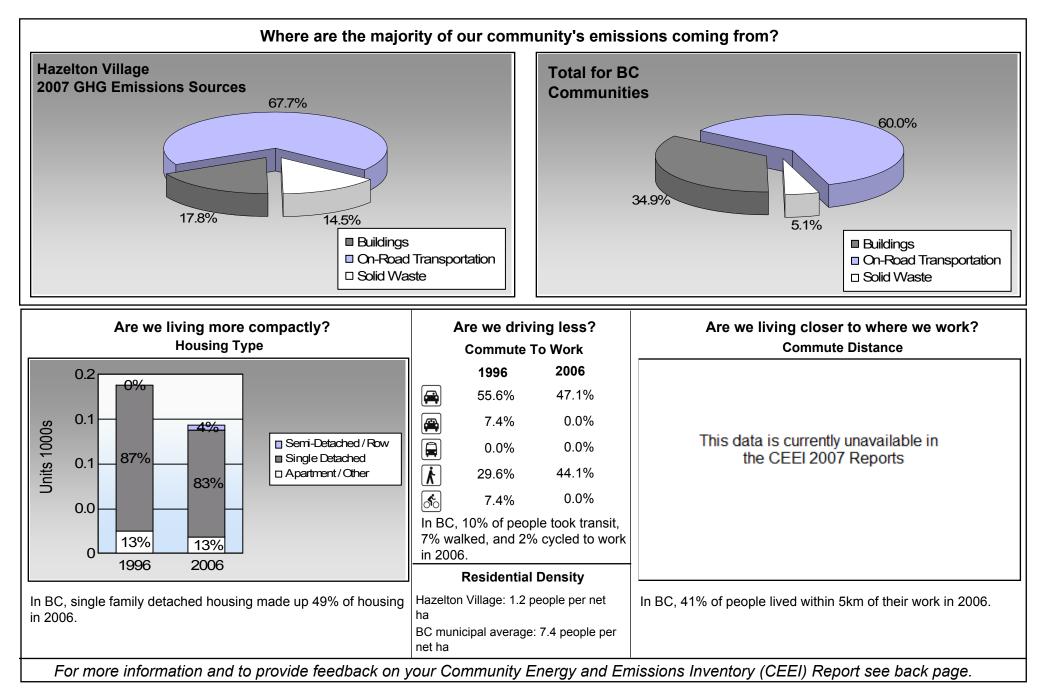


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities





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# **Sectors**

On Road Transport	ation	Vehicles	Consumption	<u>Measurement</u>	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	31	42,479	Litres	12,078	1,487	104
	Diesel Fuel	< 10	2,292	Litres	13,531	88	6
				Small Pa	assenger Cars	1,575	110
Large Passenger Cars	Gasoline	17	52,357	Litres	16,508	1,832	129
				Large Pa	1,832	129	
Light Trucks, Vans, SUVs	Gasoline	75	246,142	Litres	17,831	8,615	599
	Diesel Fuel	15	34,168	Litres	14,047	1,309	93
				Light Tr	9,924	692	
Commercial Vehicles	Gasoline	< 10	3,591	Litres		126	8
	Diesel Fuel	< 10	7,387	Litres	14,614	283	20
				Comme	rcial Vehicles	409	28
Tractor Trailer Trucks	Diesel Fuel	< 10	42,664	Litres	42,785	1,634	115
				Tractor	1,634	115	
Motorhomes	Gasoline	< 10	692	Litres	2,189	24	2
	Diesel Fuel	< 10	223	Litres		9	1
				Motorho	omes	33	3
Motorcycles, Mopeds	Gasoline	< 10	728	Litres	5,669	25	2
				Motorcy	cles, Mopeds	25	2
				Coordina		12,109	844
				Gasoline			
Diesel:				3,323	235		
				Other Fu	iel:		
On Road Transportation Totals				All Fuel	s:	15,432	1,079



BuildingsTypeConnectionsConsumptionMeasurementEnergy (GJ)ResidentialElectricity1542,634,273Kilowatt Hours9,483Heating Oil379GigaJoules379Propane1,034GigaJoules1,034Wood2,801GigaJoules2,801Electricity925,180,335Kilowatt Hours18,649Commercial/Small-Medium IndustrialElectricity925,180,335Kilowatt Hours18,649Electricity:28,132Natural Gas:	CO2e (t) 65 27 63 1 1 56 128 128 128 193
Heating Oil   379   GigaJoules   379     Propane   1,034   GigaJoules   1,034     Wood   2,801   GigaJoules   2,801     Residential     Commercial/Small-Medium Industrial     Electricity   92   5,180,335   Kilowatt Hours   18,649     Electricity:     Electricity:   28,132	27 63 1 156 128 128 128
Propane 1,034 GigaJoules 1,034   Wood 2,801 GigaJoules 2,801   Residential   Commercial/Small-Medium Industrial Electricity 92 5,180,335 Kilowatt Hours 18,649   Electricity: 28,132	63 1 <b>156</b> 128 <b>128</b>
Wood 2,801 GigaJoules 2,801   Residential 13,697   Commercial/Small-Medium Industrial Electricity 92 5,180,335 Kilowatt Hours 18,649   Commercial/Small-Medium Industrial Electricity 92 5,180,335 Kilowatt Hours 18,649   Electricity: Electricity: 28,132	1 156 128 128
Residential 13,697   Commercial/Small-Medium Industrial Electricity 92 5,180,335 Kilowatt Hours 18,649   Commercial/Small-Medium Industrial Electricity 28,132	156 128 128
Commercial/Small-Medium Industrial   Electricity   92   5,180,335   Kilowatt Hours   18,649     Commercial/Small-Medium Industrial   18,649   18,649   18,649     Electricity:   28,132	128 <b>128</b>
Commercial/Small-Medium Industrial 18,649   Electricity: 28,132	128
Commercial/Small-Medium Industrial 18,649   Electricity: 28,132	
	193
Natural Gas.	
Propane: 1,034	63
Wood: 2,801	1
Heating Oil: 379	27
Buildings Totals Buildings: 32,346	284
Solid Waste Mass (t)	CO2e (t)
Community Solid Waste 151	231
Grand Total CONSUMPTION ENERGY (GJ)	<u>CO2e (t)</u>
<b>Diesel Fuel</b> 86,734 L 3,323	235
<b>Electricity</b> 7,814,608 kWh 28,132	193
Gasoline 345,989 L 12,109	844
Heating Oil 379 GJ 379	27
Propane 1,034 GJ 1,034	63
<b>Solid Waste</b> 151 T 0	231
Wood 2,801 GJ 2,801	1
Total of Transportation / Buildings / Solid Waste:47,778 GJ	1,594 tonnes



# **Memo Items**

Buildings	Туре	<b>Connections</b>	<u>Consumption</u>	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	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 %	2006 Units	%	
Single Detached House	130	46	105	75	95	83	
Semi-Detached House	0	0	10	7	5	4	
Row House	0	0	0	0	0	0	
Apartment, Duplex	0	0	0	0	0	0	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	10	4	20	14	10	9	
Other Single Attached House	10	4	0	0	0	0	
Movable Dwelling	0	0	5	4	5	4	

#### 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		)6	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	75	56	80	55	80	47	
Car, Truck,Van as Passenge	10	7	20	14	0	0	
Public Transit	0	0	10	7	0	0	
Walked	40	30	35	24	75	44	
Bicycle	10	7	0	0	0	0	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	0	0	0	0	15	9	

**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	304.0
Net Land Area (ha) *	258.1
Residential Density (people per net ha)	1.2

#### 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

\*\* The quantity of parkland may be underestimated Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

\* Total is net of Indian Reserves

	200	)9	
	Area (ha)	%	
National Parks	0.0	0.0	
Provincial Parks / Protected Areas	0.2	0.1	
Local Parks	0.0	0.0	
Agricultural Land Reserve	0.2	0.1	
Other land use	313.3	99.9	
Total Land Area	313.8	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.