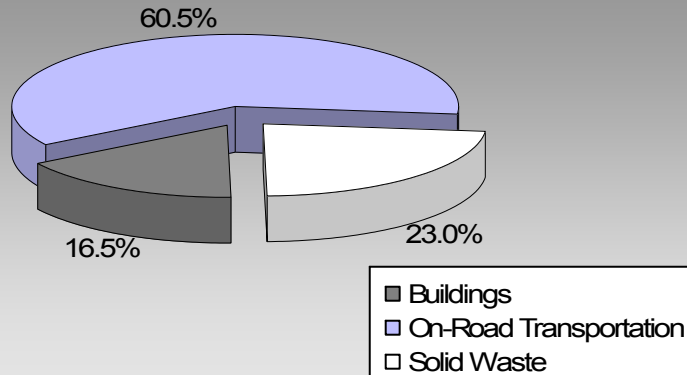


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

Where are the majority of our community's emissions coming from?

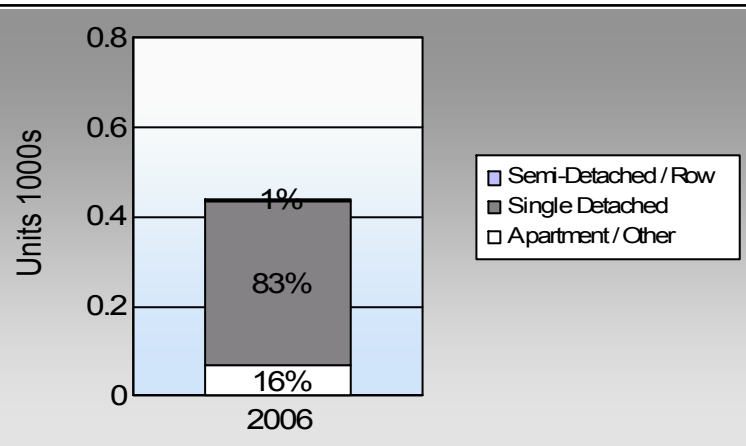
**Queen Charlotte Village
2007 GHG Emissions Sources**



**Total for BC
Communities**








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
	0.0%	57.1%
	0.0%	12.2%
	0.0%	0.0%
	0.0%	20.4%
	0.0%	5.1%

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

Residential Density

Queen Charlotte Village: 0.3 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.

Sectors

On Road Transportation		<u>Vehicles</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Average-VKT(km)</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>	
Small Passenger Cars	Gasoline	124	160,923	Litres	13,086	5,632	385	
	Diesel Fuel	11	9,125	Litres	13,273	350	25	
Small Passenger Cars						5,982	410	
Large Passenger Cars	Gasoline	50	107,462	Litres	17,612	3,761	255	
	Diesel Fuel	< 10	9,553	Litres	17,504	366	26	
	Other Fuel	< 10	462	Litres		18	1	
Large Passenger Cars						4,145	282	
Light Trucks, Vans, SUVs	Gasoline	319	1,004,747	Litres	20,174	35,166	2,402	
	Diesel Fuel	29	73,425	Litres	19,493	2,812	201	
	Other Fuel	< 10	6,216	Litres	12,249	238	10	
Light Trucks, Vans, SUVs						38,216	2,613	
Commercial Vehicles	Gasoline	< 10	22,217	Litres	19,616	778	52	
	Diesel Fuel	< 10	29,109	Litres	22,074	1,115	78	
	Other Fuel	< 10	2,155	Litres		83	3	
Commercial Vehicles						1,976	133	
Tractor Trailer Trucks	Gasoline	< 10	595	Litres		21	1	
	Diesel Fuel	13	286,840	Litres	50,612	10,986	772	
Tractor Trailer Trucks						11,007	773	
Motorhomes	Gasoline	< 10	5,953	Litres	2,189	208	14	
Motorhomes						208	14	
Motorcycles, Mopeds	Gasoline	15	5,487	Litres	6,639	192	13	
Motorcycles, Mopeds						192	13	
Bus	Gasoline	< 10	24,312	Litres	21,119	851	57	
Bus						851	57	
On Road Transportation Totals						62,577	4,295	
						Gasoline:	46,609	3,179
						Diesel:	15,629	1,102
						Other Fuel:	339	14
						All Fuels:	62,577	4,295

Queen Charlotte Village Updated 2007 Community Energy and Emissions Inventory

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	503	6,117,295	Kilowatt Hours	22,022	151	
	Heating Oil		3,754	GigaJoules	3,754	265	
	Propane		10,244	GigaJoules	10,244	625	
	Wood		27,688	GigaJoules	27,688	10	
Residential					63,708	1,051	
Commercial/Small-Medium Industrial	Electricity	160	4,720,050	Kilowatt Hours	16,992	116	
Commercial/Small-Medium Industrial					16,992	116	
					Electricity:	39,014	267
					Natural Gas:		
					Propane:	10,244	625
					Wood:	27,688	10
					Heating Oil:	3,754	265
Buildings Totals	Buildings:				80,700	1,167	

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	740	1,632

Grand Total	CONSUMPTION	ENERGY (GJ)	CO2e (t)
Diesel Fuel	408,052 L	15,629	1,102
Electricity	10,837,345 kWh	39,014	267
Gasoline	1,331,696 L	46,609	3,179
Heating Oil	3,754 GJ	3,754	265
Other Fuel	8,833 L	339	14
Propane	10,244 GJ	10,244	625
Solid Waste	740 T	0	1,632
Wood	27,688 GJ	27,688	10
Total of Transportation / Buildings / Solid Waste:		143,277 GJ	7,094 tonnes

Memo Items

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<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 <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or contact us directly at CEEIRPT@gov.bc.ca

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		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House					365	83
Semi-Detached House					5	1
Row House					0	0
Apartment, Duplex					25	6
Apartment, 5 storeys or higher					0	0
Apartment, under 5 storeys					35	8
Other Single Attached House					0	0
Movable Dwelling					10	2

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	0	0	0	0	280	57
Car, Truck, Van as Passenger	0	0	0	0	60	12
Public Transit	0	0	0	0	0	0
Walked	0	0	0	0	100	20
Bicycle	0	0	0	0	25	5
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	0	0	25	5

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	961.0
Net Land Area (ha) *	3,541.1
Residential Density (people per net ha)	0.3

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.

	2009	
	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	0.0	0.0
Total Land Area	3,595.9	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	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO ₂ e 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 (<http://www.toolkit.bc.ca>), 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.

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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: <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html>.
- For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and <http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>.

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 <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> 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.