



UBC GHG 2006 Emissions Inventory- overview by scope

Developed for the UBC Sustainability Office by the Technical Advisory Committee, Chair James Tansey. Technical Consultant: Mahbod Rouhany.

For a full copy of the 2006 GHG inventory report, please contact the UBC Sustainability Office.

Scope 1: Direct GHG emissions

	Usage data			Emissions UBC-V Tonne CO ₂ e			Emissions UBC-O Tonne CO ₂ e			Emiss. UBC T
	unit	UBC-V core	UBC-V Anc.+Tenants	UBC-V core	UBC-V Anc. + Tenants	Total UBC-V	UBC-O campus	UBC-O residential	Total UBC-O	
Natural gas ¹	GJ	959,559	322,804	47,719	16,053	63,772	1618	765	2,383	66,154
Oil	L	160,604		439		439	N/A ³	N/A	N/A	439
Animals ²	Heads	600		1,510		1,510	N/A	N/A	N/A	1,510
Fleet ⁴ & Fuel	L	844,756		2096		2096	23		23	2119
TOTAL						67,817			2,405	70,222

Table I: summary of UBC-V activity data and UBC scope1 emissions

Scope 2: GHG Emissions from off campus electricity production

	Usage data			Emissions UBCV Tonnes CO ₂ e			Emissions UBC-O Tonne CO ₂ e			Em. UBC T
	unit	UBCV core	UBCV Anc. +Tenants ¹¹	UBCV core	UBCV Anc. + Tenants ¹¹	Total UBC-V	UBCO campus	UBCO residential	Total UBCO	
Electricity	MWh	126,349	139,477	2796	3087	5883	224	44	268	6,152

Table II: summary of UBC-V activity data and UBC scope2 emissions

Scope 3: Indirect GHG emissions

	UBCV Data			Emissions			Total UBC
	unit	UBCV core	UBCV Anc.+Tenants	UBCV core	UBCV Anc. + Tenants	UBCO	
Paper ⁷	Lbs	886,651		1,088			1088
Buildings ⁵	m ²	765,111	625,680	6312	5162	542	12,016
Flights ⁹	km	100,282,305		13,628		N/A	13,628

Commuting ⁶			22,815	N/A	22,815
Waste	Tonnes	2,955	-717 ¹⁰	-348	-1065
Fertilizer	Tonnes	68	149	N/A	149
TOTAL			48438	194	48,632

Table III: summary of UBC-V activity data and UBC scope3 emissions

Table footnotes

1. Includes gas used for steam production
2. Includes dairy cows and heifers, sheep and pigs
3. Data was not available
4. Includes gasoline, diesel, and propane use from the UBC fleet
5. Embedded emissions for production of building materials, per year for a 50-year building lifetime; UBCO is included in total.
6. Based on data gathered for evaluation of U-pass program, includes passenger vehicles, vehicles from the UBC fleet might be double counted
7. Provincial requirement for carbon neutrality. Calculated based on 41% recycled paper (with 30%post consumer content)
8. From Propane and Gasoline use, one figure was provided for both. A 50-50 split was assumed
9. Includes all flights accounted for through Financial Management Information System
10. Assuming UBC-O waste has same density as UBC-V
11. Includes the Triumph facility.