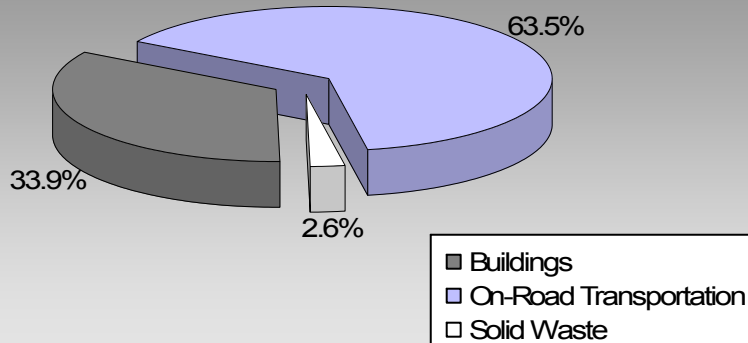


# Updated 2007 Community Energy and Emissions Inventory

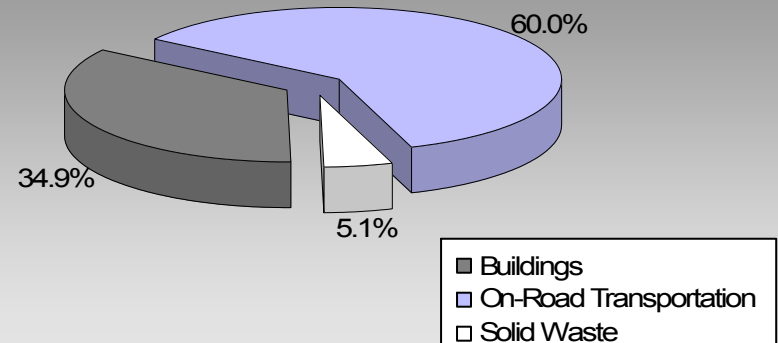
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

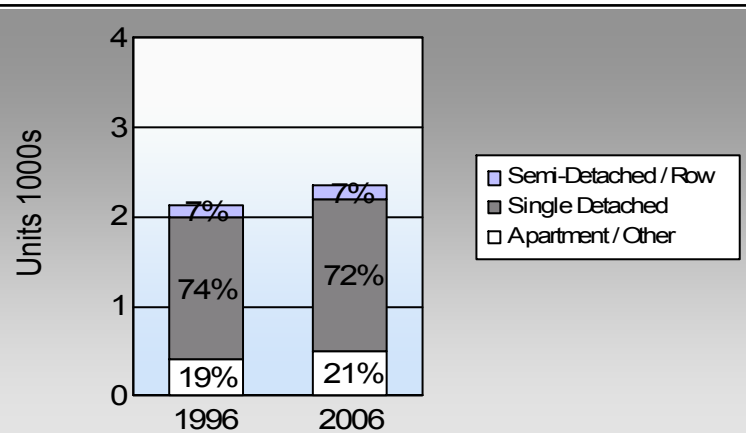
**Creston Town  
2007 GHG Emissions Sources**



**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
	70.8%	76.6%
	4.4%	5.0%
	0.6%	1.3%
	23.5%	16.4%
	0.0%	0.7%

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

#### Residential Density

Creston Town: 6.9 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

<b>On Road Transportation</b>		<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	856	1,192,223	Litres	13,608	41,728	2,856
	Diesel Fuel	43	40,459	Litres	13,534	1,550	110
	Other Fuel	< 10	697	Litres	8,199	27	1
<b>Small Passenger Cars</b>						<b>43,305</b>	<b>2,967</b>
Large Passenger Cars	Gasoline	804	1,596,996	Litres	15,951	55,895	3,805
	Diesel Fuel	< 10	20,449	Litres	18,522	783	56
	Other Fuel	< 10	9,053	Litres	13,175	347	14
<b>Large Passenger Cars</b>						<b>57,025</b>	<b>3,875</b>
Light Trucks, Vans, SUVs	Gasoline	1,865	5,585,838	Litres	19,278	195,504	13,396
	Diesel Fuel	182	430,848	Litres	18,374	16,501	1,177
	Other Fuel	17	42,283	Litres	13,399	1,619	65
<b>Light Trucks, Vans, SUVs</b>						<b>213,624</b>	<b>14,638</b>
Commercial Vehicles	Gasoline	21	82,314	Litres	13,017	2,881	192
	Diesel Fuel	45	191,902	Litres	19,085	7,350	516
	Other Fuel	< 10	8,619	Litres	11,356	330	13
<b>Commercial Vehicles</b>						<b>10,561</b>	<b>721</b>
Tractor Trailer Trucks	Gasoline	< 10	2,380	Litres	7,085	83	6
	Diesel Fuel	56	1,202,568	Litres	54,420	46,058	3,236
<b>Tractor Trailer Trucks</b>						<b>46,141</b>	<b>3,242</b>
Motorhomes	Gasoline	49	63,998	Litres	2,929	2,240	150
	Diesel Fuel	< 10	2,171	Litres	3,121	83	6
	Other Fuel	< 10	969	Litres		37	1
<b>Motorhomes</b>						<b>2,360</b>	<b>157</b>
Motorcycles, Mopeds	Gasoline	40	23,614	Litres	4,743	826	55
	<b>Motorcycles, Mopeds</b>						<b>826</b>
Bus	Gasoline	< 10	2,926	Litres		102	7
	Diesel Fuel	< 10	63,849	Litres	44,225	2,445	172
	Other Fuel	< 10	1,463	Litres		56	2
<b>Bus</b>						<b>2,603</b>	<b>181</b>

# Creston Town

## Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	299,259	20,467
	Diesel:	74,770	5,273
	Other Fuel:	2,416	96
<b>On Road Transportation Totals</b>	<b>All Fuels:</b>	<b>376,445</b>	<b>25,836</b>

<b>Buildings</b>	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>	
Residential	Electricity	2,167	21,895,891	Kilowatt Hours	78,825	131	
	Natural Gas	1,740	116,675	GigaJoules	116,675	5,950	
	Heating Oil		18,656	GigaJoules	18,656	1,315	
	Propane		32,861	GigaJoules	32,861	2,005	
	Wood		39,071	GigaJoules	39,071	14	
<b>Residential</b>					<b>286,088</b>	<b>9,415</b>	
Commercial/Small-Medium Industrial	Electricity	647	28,522,900	Kilowatt Hours	102,682	171	
	Natural Gas	261	82,282	GigaJoules	82,282	4,196	
<b>Commercial/Small-Medium Industrial</b>					<b>184,964</b>	<b>4,367</b>	
					Electricity:	181,507	302
					Natural Gas:	198,957	10,146
					Propane:	32,861	2,005
					Wood:	39,071	14
					Heating Oil:	18,656	1,315
<b>Buildings Totals</b>	<b>Buildings:</b>				<b>471,052</b>	<b>13,782</b>	

<b>Solid Waste</b>	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	2,592	1,072

# Creston Town

## Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	1,952,246	L	74,770	5,273
Electricity	50,418,791	kWh	181,507	302
Gasoline	8,550,289	L	299,259	20,467
Heating Oil	18,656	GJ	18,656	1,315
Natural Gas	198,957	GJ	198,957	10,146
Other Fuel	63,084	L	2,416	96
Propane	32,861	GJ	32,861	2,005
Solid Waste	2,592	T	0	1,072
Wood	39,071	GJ	39,071	14
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>847,497 GJ</b>	<b>40,690 tonnes</b>

### Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	4	13,351,800	Kilowatt Hours	48,066	80
	Natural Gas	2	withheld	GigaJoules	-	-
<b>Large Industrial</b>					<b>48,066</b>	<b>80</b>

### 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](mailto: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	1,585	43	1,575	71	1,695	72
Semi-Detached House	15	0	40	2	55	2
Row House	130	3	135	6	110	5
Apartment, Duplex	130	3	100	5	65	3
Apartment, 5 storeys or higher	0	0	0	0	5	0
Apartment, under 5 storeys	215	6	230	10	320	14
Other Single Attached House	10	0	10	0	10	0
Movable Dwelling	50	1	125	6	90	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	1,115	71	1,165	70	1,145	77
Car, Truck, Van as Passenger	70	4	110	7	75	5
Public Transit	10	1	10	1	20	1
Walked	370	23	365	22	245	16
Bicycle	0	0	15	1	10	1
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	1	10	1	0	0

#### 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	5,246.0
Net Land Area (ha) *	761.5
Residential Density (people per net ha)	6.9

#### 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	6.5	0.8
Agricultural Land Reserve	44.0	5.4
Other land use	763.1	93.8
<b>Total Land Area</b>	<b>813.6</b>	<b>100.0</b>

## 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](mailto:CEEIRPT@gov.bc.ca) (see survey on CEEI website).

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### 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

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### Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

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### Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO <sub>2</sub> e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

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### Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

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### 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)

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# 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](mailto: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.