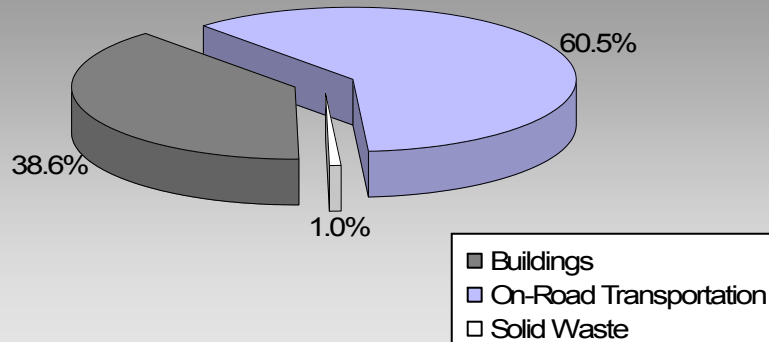


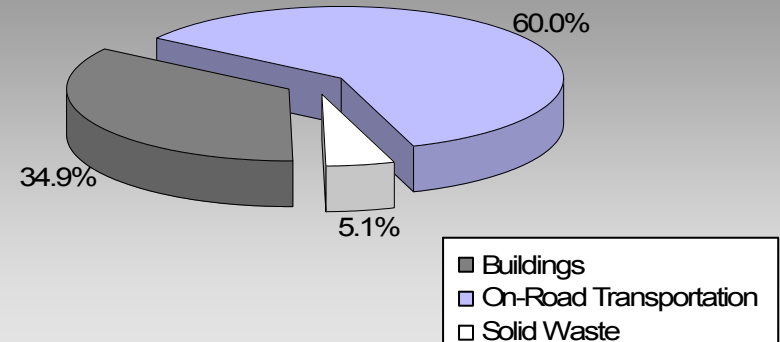
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

Where are the majority of our community's emissions coming from?

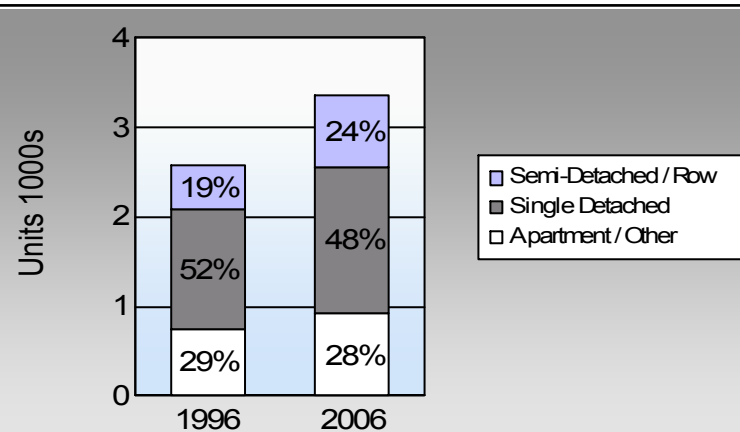
**View Royal Town
2007 GHG Emissions Sources**



**Total for BC
Communities**








Are we living more compactly? Housing Type



In BC, single family detached housing made up 49% of housing in 2006.

Are we driving less? Commute To Work

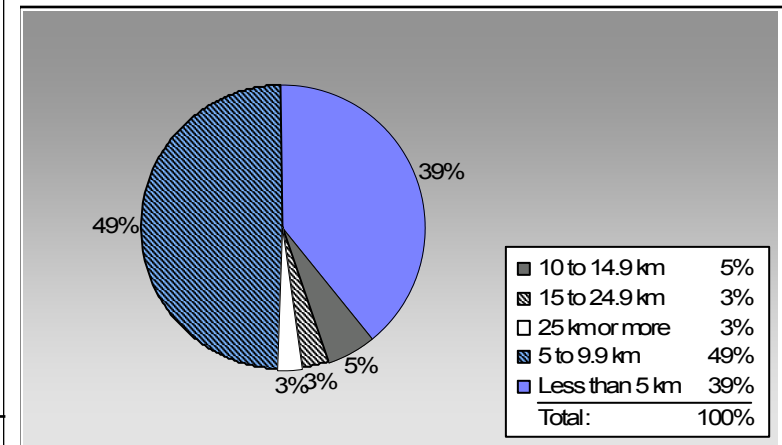
	1996	2006
	76.4%	76.1%
	5.1%	5.0%
	11.3%	9.9%
	2.6%	2.4%
	3.7%	4.7%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

Residential Density

View Royal Town: 11.1 people per net ha
BC municipal average: 7.4 people per net ha

Are we living closer to where we work? Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

Sectors

On Road Transportation		<u>Vehicles</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Average-VKT(km)</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	2,164	2,342,212	Litres	10,803	81,977	5,593
	Diesel Fuel	67	51,647	Litres	11,622	1,978	141
	Other Fuel	< 10	2,172	Litres	9,350	83	3
Small Passenger Cars						84,038	5,737
Large Passenger Cars	Gasoline	964	1,436,118	Litres	12,198	50,264	3,417
	Diesel Fuel	11	15,857	Litres	11,900	607	43
	Other Fuel	< 10	7,468	Litres	14,215	286	11
Large Passenger Cars						51,157	3,471
Light Trucks, Vans, SUVs	Gasoline	2,216	3,970,925	Litres	12,443	138,982	9,498
	Diesel Fuel	127	223,753	Litres	13,755	8,570	611
	Other Fuel	12	23,949	Litres	9,601	917	37
Light Trucks, Vans, SUVs						148,469	10,146
Commercial Vehicles	Gasoline	< 10	11,374	Litres	9,973	398	27
	Diesel Fuel	23	75,944	Litres	14,572	2,909	204
	Other Fuel	< 10	3,232	Litres		124	5
Commercial Vehicles						3,431	236
Tractor Trailer Trucks	Diesel Fuel	29	822,882	Litres	64,543	31,516	2,214
Tractor Trailer Trucks						31,516	2,214
Motorhomes	Gasoline	72	70,039	Litres	2,876	2,451	164
	Diesel Fuel	11	8,106	Litres	3,258	310	22
Motorhomes						2,761	186
Motorcycles, Mopeds	Gasoline	188	62,906	Litres	5,311	2,202	147
Motorcycles, Mopeds						2,202	147
Bus	Gasoline	< 10	14,630	Litres	15,902	512	34
Bus						512	34
On Road Transportation Totals						324,086	22,171
						Gasoline:	18,880
						Diesel:	3,235
						Other Fuel:	56
						All Fuels:	22,171

View Royal Town

Updated 2007 Community Energy and Emissions Inventory

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	3,638	51,173,622	Kilowatt Hours	184,225	1,262	
	Natural Gas	1,251	63,234	GigaJoules	63,234	3,225	
	Heating Oil		22,912	GigaJoules	22,912	1,615	
	Propane		3,959	GigaJoules	3,959	242	
Residential					274,330	6,344	
Commercial/Small-Medium Industrial	Electricity	301	31,391,197	Kilowatt Hours	113,008	774	
	Natural Gas	84	137,865	GigaJoules	137,865	7,031	
Commercial/Small-Medium Industrial					250,873	7,805	
					Electricity:	297,233	2,036
					Natural Gas:	201,099	10,256
					Propane:	3,959	242
					Wood:		
					Heating Oil:	22,912	1,615
Buildings Totals					Buildings:	525,203	14,149

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	1,326	349

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	1,198,189	L	45,890	3,235
Electricity	82,564,819	kWh	297,233	2,036
Gasoline	7,908,204	L	276,786	18,880
Heating Oil	22,912	GJ	22,912	1,615
Natural Gas	201,099	GJ	201,099	10,256
Other Fuel	36,821	L	1,410	56
Propane	3,959	GJ	3,959	242
Solid Waste	1,326	T	0	349
Total of Transportation / Buildings / Solid Waste:			849,289 GJ	36,669 tonnes

View Royal Town
Updated 2007 Community Energy and Emissions Inventory

Memo Items

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
Large Industrial					-	-

Supporting Indicators

Below you will find supporting indicators for which data is provided. These are the first five supporting indicators for which data is provided as a part of the updated 2007 CEEI. Columns with all zeros indicate data unavailable in these CEEI reports. Thirteen additional supporting indicators are under consideration for future reports (see next page). Local government feedback is requested on all supporting indicators. Please take the time to complete the short CEEI Survey at <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or contact us directly at CEEIRPT@gov.bc.ca.

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	1,335	34	1,620	54	1,620	48
Semi-Detached House	80	2	130	4	155	5
Row House	410	10	540	18	645	19
Apartment, Duplex	290	7	175	6	530	16
Apartment, 5 storeys or higher	0	0	10	0	0	0
Apartment, under 5 storeys	280	7	365	12	350	10
Other Single Attached House	0	0	10	0	15	0
Movable Dwelling	185	5	170	6	35	1

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	
	People	%	People	%	People	%
Car, Truck, Van as Driver	2,375	76	2,705	75	3,430	76
Car, Truck, Van as Passenger	160	5	260	7	225	5
Public Transit	350	11	350	10	445	10
Walked	80	3	115	3	110	2
Bicycle	115	4	100	3	210	5
Motorcycle	10	0	45	1	40	1
Taxicab	0	0	20	1	10	0
Other Method	20	1	20	1	40	1

Residential Density

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

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	
Population	9,583.0
Net Land Area (ha) *	863.6
Residential Density (people per net ha)	11.1

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	
	People %
Less than 5 km	1,440 39
5 to 9.9 km	1,805 49
10 to 14.9 km	200 5
15 to 24.9 km	115 3
25 km or more	100 3

Parks and Protected Greenspace

* Total is net of Indian Reserves

** The quantity of parkland may be underestimated

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

	2009	
	Area (ha)	%
National Parks	0.0	0.0
Provincial Parks / Protected Areas	0.0	0.0
Local Parks	589.4	39.5
Agricultural Land Reserve	16.1	1.1
Other land use	888.6	59.5
Total Land Area	1,494.1	100.0

Supporting Indicators Under Consideration

The following supporting indicators are under consideration for inclusion in future CEEI reports. The 2007 CEEI reports provide these 'placeholder' indicators to give indication of data that may be provided in the future by the Province on an ongoing basis to assist in monitoring actions to reduce GHG emissions and energy consumption. Please submit feedback to CEEIRPT@gov.bc.ca (see survey on CEEI website).

On-Road Transportation (and Land Use)

Proximity to Transit	Persons, dwelling units (du) and employment within 400m of a quality transit stop/line
Proximity to Services	Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.)
Transit Ridership	Annual per capita transit ridership

Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO ₂ e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

Community and Renewable Energy Supply

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)

This is your local government's Updated 2007 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 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, and fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program.

A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2007 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 and medium from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items', and the first of a suite of 'supporting indicators'. 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.

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For More Information:

- The full list of all BC local government Updated 2007 CEEI Reports, CEEI Data Summary Report, Technical Methods and Guidance Document, and additional information on the Secondary 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, particularly now with the new Indicators. Please take the time to complete the short CEEI Survey at <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or 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, where you do note inaccuracies, please contact us.