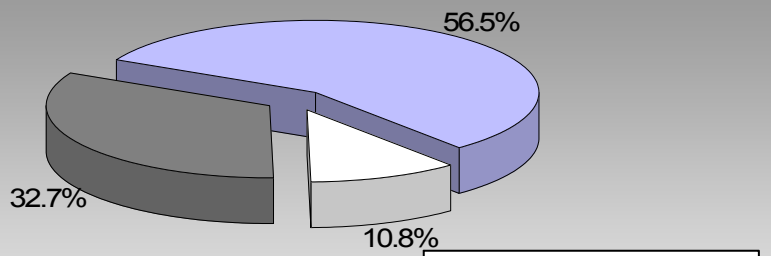
Rossland City
Updated 2007 Community Energy and Emissions Inventory

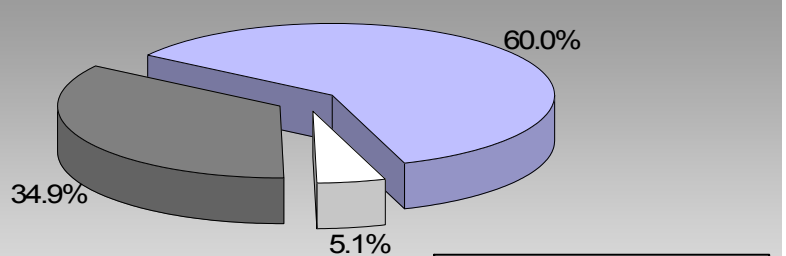
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Rossland City
2007 GHG Emissions Sources

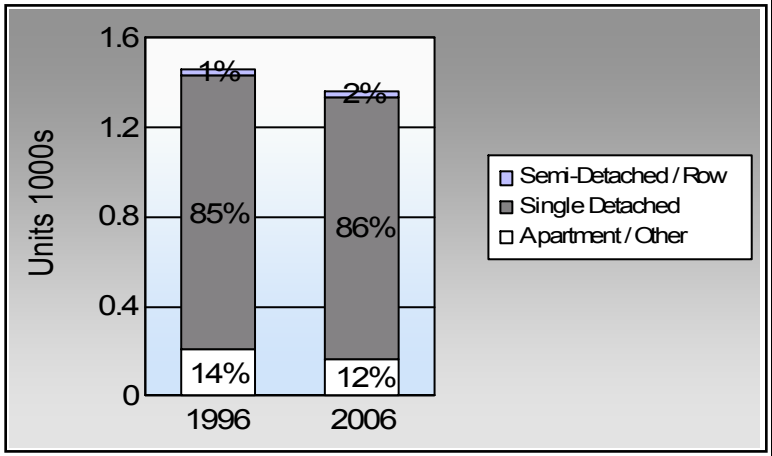


Total for BC Communities



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
	70.3%	84.1%
	10.2%	5.2%
	0.6%	1.3%
	15.0%	9.4%
	2.3%	0.0%

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

Residential Density

Rossland City: 0.8 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance

This data is currently unavailable in the CEEI 2007 Reports

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

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	699	985,372	Litres	13,722	34,488	2,353
	Diesel Fuel	25	27,480	Litres	14,362	1,052	75
				Small Passenger Cars		**35,540**	**2,428**
Large Passenger Cars	Gasoline	305	616,399	Litres	16,280	21,574	1,469
	Diesel Fuel	< 10	5,170	Litres	12,850	198	14
	Other Fuel	< 10	852	Litres		33	1
				Large Passenger Cars		**21,805**	**1,484**
Light Trucks, Vans, SUVs	Gasoline	1,142	3,486,014	Litres	19,968	122,010	8,347
	Diesel Fuel	110	278,605	Litres	19,948	10,671	761
	Other Fuel	14	29,526	Litres	13,050	1,131	45
				Light Trucks, Vans, SUVs		**133,812**	**9,153**
Commercial Vehicles	Gasoline	< 10	18,318	Litres	12,564	641	43
	Diesel Fuel	10	51,743	Litres	21,062	1,982	139
	Other Fuel	< 10	7,183	Litres	11,356	275	11
				Commercial Vehicles		**2,898**	**193**
Tractor Trailer Trucks	Diesel Fuel	12	261,030	Litres	50,921	9,997	702
				Tractor Trailer Trucks		**9,997**	**702**
Motorhomes	Gasoline	14	21,545	Litres	2,355	754	50
	Diesel Fuel	< 10	852	Litres		33	2
	Other Fuel	< 10	415	Litres		16	1
				Motorhomes		**803**	**53**
Motorcycles, Mopeds	Gasoline	32	16,622	Litres	5,176	582	39
				Motorcycles, Mopeds		**582**	**39**
Bus	Gasoline	< 10	14,630	Litres	15,902	512	34
	Diesel Fuel	< 10	4,586	Litres		176	12
				Bus		**688**	**46**

	Gasoline:	180,561	12,335
	Diesel:	24,109	1,705
	Other Fuel:	1,455	58
On Road Transportation Totals	**All Fuels:**	**206,125**	**14,098**

Buildings

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	1,579	17,954,312	Kilowatt Hours	64,635	108
	Natural Gas	1,361	101,202	GigaJoules	101,202	5,162
	Heating Oil		5,549	GigaJoules	5,549	391
	Propane		9,763	GigaJoules	9,763	596
	Wood		11,635	GigaJoules	11,635	4
			Residential		**192,784**	**6,261**
Commercial/Small-Medium Industrial	Electricity	242	10,068,166	Kilowatt Hours	36,245	61
	Natural Gas	110	36,147	GigaJoules	36,147	1,843
			Commercial/Small-Medium Industrial		**72,392**	**1,904**

	Electricity:	100,880	169
	Natural Gas:	137,349	7,005
	Propane:	9,763	596
	Wood:	11,635	4
	Heating Oil:	5,549	391
Buildings Totals	**Buildings:**	**265,176**	**8,165**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	1,652	2,707

Rossland City
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Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	629,466	L	24,109	1,705
Electricity	28,022,478	kWh	100,880	169
Gasoline	5,158,900	L	180,561	12,335
Heating Oil	5,549	GJ	5,549	391
Natural Gas	137,349	GJ	137,349	7,005
Other Fuel	37,976	L	1,455	58
Propane	9,763	GJ	9,763	596
Solid Waste	1,652	T	0	2,707
Wood	11,635	GJ	11,635	4
Total of Transportation / Buildings / Solid Waste:			**471,301** GJ	**24,970** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial - data unavailable in 2007 CEEI reports						

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	1,230	46	1,230	86	1,170	86
Semi-Detached House	10	0	5	0	10	1
Row House	10	0	25	2	15	1
Apartment, Duplex	10	0	25	2	10	1
Apartment, 5 storeys or higher	0	0	5	0	0	0
Apartment, under 5 storeys	175	7	125	9	125	9
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	20	1	20	1	30	2

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	3,532.0
Net Land Area (ha) *	4,641.7
Residential Density (people per net ha)	0.8

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	1,240	70	1,285	75	1,300	84
Car, Truck,Van as Passenge	180	10	135	8	80	5
Public Transit	10	1	0	0	20	1
Walked	265	15	260	15	145	9
Bicycle	40	2	0	0	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	30	2	25	1	0	0

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	%

This data is currently unavailable in the CEEI 2007 Reports.

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	13.3	0.2
Agricultural Land Reserve	24.4	0.4
Other land use	5,549.7	99.3
Total Land Area	5,587.3	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 CO2e 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