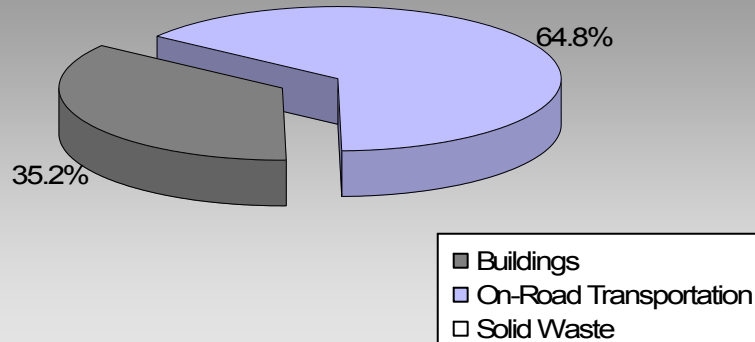


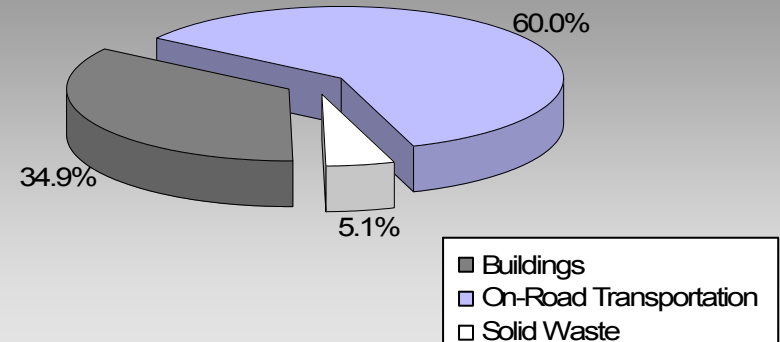
*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

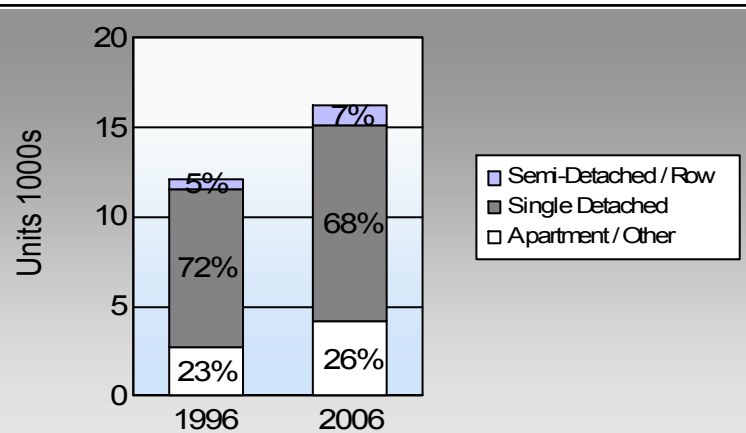
**Central Okanagan Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	88.3%	84.6%
	5.8%	8.1%
	1.1%	2.7%
	2.5%	2.6%
	1.4%	0.6%

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	2,695	3,618,672	Litres	12,802	126,654	8,645
	Diesel Fuel	100	100,043	Litres	13,606	3,832	273
	Other Fuel	< 10	1,605	Litres	10,190	61	2
<b>Small Passenger Cars</b>						<b>130,547</b>	<b>8,920</b>
Large Passenger Cars	Gasoline	1,787	3,770,113	Litres	16,930	131,954	8,983
	Diesel Fuel	18	48,666	Litres	17,319	1,864	133
	Other Fuel	< 10	9,974	Litres	14,378	382	15
<b>Large Passenger Cars</b>						<b>134,200</b>	<b>9,131</b>
Light Trucks, Vans, SUVs	Gasoline	4,182	12,615,908	Litres	20,175	441,557	30,226
	Diesel Fuel	486	1,227,706	Litres	20,419	47,021	3,354
	Other Fuel	32	81,366	Litres	13,540	3,116	125
<b>Light Trucks, Vans, SUVs</b>						<b>491,694</b>	<b>33,705</b>
Commercial Vehicles	Gasoline	26	123,281	Litres	14,132	4,315	288
	Diesel Fuel	105	514,301	Litres	22,192	19,698	1,384
	Other Fuel	< 10	9,337	Litres	11,691	358	14
<b>Commercial Vehicles</b>						<b>24,371</b>	<b>1,686</b>
Tractor Trailer Trucks	Gasoline	0	0	Litres	0	-	-
	Diesel Fuel	103	3,545,923	Litres	90,414	135,809	9,542
	Other Fuel	0	0	Litres	0	-	-
<b>Tractor Trailer Trucks</b>						<b>135,809</b>	<b>9,542</b>
Motorhomes	Gasoline	142	187,587	Litres	3,120	6,566	439
	Diesel Fuel	39	43,422	Litres	4,984	1,663	117
	Other Fuel	< 10	3,046	Litres	2,189	117	5
<b>Motorhomes</b>						<b>8,346</b>	<b>561</b>
Motorcycles, Mopeds	Gasoline	173	81,289	Litres	5,484	2,845	190
<b>Motorcycles, Mopeds</b>						<b>2,845</b>	<b>190</b>
Bus	Gasoline	< 10	14,352	Litres	23,367	502	34
	Diesel Fuel	< 10	65,458	Litres	37,447	2,507	176
	Other Fuel	< 10	10,241	Litres	15,902	392	16
<b>Bus</b>						<b>3,401</b>	<b>226</b>

<b>On Road Transportation Totals</b>	Gasoline:	714,393	48,805
	Diesel:	212,394	14,979
	Other Fuel:	4,426	177
	<b>All Fuels:</b>	<b>931,213</b>	<b>63,961</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	3,484	34,573,374	Kilowatt Hours	124,464	854
	Natural Gas	4,206	283,185	GigaJoules	283,185	14,443
	Heating Oil		25,353	GigaJoules	25,353	1,787
	Propane		44,715	GigaJoules	44,715	2,728
	Wood		223,253	GigaJoules	223,253	83
<b>Residential</b>					<b>700,970</b>	<b>19,895</b>
Commercial/Small-Medium Industrial	Electricity	456	33,049,830	Kilowatt Hours	118,979	816
	Natural Gas	763	275,881	GigaJoules	275,881	14,070
<b>Commercial/Small-Medium Industrial</b>					<b>394,860</b>	<b>14,886</b>
<b>Buildings Totals</b>	Electricity:				243,443	1,670
	Natural Gas:				559,066	28,513
	Propane:				44,715	2,728
	Wood:				223,253	83
	Heating Oil:				25,353	1,787
<b>Buildings:</b>					<b>1,095,830</b>	<b>34,781</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	0	0

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	5,545,519	L	212,394	14,979
<b>Electricity</b>	67,623,204	kWh	243,443	1,670
<b>Gasoline</b>	20,411,202	L	714,393	48,805
<b>Heating Oil</b>	25,353	GJ	25,353	1,787
<b>Natural Gas</b>	559,066	GJ	559,066	28,513
<b>Other Fuel</b>	115,569	L	4,426	177
<b>Propane</b>	44,715	GJ	44,715	2,728
<b>Solid Waste</b>	0	T	0	0
<b>Wood</b>	223,253	GJ	223,253	83
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>2,027,043 GJ</b>	<b>98,742 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	6	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	8,755	19	10,685	75	10,980	68
Semi-Detached House	380	1	595	4	700	4
Row House	220	0	265	2	365	2
Apartment, Duplex	325	1	275	2	770	5
Apartment, 5 storeys or higher	15	0	0	0	5	0
Apartment, under 5 storeys	460	1	665	5	765	5
Other Single Attached House	15	0	10	0	20	0
Movable Dwelling	1,950	4	1,830	13	2,615	16

### 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	12,000	88	12,775	86	15,140	85
Car, Truck, Van as Passenger	790	6	875	6	1,440	8
Public Transit	145	1	420	3	475	3
Walked	345	3	445	3	465	3
Bicycle	185	1	130	1	100	1
Motorcycle	40	0	40	0	85	0
Taxicab	5	0	5	0	0	0
Other Method	80	1	195	1	185	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	28,628.8	11.1
Local Parks	317.6	0.1
Agricultural Land Reserve	12,587.3	4.9
Other land use	216,670.9	83.9
Total Land Area	258,204.6	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.