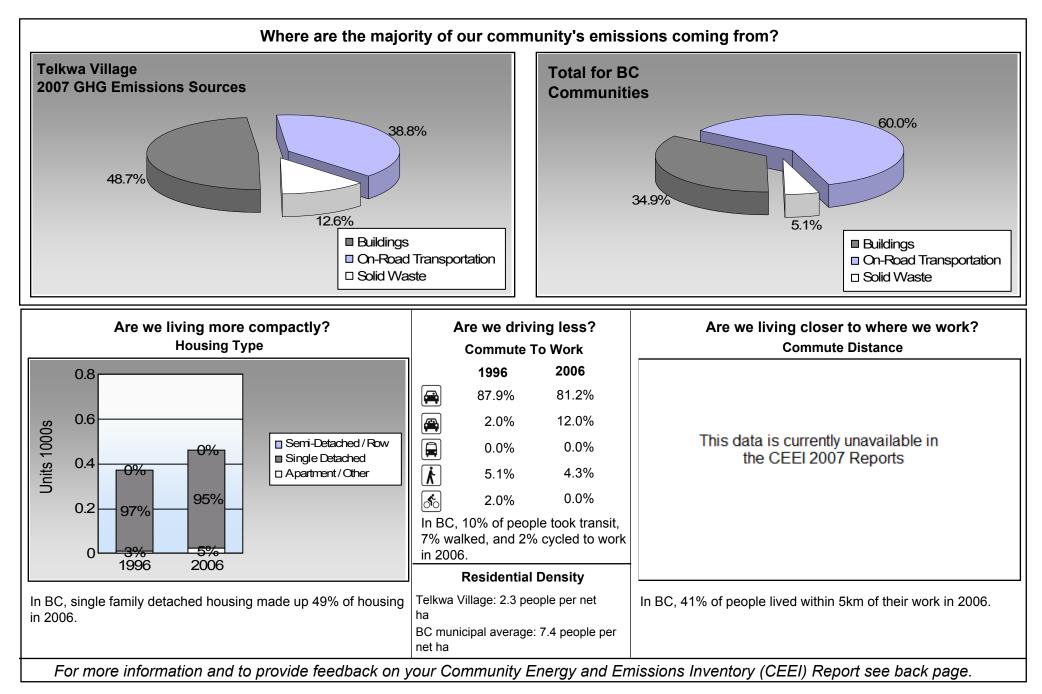


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities





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## Sectors

On Road Transport	ation	<u>Vehicles</u>	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	70	98,707	Litres	13,799	3,455	234
	Diesel Fuel	< 10	7,089	Litres	12,828	272	19
				Small Pa	assenger Cars	3,727	253
Large Passenger Cars	Gasoline	31	76,536	Litres	20,682	2,679	180
	Diesel Fuel	< 10	1,279	Litres		49	3
	Other Fuel	< 10	2,243	Litres	14,954	86	3
				Large Pa	assenger Cars	2,814	186
Light Trucks, Vans, SUVs	Gasoline	162	503,991	Litres	20,246	17,640	1,202
	Diesel Fuel	35	100,095	Litres	21,095	3,834	274
	Other Fuel	< 10	1,378	Litres		53	2
				Light Tr	ucks, Vans, SUVs	21,527	1,478
Commercial Vehicles	Gasoline	< 10	4,660	Litres		163	11
	Diesel Fuel	< 10	20,612	Litres	23,729	789	55
				Commei	rcial Vehicles	952	66
Tractor Trailer Trucks	Gasoline	< 10	6,192	Litres		217	15
	Diesel Fuel	< 10	34,622	Litres	49,812	1,326	93
				Tractor Trailer Trucks		1,543	108
Motorhomes	Gasoline	< 10	2,171	Litres	2,271	76	5
	Diesel Fuel	< 10	1,562	Litres		60	4
				Motorho	omes	136	9
Motorcycles, Mopeds	Gasoline	< 10	1,954	Litres		68	5
				Motorcy	cles, Mopeds	68	5
						04.000	4.070
				Gasoline	÷	24,298	1,652
				Diesel:		6,330	448
				Other Fu	el:	139	5
On Road Transportation To	otals			All Fuel	s:	30,767	2,105



Buildings	Туре	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>	
Residential	Electricity	520	5,376,838	Kilowatt Hours	19,357	133	
Kesidentai	Natural Gas	427	33,280	GigaJoules	33,280	1,697	
	Heating Oil		2,020	GigaJoules	2,020	142	
	Propane		5,482	GigaJoules	5,482	334	
	Wood		15,001	GigaJoules	15,001	6	
	wood		Residential		<b>75,140</b>	2,312	
			Residentia		73,140	2,312	
Commercial/Small-Medium Industrial	Electricity	76	1,548,554	Kilowatt Hours	5,575	38	
	Natural Gas	36	5,730	GigaJoules	5,730	292	
			Commercial/Sma	II-Medium Industrial	11,305	330	
			Electri	city:	24,932	171	
				al Gas:	39,010	1,989	
			Propa	ne:	5,482	334	
			Wood	:	15,001	6	
			Heatir	ıg Oil:	2,020	142	
Buildings Totals			Buildi	ngs:	86,445	2,642	
					Mass (t)	<u>CO2e (t)</u>	
Solid Waste							
			Comm	unity Solid Waste	1,288	682	



Grand Total		CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	Diesel Fuel	165,259	L	6,330	448
	Electricity	6,925,392	kWh	24,932	171
	Gasoline	694,211	L	24,298	1,652
	Heating Oil	2,020	GJ	2,020	142
	Natural Gas	39,010	GJ	39,010	1,989
	Other Fuel	3,621	L	139	5
	Propane	5,482	GJ	5,482	334
	Solid Waste	1,288	Т	0	682
	Wood	15,001	GJ	15,001	6
Total of Transportation / B	Buildings / Solid Waste:			<b>117,212</b> GJ	<b>5,429</b> tonnes

# **Memo Items**

Buildings	Туре	<b>Connections</b>	<b>Consumption</b>	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
			Larg	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="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.

	199 Units	6 %	200 Units	1 %	2006 Units		
	Units	/0	Units	70	Units	%	
Single Detached House	360	49	450	98	435	95	
Semi-Detached House	0	0	0	0	0	0	
Row House	0	0	0	0	0	0	
Apartment, Duplex	0	0	5	1	10	2	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	0	0	0	0	10	2	
Other Single Attached House	0	0	5	1	0	0	
Movable Dwelling	10	1	0	0	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.

	199	6	20	2001		6		
	People	%	People	%	People	%		
Car, Truck, Van as Driver	435	88	505	82	475	81		
Car, Truck,Van as Passenge	10	2	40	7	70	12		
Public Transit	0	0	0	0	0	0		
Walked	25	5	45	7	25	4		
Bicycle	10	2	10	2	0	0		
Motorcycle	0	0	0	0	0	0		
Taxicab	0	0	0	0	0	0		
Other Method	15	3	15	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
1,357.0
598.6
) 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.

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	0.0	0.0	
Agricultural Land Reserve	74.1	11.0	
Other land use	602.4	89.0	
Total Land Area	676.5	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 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 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.