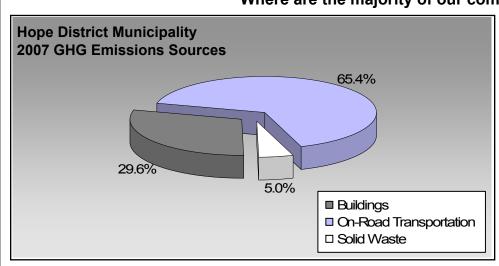
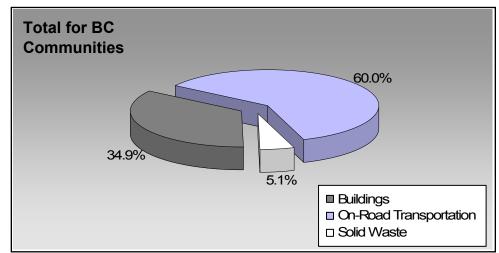


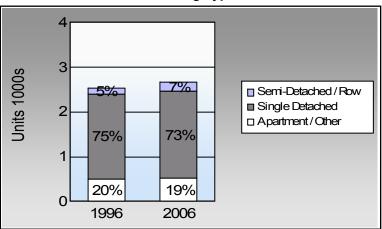
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

### 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
	76.8%	76.3%
	7.7%	9.6%
	0.0%	1.0%
<b>\(\hat{\lambda}\)</b>	11.9%	10.2%
<b>%</b>	2.4%	2.0%

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

#### **Residential Density**

Hope District Municipality: 2.3 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	1,376	2,144,360	Litres	14,200	75,053	5,147
	Diesel Fuel	60	70,573	Litres	14,746	2,703	193
	Other Fuel	< 10	850	Litres		33	1
				Small Pa	assenger Cars	77,789	5,341
Large Passenger Cars	Gasoline	924	2,070,460	Litres	17,239	72,466	4,954
	Diesel Fuel	15	36,332	Litres	16,866	1,392	99
	Other Fuel	< 10	17,752	Litres	14,964	680	27
				Large Pa	assenger Cars	74,538	5,080
Light Trucks, Vans, SUVs	Gasoline	2,225	6,829,446	Litres	19,937	239,031	16,393
_	Diesel Fuel	247	624,047	Litres	19,017	23,901	1,705
	Other Fuel	28	73,127	Litres	13,170	2,801	112
				Light Tr	ucks, Vans, SUVs	265,733	18,210
Commercial Vehicles	Gasoline	31	140,232	Litres	15,009	4,908	328
	Diesel Fuel	46	200,589	Litres	19,764	7,683	540
	Other Fuel	< 10	19,743	Litres	11,628	756	30
				Comme	cial Vehicles	13,347	898
Tractor Trailer Trucks	Gasoline	< 10	5,951	Litres	7,085	208	14
	Diesel Fuel	126	3,031,451	Litres	64,149	116,105	8,157
	Other Fuel	< 10	2,380	Litres	7,085	91	4
				Tractor <sup>*</sup>	Trailer Trucks	116,404	8,175
Motorhomes	Gasoline	81	85,797	Litres	2,998	3,003	201
	Diesel Fuel	< 10	8,587	Litres	3,432	329	23
	Other Fuel	< 10	2,215	Litres	2,189	85	3
				Motorho	mes	3,417	227
Motorcycles, Mopeds	Gasoline	66	28,071	Litres	5,000	982	66
				Motorcy	cles, Mopeds	982	66
Bus	Gasoline	< 10	36,883	Litres	22,029	1,291	86
	Diesel Fuel	16	173,121	Litres	23,574	6,631	466
	Other Fuel	< 10	4,389	Litres		168	7
				Bus		8,090	559



	Gasoline:	396,942	27,189
	Diesel:	158,744	11,183
	Other Fuel:	4,614	184
On Road Transportation Totals	All Fuels:	560,300	38,556

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	2,947	29,366,581	Kilowatt Hours	105,720	724
	Natural Gas	2,175	172,979	GigaJoules	172,979	8,822
	Heating Oil		18,254	GigaJoules	18,254	1,287
	Propane		26,993	GigaJoules	26,993	1,647
			Residential		323,946	12,480
Commercial/Small-Medium Industrial	Electricity	520	26,039,840	Kilowatt Hours	93,743	642
	Natural Gas	272	84,309	GigaJoules	84,309	4,300
			Commercial/Sma	III-Medium Industrial	178,052	4,942
			Electr	city:	199,463	1,366
			Natura	al Gas:	257,288	13,122
			Propa	ne:	26,993	1,647
			Wood	:		
			Heatir	ng Oil:	18,254	1,287
Buildings Totals			Buildi	ings:	501,998	17,422

Solid Waste		Mass (t)	CO2e (t)
	Community Solid Waste	2,932	2,952



Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	4,144,700	L	158,744	11,183
Electricity	55,406,421	kWh	199,463	1,366
Gasoline	11,341,200	L	396,942	27,189
Heating Oil	18,254	GJ	18,254	1,287
Natural Gas	257,288	GJ	257,288	13,122
Other Fuel	120,456	L	4,614	184
Propane	26,993	GJ	26,993	1,647
Solid Waste	2,932	T	0	2,952
Total of Transportation / Buildings / Solid Waste:			<b>1,062,298</b> GJ	<b>58,930</b> tonnes

## **Memo Items**

Buildings	<u>Туре</u>	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	1	withheld	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	<b>i</b>	
	Units	%	Units	%	Units	%	
Single Detached House	1,900	43	1,915	74	1,950	73	
Semi-Detached House	35	1	35	1	60	2	
Row House	95	2	105	4	130	5	
Apartment, Duplex	40	1	25	1	35	1	
Apartment, 5 storeys or higher	10	0	0	0	5	0	
Apartment, under 5 storeys	295	7	240	9	225	8	
Other Single Attached House	15	0	10	0	5	0	
Movable Dwelling	140	3	255	10	245	9	

### 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.

	199	1996		2001		2006	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	1,800	77	1,875	77	1,905	76	
Car, Truck, Van as Passenge	180	8	175	7	240	10	
Public Transit	0	0	10	0	25	1	
Walked	280	12	240	10	255	10	
Bicycle	55	2	65	3	50	2	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	10	0	
Other Method	30	1	55	2	10	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
	,269.0
Net Land Area (ha) * 2	,754.5
Residential Density (people per net ha)	2.3

#### 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.

	200	)9	
	Area (ha)	%	
National Parks	0.0	0.0	
Provincial Parks / Protected Areas	11.6	0.3	
Local Parks	92.2	2.0	
Agricultural Land Reserve	357.2	7.8	
Other land use	4,110.7	89.9	
Total Land Area	4,571.7	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

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 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.