



UBC Vancouver Campus – 2018 Greenhouse Gas Emissions Inventory

Scope	Component [a]	Usage Data	GHG Emissions (tCO ₂ e)
Scope 1 – Direct	Core Buildings [b]		
	Natural gas for district energy	309,768 GJ	16,433
	Natural gas direct use	131,260 GJ	6,546
	Light fuel oil (heating oil) for district energy	14,194 GJ	971
	Biomass for district energy [c]	132,520 GJ	320
	Renewable natural gas (RNG) [d]	76,200 GJ	22
	Ancillary Buildings [e]		
	Natural gas for district energy	129,456 GJ	5,492
	Natural gas direct use	82,773 GJ	4,128
	Light fuel oil (heating oil) for district energy	4,893 GJ	335
	Biomass for district energy [c]	37,206 GJ	61
	TRIUMF – Natural gas direct use (UBC share) [f]	1,017 GJ	51
	Fleet		
	Gasoline	283,458 L	648
	Diesel	13,467 L	36
	Biodiesel	68,334 L	188
	Natural gas	22,929 L	71
Propane	- L	-	
Scope 2 – Indirect	Core Buildings – Electricity	133,617,871 kWh	1,443
	Ancillary Buildings – Electricity	69,837,095 kWh	754
	TRIUMF – Electricity (UBC share) [f]	4,658,430 kWh	50
Scope 3 – In Scope	Paper	68,476 Packages	392
Total Campus emissions offset under Climate Change Accountability Act (Scope 1, 2, and Paper) [g]			37,941
Scope 3 – Not required to be offset	Business flights (staff and faculty)		15,710
	Solid waste [h]		985
	Commuting [h]		40,821
	Building lifecycle [h]		12,865

[a] Fugitive emissions have been deemed out of scope as they were estimated to comprise less than 1% of campus emissions.

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

[c] 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.

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

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

[f] UBC owns a 1/13th share of TRIUMF. This inventory includes 1/13th of the facility's energy usage and emissions.

[g] Values may not sum precisely due to rounding. This table shows only the Vancouver campus emissions that were offset in 2018. An additional 6,459 tCO₂e associated with UBC Properties Trust and off-campus properties were also offset in 2018.

[h] 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.

To read the full 2018 Carbon Neutral Action Report (CNAR), please visit: <https://sustain.ubc.ca/about/plans-policies-and-reports>