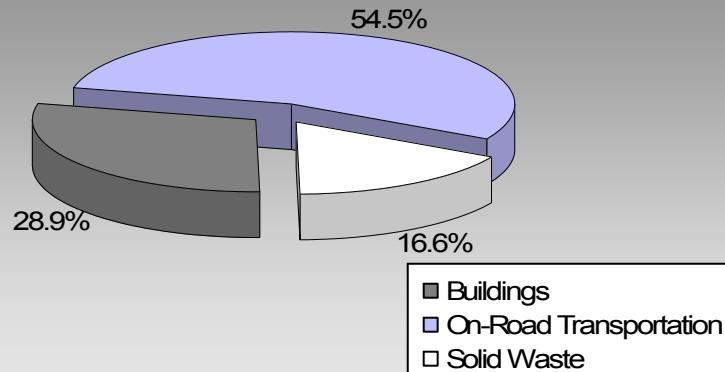


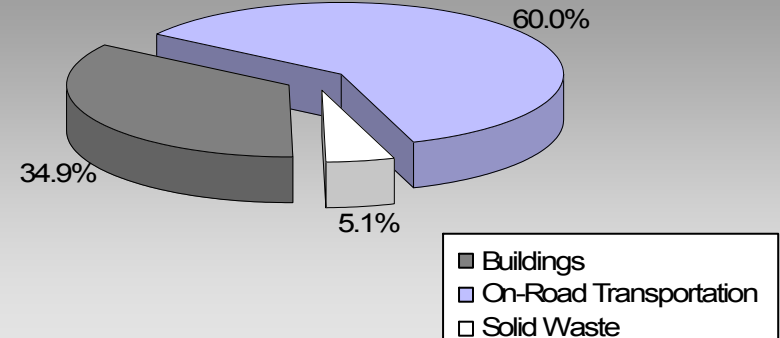
*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

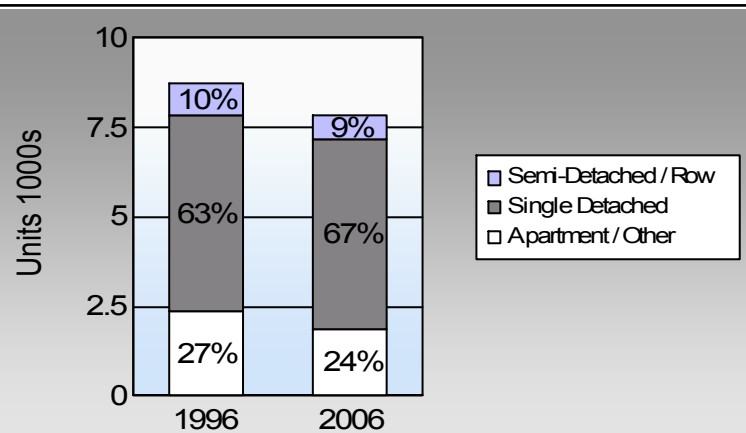
**Skeena-Queen Charlotte Regional District  
2007 GHG Emissions Sources**



**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
	60.6%	59.9%
	12.5%	13.0%
	2.0%	2.8%
	18.3%	17.9%
	2.1%	1.7%

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

### Residential Density

This data is only available for municipalities.  
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	2,102	2,789,290	Litres	13,240	97,625	6,661
	Diesel Fuel	74	71,732	Litres	13,602	2,747	196
<b>Small Passenger Cars</b>						<b>100,372</b>	<b>6,857</b>
Large Passenger Cars	Gasoline	1,221	2,745,496	Litres	18,037	96,092	6,534
	Diesel Fuel	50	113,944	Litres	17,677	4,364	311
	Other Fuel	23	45,297	Litres	14,182	1,735	69
<b>Large Passenger Cars</b>						<b>102,191</b>	<b>6,914</b>
Light Trucks, Vans, SUVs	Gasoline	5,089	15,732,828	Litres	20,471	550,649	37,640
	Diesel Fuel	427	1,134,688	Litres	19,980	43,459	3,100
	Other Fuel	43	102,907	Litres	13,907	3,941	158
<b>Light Trucks, Vans, SUVs</b>						<b>598,049</b>	<b>40,898</b>
Commercial Vehicles	Gasoline	65	285,296	Litres	15,185	9,985	668
	Diesel Fuel	104	505,165	Litres	21,885	19,348	1,359
	Other Fuel	12	46,026	Litres	12,340	1,763	71
<b>Commercial Vehicles</b>						<b>31,096</b>	<b>2,098</b>
Tractor Trailer Trucks	Gasoline	< 10	13,550	Litres	11,614	474	32
	Diesel Fuel	146	3,397,166	Litres	59,475	130,111	9,142
	Other Fuel	< 10	2,703	Litres		104	4
<b>Tractor Trailer Trucks</b>						<b>130,689</b>	<b>9,178</b>
Motorhomes	Gasoline	66	65,469	Litres	2,531	2,291	153
	Diesel Fuel	< 10	6,731	Litres	3,680	258	18
	Other Fuel	< 10	1,108	Litres	2,189	42	2
<b>Motorhomes</b>						<b>2,591</b>	<b>173</b>
Motorcycles, Mopeds	Gasoline	131	56,757	Litres	5,628	1,986	133
<b>Motorcycles, Mopeds</b>						<b>1,986</b>	<b>133</b>
Bus	Gasoline	16	131,870	Litres	19,464	4,615	310
	Diesel Fuel	< 10	140,735	Litres	31,291	5,390	379
<b>Bus</b>						<b>10,005</b>	<b>689</b>

# Skeena-Queen Charlotte Regional District

## Updated 2007 Community Energy and Emissions Inventory

<b>On Road Transportation Totals</b>	Gasoline:	763,717	52,131
	Diesel:	205,677	14,505
	Other Fuel:	7,585	304
	<b>All Fuels:</b>	<b>976,979</b>	<b>66,940</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	8,622	113,912,154	Kilowatt Hours	410,083	2,810
	Natural Gas	3,152	261,062	GigaJoules	261,062	13,314
	Heating Oil		21,422	GigaJoules	21,422	1,510
	Propane		58,469	GigaJoules	58,469	3,567
	Wood		157,980	GigaJoules	157,980	58
<b>Residential</b>					<b>909,016</b>	<b>21,259</b>
Commercial/Small-Medium Industrial	Electricity	1,637	138,413,202	Kilowatt Hours	498,287	3,414
	Natural Gas	428	212,143	GigaJoules	212,143	10,819
<b>Commercial/Small-Medium Industrial</b>					<b>710,430</b>	<b>14,233</b>
<b>Buildings Totals</b>	Electricity:				908,370	6,224
	Natural Gas:				473,205	24,133
	Propane:				58,469	3,567
	Wood:				157,980	58
	Heating Oil:				21,422	1,510
<b>Buildings:</b>					<b>1,619,446</b>	<b>35,492</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	15,539	20,393

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO <sub>2</sub> e (t)
Diesel Fuel	5,370,161	L	205,677	14,505
Electricity	252,325,356	kWh	908,370	6,224
Gasoline	21,820,556	L	763,717	52,131
Heating Oil	21,422	GJ	21,422	1,510
Natural Gas	473,205	GJ	473,205	24,133
Other Fuel	198,041	L	7,585	304
Propane	58,469	GJ	58,469	3,567
Solid Waste	15,539	T	0	20,393
Wood	157,980	GJ	157,980	58
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>2,596,425 GJ</b>	<b>122,825 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO <sub>2</sub> e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	9	263,294	GigaJoules	263,294	13,428
<b>Large Industrial</b>					<b>263,294</b>	<b>13,428</b>

<b>Agriculture</b>	Number of Animals	Methane	CO <sub>2</sub> e (t)

<b>Land-Use Change</b>	Area (ha)	CO <sub>2</sub> e (t)
Deforestation from Agriculture	-	-
Deforestation from Settlement	6	5,529
<b>Deforestation:</b>	<b>6</b>	<b>5,529</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	5,490	39	5,360	65	5,255	67
Semi-Detached House	395	3	435	5	355	5
Row House	495	3	375	5	320	4
Apartment, Duplex	730	5	675	8	795	10
Apartment, 5 storeys or higher	130	1	80	1	30	0
Apartment, under 5 storeys	1,120	8	930	11	910	12
Other Single Attached House	50	0	45	1	15	0
Movable Dwelling	310	2	330	4	135	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	6,500	61	6,050	65	5,035	60
Car, Truck, Van as Passenger	1,340	13	1,130	12	1,095	13
Public Transit	210	2	210	2	235	3
Walked	1,965	18	1,475	16	1,500	18
Bicycle	225	2	90	1	145	2
Motorcycle	10	0	20	0	15	0
Taxicab	100	1	90	1	90	1
Other Method	370	3	270	3	290	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

This data is currently unavailable in the CEEI 2007 Reports.

### 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	125,851.3	6.3
Provincial Parks / Protected Areas	637,756.6	31.7
Local Parks	34.7	0.0
Agricultural Land Reserve	43,039.0	2.1
Other land use	1,202,630.3	59.9
Total Land Area	2,009,311.8	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 [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.