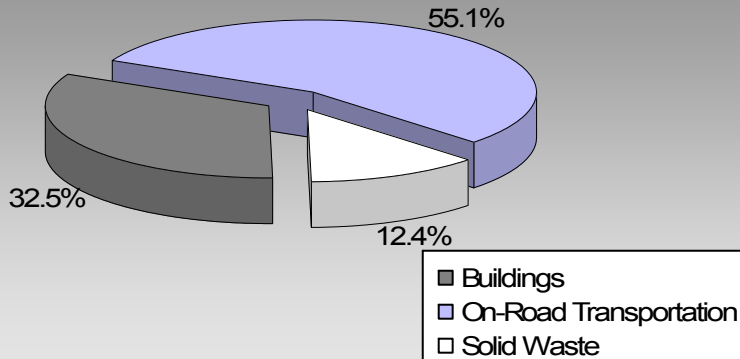


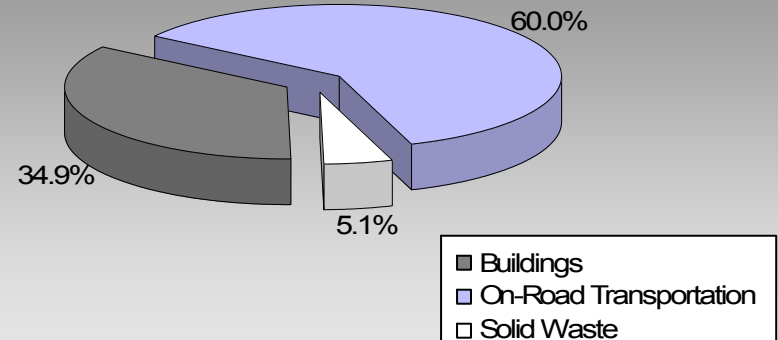
*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

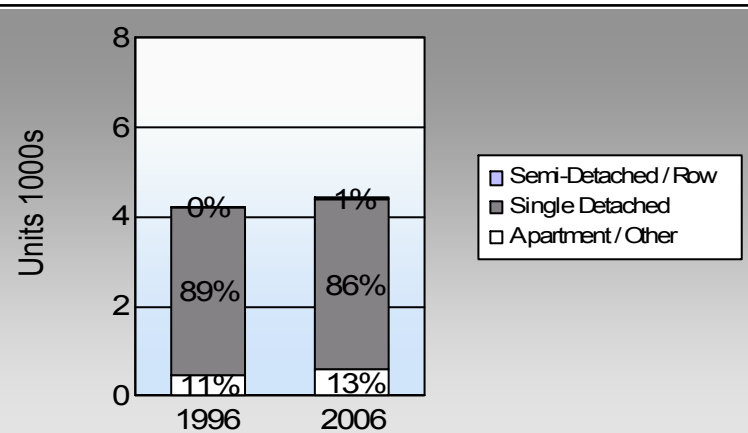
**Kootenay Boundary Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	80.6%	82.8%
	8.6%	8.4%
	0.6%	0.6%
	6.4%	4.5%
	1.9%	2.5%

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	1,363	1,952,431	Litres	13,663	68,335	4,699
	Diesel Fuel	70	71,167	Litres	13,922	2,726	194
	Other Fuel	< 10	956	Litres	9,881	37	1
<b>Small Passenger Cars</b>						<b>71,098</b>	<b>4,894</b>
Large Passenger Cars	Gasoline	958	1,859,392	Litres	15,667	65,079	4,439
	Diesel Fuel	< 10	20,661	Litres	16,116	791	56
	Other Fuel	< 10	2,912	Litres	13,409	112	4
<b>Large Passenger Cars</b>						<b>65,982</b>	<b>4,499</b>
Light Trucks, Vans, SUVs	Gasoline	2,791	8,362,964	Litres	19,495	292,704	20,106
	Diesel Fuel	362	857,043	Litres	19,219	32,825	2,341
	Other Fuel	34	85,399	Litres	13,095	3,271	131
<b>Light Trucks, Vans, SUVs</b>						<b>328,800</b>	<b>22,578</b>
Commercial Vehicles	Gasoline	37	150,685	Litres	12,842	5,274	352
	Diesel Fuel	67	284,106	Litres	20,681	10,881	765
	Other Fuel	< 10	28,730	Litres	11,511	1,100	44
<b>Commercial Vehicles</b>						<b>17,255</b>	<b>1,161</b>
Tractor Trailer Trucks	Gasoline	< 10	10,376	Litres	11,572	363	24
	Diesel Fuel	81	1,588,045	Litres	62,717	60,822	4,273
	Other Fuel	< 10	2,976	Litres	10,845	114	5
<b>Tractor Trailer Trucks</b>						<b>61,299</b>	<b>4,302</b>
Motorhomes	Gasoline	53	76,037	Litres	2,774	2,661	177
	Diesel Fuel	10	8,724	Litres	3,991	334	23
	Other Fuel	< 10	2,492	Litres	2,189	95	4
<b>Motorhomes</b>						<b>3,090</b>	<b>204</b>
Motorcycles, Mopeds	Gasoline	92	47,999	Litres	4,986	1,680	112
<b>Motorcycles, Mopeds</b>						<b>1,680</b>	<b>112</b>
Bus	Gasoline	< 10	19,019	Litres	21,615	666	45
	Diesel Fuel	< 10	56,377	Litres	26,081	2,159	152
	Other Fuel	< 10	5,852	Litres	15,902	224	9
<b>Bus</b>						<b>3,049</b>	<b>206</b>

<b>On Road Transportation Totals</b>	Gasoline:	436,762	29,954
	Diesel:	110,538	7,804
	Other Fuel:	4,953	198
	<b>All Fuels:</b>	<b>552,253</b>	<b>37,956</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	6,857	78,776,706	Kilowatt Hours	283,596	473
	Natural Gas	1,832		GigaJoules	-	-
	Heating Oil		113,805	GigaJoules	113,805	8,022
	Propane		200,224	GigaJoules	200,224	12,216
	Wood		238,670	GigaJoules	238,670	88
<b>Residential</b>					<b>836,295</b>	<b>20,799</b>
Commercial/Small-Medium Industrial	Electricity	545	10,273,434	Kilowatt Hours	36,984	62
	Natural Gas	107	29,161	GigaJoules	29,161	1,487
<b>Commercial/Small-Medium Industrial</b>					<b>66,145</b>	<b>1,549</b>
<b>Buildings Totals</b>	Electricity:				320,580	535
	Natural Gas:				29,161	1,487
	Propane:				200,224	12,216
	Wood:				238,670	88
	Heating Oil:				113,805	8,022
<b>Buildings:</b>					<b>902,440</b>	<b>22,348</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	5,207	8,525

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	2,886,123	L	110,538	7,804
<b>Electricity</b>	89,050,140	kWh	320,580	535
<b>Gasoline</b>	12,478,903	L	436,762	29,954
<b>Heating Oil</b>	113,805	GJ	113,805	8,022
<b>Natural Gas</b>	29,161	GJ	29,161	1,487
<b>Other Fuel</b>	129,317	L	4,953	198
<b>Propane</b>	200,224	GJ	200,224	12,216
<b>Solid Waste</b>	5,207	T	0	8,525
<b>Wood</b>	238,670	GJ	238,670	88
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,454,693 GJ</b>	<b>68,829 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	3,740	24	3,755	87	3,780	86
Semi-Detached House	15	0	10	0	30	1
Row House	5	0	20	0	20	0
Apartment, Duplex	20	0	45	1	20	0
Apartment, 5 storeys or higher	10	0	0	0	0	0
Apartment, under 5 storeys	15	0	65	2	40	1
Other Single Attached House	10	0	15	0	25	1
Movable Dwelling	395	3	390	9	505	11

### 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	3,330	81	3,500	84	3,650	83
Car, Truck, Van as Passenger	355	9	315	8	370	8
Public Transit	25	1	55	1	25	1
Walked	265	6	205	5	200	5
Bicycle	80	2	40	1	110	2
Motorcycle	5	0	20	0	5	0
Taxicab	10	0	0	0	5	0
Other Method	60	1	55	1	45	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	0.0	0.0
Provincial Parks / Protected Areas	70,489.8	10.0
Local Parks	17.4	0.0
Agricultural Land Reserve	53,010.2	7.5
Other land use	579,294.4	82.4
Total Land Area	702,811.7	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.