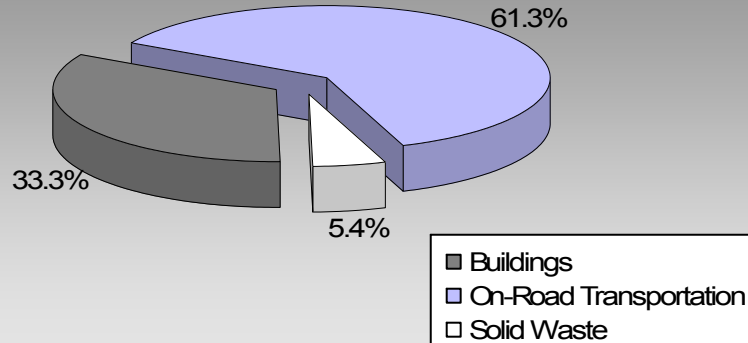


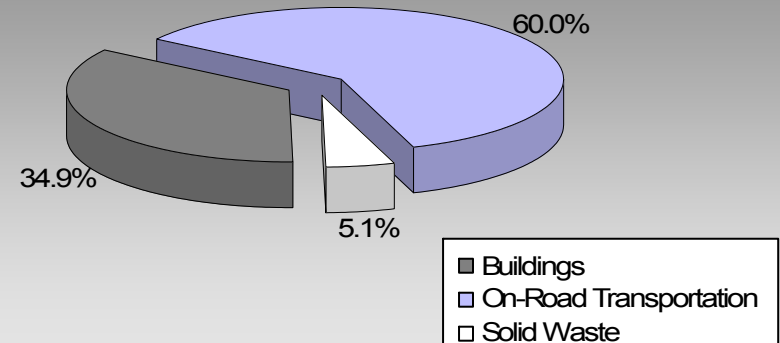
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

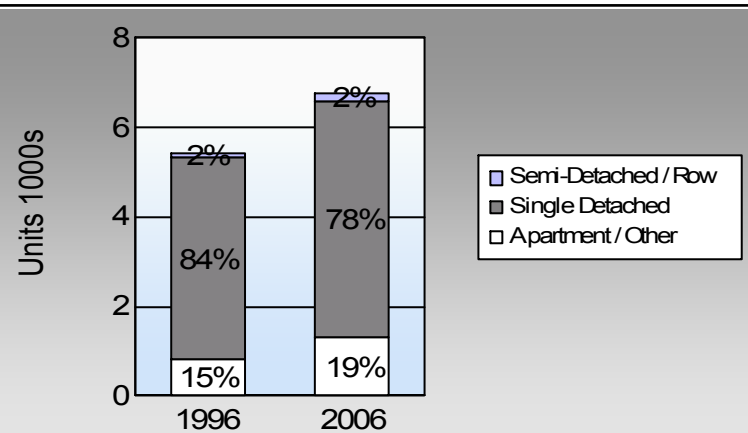
**Fraser Valley Regional District Unincorporated Areas
2007 GHG Emissions Sources**



**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
	81.7%	82.4%
	8.6%	8.4%
	1.4%	1.3%
	6.7%	6.6%
	0.3%	0.7%

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

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	2,550	3,885,523	Litres	14,852	135,993	9,306
	Diesel Fuel	118	132,289	Litres	15,551	5,067	361
	Other Fuel	< 10	904	Litres	11,443	35	1
Small Passenger Cars						141,095	9,668
Large Passenger Cars	Gasoline	1,608	3,564,234	Litres	18,376	124,748	8,501
	Diesel Fuel	42	91,493	Litres	18,370	3,504	250
	Other Fuel	< 10	12,768	Litres	15,629	489	20
Large Passenger Cars						128,741	8,771
Light Trucks, Vans, SUVs	Gasoline	4,128	12,583,994	Litres	21,036	440,440	30,185
	Diesel Fuel	466	1,104,284	Litres	20,214	42,294	3,017
	Other Fuel	34	93,197	Litres	13,928	3,569	143
Light Trucks, Vans, SUVs						486,303	33,345
Commercial Vehicles	Gasoline	47	194,407	Litres	13,861	6,804	454
	Diesel Fuel	110	455,618	Litres	20,981	17,450	1,226
	Other Fuel	< 10	27,277	Litres	12,409	1,045	42
Commercial Vehicles						25,299	1,722
Tractor Trailer Trucks	Gasoline	< 10	24,594	Litres	13,673	861	58
	Diesel Fuel	122	2,737,519	Litres	88,814	104,847	7,367
	Other Fuel	0	0	Litres	0	-	-
Tractor Trailer Trucks						105,708	7,425
Motorhomes	Gasoline	163	168,736	Litres	3,291	5,906	395
	Diesel Fuel	21	17,333	Litres	4,452	664	47
	Other Fuel	< 10	4,707	Litres	2,189	180	7
Motorhomes						6,750	449
Motorcycles, Mopeds	Gasoline	163	71,643	Litres	5,358	2,508	167
Motorcycles, Mopeds						2,508	167
Bus	Gasoline	< 10	50,995	Litres	21,770	1,785	120
	Diesel Fuel	< 10	30,732	Litres	28,046	1,177	83
	Other Fuel	0	0	Litres	0	-	-
Bus						2,962	203

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

	Gasoline:	719,045	49,186
	Diesel:	175,003	12,351
	Other Fuel:	5,318	213
On Road Transportation Totals	All Fuels:	899,366	61,750

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	7,612	104,447,701	Kilowatt Hours	376,011	2,578
	Natural Gas	1,706	125,356	GigaJoules	125,356	6,394
	Heating Oil		136,323	GigaJoules	136,323	9,609
	Propane		201,552	GigaJoules	201,552	12,297
	Wood			108,539	GigaJoules	108,539
Residential					947,781	30,918
Commercial/Small-Medium Industrial	Electricity	1,096	71,587,715	Kilowatt Hours	257,716	1,767
	Natural Gas	81	17,425	GigaJoules	17,425	889
Commercial/Small-Medium Industrial					275,141	2,656
					Electricity:	4,345
					Natural Gas:	7,283
					Propane:	12,297
					Wood:	40
					Heating Oil:	9,609
Buildings Totals	Buildings:				1,222,922	33,574

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	8,157	5,452

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

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	4,569,268	L	175,003	12,351
Electricity	176,035,416	kWh	633,727	4,345
Gasoline	20,544,126	L	719,045	49,186
Heating Oil	136,323	GJ	136,323	9,609
Natural Gas	142,781	GJ	142,781	7,283
Other Fuel	138,853	L	5,318	213
Propane	201,552	GJ	201,552	12,297
Solid Waste	8,157	T	0	5,452
Wood	108,539	GJ	108,539	40
Total of Transportation / Buildings / Solid Waste:			2,122,288 GJ	100,776 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
Large Industrial					-	-

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	4,520	8	5,125	84	5,275	78
Semi-Detached House	55	0	100	2	115	2
Row House	35	0	50	1	50	1
Apartment, Duplex	15	0	45	1	45	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	55	0	35	1	30	0
Other Single Attached House	0	0	25	0	25	0
Movable Dwelling	730	1	690	11	1,195	18

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	3,790	82	4,305	82	5,220	82
Car, Truck, Van as Passenger	400	9	410	8	535	8
Public Transit	65	1	55	1	80	1
Walked	310	7	380	7	415	7
Bicycle	15	0	45	1	45	1
Motorcycle	10	0	5	0	10	0
Taxicab	10	0	0	0	0	0
Other Method	40	1	60	1	35	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	292,992.1	23.6
Local Parks	957.4	0.1
Agricultural Land Reserve	18,879.8	1.5
Other land use	928,456.1	74.8
Total Land Area	1,241,285.4	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 (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.