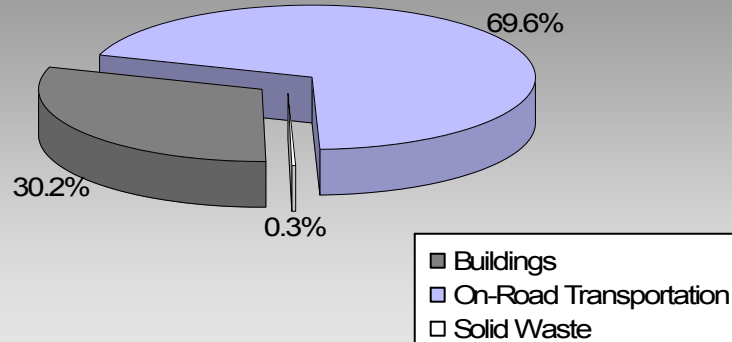


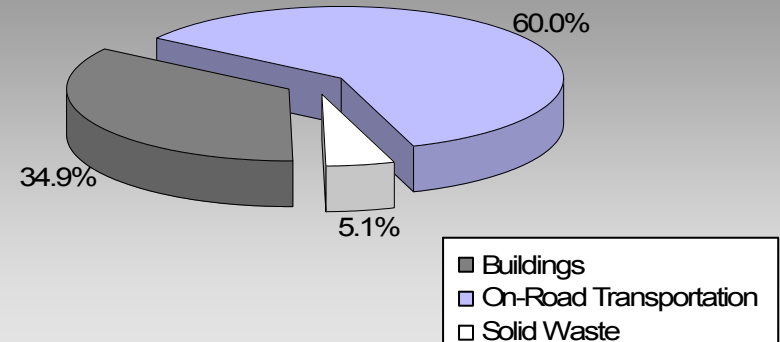
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

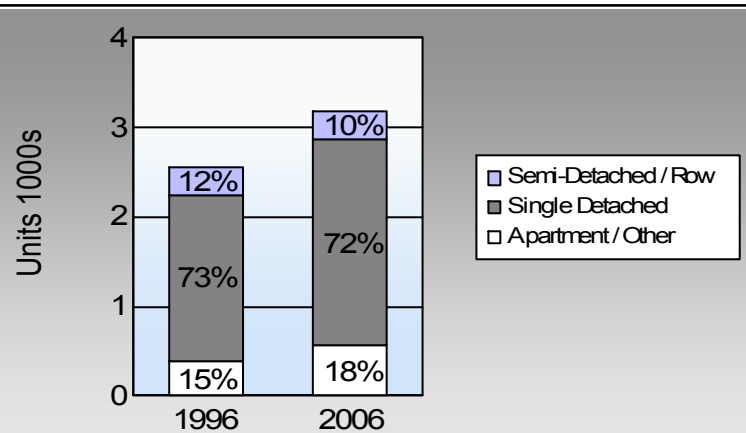
**Ladysmith Town
2007 GHG Emissions Sources**



**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
	80.4%	85.7%
	6.7%	5.8%
	0.0%	0.5%
	10.7%	6.4%
	1.0%	0.3%

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

Residential Density

Ladysmith Town: 8.8 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.

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	1,767	2,371,572	Litres	13,341	83,005	5,666
	Diesel Fuel	63	62,805	Litres	13,973	2,405	171
Small Passenger Cars						85,410	5,837
Large Passenger Cars	Gasoline	989	2,294,212	Litres	19,017	80,297	5,464
	Diesel Fuel	12	31,239	Litres	18,644	1,196	85
	Other Fuel	< 10	4,271	Litres	15,364	164	7
Large Passenger Cars						81,657	5,556
Light Trucks, Vans, SUVs	Gasoline	2,216	6,493,845	Litres	19,585	227,285	15,594
	Diesel Fuel	192	462,359	Litres	18,495	17,708	1,263
	Other Fuel	14	33,835	Litres	12,967	1,296	52
Light Trucks, Vans, SUVs						246,289	16,909
Commercial Vehicles	Gasoline	11	45,211	Litres	14,297	1,582	106
	Diesel Fuel	41	174,452	Litres	20,098	6,682	469
	Other Fuel	< 10	7,183	Litres	11,356	275	11
Commercial Vehicles						8,539	586
Tractor Trailer Trucks	Diesel Fuel	50	1,655,237	Litres	82,853	63,396	4,454
Tractor Trailer Trucks						63,396	4,454
Motorhomes	Gasoline	61	65,981	Litres	2,901	2,309	154
	Diesel Fuel	11	9,719	Litres	3,954	372	26
	Other Fuel	< 10	1,938	Litres	2,189	74	3
Motorhomes						2,755	183
Motorcycles, Mopeds	Gasoline	87	32,473	Litres	5,200	1,137	76
Motorcycles, Mopeds						1,137	76
Bus	Gasoline	< 10	5,852	Litres	15,902	205	14
	Diesel Fuel	< 10	7,634	Litres	15,905	292	21
	Other Fuel	< 10	1,463	Litres		56	2
Bus						553	37

Ladysmith Town

Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	395,820	27,074
	Diesel:	92,051	6,489
	Other Fuel:	1,865	75
	All Fuels:	489,736	33,638

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	3,609	45,728,707	Kilowatt Hours	164,623	1,128
	Natural Gas	1,452	83,455	GigaJoules	83,455	4,257
	Heating Oil		55,408	GigaJoules	55,408	3,906
	Propane		9,555	GigaJoules	9,555	583
	Wood		67,557	GigaJoules	67,557	25
Residential					380,598	9,899
Commercial/Small-Medium Industrial	Electricity	354	19,280,640	Kilowatt Hours	69,410	476
	Natural Gas	140	82,706	GigaJoules	82,706	4,218
Commercial/Small-Medium Industrial					152,116	4,694
Buildings Totals	Electricity:				234,033	1,604
	Natural Gas:				166,161	8,475
	Propane:				9,555	583
	Wood:				67,557	25
	Heating Oil:				55,408	3,906
Buildings:					532,714	14,593

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	624	122

Ladysmith Town

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION	ENERGY (GJ)	CO2e (t)
Diesel Fuel	2,403,445 L	92,051	6,489
Electricity	65,009,347 kWh	234,033	1,604
Gasoline	11,309,146 L	395,820	27,074
Heating Oil	55,408 GJ	55,408	3,906
Natural Gas	166,161 GJ	166,161	8,475
Other Fuel	48,690 L	1,865	75
Propane	9,555 GJ	9,555	583
Solid Waste	624 T	0	122
Wood	67,557 GJ	67,557	25
Total of Transportation / Buildings / Solid Waste:		1,022,450 GJ	48,353 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
Large 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

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	1,865	42	2,120	79	2,290	72
Semi-Detached House	145	3	60	2	100	3
Row House	150	3	190	7	225	7
Apartment, Duplex	40	1	35	1	75	2
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	285	6	280	10	350	11
Other Single Attached House	0	0	5	0	15	0
Movable Dwelling	60	1	0	0	130	4

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	2,035	80	2,260	86	2,660	86
Car, Truck, Van as Passenger	170	7	140	5	180	6
Public Transit	0	0	10	0	15	0
Walked	270	11	160	6	200	6
Bicycle	25	1	30	1	10	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	10	0
Other Method	30	1	20	1	30	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	8,118.0
Net Land Area (ha) *	925.1
Residential Density (people per net ha)	8.8

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	27.3	2.2
Agricultural Land Reserve	212.0	17.4
Other land use	981.5	80.4
Total Land Area	1,220.8	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.