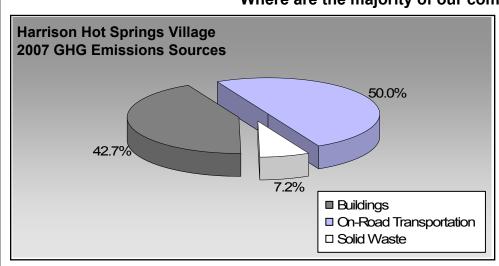
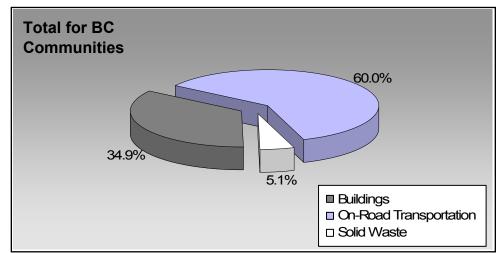


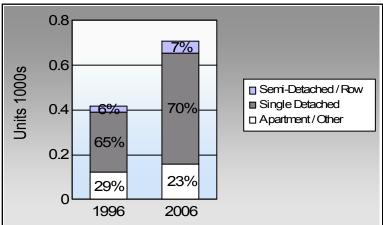
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

#### 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
	71.3%	83.8%
	5.0%	0.0%
	0.0%	0.0%
<b>ķ</b>	18.8%	11.1%
<b>\$</b> 0	5.0%	2.6%

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

#### **Residential Density**

Harrison Hot Springs Village: 4.6 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.

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



### **Sectors**

On Road Transport	ation	<u>Vehicles</u>	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	324	499,806	Litres	14,886	17,493	1,192
	Diesel Fuel	26	29,210	Litres	15,552	1,119	80
				Small Pa	assenger Cars	18,612	1,272
Large Passenger Cars	Gasoline	205	433,298	Litres	17,527	15,165	1,029
	Diesel Fuel	18	45,524	Litres	21,629	1,744	124
	Other Fuel	< 10	4,794	Litres	18,448	184	7
				Large P	assenger Cars	17,093	1,160
Light Trucks, Vans, SUVs	Gasoline	503	1,553,953	Litres	20,360	54,388	3,726
-	Diesel Fuel	55	135,292	Litres	19,264	5,182	370
	Other Fuel	< 10	11,905	Litres	13,746	456	18
				Light Tr	ucks, Vans, SUVs	60,026	4,114
Commercial Vehicles	Gasoline	< 10	13,663	Litres	12,312	478	32
	Diesel Fuel	15	60,504	Litres	20,794	2,317	163
	Other Fuel	< 10	7,183	Litres	11,356	275	11
				Comme	rcial Vehicles	3,070	206
Tractor Trailer Trucks	Gasoline	< 10	2,976	Litres		104	7
	Diesel Fuel	< 10	97,672	Litres	41,824	3,741	263
				Tractor	Trailer Trucks	3,845	270
Motorhomes	Gasoline	22	27,322	Litres	3,492	956	64
	Diesel Fuel	< 10	6,178	Litres	4,175	237	17
	Other Fuel	< 10	277	Litres		11	-
				Motorho	omes	1,204	81
Motorcycles, Mopeds	Gasoline	33	12,070	Litres	5,570	422	28
				Motorcy	cles, Mopeds	422	28
Bus	Gasoline	< 10	8,392	Litres	17,179	294	20
	Diesel Fuel	< 10	15,198	Litres	·	582	41
				Bus		876	61



	Gasoline:	89,300	6,098
	Diesel:	14,922	1,058
	Other Fuel:	926	36
On Road Transportation Totals	All Fuels:	105,148	7,192

Buildings	<u>Type</u>	Connections	Consumption	<u>Measurement</u>	Energy (GJ)	CO2e (t)
Residential	Electricity	868	6,867,371	Kilowatt Hours	24,723	169
	Natural Gas	583	43,327	GigaJoules	43,327	2,210
	Heating Oil		13,377	GigaJoules	13,377	943
	Propane		19,788	GigaJoules	19,788	1,207
	Wood		10,644	GigaJoules	10,644	4
			Residential		111,859	4,533
Commercial/Small-Medium Industrial	Electricity	109	10,955,072	Kilowatt Hours	39,438	270
	Natural Gas	52	26,343	GigaJoules	26,343	1,343
			Commercial/Sma	III-Medium Industrial	65,781	1,613
			Electr	city:	64,161	439
			Natura	al Gas:	69,670	3,553
			Propa	ne:	19,788	1,207
			Wood:		10,644	4
			Heatir	ng Oil:	13,377	943
Buildings Totals			Buildi	ngs:	177,640	6,146

Solid Waste		Mass (t)	<u>CO2e (t)</u>
	Community Solid Waste	750	1,041



Grand Total		CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	Diesel Fuel	389,578	L	14,922	1,058
	Electricity	17,822,443	kWh	64,161	439
	Gasoline	2,551,480	L	89,300	6,098
	Heating Oil	13,377	GJ	13,377	943
	Natural Gas	69,670	GJ	69,670	3,553
	Other Fuel	24,159	L	926	36
	Propane	19,788	GJ	19,788	1,207
	Solid Waste	750	T	0	1,041
	Wood	10,644	GJ	10,644	4
Total of Transportation / E	Buildings / Solid Waste:			<b>282,788</b> GJ	14,379 tonnes

### **Memo Items**

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
			Lar	ge 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.

	199	6	200	1	2006	6	
	Units	%	Units	%	Units	%	
Single Detached House	270	39	405	68	495	70	
Semi-Detached House	15	2	10	2	10	1	
Row House	10	1	35	6	40	6	
Apartment, Duplex	0	0	5	1	5	1	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	80	12	115	19	145	21	
Other Single Attached House	10	1	10	2	5	1	
Movable Dwelling	30	4	15	3	5	1	

#### 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	285	71	480	84	490	84	
Car, Truck, Van as Passenge	20	5	15	3	0	0	
Public Transit	0	0	0	0	0	0	
Walked	75	19	45	8	65	11	
Bicycle	20	5	10	2	15	3	
Motorcycle	0	0	10	2	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	0	0	10	2	15	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	1,594.0	
Net Land Area (ha) *	345.3	
Residential Density (people pe	er net ha) 4.6	

#### 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	2009			
	Area (ha)	%		
National Parks	0.0	0.0		
Provincial Parks / Protected Areas	0.0	0.0		
Local Parks	14.7	2.1		
Agricultural Land Reserve	136.5	19.3		
Other land use	556.9	78.7		
Total Land Area	708.1	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** 

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.