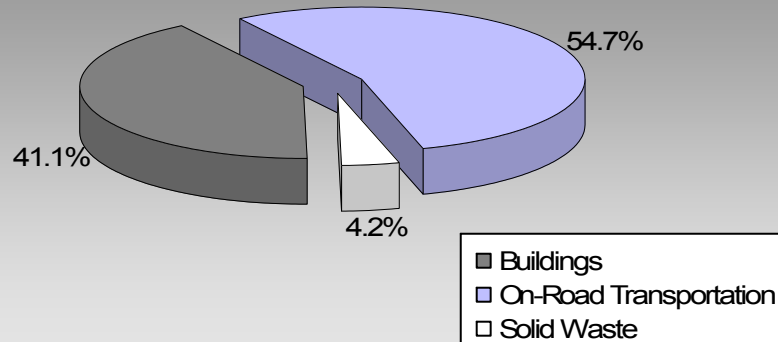


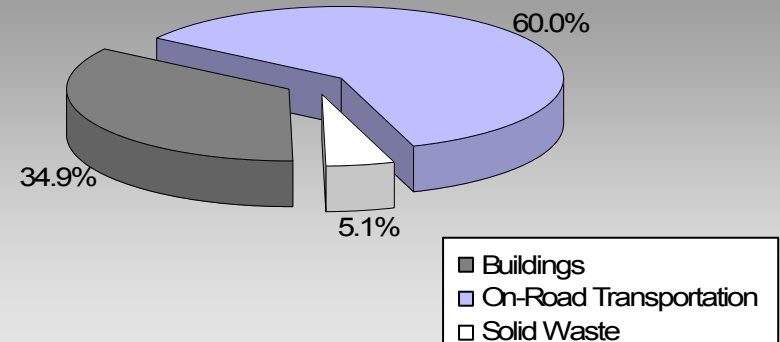
*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

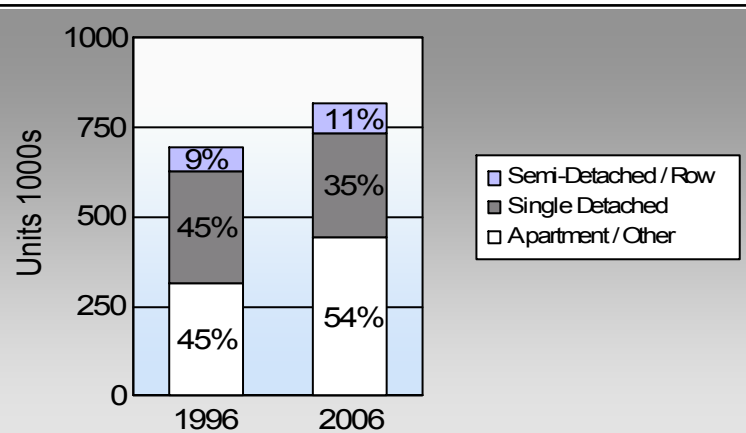
**Metro-Vancouver Regional District  
2007 GHG Emissions Sources**



**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
	70.6%	67.3%
	6.6%	7.1%
	14.3%	16.5%
	5.8%	6.3%
	1.7%	1.7%

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	473,950	622,136,683	Litres	13,375	21,774,784	1,477,681
	Diesel Fuel	9,076	9,228,608	Litres	13,549	353,456	25,205
	Other Fuel	81	89,847	Litres	9,696	3,441	138
<b>Small Passenger Cars</b>						<b>22,131,681</b>	<b>1,503,024</b>
Large Passenger Cars	Gasoline	231,953	403,158,260	Litres	14,748	14,110,539	953,973
	Diesel Fuel	4,813	8,472,821	Litres	13,837	324,509	23,128
	Other Fuel	471	914,233	Litres	11,817	35,015	1,401
<b>Large Passenger Cars</b>						<b>14,470,063</b>	<b>978,502</b>
Light Trucks, Vans, SUVs	Gasoline	415,863	800,096,021	Litres	13,527	28,003,361	1,909,387
	Diesel Fuel	16,940	37,915,738	Litres	17,008	1,452,173	103,585
	Other Fuel	1,733	3,351,306	Litres	10,850	128,355	5,135
<b>Light Trucks, Vans, SUVs</b>						<b>29,583,889</b>	<b>2,018,107</b>
Commercial Vehicles	Gasoline	2,237	10,166,084	Litres	16,051	355,813	23,817
	Diesel Fuel	9,834	45,768,104	Litres	21,310	1,752,918	123,162
	Other Fuel	501	1,773,287	Litres	12,417	67,917	2,717
<b>Commercial Vehicles</b>						<b>2,176,648</b>	<b>149,696</b>
Tractor Trailer Trucks	Gasoline	199	1,328,913	Litres	17,945	46,512	3,121
	Diesel Fuel	15,973	532,224,568	Litres	87,463	20,384,201	1,432,198
	Other Fuel	44	124,046	Litres	8,204	4,751	190
<b>Tractor Trailer Trucks</b>						<b>20,435,464</b>	<b>1,435,509</b>
Motorhomes	Gasoline	6,496	7,434,636	Litres	3,326	260,212	17,409
	Diesel Fuel	901	1,067,106	Litres	5,126	40,870	2,872
	Other Fuel	123	91,283	Litres	2,210	3,496	140
<b>Motorhomes</b>						<b>304,578</b>	<b>20,421</b>
Motorcycles, Mopeds	Gasoline	16,578	6,874,504	Litres	5,544	240,608	16,047
	<b>Motorcycles, Mopeds</b>						<b>240,608</b>
Bus	Gasoline	1,153	12,003,069	Litres	24,966	420,107	28,202
	Diesel Fuel	2,077	55,084,789	Litres	46,471	2,109,747	148,234
	Other Fuel	128	1,663,089	Litres	30,393	63,696	2,548
<b>Bus</b>						<b>2,593,550</b>	<b>178,984</b>

# Metro-Vancouver Regional District Updated 2007 Community Energy and Emissions Inventory

<b>On Road Transportation Totals</b>	Gasoline:	65,211,936	4,429,637
	Diesel:	26,417,874	1,858,384
	Other Fuel:	306,671	12,269
	<b>All Fuels:</b>	<b>91,936,481</b>	<b>6,300,290</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	797,213	7,438,239,251	Kilowatt Hours	26,777,640	183,478
	Natural Gas	448,696	49,284,194	GigaJoules	49,284,194	2,513,494
	Heating Oil		801,368	GigaJoules	801,368	56,488
	Propane		1,187,613	GigaJoules	1,187,613	72,456
	Wood		636,274	GigaJoules	636,274	235
<b>Residential</b>					<b>78,687,089</b>	<b>2,826,151</b>
Commercial/Small-Medium Industrial	Electricity	94,128	10,076,950,283	Kilowatt Hours	36,276,992	248,566
	Natural Gas	49,571	32,648,060	GigaJoules	32,648,060	1,665,049
<b>Commercial/Small-Medium Industrial</b>					<b>68,925,052</b>	<b>1,913,615</b>
<b>Buildings Totals</b>	Electricity:				63,054,632	432,044
	Natural Gas:				81,932,254	4,178,543
	Propane:				1,187,613	72,456
	Wood:				636,274	235
	Heating Oil:				801,368	56,488
<b>Buildings:</b>					<b>147,612,141</b>	<b>4,739,766</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	1,316,632	479,079

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO <sub>2</sub> e (t)
Diesel Fuel	689,761,734	L	26,417,874	1,858,384
Electricity	17,515,189,534	kWh	63,054,632	432,044
Gasoline	1,863,198,170	L	65,211,936	4,429,637
Heating Oil	801,368	GJ	801,368	56,488
Natural Gas	81,932,254	GJ	81,932,254	4,178,543
Other Fuel	8,007,091	L	306,671	12,269
Propane	1,187,613	GJ	1,187,613	72,456
Solid Waste	1,316,632	T	0	479,079
Wood	636,274	GJ	636,274	235
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>239,548,622 GJ</b>	<b>11,519,135 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO <sub>2</sub> e (t)
Large Industrial	Electricity	77	3,135,786,822	Kilowatt Hours	11,288,824	77,350
	Natural Gas	868	23,105,000	GigaJoules	23,105,000	1,178,355
<b>Large Industrial</b>					<b>34,393,824</b>	<b>1,255,705</b>

<b>Agriculture</b>		Number of Animals	Methane	CO <sub>2</sub> e (t)
	Enteric Fermentation	45,326	2,430	51,030

<b>Land-Use Change</b>		Area (ha)	CO <sub>2</sub> e (t)
	Deforestation from Settlement	360	313,997
	Deforestation from Agriculture	22	14,530
<b>Deforestation:</b>		<b>382</b>	<b>328,527</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	15,200	31	27,655	43	288,320	35
Semi-Detached House	15,705	2	18,920	2	19,000	2
Row House	49,045	5	55,470	7	67,025	8
Apartment, Duplex	56,970	6	68,790	9	114,235	14
Apartment, 5 storeys or higher	75,115	7	89,780	12	104,270	13
Apartment, under 5 storeys	75,875	17	91,670	25	217,700	27
Other Single Attached House	1,175	0	1,210	0	1,125	0
Movable Dwelling	3,870	0	5,230	1	5,365	1

### 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	587,190	71	354,055	72	675,080	67
Car, Truck, Van as Passenger	54,465	7	63,645	7	70,990	7
Public Transit	119,205	14	104,015	11	165,435	16
Walked	48,520	6	58,705	6	63,415	6
Bicycle	13,720	2	16,850	2	16,585	2
Motorcycle	1,435	0	1,480	0	2,745	0
Taxicab	1,105	0	1,450	0	1,275	0
Other Method	5,630	1	5,805	1	7,495	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	44,145.0	14.7
Local Parks	20,622.4	6.9
Agricultural Land Reserve	60,999.4	20.3
Other land use	175,458.3	58.3
Total Land Area	301,225.1	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.