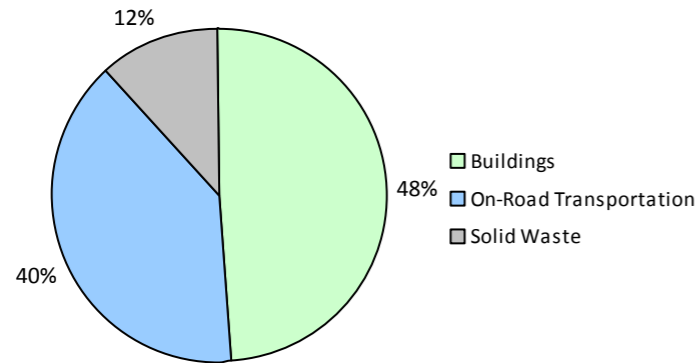
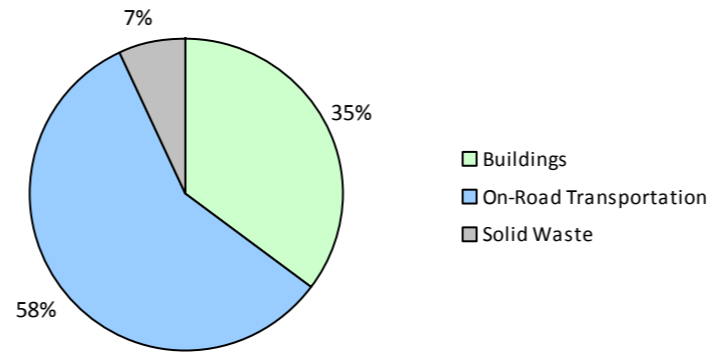


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

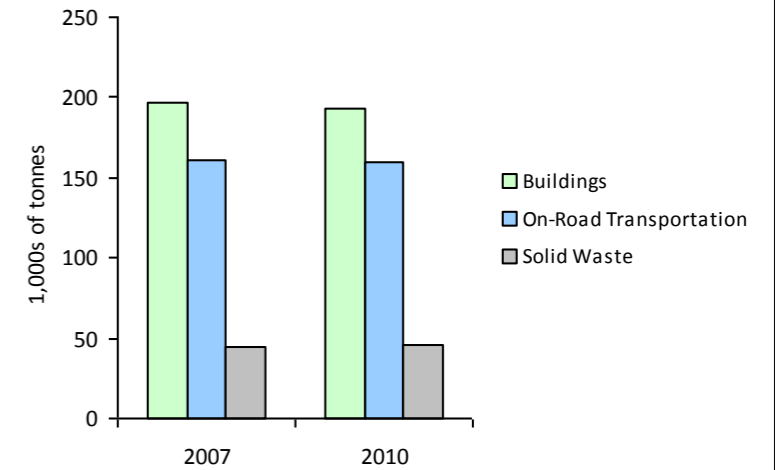
2010 GHG Emissions Sources (Total for this Community)



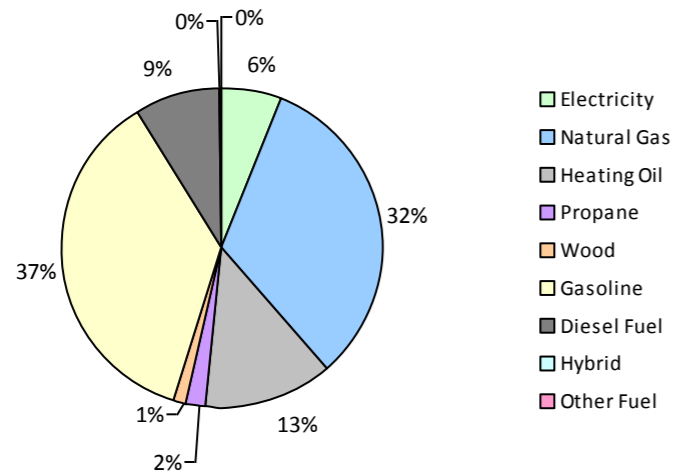
2010 GHG Emissions Sources (Total for BC)



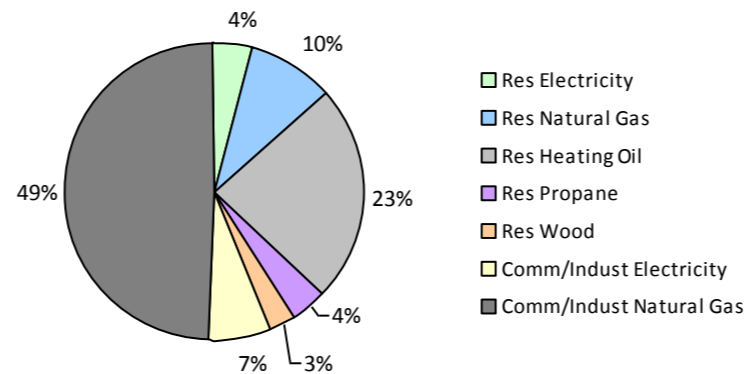
GHG Emissions Comparisons for this Community



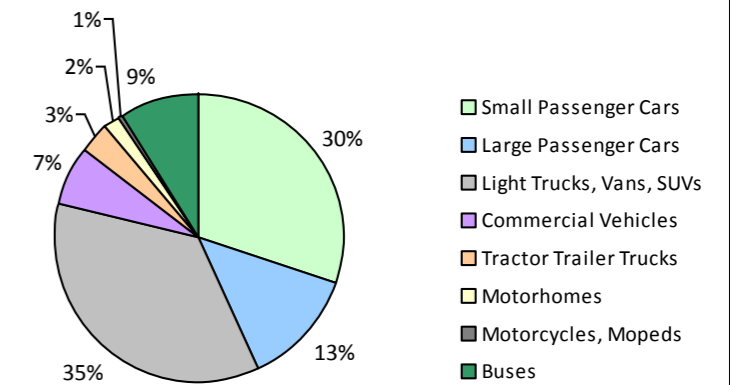
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



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	34	20,823 L	13,400	729	48	61	39,878 L	12,800	1,395	88
	Gasoline	19,560	20,776,744 L	11,200	727,186	49,658	19,825	20,917,468 L	11,100	732,112	47,176
	Diesel Fuel	493	449,344 L	13,900	17,210	1,226	509	453,502 L	13,500	17,370	1,203
	Other Fuel								11,000	82	4
Large Passenger Cars	Hybrid	68	91,656 L	25,700	3,208	215	191	213,787 L	20,200	7,482	475
	Gasoline	7,042	9,465,703 L	11,700	331,300	22,612	6,564	8,626,082 L	11,500	301,913	19,465
	Diesel Fuel	136	122,807 L	9,300	4,703	334	158	134,040 L	8,900	5,134	354
	Other Fuel	24	109,296 L	28,500	2,765	168			9,100	282	17
Light Trucks, Vans, SUVs	Hybrid	25	31,696 L	16,100	1,110	75	72	93,254 L	15,500	3,263	211
	Gasoline	12,096	22,674,793 L	13,400	793,618	54,382	13,076	23,864,045 L	13,100	835,242	54,236
	Diesel Fuel	558	1,119,894 L	11,600	42,892	3,045	441	985,515 L	13,500	37,745	2,605
	Other Fuel	107	189,661 L	10,600	4,798	291	92	156,922 L	10,200	3,971	241
Commercial Vehicles	Gasoline	656	1,579,558 L	14,400	55,285	3,712	773	1,847,565 L	14,400	64,665	4,132
	Diesel Fuel	570	2,007,344 L	18,100	76,881	5,401	602	2,395,239 L	20,600	91,737	6,255
	Other Fuel	43	90,112 L	11,700	2,280	138	31	59,719 L	11,000	1,512	92
Tractor Trailer Trucks	Diesel Fuel	191	2,527,794 L	32,000	96,815	6,802	142	1,954,937 L	34,000	74,875	5,104
	Other Fuel			11,200	69	4			10,300	60	4
Motorhomes	Gasoline	307	673,374 L	16,200	23,568	1,569	319	698,071 L	16,100	24,433	1,548
	Diesel Fuel	192	535,586 L	16,200	20,513	1,441	153	434,061 L	16,200	16,625	1,132
	Other Fuel			17,100	447	27			16,700	437	26
Motorcycles, Mopeds	Gasoline	1,342	312,871 L	5,500	10,951	731	1,556	403,698 L	6,100	14,129	895
Buses	Gasoline	84	200,899 L	15,600	7,032	471	91	215,989 L	15,400	7,560	484
	Diesel Fuel	288	3,351,794 L	136,100	128,374	9,020	367	5,283,532 L	137,900	202,360	13,794
	Other Fuel			13,500	72	4			14,800	113	8
Totals		43,816	66,331,749 L	12,893	2,351,806	161,374	45,023	66,331,749 L	13,006	2,444,497	159,549

Victoria City 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	259,255 GJ	259,255	5,253	N/A	250,968 GJ	250,968	5,085
	Heating Oil	N/A	681,861 GJ	681,861	48,064	N/A	660,067 GJ	660,067	45,142
	Propane	N/A	118,617 GJ	118,617	7,237	N/A	114,826 GJ	114,826	7,006
	Natural Gas	6,657	370,252 GJ	370,252	18,573	7,317	370,083 GJ	370,083	18,564
	Electricity	42,954	346,651,102 kWh	1,247,943	8,667	44,498	339,109,269 kWh	1,220,792	8,478
Commercial/Small-Medium Industrial	Natural Gas	1,898	1,908,544 GJ	1,908,544	95,733	1,891	1,914,559 GJ	1,914,559	96,034
	Electricity	5,880	551,438,558 kWh	1,985,177	13,786	5,967	526,746,694 kWh	1,896,287	13,169
Totals		57,389		6,571,649	197,313	59,673		6,427,582	193,478

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	65,835 t	N/A	44,044	0	52,085 t	N/A	46,108
Totals		0			44,044	0			46,108

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 81,649)			2010 (Population: 83,362)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	144,175 L	5,047	338	346,919 L	12,140	774
Gasoline	55,683,942 L	1,948,940	133,135	56,572,918 L	1,980,054	127,936
Diesel Fuel	10,114,563 L	387,388	27,269	11,640,826 L	445,846	30,447
Other Fuel	389,069 L	10,431	632	216,641 L	6,457	392
Wood	259,255 GJ	259,255	5,253	250,968 GJ	250,968	5,085
Heating Oil	681,861 GJ	681,861	48,064	660,067 GJ	660,067	45,142
Propane	118,617 GJ	118,617	7,237	114,826 GJ	114,826	7,006
Natural Gas	2,278,796 GJ	2,278,796	114,306	2,284,642 GJ	2,284,642	114,598
Electricity	898,089,660 kWh	3,233,120	22,453	865,855,963 kWh	3,117,079	21,647
Solid Waste	65,835 t	0	44,044	52,085 t	0	46,108
Grand Totals		8,923,455	402,731		8,872,079	399,135

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	8,420	18	8,715	22	6,600	16
Semi-Detached House	1,120	2	1,225	3	1,065	3
Row House	1,860	4	1,940	5	2,035	5
Apartment, Duplex	2,175	5	2,315	6	3,965	10
Apartment, 5 storeys or higher	5,425	12	5,800	15	6,270	15
Apartment, under 5 storeys	19,225	41	19,420	49	21,675	52
Other Single Attached House	90	0	120	0	95	0
Movable Dwelling	50	0	50	0	30	0

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	16,455	49	16,990	49	18,420	47
Car, Truck, Van as Passenger	1,955	6	1,565	4	2,030	5
Public Transit	4,015	12	4,195	12	4,945	13
Walked	7,940	23	8,755	25	9,160	23
Bicycle	2,940	9	2,700	8	3,720	10
Motorcycle	180	1	165	0	180	0
Taxicab	70	0	105	0	130	0
Other Method	340	1	385	1	555	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	0	0
Local Parks	164	8
Agricultural Land Reserve	0	0
Other land use	1,772	92
Total Parks and Protected Area	164	8
Total Land Area	1,936	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	0	0
Local Parks	164	8
Agricultural Land Reserve	0	0
Other land use	1,772	92
Total Parks and Protected Area	164	8
Total Land Area	1,936	100

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

Commute Distance

Shorter commute distances generally reduce GHG emissions by increasing the likelihood of people walking, cycling or using transit. Commute distance is also indicative of the 'completeness' of a community from an employment perspective.

	2006	
	Units	%
Less than 5 km	26,810	78
5 to 9.9 km	4,190	12
25 km or more	1,255	4
15 to 24.9 km	1,175	3
10 to 14.9 km	1,125	3

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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,