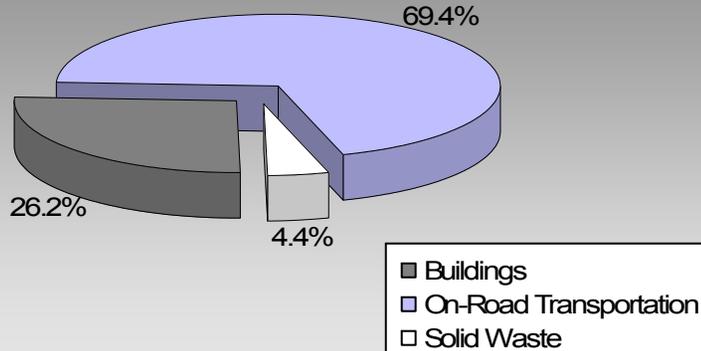


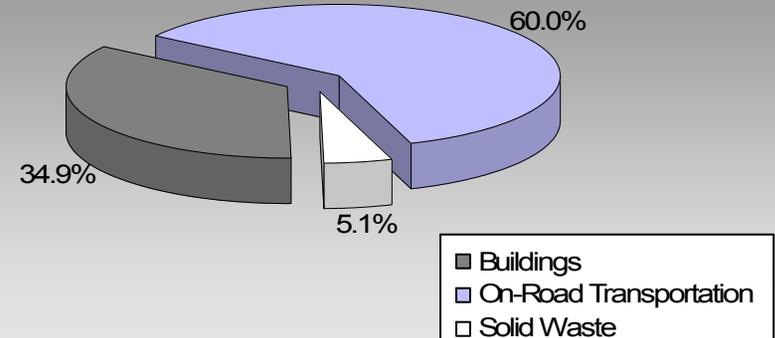
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

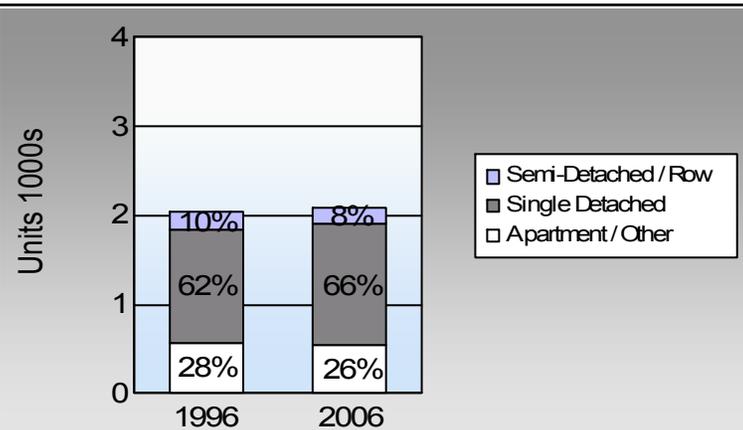
**Smithers Town
2007 GHG Emissions Sources**



**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
	66.1%	61.7%
	6.7%	7.4%
	0.0%	0.0%
	20.4%	23.3%
	5.8%	4.9%

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

Residential Density

Smithers Town: 4.4 people per net ha
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.

Smithers Town

Updated 2007 Community Energy and Emissions Inventory

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	864	1,237,645	Litres	13,453	43,318	2,955
	Diesel Fuel	29	31,442	Litres	13,570	1,204	86
Small Passenger Cars						44,522	3,041
Large Passenger Cars	Gasoline	555	1,402,686	Litres	20,209	49,094	3,326
	Diesel Fuel	21	58,549	Litres	20,527	2,242	160
	Other Fuel	< 10	1,806	Litres		69	3
Large Passenger Cars						51,405	3,489
Light Trucks, Vans, SUVs	Gasoline	2,273	7,297,550	Litres	20,210	255,414	17,474
	Diesel Fuel	364	1,032,528	Litres	21,437	39,546	2,821
	Other Fuel	17	36,399	Litres	13,097	1,394	56
Light Trucks, Vans, SUVs						296,354	20,351
Commercial Vehicles	Gasoline	26	170,739	Litres	18,164	5,976	400
	Diesel Fuel	110	508,033	Litres	20,549	19,458	1,367
	Other Fuel	< 10	12,210	Litres	11,356	468	19
Commercial Vehicles						25,902	1,786
Tractor Trailer Trucks	Gasoline	< 10	43,657	Litres	21,655	1,528	103
	Diesel Fuel	150	5,018,947	Litres	86,704	192,226	13,506
Tractor Trailer Trucks						193,754	13,609
Motorhomes	Gasoline	29	50,704	Litres	3,118	1,775	119
	Diesel Fuel	< 10	10,991	Litres	5,305	421	30
	Other Fuel	< 10	831	Litres	2,189	32	1
Motorhomes						2,228	150
Motorcycles, Mopeds	Gasoline	27	20,166	Litres	5,172	706	47
Motorcycles, Mopeds						706	47
Bus	Gasoline	< 10	48,941	Litres	21,367	1,713	115
	Diesel Fuel	27	208,995	Litres	18,182	8,004	562
	Other Fuel	< 10	1,463	Litres		56	2
Bus						9,773	679

Smithers Town

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	359,524	24,539
	Diesel:	263,101	18,532
	Other Fuel:	2,019	81
On Road Transportation Totals	All Fuels:	624,644	43,152

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	2,318	23,033,521	Kilowatt Hours	82,921	568
	Natural Gas	1,635	136,732	GigaJoules	136,732	6,974
	Heating Oil		3,711	GigaJoules	3,711	262
	Propane		10,085	GigaJoules	10,085	615
	Wood		27,511	GigaJoules	27,511	10
Residential					260,960	8,429
Commercial/Small-Medium Industrial	Electricity	615	35,892,692	Kilowatt Hours	129,214	885
	Natural Gas	410	137,267	GigaJoules	137,267	7,001
Commercial/Small-Medium Industrial					266,481	7,886
					Electricity:	1,453
					Natural Gas:	13,975
					Propane:	615
					Wood:	10
					Heating Oil:	262
Buildings Totals	Buildings:				527,441	16,315

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	5,151	2,726

Smithers Town

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION	ENERGY (GJ)	CO2e (t)
Diesel Fuel	6,869,485 L	263,101	18,532
Electricity	58,926,213 kWh	212,135	1,453
Gasoline	10,272,088 L	359,524	24,539
Heating Oil	3,711 GJ	3,711	262
Natural Gas	273,999 GJ	273,999	13,975
Other Fuel	52,709 L	2,019	81
Propane	10,085 GJ	10,085	615
Solid Waste	5,151 T	0	2,726
Wood	27,511 GJ	27,511	10
Total of Transportation / Buildings / Solid Waste:		1,152,085 GJ	62,193 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	4	82,163	GigaJoules	82,163	4,190
			Large Industrial		82,163	4,190

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	1,255	38	1,385	67	1,365	66
Semi-Detached House	75	2	70	3	95	5
Row House	130	4	125	6	80	4
Apartment, Duplex	30	1	45	2	30	1
Apartment, 5 storeys or higher	0	0	15	1	0	0
Apartment, under 5 storeys	375	11	310	15	340	16
Other Single Attached House	10	0	0	0	50	2
Movable Dwelling	160	5	130	6	120	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	1,765	66	1,715	66	1,500	62
Car, Truck, Van as Passenger	180	7	155	6	180	7
Public Transit	0	0	0	0	0	0
Walked	545	20	530	21	565	23
Bicycle	155	6	105	4	120	5
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	15	1	0	0
Other Method	25	1	65	3	65	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	5,321.0
Net Land Area (ha) *	1,207.9
Residential Density (people per net ha)	4.4

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	33.2	2.1
Agricultural Land Reserve	388.1	24.6
Other land use	1,155.2	73.3
Total Land Area	1,576.5	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.