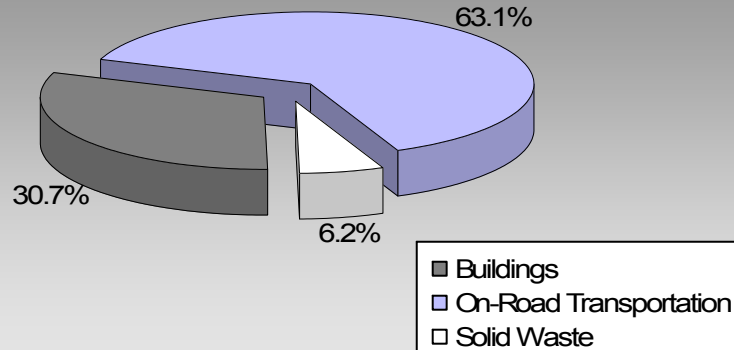


*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

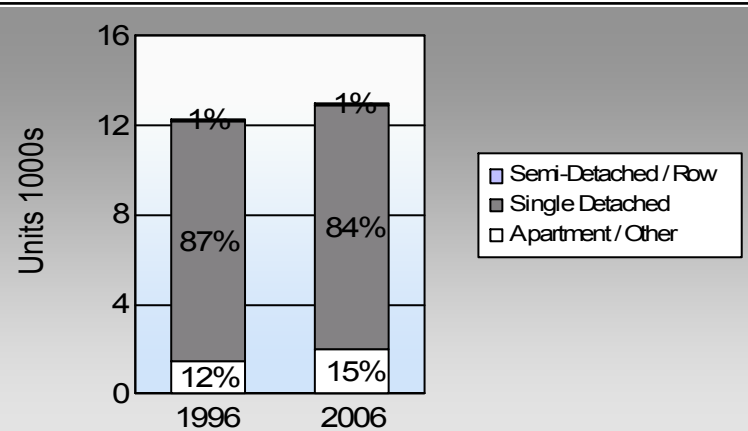
**Central Kootenay Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	84.3%	81.9%
	6.7%	8.3%
	0.4%	1.7%
	5.6%	5.3%
	0.8%	1.3%

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	4,546	6,324,509	Litres	13,539	221,358	15,176
	Diesel Fuel	234	236,873	Litres	13,636	9,072	647
	Other Fuel	0	0	Litres	0	-	-
<b>Small Passenger Cars</b>						<b>230,430</b>	<b>15,823</b>
Large Passenger Cars	Gasoline	2,524	5,244,481	Litres	16,259	183,557	12,528
	Diesel Fuel	65	129,425	Litres	16,066	4,957	353
	Other Fuel	< 10	19,149	Litres	13,247	733	29
<b>Large Passenger Cars</b>						<b>189,247</b>	<b>12,910</b>
Light Trucks, Vans, SUVs	Gasoline	9,097	27,227,087	Litres	19,316	952,948	65,499
	Diesel Fuel	1,169	2,787,979	Litres	18,570	106,780	7,616
	Other Fuel	89	238,167	Litres	13,250	9,122	365
<b>Light Trucks, Vans, SUVs</b>						<b>1,068,850</b>	<b>73,480</b>
Commercial Vehicles	Gasoline	60	284,837	Litres	13,483	9,969	664
	Diesel Fuel	214	985,052	Litres	20,997	37,728	2,651
	Other Fuel	12	51,392	Litres	11,904	1,968	79
<b>Commercial Vehicles</b>						<b>49,665</b>	<b>3,394</b>
Tractor Trailer Trucks	Gasoline	< 10	16,068	Litres	7,085	562	37
	Diesel Fuel	274	7,427,510	Litres	70,975	284,474	19,987
	Other Fuel	< 10	3,571	Litres	8,292	137	5
<b>Tractor Trailer Trucks</b>						<b>285,173</b>	<b>20,029</b>
Motorhomes	Gasoline	147	195,570	Litres	2,765	6,845	457
	Diesel Fuel	23	22,520	Litres	3,828	863	61
	Other Fuel	< 10	4,015	Litres	2,189	154	6
<b>Motorhomes</b>						<b>7,862</b>	<b>524</b>
Motorcycles, Mopeds	Gasoline	333	161,392	Litres	4,851	5,649	377
	<b>Motorcycles, Mopeds</b>						<b>5,649</b>
Bus	Gasoline	< 10	43,891	Litres	17,048	1,536	103
	Diesel Fuel	66	544,429	Litres	22,516	20,852	1,465
	Other Fuel	0	0	Litres	0	-	-
<b>Bus</b>						<b>22,388</b>	<b>1,568</b>

<b>On Road Transportation Totals</b>	Gasoline:	1,382,424	94,841
	Diesel:	464,726	32,780
	Other Fuel:	12,114	484
	<b>All Fuels:</b>	<b>1,859,264</b>	<b>128,105</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	19,702	237,244,745	Kilowatt Hours	854,080	1,718
	Natural Gas	3,936	254,528	GigaJoules	254,528	12,980
	Heating Oil		265,380	GigaJoules	265,380	18,707
	Propane		466,986	GigaJoules	466,986	28,491
	Wood		556,435	GigaJoules	556,435	206
<b>Residential</b>					<b>2,397,409</b>	<b>62,102</b>
Commercial/Small-Medium Industrial	Electricity	1,521	36,038,935	Kilowatt Hours	129,740	312
	Natural Gas	200		GigaJoules	-	-
<b>Commercial/Small-Medium Industrial</b>					<b>129,740</b>	<b>312</b>
<b>Buildings Totals</b>	Electricity:				983,820	2,030
	Natural Gas:				254,528	12,980
	Propane:				466,986	28,491
	Wood:				556,435	206
	Heating Oil:				265,380	18,707
<b>Buildings:</b>					<b>2,527,149</b>	<b>62,414</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	15,676	12,493

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	12,133,788	L	464,726	32,780
<b>Electricity</b>	273,283,680	kWh	983,820	2,030
<b>Gasoline</b>	39,497,835	L	1,382,424	94,841
<b>Heating Oil</b>	265,380	GJ	265,380	18,707
<b>Natural Gas</b>	254,528	GJ	254,528	12,980
<b>Other Fuel</b>	316,294	L	12,114	484
<b>Propane</b>	466,986	GJ	466,986	28,491
<b>Solid Waste</b>	15,676	T	0	12,493
<b>Wood</b>	556,435	GJ	556,435	206
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>4,386,413 GJ</b>	<b>203,012 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	5	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	10,690	34	11,100	86	10,930	84
Semi-Detached House	50	0	50	0	55	0
Row House	50	0	35	0	45	0
Apartment, Duplex	150	0	140	1	150	1
Apartment, 5 storeys or higher	10	0	0	0	10	0
Apartment, under 5 storeys	85	0	130	1	105	1
Other Single Attached House	35	0	40	0	45	0
Movable Dwelling	1,215	4	1,375	11	1,650	13

### 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	10,085	84	10,050	85	9,865	82
Car, Truck, Van as Passenger	805	7	835	7	1,005	8
Public Transit	50	0	130	1	210	2
Walked	675	6	605	5	640	5
Bicycle	100	1	145	1	160	1
Motorcycle	35	0	0	0	25	0
Taxicab	0	0	0	0	5	0
Other Method	220	2	125	1	135	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	360,175.5	16.1
Local Parks	6,555.1	0.3
Agricultural Land Reserve	63,365.2	2.8
Other land use	1,802,413.4	80.7
Total Land Area	2,232,509.2	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.