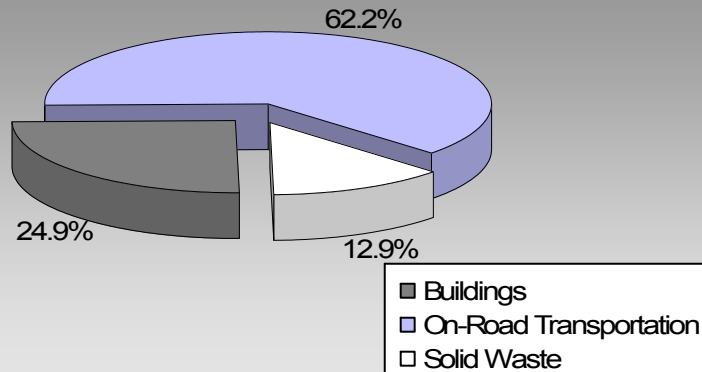


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

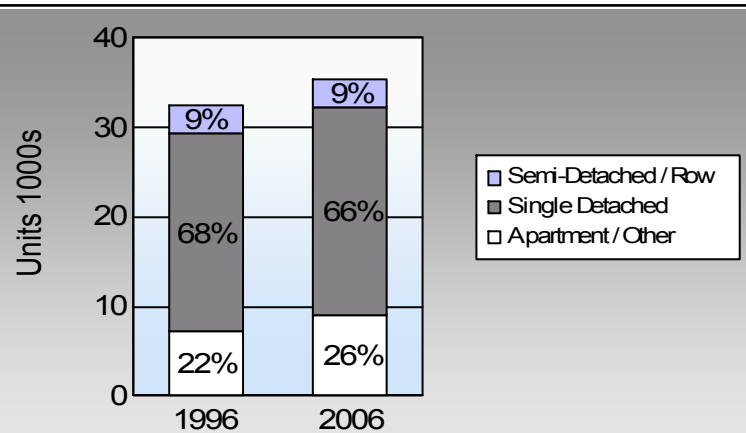
**Okanagan-Similkameen Regional District
2007 GHG Emissions Sources**



**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
	78.0%	75.6%
	6.7%	9.3%
	1.1%	0.9%
	10.3%	10.3%
	2.2%	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

On Road Transportation		<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	15,730	18,975,568	Litres	11,741	664,145	45,421	
	Diesel Fuel	652	577,369	Litres	12,056	22,113	1,577	
	Other Fuel	< 10	2,126	Litres	8,582	81	3	
Small Passenger Cars						686,339	47,001	
Large Passenger Cars	Gasoline	10,257	22,354,554	Litres	17,392	782,409	53,276	
	Diesel Fuel	163	370,118	Litres	17,601	14,176	1,010	
	Other Fuel	26	72,175	Litres	14,652	2,764	111	
Large Passenger Cars						799,349	54,397	
Light Trucks, Vans, SUVs	Gasoline	23,112	67,532,792	Litres	19,265	2,363,648	162,005	
	Diesel Fuel	2,317	5,727,036	Litres	18,918	219,345	15,646	
	Other Fuel	249	589,755	Litres	13,242	22,588	904	
Light Trucks, Vans, SUVs						2,605,581	178,555	
Commercial Vehicles	Gasoline	237	964,231	Litres	12,983	33,748	2,249	
	Diesel Fuel	455	2,096,798	Litres	20,404	80,307	5,642	
	Other Fuel	38	144,133	Litres	11,809	5,520	221	
Commercial Vehicles						119,575	8,112	
Tractor Trailer Trucks	Gasoline	10	52,474	Litres	15,366	1,837	123	
	Diesel Fuel	717	21,091,324	Litres	74,666	807,798	56,756	
	Other Fuel	< 10	8,332	Litres	7,085	319	13	
Tractor Trailer Trucks						809,954	56,892	
Motorhomes	Gasoline	853	1,014,954	Litres	2,972	35,523	2,373	
	Diesel Fuel	140	151,943	Litres	4,269	5,819	409	
	Other Fuel	18	18,551	Litres	2,189	711	28	
Motorhomes						42,053	2,810	
Motorcycles, Mopeds	Gasoline	991	443,697	Litres	5,395	15,529	1,036	
	Motorcycles, Mopeds						15,529	1,036
	Bus	Gasoline	26	251,151	Litres	22,118	8,790	589
	Diesel Fuel	82	1,360,034	Litres	31,266	52,089	3,660	
	Other Fuel	< 10	29,700	Litres	15,961	1,138	46	
Bus						62,017	4,295	

Okanagan-Similkameen Regional District

Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	3,905,629	267,072
	Diesel:	1,201,647	84,700
	Other Fuel:	33,121	1,326
	All Fuels:	5,140,397	353,098

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	23,000	271,040,027	Kilowatt Hours	975,743	1,749
	Natural Gas	20,751	1,397,552	GigaJoules	1,397,552	71,275
	Heating Oil		78,267	GigaJoules	78,267	5,517
	Propane		138,038	GigaJoules	138,038	8,422
	Wood		689,192	GigaJoules	689,192	255
Residential					3,278,792	87,218
Commercial/Small-Medium Industrial	Electricity	3,694	493,381,428	Kilowatt Hours	1,776,172	3,042
	Natural Gas	2,554	954,660	GigaJoules	954,660	48,688
Commercial/Small-Medium Industrial					2,730,832	51,730
Wholesale	Electricity	2	445,450,080	Kilowatt Hours	1,603,619	2,673
Wholesale					1,603,619	2,673
Buildings Totals					7,613,243	141,621

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	87,074	73,319

Grand Total	CONSUMPTION		ENERGY (GJ)	CO ₂ e (t)
Diesel Fuel	31,374,622	L	1,201,647	84,700
Electricity	1,209,871,535	kWh	4,355,534	7,464
Gasoline	111,589,421	L	3,905,629	267,072
Heating Oil	78,267	GJ	78,267	5,517
Natural Gas	2,352,212	GJ	2,352,212	119,963
Other Fuel	864,772	L	33,121	1,326
Propane	138,038	GJ	138,038	8,422
Solid Waste	87,074	T	0	73,319
Wood	689,192	GJ	689,192	255
Total of Transportation / Buildings / Solid Waste:			12,753,640 GJ	568,038 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO ₂ e (t)
Large Industrial	Electricity	12	103,436,022	Kilowatt Hours	372,369	621
	Natural Gas	13	withheld	GigaJoules	-	-
Large Industrial					372,369	621

Agriculture		Number of Animals	Methane	CO ₂ e (t)
	Enteric Fermentation	28,805	1,657	34,797

Land-Use Change		Area (ha)	CO ₂ e (t)
	Deforestation from Agriculture	1	647
	Deforestation from Settlement	8	4,295
Deforestation:		9	4,942

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	22,115	41	22,135	65	23,130	66
Semi-Detached House	940	2	860	3	915	3
Row House	2,120	4	2,045	6	2,180	6
Apartment, Duplex	550	1	570	2	580	2
Apartment, 5 storeys or higher	355	1	510	2	645	2
Apartment, under 5 storeys	4,800	9	5,465	16	5,650	16
Other Single Attached House	165	0	200	1	195	1
Movable Dwelling	1,285	2	2,100	6	1,950	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	20,515	78	20,775	79	23,140	76
Car, Truck, Van as Passenger	1,750	7	1,705	7	2,850	9
Public Transit	295	1	165	1	285	1
Walked	2,720	10	2,520	10	3,140	10
Bicycle	580	2	590	2	730	2
Motorcycle	35	0	70	0	110	0
Taxicab	40	0	30	0	30	0
Other Method	360	1	320	1	320	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	137,078.1	14.6
Local Parks	366.3	0.0
Agricultural Land Reserve	84,522.6	9.0
Other land use	719,772.3	76.4
Total Land Area	941,739.3	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 CO ₂ e 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

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.