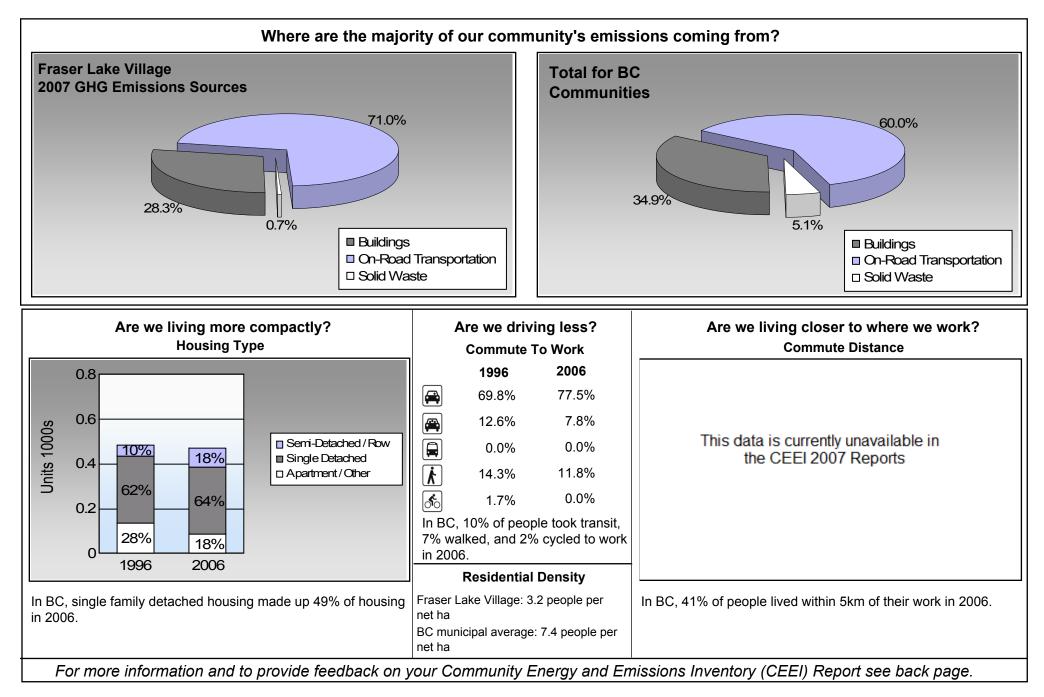


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities





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Sectors

On Road Transport	ation	<u>Vehicles</u>	Consumption	<u>Measurement</u>	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	188	291,880	Litres	13,894	10,216	692
	Diesel Fuel	17	17,544	Litres	14,463	672	48
				Small Pa	assenger Cars	10,888	740
Large Passenger Cars	Gasoline	139	349,279	Litres	19,939	12,225	827
	Diesel Fuel	< 10	7,774	Litres	18,456	298	21
	Other Fuel	< 10	3,153	Litres	14,463	121	5
				Large Pa	assenger Cars	12,644	853
Light Trucks, Vans, SUVs	Gasoline	532	1,683,193	Litres	20,026	58,912	4,014
	Diesel Fuel	106	298,441	Litres	22,105	11,430	815
	Other Fuel	< 10	14,371	Litres	12,388	550	22
				Light Tr	70,892	4,851	
Commercial Vehicles	Gasoline	< 10	28,546	Litres	14,126	999	67
	Diesel Fuel	19	90,442	Litres	22,449	3,464	243
				Commei	rcial Vehicles	4,463	310
Tractor Trailer Trucks	Diesel Fuel	17	701,462	Litres	102,446	26,866	1,888
				Tractor	Trailer Trucks	26,866	1,888
Motorhomes	Gasoline	< 10	7,173	Litres	2,480	251	17
	Diesel Fuel	< 10	751	Litres		29	2
	Other Fuel	< 10	831	Litres		32	1
				Motorho	omes	312	20
Motorcycles, Mopeds	Gasoline	< 10	3,911	Litres	6,361	137	9
				Motorcy	cles, Mopeds	137	9
Bus	Gasoline	< 10	5,852	Litres	15,902	205	14
	Diesel Fuel	< 10	4,583	Litres		176	12
				Bus		381	26
				Gasoline		82,945	5,640
						42,935	3,029
				Diesel:			
				Other Fu	iei:	703	28
On Road Transportation To	otals			All Fuel	s:	126,583	8,697



Buildings	Туре	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>	
Residential	Electricity	554	4,858,202	Kilowatt Hours	17,490	120	
	Natural Gas	397	32,462	GigaJoules	32,462	1,655	
	Heating Oil		1,797	GigaJoules	1,797	127	
	Propane		4,885	GigaJoules	4,885	298	
	Wood		13,323	GigaJoules	13,323	5	
			Residential		69,957	2,205	
Commercial/Small-Medium Industrial	Electricity	98	5,225,138	Kilowatt Hours	18,810	129	
	Natural Gas	55	22,121	GigaJoules	22,121	1,128	
			Commercial/Sma	II-Medium Industrial	40,931	1,257	
			Electr	city:	36,300	249	
			Natura	al Gas:	54,583	2,783	
			Propa	ne:	4,885	298	
			Wood		13,323	5	
			Heatir	ıg Oil:	1,797	127	
Buildings Totals			Buildi	ngs:	110,888	3,462	
Solid Waste					<u>Mass (t)</u>	<u>CO2e (t)</u>	
			Comm	unity Solid Waste	1,202	82	



Grand Total		CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	Diesel Fuel	1,120,997	L	42,935	3,029
	Electricity	10,083,340	kWh	36,300	249
	Gasoline	2,369,834	L	82,945	5,640
	Heating Oil	1,797	GJ	1,797	127
	Natural Gas	54,583	GJ	54,583	2,783
	Other Fuel	18,355	L	703	28
	Propane	4,885	GJ	4,885	298
	Solid Waste	1,202	Т	0	82
	Wood	13,323	GJ	13,323	5
Total of Transportation / B	uildings / Solid Waste:			237,471 GJ	12,241 tonnes

Memo Items

Buildings	Туре	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
			Lar	ge 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/cas/mitigation/ceei/index.html or

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		200	2001		2006	
	Units	%	Units	%	Units	%	
Single Detached House	300	38	310	63	300	64	
Semi-Detached House	0	0	5	1	0	0	
Row House	50	6	90	18	85	18	
Apartment, Duplex	0	0	0	0	0	0	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	115	15	60	12	60	13	
Other Single Attached House	0	0	5	1	0	0	
Movable Dwelling	20	3	20	4	25	5	

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		20	2001		2006	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	415	70	405	71	395	77	
Car, Truck,Van as Passenge	75	13	65	11	40	8	
Public Transit	0	0	0	0	0	0	
Walked	85	14	100	18	60	12	
Bicycle	10	2	0	0	0	0	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	10	2	0	0	15	3	

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
1,122.0
347.5
) 3.2

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	0.0	0.0				
Local Parks	0.0	0.0				
Agricultural Land Reserve	24.0	4.8				
Other land use	471.1	95.2				
Total Land Area	495.2	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 <u>CEEIRPT@gov.bc.ca</u> (see survey on CEEI website).

On-Road Transportation (and Land Use) Proximity to Transit Persons, dwelling units (du) and employment within 400m of a guality transit stop/line Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.) Proximity to Services Transit Ridership Annual per capita transit ridership **Buildings** Residential; Public Building Average energy use per person per square metre of floor space Energy Intensity Average residential dwelling unit size Floor Space 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 (<<u>http://www.toolkit.bc.ca></u>), 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.

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 <<u>http://www.toolkit.bc.ca></u> and <<u>http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm></u>.

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 CEEI Survey at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at CEEI Survey at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at CEEI Survey at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly

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.