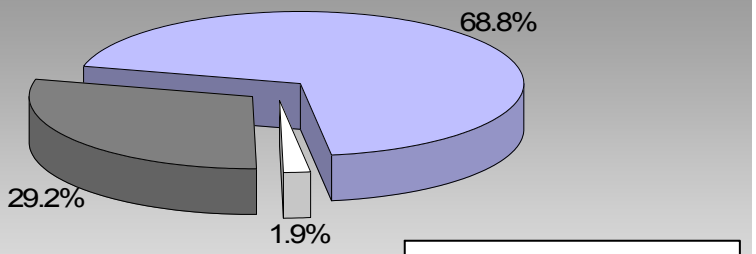
Lake Country District Municipality
Updated 2007 Community Energy and Emissions Inventory

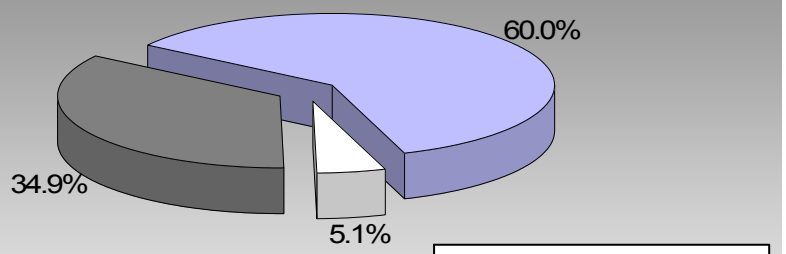
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Lake Country District Municipality
2007 GHG Emissions Sources

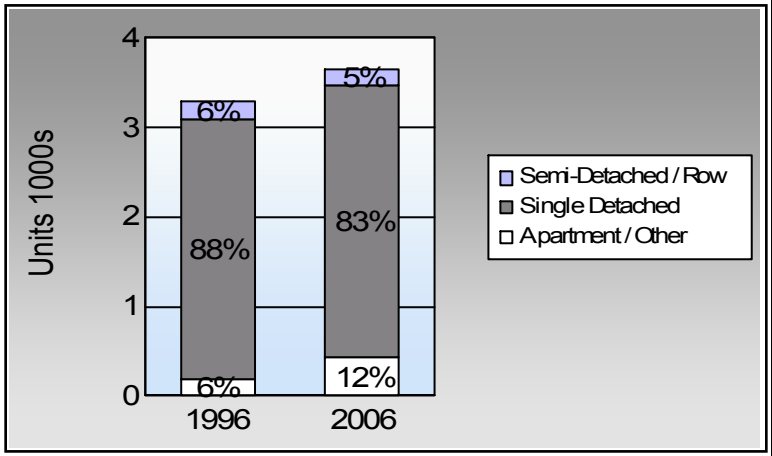


Total for BC Communities



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
	87.1%	89.4%
	7.1%	5.9%
	1.5%	1.0%
	3.0%	1.9%
	0.3%	0.2%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

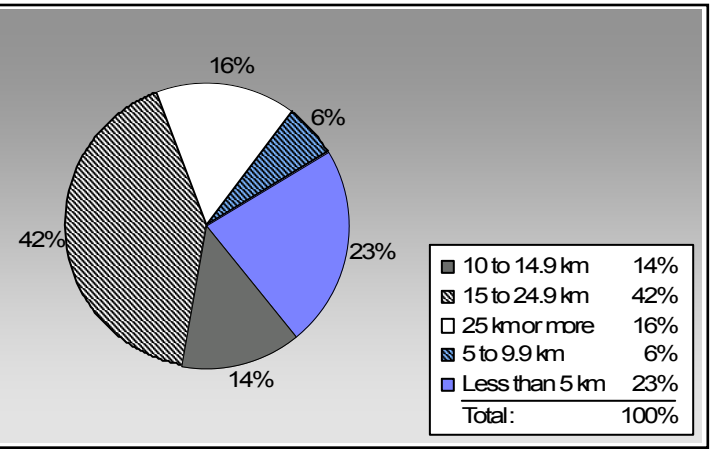
Residential Density

Lake Country District Municipality: 1.6 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	2,139	2,868,735	Litres	12,699	100,406	6,852
	Diesel Fuel	122	120,464	Litres	13,171	4,614	329
	Other Fuel	< 10	851	Litres		33	1
				Small Passenger Cars		**105,053**	**7,182**
Large Passenger Cars	Gasoline	1,098	2,376,790	Litres	16,603	83,188	5,669
	Diesel Fuel	28	56,560	Litres	16,260	2,166	154
	Other Fuel	< 10	6,641	Litres	14,016	254	10
				Large Passenger Cars		**85,608**	**5,833**
Light Trucks, Vans, SUVs	Gasoline	3,368	10,185,594	Litres	19,788	356,496	24,396
	Diesel Fuel	386	981,614	Litres	19,942	37,596	2,682
	Other Fuel	21	60,025	Litres	13,072	2,299	92
				Light Trucks, Vans, SUVs		**396,391**	**27,170**
Commercial Vehicles	Gasoline	29	138,769	Litres	13,674	4,857	324
	Diesel Fuel	71	337,047	Litres	20,926	12,909	907
	Other Fuel	< 10	23,878	Litres	11,442	915	37
				Commercial Vehicles		**18,681**	**1,268**
Tractor Trailer Trucks	Gasoline	< 10	4,761	Litres	7,085	167	11
	Diesel Fuel	81	2,048,096	Litres	63,687	78,442	5,511
				Tractor Trailer Trucks		**78,609**	**5,522**
Motorhomes	Gasoline	72	97,017	Litres	2,919	3,396	227
	Diesel Fuel	12	13,213	Litres	4,325	506	36
	Other Fuel	< 10	2,215	Litres	2,189	85	3
				Motorhomes		**3,987**	**266**
Motorcycles, Mopeds	Gasoline	149	70,743	Litres	5,203	2,476	165
				Motorcycles, Mopeds		**2,476**	**165**
Bus	Gasoline	< 10	59,113	Litres	23,989	2,069	139
				Bus		**2,069**	**139**

	Gasoline:	553,055	37,783
	Diesel:	136,233	9,619
	Other Fuel:	3,586	143
On Road Transportation Totals	**All Fuels:**	**692,874**	**47,545**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	4,612	62,035,729	Kilowatt Hours	223,328	1,530
	Natural Gas	3,160	258,877	GigaJoules	258,877	13,203
	Heating Oil		4,631	GigaJoules	4,631	326
	Propane		8,158	GigaJoules	8,158	498
	Wood		40,830	GigaJoules	40,830	15
			Residential		**535,824**	**15,572**
Commercial/Small-Medium Industrial	Electricity	572	28,032,353	Kilowatt Hours	100,916	691
	Natural Gas	194	77,172	GigaJoules	77,172	3,936
			Commercial/Small-Medium Industrial		**178,088**	**4,627**

	Electricity:	324,244	2,221
	Natural Gas:	336,049	17,139
	Propane:	8,158	498
	Wood:	40,830	15
	Heating Oil:	4,631	326
Buildings Totals	**Buildings:**	**713,912**	**20,199**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	3,024	1,342

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	3,556,994	L	136,233	9,619
	Electricity	90,068,082	kWh	324,244	2,221
	Gasoline	15,801,522	L	553,055	37,783
	Heating Oil	4,631	GJ	4,631	326
	Natural Gas	336,049	GJ	336,049	17,139
	Other Fuel	93,610	L	3,586	143
	Propane	8,158	GJ	8,158	498
	Solid Waste	3,024	T	0	1,342
	Wood	40,830	GJ	40,830	15
Total of Transportation / Buildings / Solid Waste:				**1,406,786** GJ	**69,086** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
				Large Industrial	**-**	**-**

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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	2,900	47	3,015	86	3,035	83
Semi-Detached House	110	2	65	2	65	2
Row House	80	1	110	3	120	3
Apartment, Duplex	90	1	125	4	240	7
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	40	1	65	2	65	2
Other Single Attached House	15	0	5	0	10	0
Movable Dwelling	45	1	135	4	110	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
Population	11,409.0
Net Land Area (ha) *	6,972.8
Residential Density (people per net ha)	1.6

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	3,150	87	3,510	87	4,030	89
Car, Truck,Van as Passenge	255	7	225	6	265	6
Public Transit	55	2	115	3	45	1
Walked	110	3	85	2	85	2
Bicycle	10	0	25	1	10	0
Motorcycle	15	0	10	0	10	0
Taxicab	0	0	0	0	0	0
Other Method	20	1	85	2	65	1

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	%
Less than 5 km	845	23
5 to 9.9 km	225	6
10 to 14.9 km	500	14
15 to 24.9 km	1,535	42
25 km or more	590	16

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	30.2	0.2
Local Parks	41.6	0.3
Agricultural Land Reserve	4,789.3	29.2
Other land use	11,519.1	70.3
Total Land Area	16,380.2	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 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 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 (<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