



UBC Vancouver Campus – 2024 Greenhouse Gas (GHG) Emissions Inventory

Scope	Component	Usage Data	GHG Emissions (tCO ₂ e)
Scope 1 – Direct	Core Buildings [a]		
	Natural gas for district energy	300,319 GJ	15,016
	Natural gas direct use	149,349 GJ	7,468
	Light fuel oil (heating oil) for district energy	570 GJ	39
	Biomass for district energy [b]	196,914 GJ	467
	Renewable natural gas (RNG) [c]	63,796 GJ	17
	Ancillary buildings [d]		
	Natural gas for district energy	87,801 GJ	4,393
	Natural gas direct use	68,921 GJ	3,448
	Light fuel oil (heating oil) for district energy	188 GJ	13
	Biomass for district energy [b]	63,976 GJ	152
	Tenant buildings [e]		
	Natural gas for district energy	1,907 GJ	95
	Natural gas direct use	478 GJ	24
	Light fuel oil (heating oil) for district energy	19 GJ	1
	TRIUMF – Natural gas direct use (UBC share) [f]	642 GJ	32
	Fleet		
	Gasoline (Standard)	108,744 L	241
	Gasoline (E10)	168,496 L	353
	Diesel (Standard)	8,390 L	22
	Diesel (B5)	44,134 L	115
	Natural gas	2,459 GJ	138
	Propane	56 L	0
	Fugitive [g]		
	HFC R-134a	128 kg	167
	HCF R-404a	48 kg	352
	HFC R-407c	45 kg	73
	HFC R-410a	394 kg	758
Scope 2 – Indirect	Core Buildings – Electricity	124,034,498 kWh	1,228
	Ancillary Buildings – Electricity	68,294,220 kWh	676
	Tenant Buildings - Electricity	1,014,699 kWh	10
	TRIUMF – Electricity (UBC share) [f]	2,608,349 kWh	26
Scope 3 – In Scope	Paper	27,797 Packages	156
Total Campus emissions offset under CCAA (Scope 1, 2, and Paper) [h]			35,480
Scope 3 – Not required to be offset	Business flights (Staff and faculty) [i]		32,429
	Solid waste [j]		926
	Commuting [j]		35,944
	Building lifecycle [j]		13,852
	Food emissions [k]		7,348

[a] Core buildings comprise of academic and administrative buildings.

[b] UBC is required to offset the non-biogenic (CH₄ and N₂O) portions of biomass combustion. In addition, the Bioenergy Research and Demonstration Facility (BRDF) consumes a small amount of natural gas upon start-up/shutdown.

[c] UBC is required to offset the non-biogenic (CH₄ and N₂O) portions of renewable natural gas.

[d] Ancillary buildings include student housing, conference, athletic and parking facilities.

[e] Tenants in UBC-Owned Buildings.

[f] TRIUMF Inc. is a federal not for profit corporation. It has historically been included in the UBC Vancouver campus inventory since it is located on campus. UBC accounts for 1/21st of the TRIUMF emissions.

[g] Starting from 2024, all public sector organizations (PSOs) are required to report fugitive emissions in a more comprehensive methodology to cover all refrigeration equipment.

[h] Values may not sum precisely due to rounding. This table shows only the Vancouver campus emissions that need to be offset for 2024. An additional 6,730 tCO₂e associated with UBC Properties Trust and off-campus properties also need to be offset for 2023.

[i] An updated methodology has been implemented since 2023 reporting year to better track business air travel GHG emissions. Radiative forcing factors (RFFs) are applied in the estimation.

[j] These emissions have been estimated from published conversion factors. Improvements to methodologies may allow for other Scope 3 components to be included in future inventories.

[k] Food emissions only include emissions from UBC Food Services and Franchises emissions.