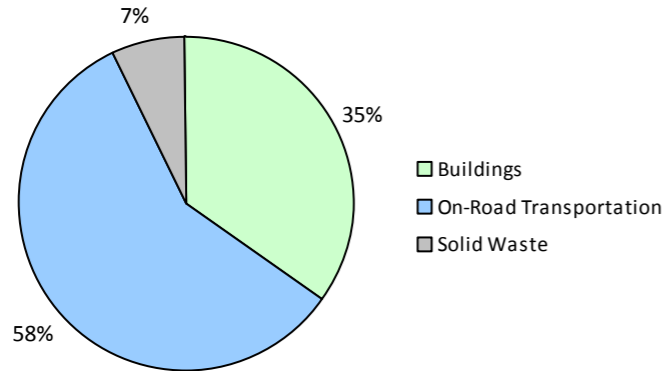


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

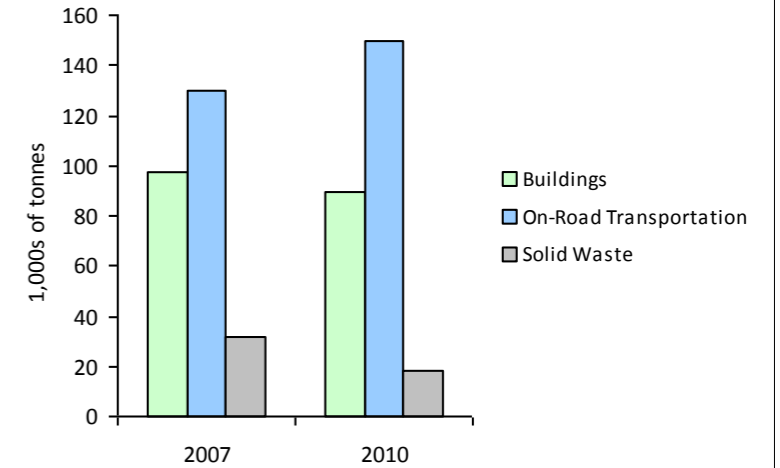
2010 GHG Emissions Sources (Total for this Community)



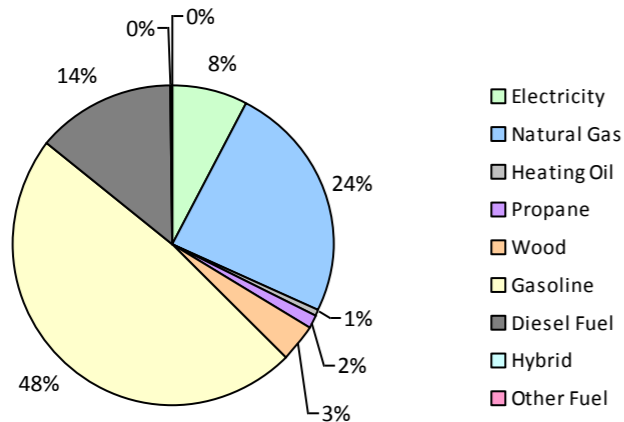
2010 GHG Emissions Sources (Total for BC)



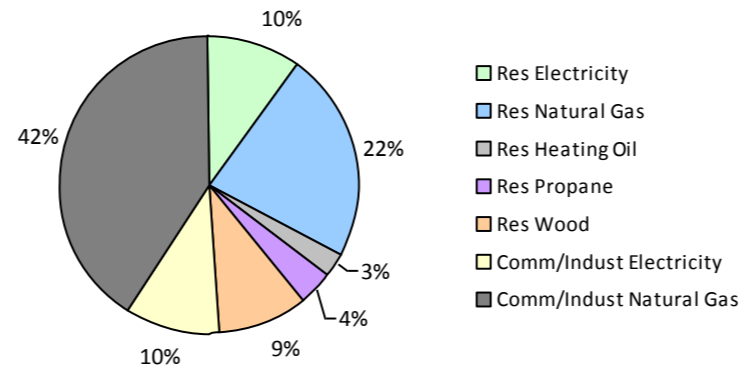
GHG Emissions Comparisons for this Community



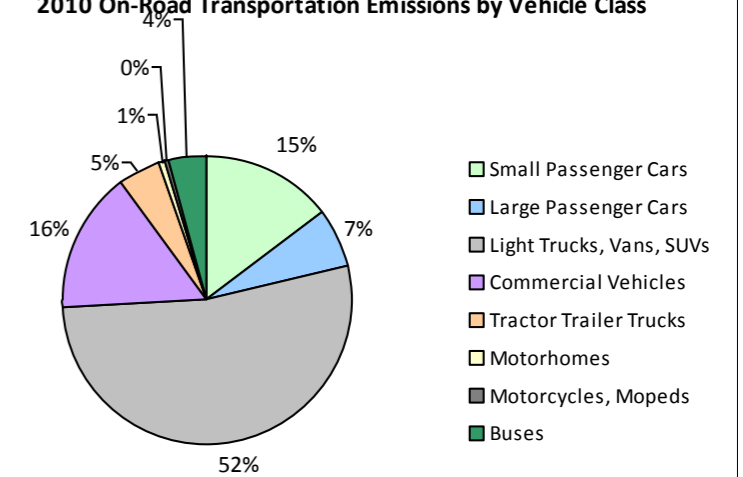
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Squamish-Lillooet Regional District 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Core Items

On-Road Transportation		2007					2010				
		Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Hybrid			19,600	252	17			21,700	298	19
	Gasoline	4,825	7,924,462 L	17,100	277,356	18,803	5,525	9,162,088 L	17,400	320,673	20,541
	Diesel Fuel	255	481,862 L	28,000	18,455	1,317	269	480,462 L	26,200	18,401	1,274
	Other Fuel			17,300	37	3			22,300	233	14
Large Passenger Cars	Hybrid	18	22,998 L	27,400	805	54	45	63,231 L	26,300	2,214	141
	Gasoline	2,111	4,115,566 L	17,200	144,045	9,749	2,258	4,256,320 L	16,700	148,971	9,550
	Diesel Fuel	42	53,500 L	13,800	2,049	146	80	84,818 L	11,500	3,248	225
	Other Fuel			10,900	229	14			10,100	104	7
Light Trucks, Vans, SUVs	Hybrid	17	36,193 L	27,400	1,267	85	39	94,899 L	27,100	3,322	214
	Gasoline	9,212	28,346,704 L	21,100	992,134	67,685	10,720	33,439,542 L	21,500	1,170,384	75,733
	Diesel Fuel	406	1,038,493 L	14,900	39,775	2,829	347	1,022,868 L	19,200	39,176	2,708
	Other Fuel	43	96,522 L	13,300	2,443	148	24	46,965 L	11,500	1,188	72
Commercial Vehicles	Gasoline	786	2,782,351 L	20,900	97,382	6,540	1,004	3,619,859 L	21,400	126,695	8,099
	Diesel Fuel	1,037	4,347,693 L	23,600	166,517	11,700	1,297	6,122,128 L	26,400	234,477	15,986
	Other Fuel	23	54,021 L	12,900	1,367	83	16	36,453 L	12,700	923	56
Tractor Trailer Trucks	Diesel Fuel	190	3,066,195 L	36,700	117,436	8,250	207	2,577,103 L	29,300	98,703	6,729
Motorhomes	Gasoline	105	292,891 L	20,300	10,251	684	134	373,228 L	20,300	13,063	830
	Diesel Fuel	67	220,820 L	18,500	8,458	594	82	278,815 L	18,700	10,678	728
	Other Fuel			19,300	363	21			19,100	348	22
Motorcycles, Mopeds	Gasoline	421	96,784 L	5,000	3,387	226	534	145,701 L	6,000	5,099	323
Buses	Hybrid								27,200	196	12
	Gasoline	51	169,090 L	20,600	5,918	398	65	208,840 L	19,900	7,309	467
	Diesel Fuel	69	288,729 L	48,900	11,059	778	79	2,150,332 L	135,000	82,358	5,614
	Other Fuel			13,100	208	12	22	12,222 L	280,500	309	19
Totals		19,678	53,434,874 L	19,644	1,901,193	130,136	22,747	53,434,874 L	20,620	2,288,370	149,383

Squamish-Lillooet Regional District 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	425,260 GJ	425,260	8,616	N/A	409,328 GJ	409,328	8,293
	Heating Oil	N/A	34,654 GJ	34,654	2,443	N/A	33,356 GJ	33,356	2,281
	Propane	N/A	260,884 GJ	260,884	15,917	N/A	58,826 GJ	58,826	3,589
	Natural Gas	2,961	189,537 GJ	189,537	9,508	5,423	401,047 GJ	401,047	20,117
	Electricity	22,627	371,776,227 kWh	1,338,393	9,295	23,959	366,622,044 kWh	1,319,838	9,166
Commercial/Small-Medium Industrial	Propane	313	542,468 GJ	542,468	33,096				
	Natural Gas	405	204,719 GJ	204,719	10,269	731	736,249 GJ	736,249	36,930
	Electricity	3,425	316,154,202 kWh	1,138,154	7,904	3,773	367,578,655 kWh	1,323,282	9,190
Totals		29,731		4,134,069	97,048	33,886		4,281,926	89,566

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	37,975 t	N/A	31,681	0	35,112 t	N/A	18,499
Totals		0			31,681	0			18,499

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Electricity	2		0	0				
Totals		2			0	0			

Agriculture		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Enteric Fermentation	Methane	6,076	370 t	0	7,770				
Totals		6,076			7,770	0			

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Land-use Change - Deforestation	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Settlement Deforestation	57	0 ha	0	27,569				
Totals	57			27,569	0			

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 37,124)			2010 (Population: 40,356)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	59,191 L	2,324	156	158,130 L	6,030	386
Gasoline	43,727,848 L	1,530,473	104,085	51,205,578 L	1,792,194	115,543
Diesel Fuel	9,497,292 L	363,749	25,614	12,716,526 L	487,041	33,264
Other Fuel	150,543 L	4,647	281	95,640 L	3,105	190
Wood	425,260 GJ	425,260	8,616	409,328 GJ	409,328	8,293
Heating Oil	34,654 GJ	34,654	2,443	33,356 GJ	33,356	2,281
Propane	803,352 GJ	803,352	49,013	58,826 GJ	58,826	3,589
Natural Gas	394,256 GJ	394,256	19,777	1,137,296 GJ	1,137,296	57,047
Electricity	687,930,429 kWh	2,476,547	17,199	734,200,699 kWh	2,643,120	18,356
Solid Waste	37,975 t	0	31,681	35,112 t	0	18,499
Grand Totals		6,035,262	258,865		6,570,296	257,448

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Supporting Indicators

No new supporting indicator data have been provided in the 2010 reports. Work is currently underway to produce a complete second round of data for the indicators below in the 2012 reports (available in 2014). In the interim, we are including the same supporting indicator data that was provided in the 2007 reports. Feedback is requested on all supporting indicators; please contact us directly at

Housing Type - Private dwellings by structural type

Housing type is important for reducing building-related GHG emissions and energy consumption. A trend toward fewer single family dwellings indicates an increase in residential density, which is known to reduce transportation-related GHG emissions.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House	5,945	35	6,860	55	6,910	49
Semi-Detached House	425	3	610	5	975	7
Row House	1,025	6	1,760	14	1,955	14
Apartment, Duplex	1,405	8	1,100	9	1,490	11
Apartment, 5 storeys or higher	15	0	55	0	20	0
Apartment, under 5 storeys	1,290	8	1,400	11	1,925	14
Other Single Attached House	105	1	85	1	75	1
Movable Dwelling	665	4	695	6	635	5

Commute to Work - Employed labour force - by mode of commute

An increase in the number of people choosing to walk, cycle and use transit reduces GHG emissions. More compact, complete, connected communities should see an increase in the use of these transportation modes.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	10,415	69	12,135	70	12,750	68
Car, Truck, Van as Passenger	1,550	10	1,770	10	2,045	11
Public Transit	670	4	1,085	6	1,280	7
Walked	1,535	10	1,520	9	1,685	9
Bicycle	450	3	415	2	595	3
Motorcycle	50	0	20	0	100	1
Taxicab	95	1	45	0	10	0
Other Method	285	2	255	1	235	1

Parks and Protected Greenspace

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	284,634	17
Local Parks	426	0
Agricultural Land Reserve	25,341	2
Other land use	1,335,326	81
Total Parks and Protected Area	285,059	17
Total Land Area	1,645,726	100

* Total is net of Indian Reserves
 ** Quantity of parkland may be underestimated

Residential Density

Increasing residential densities is known to reduce vehicle use resulting in fewer transportation-related GHG emissions. There are many additional benefits from more compact development.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	284,634	17
Local Parks	426	0
Agricultural Land Reserve	25,341	2
Other land use	1,335,326	81
Total Parks and Protected Area	285,059	17
Total Land Area	1,645,726	100

* Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

Squamish-Lillooet Regional District
2010 Community Energy and Emissions Inventory
Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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Supporting Indicators Under Consideration

Work is currently underway to produce a complete second round of supporting indicators for the 2012 reports (available in 2014). These reports will new data for the five supporting indicators included in the 2007 and 2010 Reports:

- **Housing Type:** Private dwellings by structural type
- **Commute to Work:** Employed labour force - by mode of commute
- **Commute Distance**
- **Residential Density**
- **Parks and Protected Greenspace**

And in addition, the 2012 reports we are working to be able to include:

- **Proximity to Transit**
- **Building Energy Intensity**
- **Building Floor Space**
- **Waste Diversion**

We are continuing to work towards reporting on even more supporting indicators in the future including:

- **Proximity to Services** (e.g. destinations such as grocery store, school, other retail etc.)
- **Transit Ridership**
- **Water Use**
- **Impervious Surface Cover:** % change in impervious surface cover
- **Tree Canopy Cover:** % change in tree canopy cover
- **District Energy:** # and energy output (e.g. buildings connected, energy consumed in GJ or kWh) of district energy systems by energy type e.g. renewable or non-renewable)
- **On-Site Renewable Energy:** # and energy output (in GJ or kWh) from households producing and/or consuming on-site renewable heat (e.g. biomass, solar thermal, geo-exchange) and/or electrical (e.g. solar photovoltaic, small wind, small scale hydro) energy
- **Energy Recovery** from waste energy (GJ or kWh) recovered from waste (e.g. from landfill gas, sewage treatment, industrial operations, farm)

Please give us feedback by contacting us directly at CEEIRPT@gov.bc.ca

Many local governments have been undertaking a significant amount of climate action in both the corporate and community-wide spheres, as demonstrated in both the public reports from the Climate Action Revenue Incentive Program (CARIP) <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>, and on the <http://toolkit.bc.ca> website. These two resources may be helpful to those who are interested in learning from other BC local governments. The toolkit also contains additional information and resources including decision-support/planning frameworks and tools for undertaking actions to reduce GHG emissions and energy consumption.

This is your local government's 2010 Community Energy and Emissions Inventory (CEEI) Report

What is a CEEI Report?

CEEI Reports are a result of a multi-agency effort to provide a province-wide solution to assist local governments in BC to track and report on community-wide energy consumption and greenhouse gas (GHG) emissions as well as supporting indicators every two years. CEEI Reports are one of the many resources available through the Climate Action Toolkit (<http://www.toolkit.bc.ca>), a web-based service provided through the ongoing collaboration between UBCM and the Province.

Why does my local government need a CEEI Report?

A community energy and GHG emissions inventory can be a valuable tool that helps local governments plan and implement GHG and energy management strategies, while at the same time strengthening broader sustainability planning at the local level. CEEI reports fulfill local governments' Climate Action Charter commitment to measure and report their community's GHG emissions profile, establish a base year inventory for local governments to consider as they develop targets, policies, and actions related to BC's Local Government Act requirements, fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program, as well as supporting local government efforts to monitor progress towards Regional Growth Strategy objectives.

A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2010 CEEI Reports are based on best available province-wide data. The accuracy and detail of CEEI reports will continue to improve to meet increasing local and provincial government information needs. Improvements have been made from the original draft 2007 CEEI Reports posted in Spring 2009. These include estimates for residential heating oil, propane and wood use, breaking out small from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items'. Following the 2010 CEEI Reports, inventories will be generated every two years, and will continue to improve as government information needs, international protocols and new data sources emerge.

For More Information

The full list of all BC local government 2010 CEEI Reports, User Guide, Technical Methods and Guidance Document, and additional information on the Supporting Indicators are available at: <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and <http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>

We Need Your Feedback

To continue to guide us on CEEI, please take the time to contact us directly at CEEIRPT@gov.bc.ca

Notice to the Reader

This CEEI Report uses information from a variety of sources to estimate GHG emissions. While the methodologies, assumptions and data used are intended to provide reasonable estimates of greenhouse gas emissions, the information presented in this report may not be appropriate for all purposes. The Province of BC and the data providers do not provide any warranty to the user or guarantee the accuracy or reliability of the data contained in this report. The user accepts responsibility for the ultimate use of such data. We need your help to make these reports better,