would produce a similar level of global warming as other GHGs. This is calculated using Global Warming Potentials (GWPs) from the Intergovernmental Panel on Climate Change (IPCC) to convert emissions of non-CO<sub>2</sub> GHGs, such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), into a CO<sub>2</sub> equivalent. The inventory uses the latest 100-year GWPs from the IPCC's Sixth Assessment Report.

As recommended by the Protocol, companies should use the most accurate method available to them for reporting emissions. For Graphic Office Interiors, activity data is the most readily available data. As such, emissions factors support the measurement of all GHG emissions calculated in the report. Provided below are example calculations for the fuel emissions from the consumption of gasoline.



**Graphic Office's 2025 Emissions by Gas:**

**312**

Total tCO<sub>2</sub>

**1.62**

Total N<sub>2</sub>O

**0.18**

Total CH<sub>4</sub>

## Greenhouse gas global warming potentials (GWP)

Scientific Name	Molecular Formula	Global Warming Potential
Carbon Dioxide	CO <sub>2</sub>	1
Methane	CH <sub>4</sub>	27.9
Nitrous Oxide	N <sub>2</sub> O	273

This inventory uses publicly available emissions factors (EFs) to calculate GHG emissions. EFs convert activity data (e.g., fuel consumption, electricity usage) into a corresponding mass of CO<sub>2</sub>e emissions. All EFs are sourced from reputable, up-to-date publications. If an EF is not in CO<sub>2</sub>e, it is converted using Global Warming Potentials. A unit conversion may also be necessary to ensure the activity data and EF units are consistent.

Policy for Base Year Recalculation: Base year emissions, and other previous emissions, shall be retroactively recalculated if a change in organizational structure or data quality is expected to exceed a significance threshold of 10% of base year emissions. These changes may arise from structural changes such as mergers, acquisitions, divestments, outsourcing or insourcing, changes in calculation methodology and improvements in accuracy, or discovery of significant errors.

# Data Quality Assessment

Synergy assesses data risk based on three key categories. The data received for each emissions source measured is assessed and systematically allocated a risk category based on how it scores in each of the three variables.

**Data Quality:** Using the suggested structure from the GHG protocol we assess the quality of data based on technology, timeliness, geography, and reliability. Each of these categories are rated from poor to very good, the combination of these all result in the data quality ranking.

**Data Uncertainty:** This category measures the percentage of estimated emissions in the emissions category. This metric is reported independently to increase transparency, while other uncertainty factors such as data collection methods, reporting inconsistencies, sampling bias, and seasonal variation are assessed under the Data Quality category.

**Percentage of Footprint:** The percentage of this emissions category of the entire footprint is represented to show the scale of impact that the data quality ranking has on the emissions as a whole.

**Low Risk:** Data received is good and does not need to be improved in future years. This data type does not pose a notable risk to the accuracy of the total GHG emissions.

**Medium Risk:** Data received is adequate, it poses a likelihood of inaccuracy in the final GHG value of this category and could be improved in future years.

**High Risk:** Data received has flaws and poses a high likelihood of inaccuracy in the total GHG inventory presented. In future years, there should be a focus on improving this data.

Emissions Source	Data Quality	% of Footprint	Risk Level
Natural Gas	6.05	0.01	Low Risk
Gasoline	6.2	11	Low Risk
Mobile Diesel	6.2	10	Low Risk
Electricity	6	1.2	Low Risk
Purchased Goods & Services	6.05	0.8	Low Risk
Capital Goods	6.5	53	Low Risk
Upstream Transportation and Distribution	6	0.01	Low Risk
Waste Generation in Operations	6.25	6.0	Low Risk
Travel	6	0.4	Low Risk
Staff Commuting	6.25	5.2	Low Risk
Downstream Shipping	6.2	6.2	Low Risk

# Emission Factor References & Glossary

## 1. 2022 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions

[https://www2.gov.bc.ca/assets/gov/environment/climate-change/cng/methodology/2021-best-practices-methodology\\_for\\_archive.pdf](https://www2.gov.bc.ca/assets/gov/environment/climate-change/cng/methodology/2021-best-practices-methodology_for_archive.pdf)

## 2. Environment Canada's National Inventory Report (1990-2021); Part 2 & 3.

[https://publications.gc.ca/collections/collection\\_2023/eccc/En81-4-2021-2-eng.pdf](https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-2-eng.pdf)

[https://publications.gc.ca/collections/collection\\_2023/eccc/En81-4-2021-3-eng.pdf](https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-eng.pdf)

## 3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors 2023

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

## 4. Intergovernmental Panel on Climate Change (Global Warming Potentials)

[https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_Chapter07.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07.pdf)

## 5. UK WRAP Emissions Factor Database V1 .2 (2023)

<https://www.wrap.ngo/resources/guide/scope-3-ghg-measurement-and-reporting-protocols-food-and-drink>

## 6. Supply Chain GHG Emission Factors for US Commodities and Industries v1.1

<https://catalog.data.gov/dataset/supply-chain-ghg-emission-factors-for-us-commodities-and-industries-v1-1>

Term	Description
Biogenic	Carbon emissions generated from sources naturally occurring in the carbon cycle (i.e. organic matter), rather than the result of fossil fuel combustion.
Emissions Factor	The volume of emissions created by an emissions producing activity (i.e. fuel combustion), calculated based on the amount of the activity (volume, distance, etc.).
GHG	Greenhouse Gas (emissions): Atmospheric gasses contributing to the greenhouse effect, including Carbon Dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), Nitrous Oxide (N <sub>2</sub> O), etc.
GJ	Gigajoule: Unit of natural gas equal to 26.137 m <sup>3</sup> or 0.947 MMBtu
kWh	Kilowatt-Hour: Common unit for measuring electrical consumption
WTT	Well to Tank: Upstream emissions from extraction, processing and transport of fuel.
PCR%	Post-Consumer Recycled Content (as a percentage)
psg-km	Passenger-Kilometer: Unit separating total emissions between passengers per km
tCO <sub>2</sub> e	Tonnes of Carbon Dioxide Equivalent: a combined term capturing the emissions from various GHGs.
t-km	Tonne-kilometer: A unit of measurement used in shipping



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