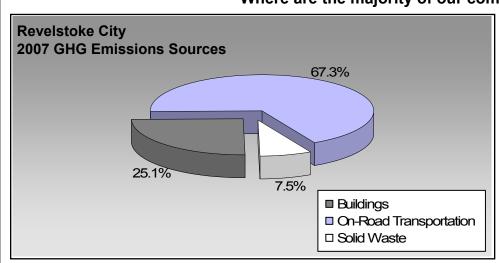
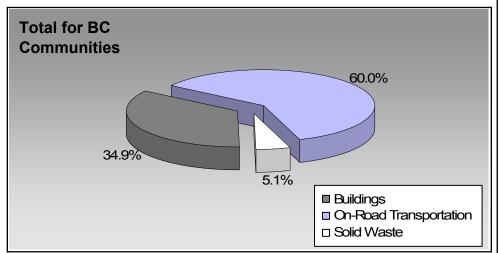


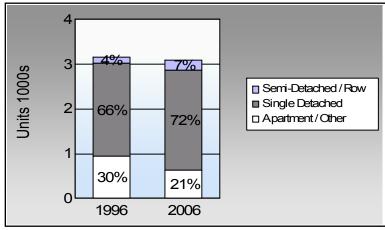
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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





## 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
	62.7%	69.6%
	9.2%	11.2%
	0.7%	0.6%
<b>ķ</b>	21.2%	12.3%
<b>%</b> O	5.0%	5.3%

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

#### **Residential Density**

Revelstoke City: 1.9 people per net

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.

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



## **Sectors**

On Road Transport	ation	Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	1,051	1,499,293	Litres	13,849	52,475	3,581
	Diesel Fuel	47	48,610	Litres	14,247	1,862	133
	Other Fuel	< 10	852	Litres	8,609	33	1
				Small Pa	assenger Cars	54,370	3,715
Large Passenger Cars	Gasoline	692	1,611,426	Litres	18,168	56,400	3,842
	Diesel Fuel	17	48,132	Litres	18,443	1,843	131
	Other Fuel	< 10	3,288	Litres	15,672	126	5
				Large Pa	assenger Cars	58,369	3,978
Light Trucks, Vans, SUVs	Gasoline	2,837	8,552,795	Litres	19,769	299,348	20,474
	Diesel Fuel	310	794,669	Litres	19,939	30,436	2,171
	Other Fuel	41	95,403	Litres	13,694	3,654	146
				Light Tru	ucks, Vans, SUVs	333,438	22,791
Commercial Vehicles	Gasoline	26	130,499	Litres	15,472	4,567	305
	Diesel Fuel	98	467,091	Litres	21,738	17,890	1,257
	Other Fuel	< 10	8,718	Litres	14,821	334	13
				Commer	rcial Vehicles	22,791	1,575
Tractor Trailer Trucks	Gasoline	< 10	9,522	Litres	7,085	333	22
	Diesel Fuel	123	3,426,592	Litres	73,775	131,238	9,221
				Tractor <sup>-</sup>	Trailer Trucks	131,571	9,243
Motorhomes	Gasoline	57	62,782	Litres	2,608	2,197	146
	Diesel Fuel	< 10	5,813	Litres	4,006	223	16
	Other Fuel	< 10	1,384	Litres	2,189	53	2
				Motorho	omes	2,473	164
Motorcycles, Mopeds	Gasoline	86	53,274	Litres	5,502	1,865	124
				Motorcy	cles, Mopeds	1,865	124
Bus	Gasoline	< 10	103,637	Litres	32,648	3,627	244
	Diesel Fuel	11	169,473	Litres	27,061	6,491	456
				Bus		10,118	700



ne: 420,0 : 189,9	
	ne: 420,8 189,9

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	3,417	44,591,867	Kilowatt Hours	160,531	1,100
	Heating Oil		7,600	GigaJoules	7,600	536
	Propane		89,375	GigaJoules	89,375	5,453
	Wood		67,017	GigaJoules	67,017	25
			Residential		324,523	7,114
Commercial/Small-Medium Industrial	Electricity	684	43,532,269	Kilowatt Hours	156,716	1,074
	Propane	239	124,436	GigaJoules	124,436	7,592
			Commercial/Sma	II-Medium Industrial	281,152	8,666
			Electri	city:	317,247	2,174
			Natura	al Gas:		
			Propa	ne:	213,811	13,045
			Wood:		67,017	25
			Heating Oil:		7,600	536
Buildings Totals		Buildings:		605,675	15,780	

Solid Waste		Mass (t)	CO2e (t)
	Community Solid Waste	6,238	4,734



Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	4,960,380	L	189,983	13,385
	Electricity	88,124,136	kWh	317,247	2,174
	Gasoline	12,023,228	L	420,812	28,738
	Heating Oil	7,600	GJ	7,600	536
	Other Fuel	109,645	L	4,200	167
	Propane	213,811	GJ	213,811	13,045
	Solid Waste	6,238	Т	0	4,734
	Wood	67,017	GJ	67,017	25
Total of Transportation / B	uildings / Solid Waste:	_		<b>1,220,670</b> GJ	<b>62,804</b> tonnes

## **Memo Items**

Buildings	<u>Type</u>	Connections	Consumption	<u>Measurement</u>	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	3	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 <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="https://ceei/index.html">CEEIRPT@gov.bc.ca</a>

#### 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		200	2001		2006	
	Units	%	Units	%	Units	%	
Single Detached House	2,070	40	2,195	71	2,225	72	
Semi-Detached House	110	2	125	4	180	6	
Row House	30	1	45	1	45	1	
Apartment, Duplex	105	2	30	1	60	2	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	420	8	375	12	455	15	
Other Single Attached House	0	0	80	3	0	0	
Movable Dwelling	415	8	240	8	125	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		20	2001		2006	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	2,280	63	2,580	75	2,490	70	
Car, Truck, Van as Passenge	335	9	180	5	400	11	
Public Transit	25	1	0	0	20	1	
Walked	770	21	490	14	440	12	
Bicycle	180	5	155	5	190	5	
Motorcycle	0	0	0	0	10	0	
Taxicab	0	0	0	0	15	0	
Other Method	45	1	40	1	15	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
	,267.0
Net Land Area (ha) * 3	,742.1
Residential Density (people per net ha)	1.9

#### 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.

200	6
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.

National Parks	200	)9	
	Area (ha)	%	
National Parks	7.5	0.2	
Provincial Parks / Protected Areas	0.0	0.0	
Local Parks	41.7	0.9	
Local Parks Agricultural Land Reserve	9.9	0.2	
Other land use	4,705.5	98.8	
Total Land Area	4,764.7	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

Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.) Proximity to Services

Transit Ridership Annual per capita transit ridership

**Buildings** 

Residential; Public Building

**Energy Intensity** 

Floor Space

Average energy use per person per square metre of 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)



Page 8 of 8 June 30, 2010

# 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 (<a href="http://www.toolkit.bc.ca">http://www.toolkit.bc.ca</a>), 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.

#### 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: <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a>.

- For guidance on target setting and community actions, go to <a href="http://www.toolkit.bc.ca">http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm</a>.

#### 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 <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="mailto:CEEIRPT@gov.bc.ca">CEEIRPT@gov.bc.ca</a>

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.