



UBC Vancouver Campus – 2015 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	477,647 GJ	23,763
	Natural gas direct use	110,567 GJ	5,501
	Heating oil for District Energy	- GJ	-
	Biomass for District Energy [c]	139,623 GJ	363
	Renewable Natural Gas [d]	64,818 GJ	19
	Ancillary Buildings [e]		
	Natural gas for District Energy	116,905 GJ	5,816
	Natural gas direct use	72,799 GJ	3,622
	Heating oil for District Energy	- GJ	-
	Biomass for District Energy [c]	32,001 GJ	84
	TRIUMF – Natural gas direct use (1/12 share) [f]	1,063 GJ	53
	Fleet		
	Gasoline	347,200 L	788
	Biodiesel	89,545 L	242
Natural Gas	19,900 L	61	
Propane	1,720 L	3	
Scope 2 – Indirect	Core Buildings – Electricity	149,014,648 kWh	1,502
	Ancillary Buildings – Electricity	51,345,077 kWh	518
	TRIUMF – Electricity (1/12 share) [f]	5,082,424 kWh	51
Scope 3 – Optional	Paper	78,826 PKG	460
	Staff and faculty air travel		13,315
	Solid waste [g]		964
	Commuting [g]		34,522
	Building lifecycle [g]		12,275
Total Campus emissions offset under GGRTA (Scope 1, 2, and Paper) [h]			42,846

[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 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 CH₄ and N₂O portions of renewable natural gas.

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

[f] UBC owns a 1/12th share of TRIUMF. This inventory includes 1/12th of the facility’s estimated usage and emissions.

[g] 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.

[h] Values may not sum precisely due to rounding. This table shows only the UBC Vancouver campus emissions that were offset in 2015. An additional 4,594 tCO₂e associated with UBC Properties Trust and off-campus properties were also offset in 2015.

To read the full 2015 Carbon Neutral Action Report, please visit: <http://sustain.ubc.ca/our-commitment/strategic-plans-policies-reports/annual-reports>