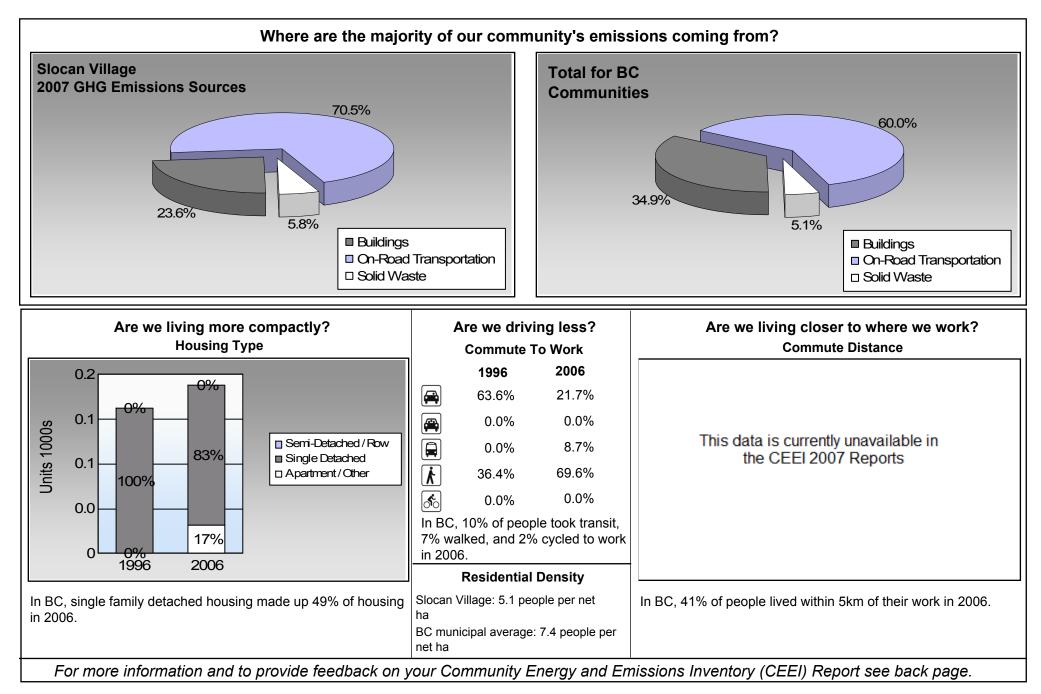


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities





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# **Sectors**

On Road Transport	ation	<u>Vehicles</u>	Consumption	<u>Measurement</u>	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	77	105,840	Litres	14,010	3,704	252
	Diesel Fuel	< 10	5,827	Litres	13,793	223	16
				Small Pa	assenger Cars	3,927	268
Large Passenger Cars	Gasoline	34	64,804	Litres	16,760	2,268	153
	Diesel Fuel	< 10	1,820	Litres		70	5
				2,338	158		
Light Trucks, Vans, SUVs	Gasoline	137	383,628	Litres	18,670	13,427	919
	Diesel Fuel	16	45,890	Litres	19,701	1,758	125
	Other Fuel	< 10	2,583	Litres	11,641	99	4
				Light Tr	ucks, Vans, SUVs	15,284	1,048
Commercial Vehicles	Gasoline	< 10	3,591	Litres	11,356	126	8
	Diesel Fuel	< 10	17,577	Litres	21,540	673	47
	Other Fuel	< 10	2,873	Litres	11,356	110	4
				Comme	rcial Vehicles	909	59
Tractor Trailer Trucks	Gasoline	< 10	595	Litres		21	1
	Diesel Fuel	< 10	113,124	Litres	106,068	4,333	304
				Tractor	Trailer Trucks	4,354	305
Motorhomes	Gasoline	< 10	5,071	Litres	3,511	177	12
	Diesel Fuel	< 10	264	Litres		10	1
				Motorho	omes	187	13
Motorcycles, Mopeds	Gasoline	< 10	2,720	Litres	5,900	95	6
				Motorcy	cles, Mopeds	95	6
						10.010	4.054
				Gasoline	2	19,818	1,351
				Diesel:		7,067	498
				Other Fu	iel:	209	8
On Road Transportation To	otals			All Fuel	s:	27,094	1,857



Buildings	Type	Connections	<b>Consumption</b>	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Residential	Electricity	144	1,721,818	Kilowatt Hours	6,199	10
	Heating Oil		3,394	GigaJoules	3,394	239
	Propane		5,974	GigaJoules	5,974	364
	Wood		7,115	GigaJoules	7,115	3
			Residential	-	22,682	616
Commercial/Small-Medium Industrial	Electricity	39	998,445	Kilowatt Hours	3,594	6
	5		Commercial/Sm	all-Medium Industria		6
			Electi	ricity:	9,793	16
				al Gas:	0,100	
			Propa		5,974	364
			Wood		7,115	3
			Heati	ng Oil:	3,394	239
Buildings Totals			Build	ings:	26,276	622
Solid Waste					Mass (t)	CO2e (t)
Sond Waste			Comn	nunity Solid Waste	177	154
Grand Total			CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	sel Fuel		184,502		7,067	498
			2,720,263		9,793	16
	soline		566,249		19,818	1,351 239
	iting Oil er Fuel		3,394 5,456		3,394 209	239
	pane		5,974		5,974	364
	id Waste		177		0	154
Woo			7,115		7,115	3
		-			<b>53,370</b> GJ	2,633 tonnes



## **Memo Items**

Buildings	Туре	<b>Connections</b>	<u>Consumption</u>	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
		-	-			



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

## 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 Units %		200 Units	2001 Units %		%	
Single Detached House	130	50	120	83	125	83	
Semi-Detached House	0	0	0	0	0	0	
Row House	0	0	0	0	0	0	
Apartment, Duplex	0	0	5	3	0	0	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	0	0	0	0	0	0	
Other Single Attached House	0	0	5	3	5	3	
Movable Dwelling	0	0	15	10	20	13	

### 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	35	64	70	50	25	22	
Car, Truck,Van as Passenge	0	0	0	0	0	0	
Public Transit	0	0	0	0	10	9	
Walked	20	36	70	50	80	70	
Bicycle	0	0	0	0	0	0	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	0	0	0	0	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	391.0
Net Land Area (ha) *	76.7
Residential Density (people per net ha)	5.1

#### 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.

	200	)9	
	Area (ha)	%	
National Parks	0.0	0.0	
Provincial Parks / Protected Areas	0.0	0.0	
Local Parks	2.4	2.6	
Agricultural Land Reserve	0.0	0.0	
Other land use	90.2	97.4	
Total Land Area	92.6	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 <u>CEEIRPT@gov.bc.ca</u> (see survey on CEEI website).

#### **On-Road Transportation (and Land Use)** Proximity to Transit Persons, dwelling units (du) and employment within 400m of a guality 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 Average energy use per person per square metre of floor space Energy Intensity Average residential dwelling unit size Floor Space 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)



# 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 (<<u>http://www.toolkit.bc.ca></u>), 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 <<u>http://www.toolkit.bc.ca></u> and <<u>http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm></u>.

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