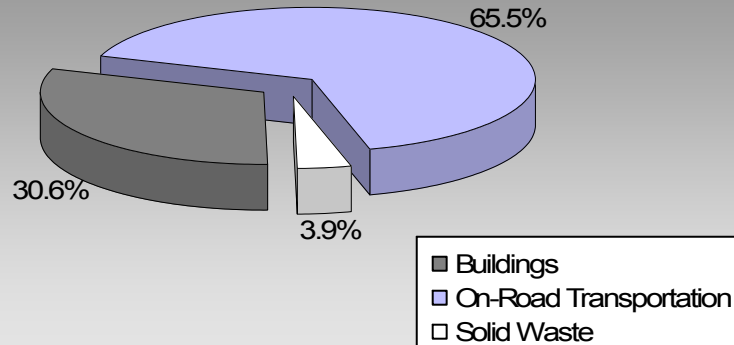


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

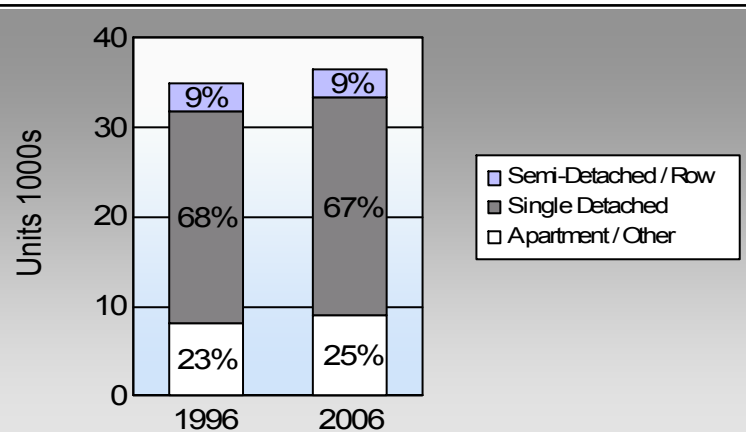
**Fraser-Fort George Regional District
2007 GHG Emissions Sources**



**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
	80.9%	80.7%
	8.8%	8.4%
	1.6%	1.7%
	5.5%	6.2%
	1.5%	1.3%

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	15,900	21,424,087	Litres	13,192	749,843	51,070
	Diesel Fuel	769	808,369	Litres	14,237	30,961	2,208
	Other Fuel	< 10	5,173	Litres	10,096	198	8
Small Passenger Cars						781,002	53,286
Large Passenger Cars	Gasoline	9,316	23,629,554	Litres	20,402	827,034	56,096
	Diesel Fuel	233	730,538	Litres	21,470	27,980	1,995
	Other Fuel	54	151,596	Litres	19,786	5,806	232
Large Passenger Cars						860,820	58,323
Light Trucks, Vans, SUVs	Gasoline	29,239	93,449,648	Litres	20,535	3,270,738	223,640
	Diesel Fuel	4,490	12,491,241	Litres	21,171	478,415	34,127
	Other Fuel	284	738,253	Litres	13,701	28,275	1,131
Light Trucks, Vans, SUVs						3,777,428	258,898
Commercial Vehicles	Gasoline	275	1,276,464	Litres	15,136	44,676	2,988
	Diesel Fuel	997	5,089,458	Litres	21,925	194,926	13,696
	Other Fuel	32	128,119	Litres	12,428	4,907	196
Commercial Vehicles						244,509	16,880
Tractor Trailer Trucks	Gasoline	20	83,668	Litres	11,074	2,928	196
	Diesel Fuel	1,770	61,061,510	Litres	87,225	2,338,656	164,314
	Other Fuel	< 10	11,974	Litres	8,989	459	18
Tractor Trailer Trucks						2,342,043	164,528
Motorhomes	Gasoline	393	606,908	Litres	2,760	21,242	1,417
	Diesel Fuel	58	88,858	Litres	4,851	3,403	239
	Other Fuel	14	18,413	Litres	2,189	705	28
Motorhomes						25,350	1,684
Motorcycles, Mopeds	Gasoline	487	350,348	Litres	5,338	12,262	818
	Motorcycles, Mopeds						12,262
Bus	Gasoline	55	566,952	Litres	23,037	19,843	1,332
	Diesel Fuel	158	2,572,591	Litres	31,706	98,530	6,923
	Other Fuel	< 10	29,260	Litres	15,902	1,121	45
Bus						119,494	8,300

Fraser-Fort George Regional District

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	4,948,566	337,557
	Diesel:	3,172,871	223,502
	Other Fuel:	41,471	1,658
On Road Transportation Totals	All Fuels:	8,162,908	562,717

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	39,034	411,515,856	Kilowatt Hours	1,481,456	10,151	
	Natural Gas	28,668	2,760,721	GigaJoules	2,760,721	140,797	
	Heating Oil		90,801	GigaJoules	90,801	6,401	
	Propane		246,835	GigaJoules	246,835	15,059	
	Wood		672,830	GigaJoules	672,830	249	
Residential					5,252,643	172,657	
Commercial/Small-Medium Industrial	Electricity	5,448	434,055,876	Kilowatt Hours	1,562,600	10,707	
	Natural Gas	2,649	1,560,500	GigaJoules	1,560,500	79,585	
Commercial/Small-Medium Industrial					3,123,100	90,292	
					Electricity:	3,044,056	20,858
					Natural Gas:	4,321,221	220,382
					Propane:	246,835	15,059
					Wood:	672,830	249
					Heating Oil:	90,801	6,401
Buildings Totals	Buildings:				8,375,743	262,949	

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	89,936	33,566

Grand Total	CONSUMPTION		ENERGY (GJ)	CO ₂ e (t)
Diesel Fuel	82,842,565	L	3,172,871	223,502
Electricity	845,571,732	kWh	3,044,056	20,858
Gasoline	141,387,629	L	4,948,566	337,557
Heating Oil	90,801	GJ	90,801	6,401
Natural Gas	4,321,221	GJ	4,321,221	220,382
Other Fuel	1,082,788	L	41,471	1,658
Propane	246,835	GJ	246,835	15,059
Solid Waste	89,936	T	0	33,566
Wood	672,830	GJ	672,830	249
Total of Transportation / Buildings / Solid Waste:			16,538,651 GJ	859,232 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO ₂ e (t)
Large Industrial	Electricity	22	2,119,845,016	Kilowatt Hours	7,631,436	52,290
	Natural Gas	36	6,306,994	GigaJoules	6,306,994	321,657
Large Industrial					13,938,430	373,947

Agriculture		Number of Animals	Methane	CO ₂ e (t)
	Enteric Fermentation	32,956	1,904	39,984

Land-Use Change		Area (ha)	CO ₂ e (t)
	Deforestation from Settlement	55	26,457
	Deforestation from Agriculture	241	110,138
Deforestation:		296	136,595

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	23,825	41	24,500	68	24,350	67
Semi-Detached House	1,630	3	1,515	4	1,485	4
Row House	1,340	2	1,640	5	1,670	5
Apartment, Duplex	1,155	2	1,065	3	1,800	5
Apartment, 5 storeys or higher	395	1	365	1	410	1
Apartment, under 5 storeys	3,905	7	3,555	10	4,440	12
Other Single Attached House	95	0	50	0	40	0
Movable Dwelling	2,495	4	3,270	9	2,260	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	37,095	81	36,670	82	37,535	81
Car, Truck, Van as Passenger	4,055	9	3,515	8	3,905	8
Public Transit	740	2	635	1	775	2
Walked	2,525	6	2,450	6	2,890	6
Bicycle	675	1	580	1	585	1
Motorcycle	90	0	50	0	60	0
Taxicab	135	0	80	0	85	0
Other Method	560	1	550	1	655	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	516,682.7	9.9
Local Parks	1,034.0	0.0
Agricultural Land Reserve	405,669.1	7.8
Other land use	4,272,397.6	82.2
Total Land Area	5,195,783.4	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.