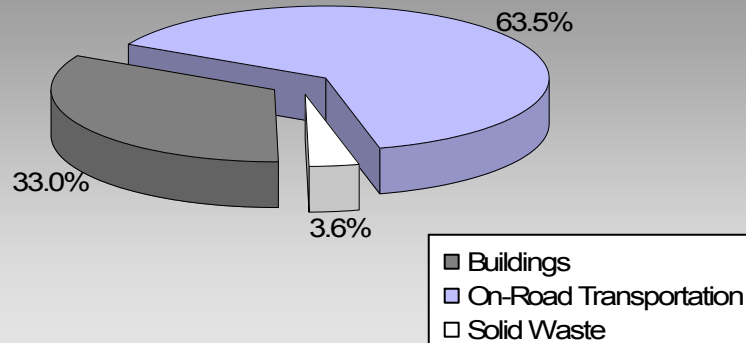


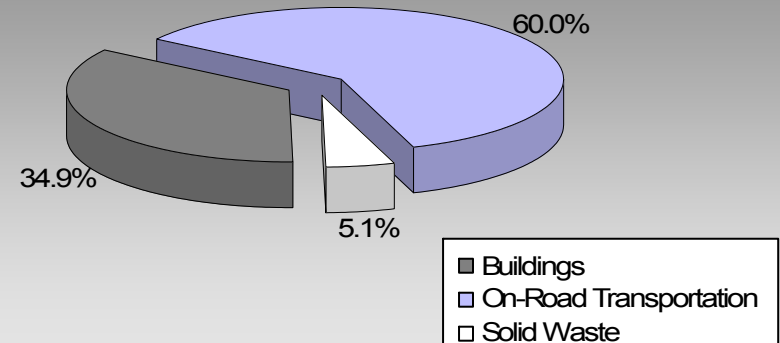
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

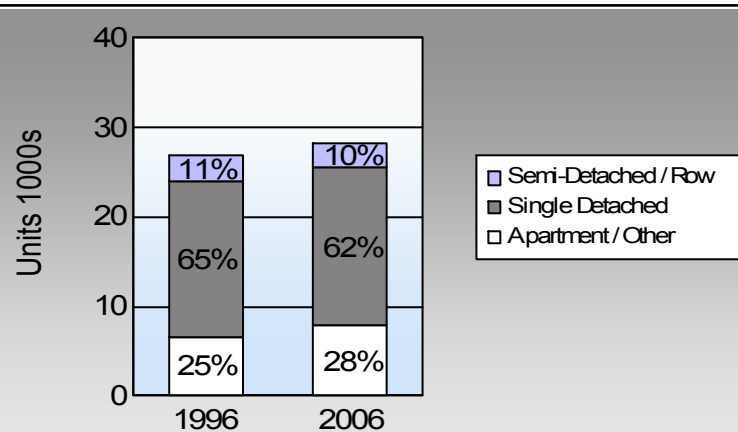
**Prince George City
2007 GHG Emissions Sources**



**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
	80.7%	80.2%
	9.3%	8.7%
	2.1%	2.0%
	4.9%	6.1%
	1.3%	1.2%

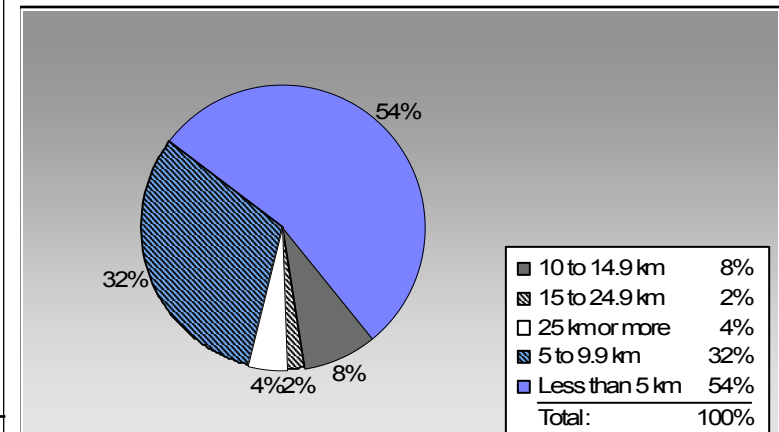
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

Residential Density

Prince George City: 3.2 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.

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	13,002	17,339,413	Litres	13,209	606,879	41,322
	Diesel Fuel	515	535,523	Litres	14,221	20,511	1,463
	Other Fuel	< 10	4,158	Litres	9,817	159	6
Small Passenger Cars						627,549	42,791
Large Passenger Cars	Gasoline	7,581	19,051,358	Litres	20,557	666,798	45,210
	Diesel Fuel	178	525,488	Litres	21,726	20,126	1,435
	Other Fuel	47	133,519	Litres	20,406	5,114	205
Large Passenger Cars						692,038	46,850
Light Trucks, Vans, SUVs	Gasoline	21,911	69,982,100	Litres	20,710	2,449,374	167,413
	Diesel Fuel	2,768	7,695,502	Litres	21,521	294,738	21,025
	Other Fuel	192	496,638	Litres	13,995	19,021	761
Light Trucks, Vans, SUVs						2,763,133	189,199
Commercial Vehicles	Gasoline	184	876,600	Litres	15,716	30,681	2,053
	Diesel Fuel	683	3,431,564	Litres	22,085	131,429	9,234
	Other Fuel	18	72,167	Litres	12,822	2,764	111
Commercial Vehicles						164,874	11,398
Tractor Trailer Trucks	Gasoline	10	49,583	Litres	12,296	1,735	116
	Diesel Fuel	1,260	44,320,214	Litres	91,395	1,697,464	119,264
	Other Fuel	< 10	7,808	Litres	10,620	299	12
Tractor Trailer Trucks						1,699,498	119,392
Motorhomes	Gasoline	278	426,697	Litres	2,799	14,934	996
	Diesel Fuel	44	66,095	Litres	4,871	2,531	178
	Other Fuel	12	12,598	Litres	2,189	483	19
Motorhomes						17,948	1,193
Motorcycles, Mopeds	Gasoline	374	262,247	Litres	5,364	9,179	612
Motorcycles, Mopeds						9,179	612
Bus	Gasoline	44	380,418	Litres	21,410	13,315	894
	Diesel Fuel	153	2,489,450	Litres	31,902	95,346	6,699
	Other Fuel	< 10	8,778	Litres	15,902	336	13
Bus						108,997	7,606

Prince George City Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	3,792,895	258,616
	Diesel:	2,262,145	159,298
	Other Fuel:	28,176	1,127
On Road Transportation Totals	All Fuels:	6,083,216	419,041

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>	
Residential	Electricity	29,292	283,788,900	Kilowatt Hours	1,021,639	7,000	
	Natural Gas	23,711	2,307,866	GigaJoules	2,307,866	117,701	
	Heating Oil		52,283	GigaJoules	52,283	3,685	
	Propane		142,203	GigaJoules	142,203	8,676	
	Wood		387,176	GigaJoules	387,176	143	
Residential					3,911,167	137,205	
Commercial/Small-Medium Industrial	Electricity	3,833	366,051,403	Kilowatt Hours	1,317,784	9,029	
	Natural Gas	2,396	1,400,005	GigaJoules	1,400,005	71,400	
Commercial/Small-Medium Industrial					2,717,789	80,429	
					Electricity:	2,339,423	16,029
					Natural Gas:	3,707,871	189,101
					Propane:	142,203	8,676
					Wood:	387,176	143
					Heating Oil:	52,283	3,685
Buildings Totals	Buildings:				6,628,956	217,634	

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	69,043	23,625

Prince George City

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	59,063,836	L	2,262,145	159,298
Electricity	649,840,303	kWh	2,339,423	16,029
Gasoline	108,368,416	L	3,792,895	258,616
Heating Oil	52,283	GJ	52,283	3,685
Natural Gas	3,707,871	GJ	3,707,871	189,101
Other Fuel	735,666	L	28,176	1,127
Propane	142,203	GJ	142,203	8,676
Solid Waste	69,043	T	0	23,625
Wood	387,176	GJ	387,176	143
Total of Transportation / Buildings / Solid Waste:			12,712,172 GJ	660,300 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	10	withheld	Kilowatt Hours	-	-
	Natural Gas	28	6,306,994	GigaJoules	6,306,994	321,657
Large Industrial					6,306,994	321,657

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	17,295	39	17,825	65	17,550	62
Semi-Detached House	1,615	4	1,495	5	1,285	5
Row House	1,210	3	1,500	5	1,485	5
Apartment, Duplex	1,120	3	1,000	4	1,750	6
Apartment, 5 storeys or higher	395	1	360	1	410	1
Apartment, under 5 storeys	3,605	8	3,330	12	4,255	15
Other Single Attached House	90	0	30	0	10	0
Movable Dwelling	1,440	3	2,060	7	1,460	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		2001		2006	
	People	%	People	%	People	%
Car, Truck, Van as Driver	28,505	81	27,975	82	28,910	80
Car, Truck, Van as Passenger	3,290	9	2,710	8	3,135	9
Public Transit	730	2	615	2	720	2
Walked	1,730	5	1,795	5	2,190	6
Bicycle	470	1	470	1	430	1
Motorcycle	70	0	40	0	45	0
Taxicab	135	0	75	0	80	0
Other Method	410	1	410	1	525	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	
Population	74,547.0
Net Land Area (ha) *	23,212.4
Residential Density (people per net ha)	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	%
Less than 5 km	17,110	54
5 to 9.9 km	10,025	32
10 to 14.9 km	2,665	8
15 to 24.9 km	570	2
25 km or more	1,420	4

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	672.2	2.0
Agricultural Land Reserve	8,034.4	24.4
Other land use	24,237.2	73.6
Total Land Area	32,943.7	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.