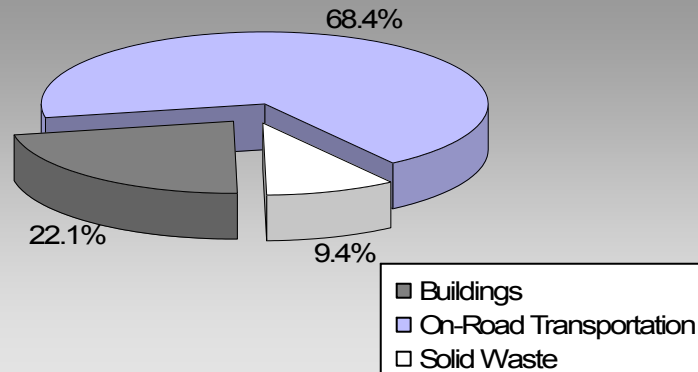


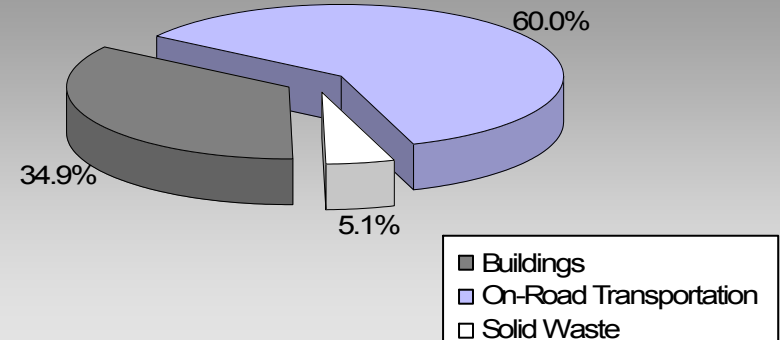
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

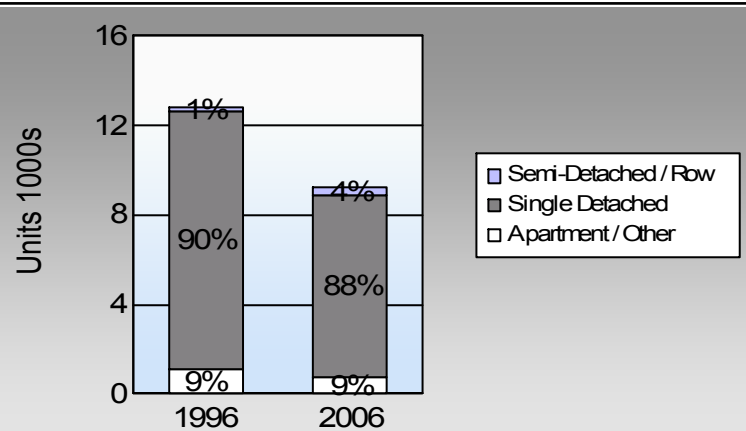
**Comox Valley Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	79.1%	83.2%
	7.9%	6.9%
	1.4%	1.1%
	4.9%	3.0%
	2.4%	2.4%

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	3,936	5,571,394	Litres	13,801	194,999	13,375
	Diesel Fuel	313	330,780	Litres	14,494	12,669	903
	Other Fuel	< 10	764	Litres	10,614	29	1
<b>Small Passenger Cars</b>						<b>207,697</b>	<b>14,279</b>
Large Passenger Cars	Gasoline	2,126	4,800,918	Litres	18,386	168,032	11,467
	Diesel Fuel	75	173,670	Litres	18,397	6,652	474
	Other Fuel	< 10	11,500	Litres	14,190	440	18
<b>Large Passenger Cars</b>						<b>175,124</b>	<b>11,959</b>
Light Trucks, Vans, SUVs	Gasoline	6,466	18,721,270	Litres	19,533	655,244	45,046
	Diesel Fuel	906	2,109,028	Litres	18,447	80,776	5,761
	Other Fuel	76	176,071	Litres	13,166	6,744	270
<b>Light Trucks, Vans, SUVs</b>						<b>742,764</b>	<b>51,077</b>
Commercial Vehicles	Gasoline	52	235,243	Litres	13,755	8,233	550
	Diesel Fuel	159	701,859	Litres	20,500	26,881	1,889
	Other Fuel	< 10	31,336	Litres	12,348	1,200	48
<b>Commercial Vehicles</b>						<b>36,314</b>	<b>2,487</b>
Tractor Trailer Trucks	Gasoline	< 10	24,097	Litres	13,462	843	57
	Diesel Fuel	169	3,824,556	Litres	59,546	146,481	10,292
	Other Fuel	0	0	Litres	0	-	-
<b>Tractor Trailer Trucks</b>						<b>147,324</b>	<b>10,349</b>
Motorhomes	Gasoline	208	206,335	Litres	2,867	7,222	482
	Diesel Fuel	28	24,403	Litres	4,263	935	66
	Other Fuel	< 10	2,769	Litres	2,189	106	4
<b>Motorhomes</b>						<b>8,263</b>	<b>552</b>
Motorcycles, Mopeds	Gasoline	365	150,583	Litres	5,290	5,270	352
<b>Motorcycles, Mopeds</b>						<b>5,270</b>	<b>352</b>
Bus	Gasoline	< 10	97,026	Litres	20,942	3,396	228
	Diesel Fuel	< 10	78,117	Litres	50,871	2,992	210
	Other Fuel	< 10	5,852	Litres	15,902	224	9
<b>Bus</b>						<b>6,612</b>	<b>447</b>

# Comox Valley Regional District Unincorporated Areas Updated 2007 Community Energy and Emissions Inventory

<b>On Road Transportation Totals</b>	Gasoline:	1,043,239	71,557
	Diesel:	277,386	19,595
	Other Fuel:	8,743	350
	<b>All Fuels:</b>	<b>1,329,368</b>	<b>91,502</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	11,350	186,832,715	Kilowatt Hours	672,597	4,608
	Natural Gas	875	46,476	GigaJoules	46,476	2,370
	Heating Oil		226,785	GigaJoules	226,785	15,986
	Propane		39,082	GigaJoules	39,082	2,384
	Wood		276,737	GigaJoules	276,737	102
<b>Residential</b>					<b>1,261,677</b>	<b>25,450</b>
Commercial/Small-Medium Industrial	Electricity	993	46,931,965	Kilowatt Hours	168,955	1,157
	Natural Gas	84	59,157	GigaJoules	59,157	3,017
<b>Commercial/Small-Medium Industrial</b>					<b>228,112</b>	<b>4,174</b>
<b>Buildings Totals</b>	Electricity:				841,552	5,765
	Natural Gas:				105,633	5,387
	Propane:				39,082	2,384
	Wood:				276,737	102
	Heating Oil:				226,785	15,986
<b>Buildings:</b>					<b>1,489,789</b>	<b>29,624</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	12,080	12,619

# Comox Valley Regional District Unincorporated Areas Updated 2007 Community Energy and Emissions Inventory

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	7,242,413	L	277,386	19,595
<b>Electricity</b>	233,764,680	kWh	841,552	5,765
<b>Gasoline</b>	29,806,866	L	1,043,239	71,557
<b>Heating Oil</b>	226,785	GJ	226,785	15,986
<b>Natural Gas</b>	105,633	GJ	105,633	5,387
<b>Other Fuel</b>	228,292	L	8,743	350
<b>Propane</b>	39,082	GJ	39,082	2,384
<b>Solid Waste</b>	12,080	T	0	12,619
<b>Wood</b>	276,737	GJ	276,737	102
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>2,819,157 GJ</b>	<b>133,745 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	0	0	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	11,535	90	8,340	90	8,070	88
Semi-Detached House	85	1	105	1	310	3
Row House	30	0	25	0	35	0
Apartment, Duplex	145	1	55	1	85	1
Apartment, 5 storeys or higher	0	0	5	0	5	0
Apartment, under 5 storeys	85	1	70	1	105	1
Other Single Attached House	35	0	15	0	5	0
Movable Dwelling	855	7	640	7	585	6

### 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	10,480	79	7,345	84	7,470	83
Car, Truck, Van as Passenger	1,050	8	570	7	615	7
Public Transit	190	1	20	0	100	1
Walked	645	5	360	4	270	3
Bicycle	315	2	215	2	215	2
Motorcycle	35	0	10	0	65	1
Taxicab	10	0	0	0	0	0
Other Method	530	4	250	3	245	3

### 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	13,957.7	8.4
Local Parks	1,057.8	0.6
Agricultural Land Reserve	22,389.8	13.4
Other land use	129,472.3	77.6
Total Land Area	166,877.5	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.