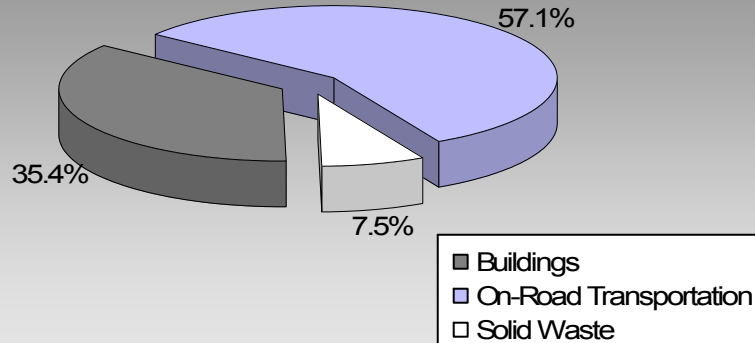


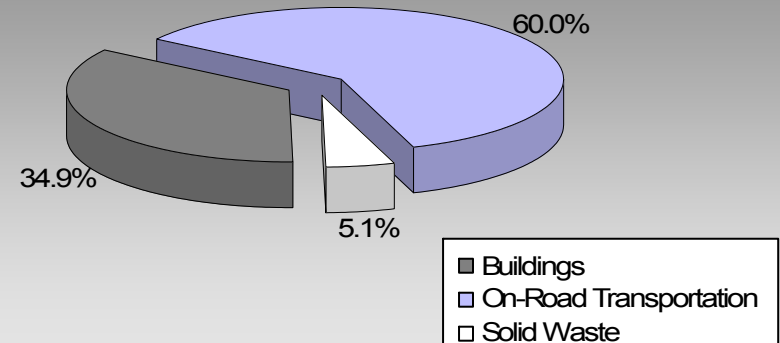
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

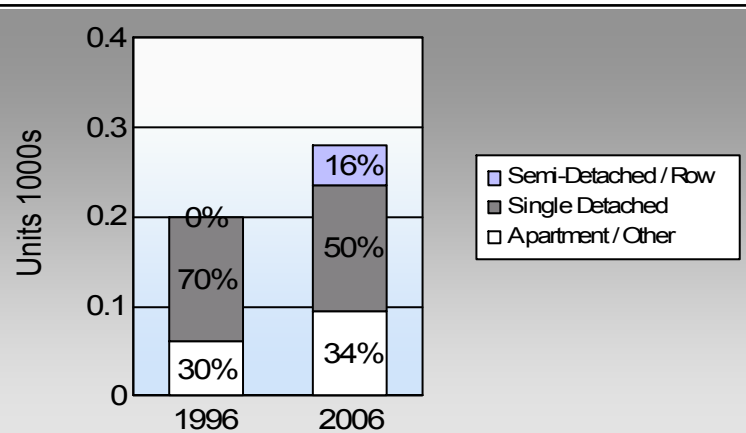
**Radium Hot Springs Village
2007 GHG Emissions Sources**



**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
	56.5%	71.9%
	8.7%	11.2%
	0.0%	2.3%
	30.4%	14.6%
	0.0%	0.0%

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

Residential Density

Radium Hot Springs Village: 2.1 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.

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	93	141,472	Litres	13,213	4,952	341	
	Diesel Fuel	< 10	6,941	Litres	15,255	266	19	
Small Passenger Cars						5,218	360	
Large Passenger Cars	Gasoline	76	166,061	Litres	15,805	5,812	397	
	Diesel Fuel	< 10	1,811	Litres	16,368	69	5	
Large Passenger Cars						5,881	402	
Light Trucks, Vans, SUVs	Gasoline	282	856,958	Litres	18,518	29,994	2,072	
	Diesel Fuel	40	103,505	Litres	20,036	3,964	283	
	Other Fuel	< 10	11,700	Litres	12,587	448	18	
Light Trucks, Vans, SUVs						34,406	2,373	
Commercial Vehicles	Gasoline	< 10	8,619	Litres	11,356	302	20	
	Diesel Fuel	< 10	35,547	Litres	22,495	1,361	96	
Commercial Vehicles						1,663	116	
Tractor Trailer Trucks	Diesel Fuel	< 10	97,543	Litres	32,858	3,736	262	
Tractor Trailer Trucks						3,736	262	
Motorhomes	Gasoline	< 10	5,014	Litres	2,733	176	12	
	Diesel Fuel	< 10	447	Litres	2,189	17	1	
Motorhomes						193	13	
Motorcycles, Mopeds	Gasoline	< 10	2,461	Litres	3,990	86	6	
Motorcycles, Mopeds						86	6	
Bus	Diesel Fuel	< 10	14,244	Litres		546	38	
Bus						546	38	
						Gasoline:	41,322	2,848
						Diesel:	9,959	704
						Other Fuel:	448	18
On Road Transportation Totals						All Fuels:	51,729	3,570

Radium Hot Springs Village

Updated 2007 Community Energy and Emissions Inventory

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	559	8,035,858	Kilowatt Hours	28,929	198
	Heating Oil		10,779	GigaJoules	10,779	760
	Propane		18,964	GigaJoules	18,964	1,157
	Wood		22,608	GigaJoules	22,608	8
Residential					81,280	2,123
Commercial/Small-Medium Industrial	Electricity	75	3,742,571	Kilowatt Hours	13,473	92
Commercial/Small-Medium Industrial					13,473	92
Buildings Totals					94,753	2,215
Electricity:					42,402	290
Natural Gas:						
Propane:					18,964	1,157
Wood:					22,608	8
Heating Oil:					10,779	760

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	896	466

Grand Total	<u>CONSUMPTION</u>	<u>ENERGY (GJ)</u>	<u>CO2e (t)</u>	
Diesel Fuel	260,038 L	9,959	704	
Electricity	11,778,429 kWh	42,402	290	
Gasoline	1,180,585 L	41,322	2,848	
Heating Oil	10,779 GJ	10,779	760	
Other Fuel	11,700 L	448	18	
Propane	18,964 GJ	18,964	1,157	
Solid Waste	896 T	0	466	
Wood	22,608 GJ	22,608	8	
Total of Transportation / Buildings / Solid Waste:			146,482 GJ	6,251 tonnes

Radium Hot Springs Village

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	140	41	125	54	140	50
Semi-Detached House	0	0	5	2	5	2
Row House	0	0	0	0	40	14
Apartment, Duplex	0	0	15	7	5	2
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	45	13	5	2	50	18
Other Single Attached House	0	0	50	22	15	5
Movable Dwelling	15	4	30	13	25	9

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	130	57	195	71	320	72
Car, Truck, Van as Passenger	20	9	20	7	50	11
Public Transit	0	0	0	0	10	2
Walked	70	30	40	15	65	15
Bicycle	0	0	10	4	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	4	10	4	0	0

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	1,005.0
Net Land Area (ha) *	474.1
Residential Density (people per net ha)	2.1

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 %
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	3.4	0.5
Agricultural Land Reserve	159.9	24.7
Other land use	484.5	74.8
Total Land Area	647.8	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.