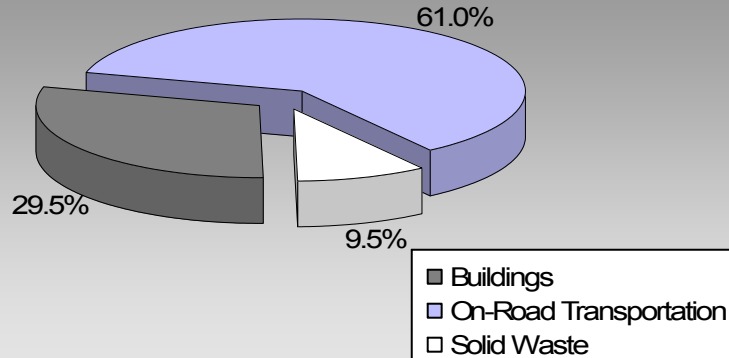


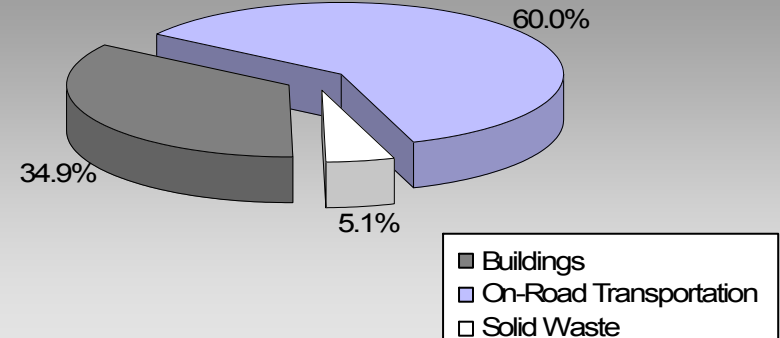
*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

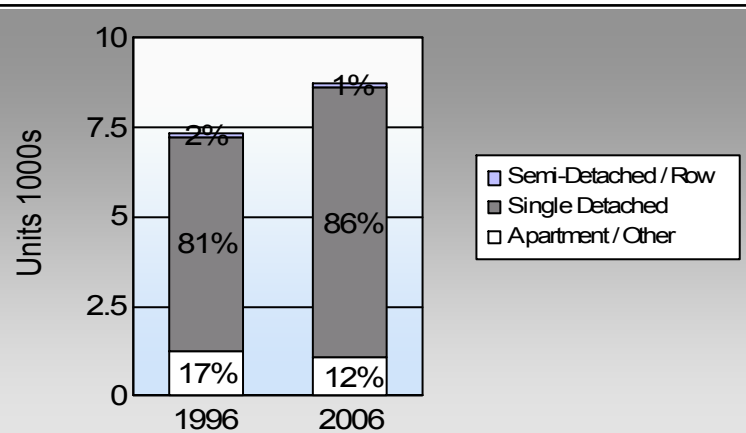
**Columbia-Shuswap Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	83.7%	84.3%
	7.5%	6.6%
	0.6%	0.5%
	5.2%	6.1%
	0.7%	0.8%

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

#### Residential Density

This data is only available for municipalities.  
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

<b>On Road Transportation</b>		<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	2,740	3,952,185	Litres	13,852	138,326	9,458
	Diesel Fuel	166	178,328	Litres	14,399	6,830	487
	Other Fuel	0	0	Litres	0	-	-
<b>Small Passenger Cars</b>						<b>145,156</b>	<b>9,945</b>
Large Passenger Cars	Gasoline	1,852	4,230,770	Litres	17,996	148,077	10,092
	Diesel Fuel	48	109,664	Litres	18,327	4,200	299
	Other Fuel	< 10	14,570	Litres	14,753	558	22
<b>Large Passenger Cars</b>						<b>152,835</b>	<b>10,413</b>
Light Trucks, Vans, SUVs	Gasoline	5,610	17,057,673	Litres	19,522	597,019	40,950
	Diesel Fuel	919	2,237,193	Litres	19,320	85,684	6,112
	Other Fuel	60	150,475	Litres	13,209	5,763	231
<b>Light Trucks, Vans, SUVs</b>						<b>688,466</b>	<b>47,293</b>
Commercial Vehicles	Gasoline	48	218,054	Litres	14,427	7,632	510
	Diesel Fuel	163	770,696	Litres	21,424	29,518	2,074
	Other Fuel	< 10	29,115	Litres	12,308	1,115	45
<b>Commercial Vehicles</b>						<b>38,265</b>	<b>2,629</b>
Tractor Trailer Trucks	Gasoline	< 10	26,866	Litres	9,405	940	63
	Diesel Fuel	189	4,587,906	Litres	72,493	175,717	12,346
	Other Fuel	0	0	Litres	0	-	-
<b>Tractor Trailer Trucks</b>						<b>176,657</b>	<b>12,409</b>
Motorhomes	Gasoline	144	184,577	Litres	2,941	6,460	431
	Diesel Fuel	24	27,173	Litres	4,038	1,041	73
	Other Fuel	< 10	2,769	Litres	2,302	106	4
<b>Motorhomes</b>						<b>7,607</b>	<b>508</b>
Motorcycles, Mopeds	Gasoline	140	87,999	Litres	5,183	3,080	206
<b>Motorcycles, Mopeds</b>						<b>3,080</b>	<b>206</b>
Bus	Gasoline	10	86,746	Litres	23,504	3,036	204
	Diesel Fuel	< 10	61,067	Litres	21,287	2,339	164
	Other Fuel	0	0	Litres	0	-	-
<b>Bus</b>						<b>5,375</b>	<b>368</b>

<b>On Road Transportation Totals</b>	Gasoline:	904,570	61,914
	Diesel:	305,329	21,555
	Other Fuel:	7,542	302
	<b>All Fuels:</b>	<b>1,217,441</b>	<b>83,771</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	14,914	190,629,338	Kilowatt Hours	686,265	4,703
	Natural Gas	3,458	270,494	GigaJoules	270,494	13,795
	Heating Oil		86,033	GigaJoules	86,033	6,064
	Propane		151,388	GigaJoules	151,388	9,236
	Wood		759,613	GigaJoules	759,613	281
<b>Residential</b>					<b>1,953,793</b>	<b>34,079</b>
Commercial/Small-Medium Industrial	Electricity	1,522	65,442,809	Kilowatt Hours	235,594	1,613
	Natural Gas	189	94,840	GigaJoules	94,840	4,837
<b>Commercial/Small-Medium Industrial</b>					<b>330,434</b>	<b>6,450</b>
<b>Buildings Totals</b>	Electricity:				921,859	6,316
	Natural Gas:				365,334	18,632
	Propane:				151,388	9,236
	Wood:				759,613	281
	Heating Oil:				86,033	6,064
<b>Buildings:</b>					<b>2,284,227</b>	<b>40,529</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	17,946	13,063

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	7,972,027	L	305,329	21,555
<b>Electricity</b>	256,072,147	kWh	921,859	6,316
<b>Gasoline</b>	25,844,870	L	904,570	61,914
<b>Heating Oil</b>	86,033	GJ	86,033	6,064
<b>Natural Gas</b>	365,334	GJ	365,334	18,632
<b>Other Fuel</b>	196,929	L	7,542	302
<b>Propane</b>	151,388	GJ	151,388	9,236
<b>Solid Waste</b>	17,946	T	0	13,063
<b>Wood</b>	759,613	GJ	759,613	281
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>3,501,668 GJ</b>	<b>137,363 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
<b>Large Industrial</b>					<b>-</b>	<b>-</b>

## 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](mailto: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	5,930	28	6,615	85	7,515	86
Semi-Detached House	85	0	30	0	70	1
Row House	45	0	65	1	60	1
Apartment, Duplex	90	0	65	1	95	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	80	0	50	1	85	1
Other Single Attached House	25	0	25	0	25	0
Movable Dwelling	1,075	5	945	12	880	10

### 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	5,220	84	5,575	84	6,525	84
Car, Truck, Van as Passenger	470	8	455	7	510	7
Public Transit	35	1	35	1	35	0
Walked	325	5	355	5	475	6
Bicycle	45	1	85	1	60	1
Motorcycle	15	0	15	0	30	0
Taxicab	0	0	10	0	0	0
Other Method	140	2	100	2	110	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

This data is currently unavailable in the CEEI 2007 Reports.

### 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	295,102.3	10.0
Provincial Parks / Protected Areas	96,949.8	3.3
Local Parks	18.2	0.0
Agricultural Land Reserve	47,983.3	1.6
Other land use	2,524,111.4	85.2
Total Land Area	2,964,165.0	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](mailto:CEEIRPT@gov.bc.ca) (see survey on CEEI website).

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### 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

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### Buildings

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

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### Solid Waste (and Water)

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

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### Land-Use Change

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

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### 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)

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## 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](mailto: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.