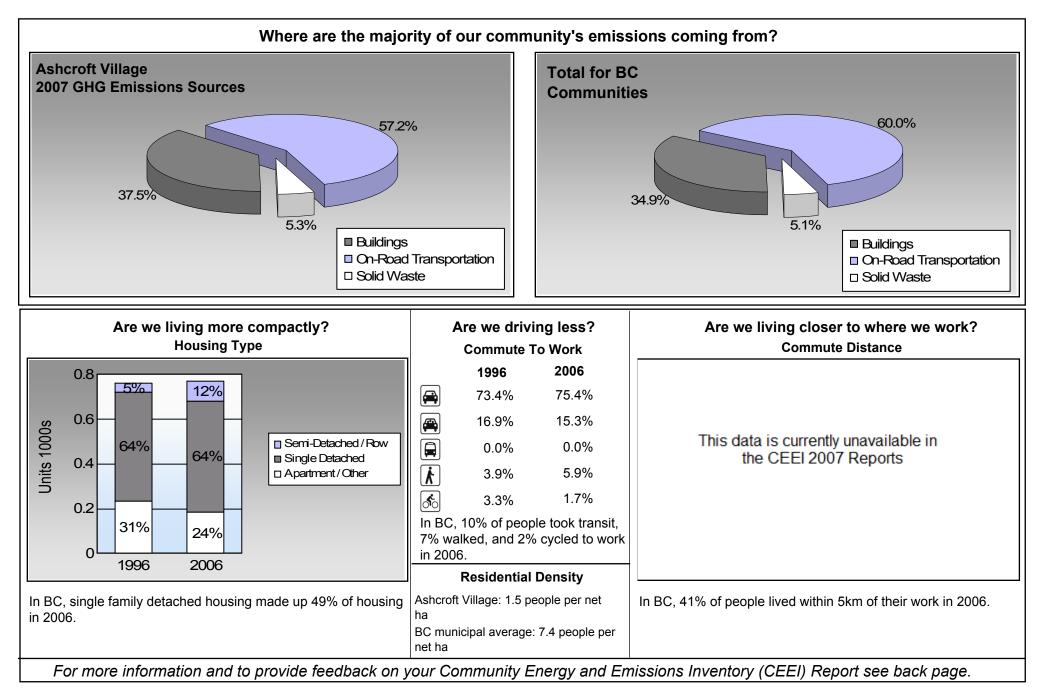


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities





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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	305	425,720	Litres	13,491	14,900	1,014
	Diesel Fuel	< 10	10,224	Litres	13,594	392	28
	Other Fuel	< 10	1,017	Litres	8,435	39	2
				Small Pa	assenger Cars	15,331	1,044
Large Passenger Cars	Gasoline	192	430,108	Litres	17,877	15,054	1,024
	Diesel Fuel	< 10	3,814	Litres	15,387	146	10
	Other Fuel	< 10	6,459	Litres	14,824	247	10
				Large Pa	assenger Cars	15,447	1,044
Light Trucks, Vans, SUVs	Gasoline	515	1,543,532	Litres	19,141	54,024	3,700
	Diesel Fuel	74	172,503	Litres	18,396	6,607	471
	Other Fuel	< 10	12,468	Litres	11,925	478	19
				Light Trucks, Vans, SUVs		61,109	4,190
Commercial Vehicles	Gasoline	< 10	25,170	Litres	13,273	881	59
	Diesel Fuel	12	60,923	Litres	20,947	2,333	164
	Other Fuel	< 10	7,165	Litres	12,626	274	11
				<b>Commercial Vehicles</b>		3,488	234
Tractor Trailer Trucks	Gasoline	< 10	2,380	Litres	7,085	83	6
	Diesel Fuel	< 10	179,017	Litres	63,708	6,856	482
				Tractor Trailer Trucks		6,939	488
Motorhomes	Gasoline	28	24,438	Litres	2,507	855	57
	Diesel Fuel	< 10	1,796	Litres	2,810	69	5
	Other Fuel	< 10	1,246	Litres	2,189	48	2
				Motorho	omes	972	64
Motorcycles, Mopeds	Gasoline	18	10,823	Litres	6,360	379	25
				Motorcy	cles, Mopeds	379	25
Bus	Gasoline	< 10	20,754	Litres	27,105	726	49
	Diesel Fuel	20	168,838	Litres	19,719	6,467	454
				Bus		7,193	503



			Gasol	ine:	86,902	5,934
Diesel:			:	22,870	1,614	
			Other	Fuel:	1,086	44
On Road Transportation Totals			All Fu	iels:	110,858	7,592
Buildings	Туре	Connections	<u>Consumption</u>	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Residential	Electricity	904	7,200,479	Kilowatt Hours	25,922	178
	Natural Gas	643	48,251	GigaJoules	48,251	2,461
	Heating Oil		1,959	GigaJoules	1,959	138
	Propane		3,455	GigaJoules	3,455	211
	Wood		17,244	GigaJoules	17,244	6
			Residential	96,831	2,994	
Commercial/Small-Medium Industrial	Electricity	157	9,957,365	Kilowatt Hours	35,846	246
	Natural Gas	77	34,013	GigaJoules	34,013	1,735
			Commercial/Sma	II-Medium Industrial	69,859	1,981
			Electri	city:	61,768	424
			Natura	al Gas:	82,264	4,196
			Propa	ne:	3,455	211
			Wood		17,244	6
			Heatir	ig Oil:	1,959	138
Buildings Totals			Buildi	ngs:	166,690	4,975
Solid Waste					Mass (t)	<u>CO2e (t)</u>
			Comm	unity Solid Waste	1,926	706



Grand Total		CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	Diesel Fuel	597,115	L	22,870	1,614
	Electricity	17,157,844	kWh	61,768	424
	Gasoline	2,482,925	L	86,902	5,934
	Heating Oil	1,959	GJ	1,959	138
	Natural Gas	82,264	GJ	82,264	4,196
	Other Fuel	28,355	L	1,086	44
	Propane	3,455	GJ	3,455	211
	Solid Waste	1,926	Т	0	706
	Wood	17,244	GJ	17,244	6
Total of Transportation / E	Buildings / Solid Waste:			<b>277,548</b> GJ	13,273 tonnes

# **Memo Items**

Buildings	Түре	<u>Connections</u>	<u>Consumption</u>	Measurement	Energy (GJ)	<u>CO2e (t)</u>		
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-		
	Natural Gas	2	withheld	GigaJoules	-	-		
			Lar	-	-			
	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="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 %	2000 Units	5 %	
Single Detached House	485	39	535	68	495	64	
Semi-Detached House	15	1	45	6	15	2	
Row House	25	2	55	7	75	10	
Apartment, Duplex	0	0	0	0	20	3	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	165	13	85	11	95	12	
Other Single Attached House	10	1	10	1	5	1	
Movable Dwelling	60	5	55	7	65	8	

#### 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.

1000 0001 0000							
	1996		20	2001		2006	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	565	73	540	78	445	75	
Car, Truck,Van as Passenge	130	17	30	4	90	15	
Public Transit	0	0	0	0	0	0	
Walked	30	4	110	16	35	6	
Bicycle	25	3	0	0	10	2	
Motorcycle	10	1	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	10	1	10	1	10	2	

**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	1,740.0	
Net Land Area (ha) *	1,171.7	
Residential Density (people p	er net ha) 1.5	

#### 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	6.1	0.1	
Agricultural Land Reserve	4,007.6	76.6	
Other land use	1,221.6	23.3	
Total Land Area	5,235.3	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.