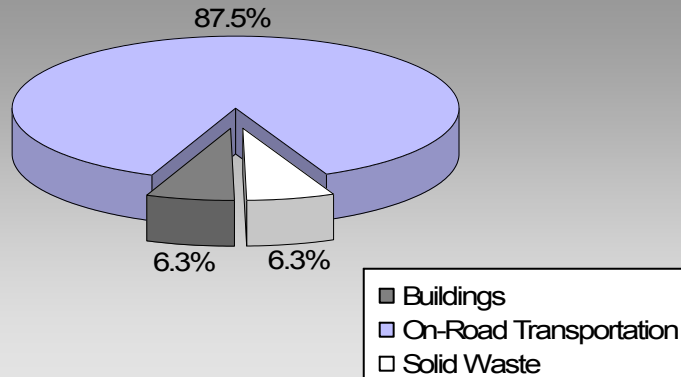


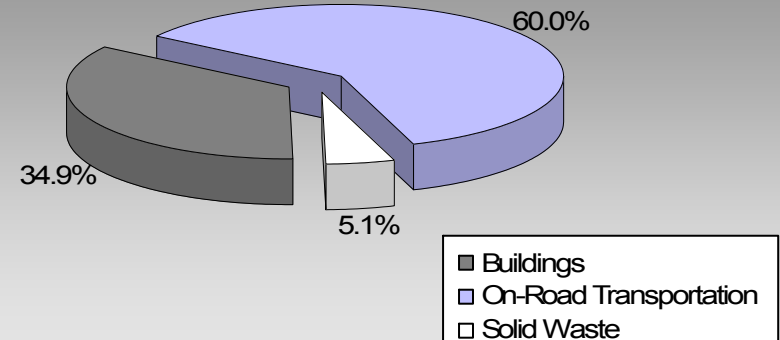
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

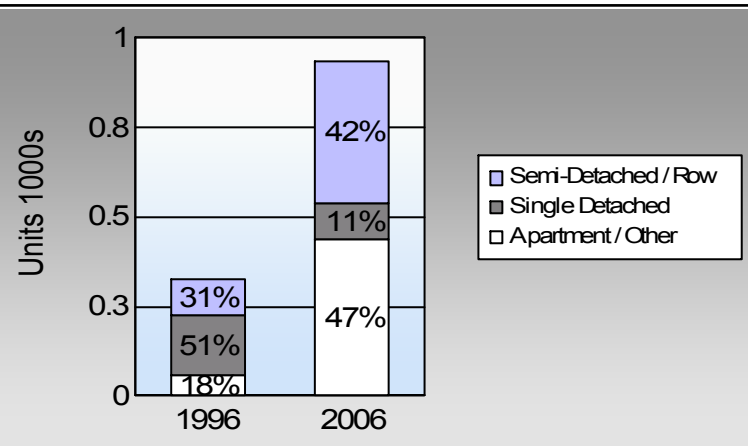
**Pemberton Village  
2007 GHG Emissions Sources**



**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
	75.5%	74.7%
	11.2%	7.4%
	2.0%	3.4%
	9.2%	10.8%
	2.0%	2.2%

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

## Residential Density

Pemberton Village: 3.0 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

<b>On Road Transportation</b>		<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	569	850,381	Litres	13,916	29,763	2,028	
	Diesel Fuel	44	50,151	Litres	15,000	1,921	137	
<b>Small Passenger Cars</b>						<b>31,684</b>	<b>2,165</b>	
Large Passenger Cars	Gasoline	209	496,171	Litres	17,626	17,366	1,183	
	Diesel Fuel	11	21,943	Litres	15,807	840	60	
<b>Large Passenger Cars</b>						<b>18,206</b>	<b>1,243</b>	
Light Trucks, Vans, SUVs	Gasoline	1,027	3,244,731	Litres	20,148	113,566	7,775	
	Diesel Fuel	129	356,262	Litres	20,391	13,645	973	
	Other Fuel	< 10	17,057	Litres	12,887	653	26	
<b>Light Trucks, Vans, SUVs</b>						<b>127,864</b>	<b>8,774</b>	
Commercial Vehicles	Gasoline	< 10	35,751	Litres	15,297	1,251	84	
	Diesel Fuel	34	159,808	Litres	22,376	6,121	430	
	Other Fuel	< 10	1,437	Litres		55	2	
<b>Commercial Vehicles</b>						<b>7,427</b>	<b>516</b>	
Tractor Trailer Trucks	Gasoline	< 10	5,216	Litres	12,919	183	12	
	Diesel Fuel	35	876,622	Litres	57,809	33,575	2,359	
<b>Tractor Trailer Trucks</b>						<b>33,758</b>	<b>2,371</b>	
Motorhomes	Gasoline	16	14,880	Litres	2,805	521	35	
	Diesel Fuel	< 10	2,962	Litres	3,452	113	8	
<b>Motorhomes</b>						<b>634</b>	<b>43</b>	
Motorcycles, Mopeds	Gasoline	31	17,795	Litres	5,239	623	42	
<b>Motorcycles, Mopeds</b>						<b>623</b>	<b>42</b>	
Bus	Gasoline	< 10	63,812	Litres	33,152	2,233	150	
<b>Bus</b>						<b>2,233</b>	<b>150</b>	
<b>On Road Transportation Totals</b>						<b>222,429</b>	<b>15,304</b>	
						Gasoline:	165,506	11,309
						Diesel:	56,215	3,967
						Other Fuel:	708	28
						<b>All Fuels:</b>	<b>222,429</b>	<b>15,304</b>

# Pemberton Village

## Updated 2007 Community Energy and Emissions Inventory

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	1,080	18,656,868	Kilowatt Hours	67,165	460
	Heating Oil		1,914	GigaJoules	1,914	135
	Propane		3,377	GigaJoules	3,377	206
	Wood		22,661	GigaJoules	22,661	8
<b>Residential</b>					<b>95,117</b>	<b>809</b>
Commercial/Small-Medium Industrial	Electricity	243	11,603,479	Kilowatt Hours	41,772	286
<b>Commercial/Small-Medium Industrial</b>					<b>41,772</b>	<b>286</b>
					Electricity:	746
					Natural Gas:	
					Propane:	206
					Wood:	8
					Heating Oil:	135
<b>Buildings Totals</b>					<b>Buildings:</b>	<b>136,889</b>
					<b>108,937</b>	<b>1,095</b>

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	1,364	1,094

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	1,467,748	L	56,215	3,967
Electricity	30,260,347	kWh	108,937	746
Gasoline	4,728,737	L	165,506	11,309
Heating Oil	1,914	GJ	1,914	135
Other Fuel	18,494	L	708	28
Propane	3,377	GJ	3,377	206
Solid Waste	1,364	T	0	1,094
Wood	22,661	GJ	22,661	8
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>359,318 GJ</b>	<b>17,493 tonnes</b>

Pemberton Village  
Updated 2007 Community Energy and Emissions Inventory

### Memo Items

<b>Buildings</b>	<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	-	-
<b>Large Industrial</b>					<b>-</b>	<b>-</b>

## 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](mailto: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	165	34	285	44	105	11
Semi-Detached House	10	2	5	1	120	13
Row House	90	18	265	40	275	29
Apartment, Duplex	40	8	30	5	225	24
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	10	2	25	4	160	17
Other Single Attached House	10	2	0	0	0	0
Movable Dwelling	0	0	45	7	50	5

### 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	370	76	705	70	1,005	75
Car, Truck, Van as Passenger	55	11	70	7	100	7
Public Transit	10	2	45	4	45	3
Walked	45	9	160	16	145	11
Bicycle	10	2	15	1	30	2
Motorcycle	0	0	0	0	10	1
Taxicab	0	0	0	0	0	0
Other Method	0	0	10	1	10	1

### 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	2,416.0
Net Land Area (ha) *	811.9
Residential Density (people per net ha)	3.0

### 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	1.9	0.2
Agricultural Land Reserve	184.5	16.8
Other land use	915.1	83.1
Total Land Area	1,101.5	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 [CEEIRPT@gov.bc.ca](mailto:CEEIRPT@gov.bc.ca) (see survey on CEEI website).

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### 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

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### Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

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### Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO <sub>2</sub> e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

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### Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

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### 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)

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# 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](mailto: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.