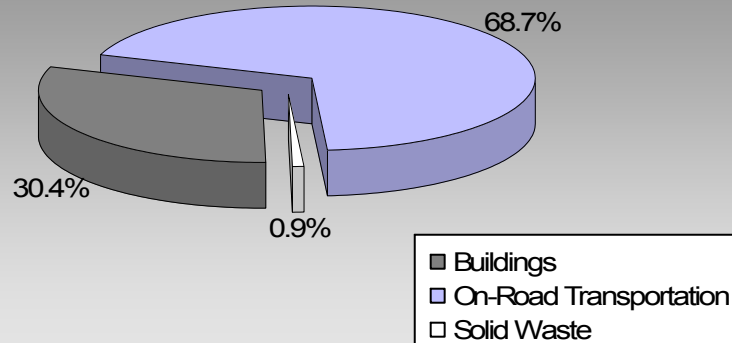


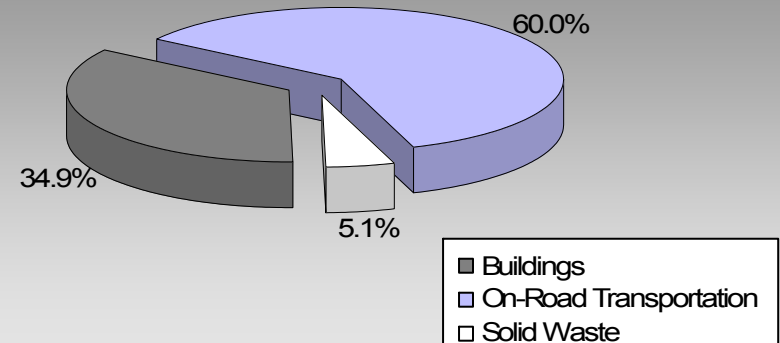
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

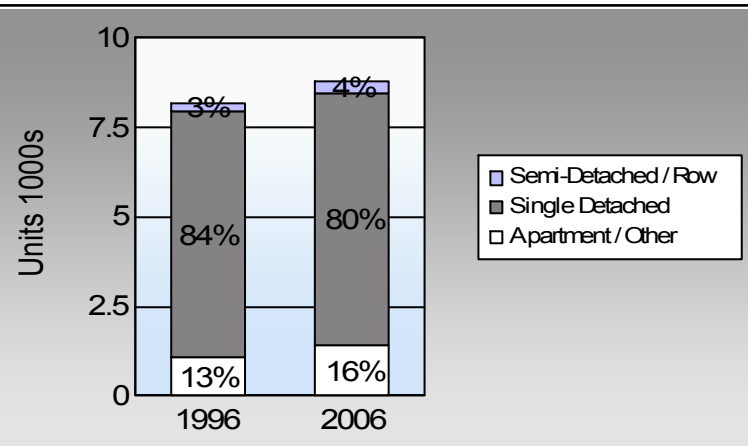
**Powell River Regional District  
2007 GHG Emissions Sources**



**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
	79.8%	78.1%
	6.7%	7.6%
	0.9%	1.6%
	7.6%	6.7%
	3.3%	3.0%

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	3,268	4,070,893	Litres	12,299	142,481	9,780
	Diesel Fuel	101	86,186	Litres	11,901	3,301	235
	Other Fuel	< 10	2,254	Litres	10,988	86	3
<b>Small Passenger Cars</b>						<b>145,868</b>	<b>10,018</b>
Large Passenger Cars	Gasoline	1,940	3,990,429	Litres	16,353	139,665	9,544
	Diesel Fuel	57	121,762	Litres	17,184	4,663	332
	Other Fuel	< 10	13,089	Litres	12,887	501	20
<b>Large Passenger Cars</b>						<b>144,829</b>	<b>9,896</b>
Light Trucks, Vans, SUVs	Gasoline	6,793	19,123,121	Litres	19,024	669,309	45,995
	Diesel Fuel	457	996,052	Litres	16,825	38,149	2,721
	Other Fuel	74	173,694	Litres	12,928	6,652	266
<b>Light Trucks, Vans, SUVs</b>						<b>714,110</b>	<b>48,982</b>
Commercial Vehicles	Gasoline	83	339,811	Litres	13,778	11,893	794
	Diesel Fuel	109	514,252	Litres	20,119	19,696	1,384
	Other Fuel	10	38,593	Litres	11,505	1,478	59
<b>Commercial Vehicles</b>						<b>33,067</b>	<b>2,237</b>
Tractor Trailer Trucks	Gasoline	< 10	17,011	Litres	11,703	595	40
	Diesel Fuel	142	3,347,696	Litres	55,600	128,217	9,008
	Other Fuel	< 10	1,785	Litres		68	3
<b>Tractor Trailer Trucks</b>						<b>128,880</b>	<b>9,051</b>
Motorhomes	Gasoline	171	168,963	Litres	2,691	5,914	394
	Diesel Fuel	13	12,337	Litres	3,695	472	33
	Other Fuel	< 10	3,461	Litres	2,189	133	5
<b>Motorhomes</b>						<b>6,519</b>	<b>432</b>
Motorcycles, Mopeds	Gasoline	237	96,589	Litres	4,906	3,381	226
<b>Motorcycles, Mopeds</b>						<b>3,381</b>	<b>226</b>
Bus	Gasoline	11	103,507	Litres	21,366	3,623	243
	Diesel Fuel	25	348,768	Litres	28,375	13,358	939
	Other Fuel	< 10	5,852	Litres	15,902	224	9
<b>Bus</b>						<b>17,205</b>	<b>1,191</b>

# Powell River Regional District Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	976,861	67,016
	Diesel:	207,856	14,652
	Other Fuel:	9,142	365
<b>On Road Transportation Totals</b>	<b>All Fuels:</b>	<b>1,193,859</b>	<b>82,033</b>

<b>Buildings</b>	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	8,991	110,143,425	Kilowatt Hours	396,516	2,717
	Natural Gas	3,071	200,544	GigaJoules	200,544	10,228
	Heating Oil		73,507	GigaJoules	73,507	5,182
	Propane		155,105	GigaJoules	155,105	9,463
	Wood			259,946	GigaJoules	259,946
<b>Residential</b>					<b>1,085,618</b>	<b>27,686</b>
Commercial/Small-Medium Industrial	Electricity	1,277	72,178,684	Kilowatt Hours	259,843	1,780
	Natural Gas	305	135,005	GigaJoules	135,005	6,885
<b>Commercial/Small-Medium Industrial</b>					<b>394,848</b>	<b>8,665</b>
					Electricity:	4,497
					Natural Gas:	17,113
					Propane:	9,463
					Wood:	96
					Heating Oil:	5,182
<b>Buildings Totals</b>	<b>Buildings:</b>				<b>1,480,466</b>	<b>36,351</b>

<b>Solid Waste</b>	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	5,100	1,025

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	5,427,053	L	207,856	14,652
Electricity	182,322,109	kWh	656,359	4,497
Gasoline	27,910,324	L	976,861	67,016
Heating Oil	73,507	GJ	73,507	5,182
Natural Gas	335,549	GJ	335,549	17,113
Other Fuel	238,728	L	9,142	365
Propane	155,105	GJ	155,105	9,463
Solid Waste	5,100	T	0	1,025
Wood	259,946	GJ	259,946	96
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>2,674,325 GJ</b>	<b>119,409 tonnes</b>

### Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	1	withheld	GigaJoules	-	-
<b>Large Industrial</b>					<b>-</b>	<b>-</b>

<b>Agriculture</b>	Number of Animals	Methane	CO2e (t)
Enteric Fermentation	916	25	525

<b>Land-Use Change</b>	Area (ha)	CO2e (t)
Deforestation from Agriculture	-	-
Deforestation from Settlement	32	28,541
<b>Deforestation:</b>	<b>32</b>	<b>28,541</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	6,840	46	6,680	79	7,025	80
Semi-Detached House	140	1	180	2	220	3
Row House	100	1	75	1	100	1
Apartment, Duplex	170	1	250	3	255	3
Apartment, 5 storeys or higher	0	0	0	0	20	0
Apartment, under 5 storeys	685	5	700	8	820	9
Other Single Attached House	20	0	40	0	20	0
Movable Dwelling	210	1	555	7	310	4

### 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	6,230	80	6,175	81	6,005	78
Car, Truck, Van as Passenger	525	7	445	6	585	8
Public Transit	70	1	80	1	125	2
Walked	590	8	635	8	515	7
Bicycle	255	3	175	2	230	3
Motorcycle	25	0	30	0	40	1
Taxicab	0	0	0	0	10	0
Other Method	115	1	125	2	175	2

### 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	12,733.2	2.4
Local Parks	85.0	0.0
Agricultural Land Reserve	9,687.5	1.8
Other land use	504,589.7	95.7
Total Land Area	527,095.4	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.