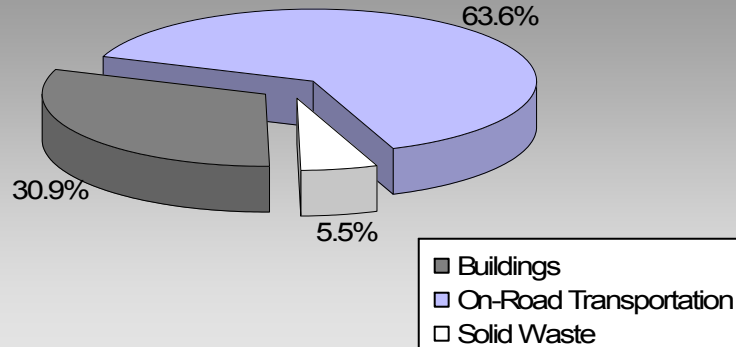


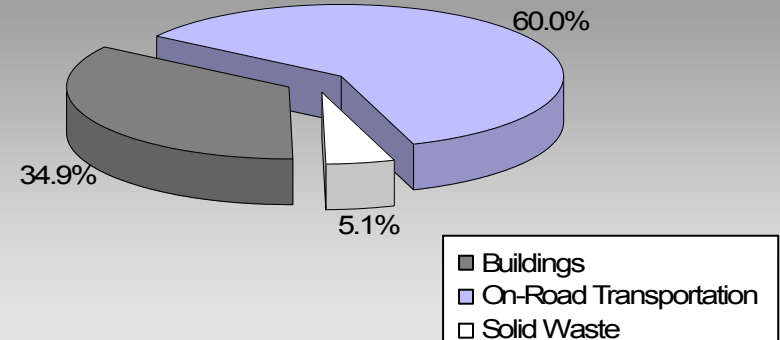
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

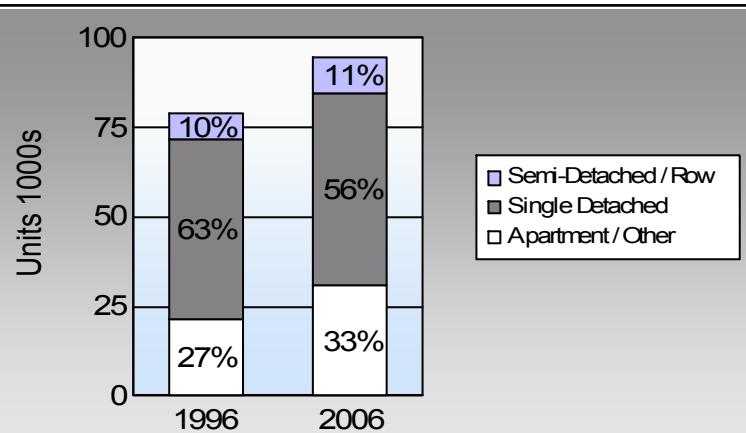
Fraser Valley Regional District
2007 GHG Emissions Sources



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
	83.1%	82.9%
	8.2%	9.6%
	1.1%	1.5%
	4.8%	4.0%
	1.7%	0.9%

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	52,350	77,630,137	Litres	14,852	2,717,055	185,064
	Diesel Fuel	1,952	2,247,936	Litres	15,551	86,096	6,139
	Other Fuel	10	14,486	Litres	11,443	555	22
Small Passenger Cars						2,803,706	191,225
Large Passenger Cars	Gasoline	27,493	61,997,517	Litres	18,376	2,169,913	147,201
	Diesel Fuel	557	1,347,375	Litres	18,370	51,604	3,677
	Other Fuel	69	184,081	Litres	15,629	7,050	282
Large Passenger Cars						2,228,567	151,160
Light Trucks, Vans, SUVs	Gasoline	64,133	200,354,563	Litres	21,036	7,012,410	478,938
	Diesel Fuel	5,297	13,954,584	Litres	20,214	534,461	38,124
	Other Fuel	406	1,074,873	Litres	13,928	41,168	1,647
Light Trucks, Vans, SUVs						7,588,039	518,709
Commercial Vehicles	Gasoline	469	1,966,759	Litres	13,861	68,837	4,597
	Diesel Fuel	1,603	7,544,389	Litres	20,981	288,950	20,302
	Other Fuel	87	335,883	Litres	12,409	12,864	515
Commercial Vehicles						370,651	25,414
Tractor Trailer Trucks	Gasoline	37	198,515	Litres	13,673	6,948	466
	Diesel Fuel	3,421	116,562,708	Litres	88,814	4,464,352	313,665
	Other Fuel	< 10	18,449	Litres	7,085	707	28
Tractor Trailer Trucks						4,472,007	314,159
Motorhomes	Gasoline	1,576	1,982,978	Litres	3,291	69,404	4,642
	Diesel Fuel	242	260,787	Litres	4,452	9,988	702
	Other Fuel	37	30,734	Litres	2,189	1,177	47
Motorhomes						80,569	5,391
Motorcycles, Mopeds	Gasoline	2,851	1,176,283	Litres	5,358	41,170	2,746
Motorcycles, Mopeds						41,170	2,746
Bus	Gasoline	159	1,488,487	Litres	21,770	52,097	3,499
	Diesel Fuel	204	2,980,179	Litres	28,046	114,141	8,020
	Other Fuel	23	158,446	Litres	15,913	6,068	243
Bus						172,306	11,762

Fraser Valley Regional District

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	12,137,834	827,153
	Diesel:	5,549,592	390,629
	Other Fuel:	69,589	2,784
On Road Transportation Totals	All Fuels:	17,757,015	1,220,566

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	97,348	1,223,907,058	Kilowatt Hours	4,406,062	30,190	
	Natural Gas	67,307	5,843,993	GigaJoules	5,843,993	298,045	
	Heating Oil			265,874	GigaJoules	265,874	18,741
	Propane			393,178	GigaJoules	393,178	23,988
	Wood			211,631	GigaJoules	211,631	78
Residential					11,120,738	371,042	
Commercial/Small-Medium Industrial	Electricity	12,218	990,550,041	Kilowatt Hours	3,565,977	24,434	
	Natural Gas	6,896	3,879,184	GigaJoules	3,879,184	197,839	
Commercial/Small-Medium Industrial					7,445,161	222,273	
					Electricity:	54,624	
					Natural Gas:	495,884	
					Propane:	23,988	
					Wood:	78	
					Heating Oil:	18,741	
Buildings Totals	Buildings:				18,565,899	593,315	

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	135,420	104,590

Fraser Valley Regional District

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION	ENERGY (GJ)	CO2e (t)
Diesel Fuel	144,897,958 L	5,549,592	390,629
Electricity	2,214,457,099 kWh	7,972,039	54,624
Gasoline	346,795,239 L	12,137,834	827,153
Heating Oil	265,874 GJ	265,874	18,741
Natural Gas	9,723,177 GJ	9,723,177	495,884
Other Fuel	1,816,952 L	69,589	2,784
Propane	393,178 GJ	393,178	23,988
Solid Waste	135,420 T	0	104,590
Wood	211,631 GJ	211,631	78
Total of Transportation / Buildings / Solid Waste:		36,322,914 GJ	1,918,471 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	6	66,154,229	Kilowatt Hours	238,155	1,632
	Natural Gas	103	2,148,456	GigaJoules	2,148,456	109,571
Large Industrial					2,386,611	111,203

Agriculture	Number of Animals	Methane	CO2e (t)
Enteric Fermentation	199,766	8,419	176,799

Land-Use Change	Area (ha)	CO2e (t)
Deforestation from Agriculture	35	16,099
Deforestation from Settlement	133	63,936
Deforestation:	168	80,035

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	49,830	39	53,420	62	53,460	56
Semi-Detached House	1,745	1	2,085	2	2,785	3
Row House	5,790	5	6,330	7	7,345	8
Apartment, Duplex	4,145	3	5,185	6	10,230	11
Apartment, 5 storeys or higher	1,175	1	1,115	1	1,375	1
Apartment, under 5 storeys	14,125	11	15,855	18	16,950	18
Other Single Attached House	145	0	155	0	140	0
Movable Dwelling	2,015	2	1,935	2	2,345	2

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	71,180	83	81,015	84	93,815	83
Car, Truck, Van as Passenger	7,000	8	7,750	8	10,915	10
Public Transit	945	1	1,330	1	1,735	2
Walked	4,080	5	4,130	4	4,490	4
Bicycle	1,420	2	1,115	1	1,015	1
Motorcycle	180	0	85	0	230	0
Taxicab	75	0	55	0	125	0
Other Method	785	1	745	1	910	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	294,821.4	21.7
Local Parks	3,082.3	0.2
Agricultural Land Reserve	71,970.4	5.3
Other land use	989,119.0	72.8
Total Land Area	1,358,993.0	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.