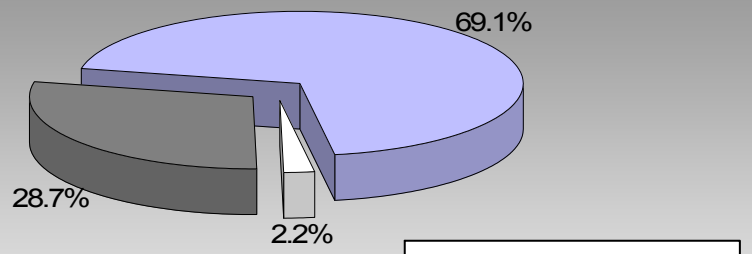
Colwood City
Updated 2007 Community Energy and Emissions Inventory

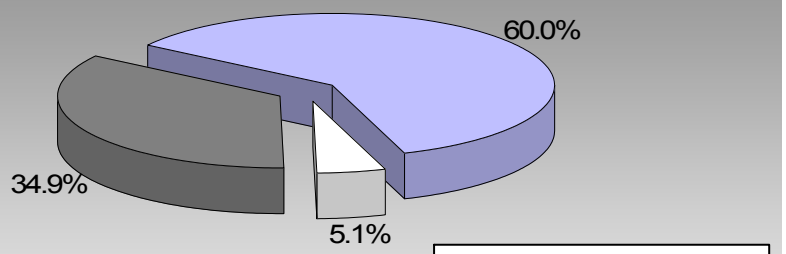
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Colwood City
2007 GHG Emissions Sources

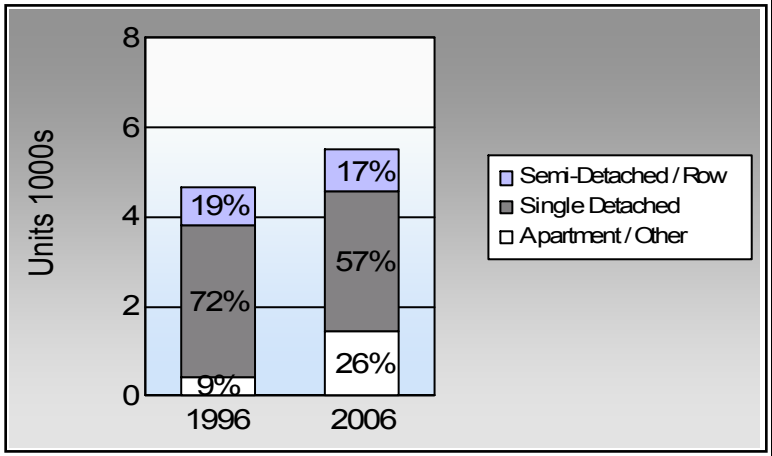


Total for BC Communities



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
	75.9%	75.0%
	7.3%	7.7%
	9.6%	8.2%
	3.5%	4.7%
	2.3%	2.6%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

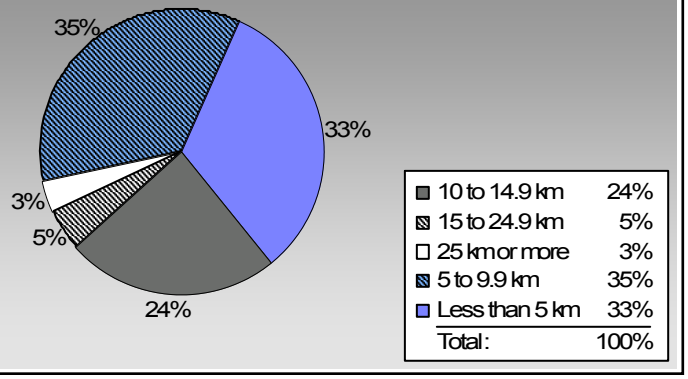
Residential Density

Colwood City: 10.0 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	3,544	3,820,522	Litres	10,749	133,718	9,128
	Diesel Fuel	90	74,501	Litres	11,259	2,853	203
	Other Fuel	< 10	649	Litres		25	1
				Small Passenger Cars		**136,596**	**9,332**
Large Passenger Cars	Gasoline	1,797	2,671,292	Litres	12,401	93,495	6,347
	Diesel Fuel	22	35,371	Litres	12,576	1,355	96
	Other Fuel	< 10	14,604	Litres	12,864	559	22
				Large Passenger Cars		**95,409**	**6,465**
Light Trucks, Vans, SUVs	Gasoline	4,543	8,127,006	Litres	12,605	284,445	19,421
	Diesel Fuel	240	438,794	Litres	14,030	16,806	1,199
	Other Fuel	37	69,951	Litres	10,775	2,679	107
				Light Trucks, Vans, SUVs		**303,930**	**20,727**
Commercial Vehicles	Gasoline	38	123,785	Litres	11,852	4,332	290
	Diesel Fuel	66	223,377	Litres	15,640	8,555	601
	Other Fuel	< 10	10,696	Litres	10,569	410	16
				Commercial Vehicles		**13,297**	**907**
Tractor Trailer Trucks	Gasoline	< 10	2,380	Litres	7,085	83	6
	Diesel Fuel	72	2,232,893	Litres	83,407	85,520	6,009
	Other Fuel	< 10	12,124	Litres	18,042	464	19
				Tractor Trailer Trucks		**86,067**	**6,034**
Motorhomes	Gasoline	108	104,973	Litres	2,738	3,674	245
	Diesel Fuel	13	7,482	Litres	3,290	287	20
	Other Fuel	< 10	1,523	Litres	2,189	58	2
				Motorhomes		**4,019**	**267**
Motorcycles, Mopeds	Gasoline	343	117,192	Litres	5,419	4,102	274
				Motorcycles, Mopeds		**4,102**	**274**
Bus	Gasoline	13	104,474	Litres	19,755	3,657	245
	Diesel Fuel	39	365,431	Litres	20,034	13,996	983
	Other Fuel	< 10	43,891	Litres	15,902	1,681	67
				Bus		**19,334**	**1,295**

	Gasoline:	527,506	35,956
	Diesel:	129,372	9,111
	Other Fuel:	5,876	234
On Road Transportation Totals	**All Fuels:**	**662,754**	**45,301**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	5,414	85,213,394	Kilowatt Hours	306,768	2,102
	Natural Gas	1,999	99,378	GigaJoules	99,378	5,069
	Heating Oil		69,226	GigaJoules	69,226	4,880
	Propane		11,956	GigaJoules	11,956	729
			Residential		**487,328**	**12,780**
Commercial/Small-Medium Industrial	Electricity	362	36,866,222	Kilowatt Hours	132,718	909
	Natural Gas	154	100,001	GigaJoules	100,001	5,100
			Commercial/Small-Medium Industrial		**232,719**	**6,009**

	Electricity:	439,486	3,011
	Natural Gas:	199,379	10,169
	Propane:	11,956	729
	Wood:		
	Heating Oil:	69,226	4,880
Buildings Totals	**Buildings:**	**720,047**	**18,789**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	5,430	1,428

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	3,377,849	L	129,372	9,111
	Electricity	122,079,616	kWh	439,486	3,011
	Gasoline	15,071,624	L	527,506	35,956
	Heating Oil	69,226	GJ	69,226	4,880
	Natural Gas	199,379	GJ	199,379	10,169
	Other Fuel	153,438	L	5,876	234
	Propane	11,956	GJ	11,956	729
	Solid Waste	5,430	T	0	1,428
Total of Transportation / Buildings / Solid Waste:				**1,382,801** GJ	**65,518** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
				Large Industrial	**-**	**-**

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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

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	3,350	42	3,230	66	3,130	57
Semi-Detached House	655	8	590	12	600	11
Row House	235	3	300	6	330	6
Apartment, Duplex	195	2	475	10	970	18
Apartment, 5 storeys or higher	0	0	5	0	0	0
Apartment, under 5 storeys	245	3	250	5	455	8
Other Single Attached House	0	0	5	0	5	0
Movable Dwelling	0	0	15	0	10	0

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
Population	16,174.0
Net Land Area (ha) *	1,624.2
Residential Density (people per net ha)	10.0

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	4,840	76	4,855	76	5,555	75
Car, Truck,Van as Passenge	465	7	505	8	570	8
Public Transit	610	10	485	8	605	8
Walked	220	3	245	4	345	5
Bicycle	145	2	160	3	195	3
Motorcycle	20	0	25	0	65	1
Taxicab	0	0	10	0	10	0
Other Method	75	1	80	1	65	1

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	%
Less than 5 km	2,105	33
5 to 9.9 km	2,260	35
10 to 14.9 km	1,560	24
15 to 24.9 km	310	5
25 km or more	220	3

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	0.0	0.0
Local Parks	60.8	3.4
Agricultural Land Reserve	77.0	4.3
Other land use	1,638.7	92.2
Total Land Area	1,776.6	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 (see survey on CEEI website).

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

Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO2e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

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)

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