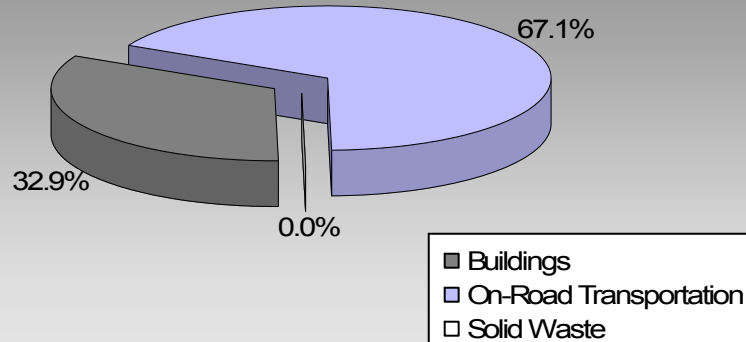


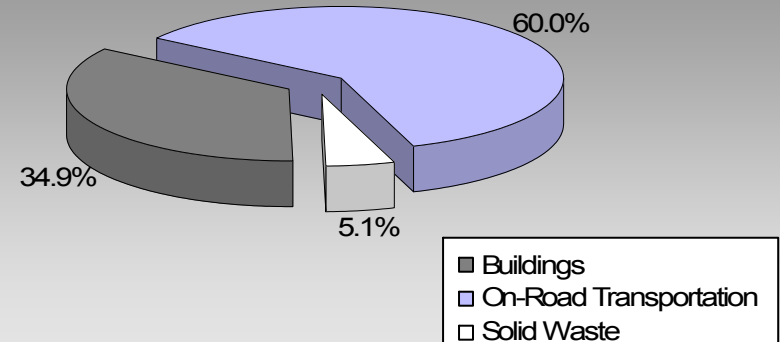
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

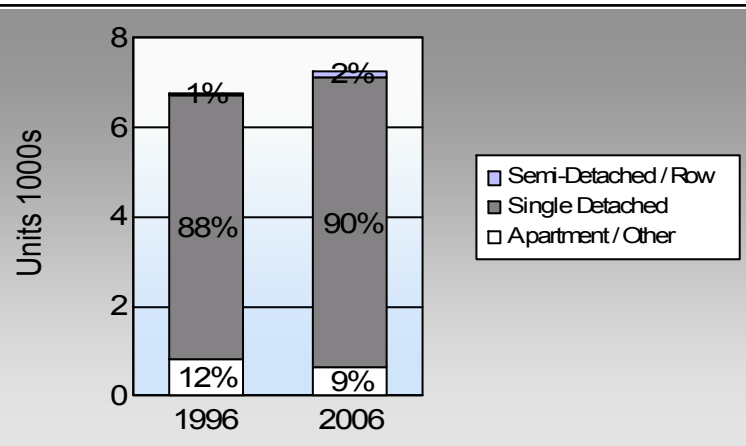
**Bulkley-Nechako Regional District Unincorporated Areas  
2007 GHG Emissions Sources**



**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
	81.3%	83.2%
	10.4%	8.3%
	0.5%	0.7%
	6.4%	4.2%
	0.5%	0.7%

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	1,362	1,973,814	Litres	13,568	69,083	4,727
	Diesel Fuel	83	92,179	Litres	14,088	3,530	252
	Other Fuel	0	0	Litres	0	-	-
<b>Small Passenger Cars</b>						<b>72,613</b>	<b>4,979</b>
Large Passenger Cars	Gasoline	878	2,243,099	Litres	19,892	78,508	5,355
	Diesel Fuel	19	46,558	Litres	19,666	1,783	127
	Other Fuel	< 10	6,699	Litres	15,115	257	10
<b>Large Passenger Cars</b>						<b>80,548</b>	<b>5,492</b>
Light Trucks, Vans, SUVs	Gasoline	3,784	12,006,946	Litres	20,028	420,243	28,864
	Diesel Fuel	900	2,383,287	Litres	20,935	91,280	6,510
	Other Fuel	37	116,257	Litres	13,868	4,453	178
<b>Light Trucks, Vans, SUVs</b>						<b>515,976</b>	<b>35,552</b>
Commercial Vehicles	Gasoline	56	234,525	Litres	14,320	8,208	547
	Diesel Fuel	149	684,286	Litres	20,735	26,208	1,841
	Other Fuel	< 10	25,857	Litres	11,464	990	40
<b>Commercial Vehicles</b>						<b>35,406</b>	<b>2,428</b>
Tractor Trailer Trucks	Gasoline	< 10	22,725	Litres	15,899	795	53
	Diesel Fuel	229	5,781,686	Litres	78,153	221,439	15,558
	Other Fuel	0	0	Litres	0	-	-
<b>Tractor Trailer Trucks</b>						<b>222,234</b>	<b>15,611</b>
Motorhomes	Gasoline	39	67,156	Litres	2,739	2,350	156
	Diesel Fuel	< 10	5,235	Litres	4,481	201	14
	Other Fuel	< 10	2,630	Litres	2,189	101	4
<b>Motorhomes</b>						<b>2,652</b>	<b>174</b>
Motorcycles, Mopeds	Gasoline	43	26,668	Litres	5,081	933	62
<b>Motorcycles, Mopeds</b>						<b>933</b>	<b>62</b>
Bus	Gasoline	< 10	88,545	Litres	19,987	3,099	208
	Diesel Fuel	< 10	98,806	Litres	19,329	3,784	266
	Other Fuel	0	0	Litres	0	-	-
<b>Bus</b>						<b>6,883</b>	<b>474</b>

<b>On Road Transportation Totals</b>	Gasoline:	583,219	39,972
	Diesel:	348,225	24,568
	Other Fuel:	5,801	232
	<b>All Fuels:</b>	<b>937,245</b>	<b>64,772</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	9,344	132,709,077	Kilowatt Hours	477,752	3,274
	Natural Gas	2,134	129,659	GigaJoules	129,659	6,613
	Heating Oil		79,615	GigaJoules	79,615	5,612
	Propane		216,081	GigaJoules	216,081	13,183
	Wood		591,051	GigaJoules	591,051	219
<b>Residential</b>					<b>1,494,158</b>	<b>28,901</b>
Commercial/Small-Medium Industrial	Electricity	1,219	36,079,151	Kilowatt Hours	129,885	891
	Natural Gas	154	38,090	GigaJoules	38,090	1,943
<b>Commercial/Small-Medium Industrial</b>					<b>167,975</b>	<b>2,834</b>
<b>Buildings Totals</b>	Electricity:				607,637	4,165
	Natural Gas:				167,749	8,556
	Propane:				216,081	13,183
	Wood:				591,051	219
	Heating Oil:				79,615	5,612
<b>Buildings:</b>					<b>1,662,133</b>	<b>31,735</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	0	15

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
<b>Diesel Fuel</b>	9,092,037	L	348,225	24,568
<b>Electricity</b>	168,788,228	kWh	607,637	4,165
<b>Gasoline</b>	16,663,478	L	583,219	39,972
<b>Heating Oil</b>	79,615	GJ	79,615	5,612
<b>Natural Gas</b>	167,749	GJ	167,749	8,556
<b>Other Fuel</b>	151,443	L	5,801	232
<b>Propane</b>	216,081	GJ	216,081	13,183
<b>Solid Waste</b>	0	T	0	15
<b>Wood</b>	591,051	GJ	591,051	219
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>2,599,378 GJ</b>	<b>96,522 tonnes</b>

## Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	3	160,003	GigaJoules	160,003	8,160
<b>Large Industrial</b>					<b>160,003</b>	<b>8,160</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	5,915	34	6,405	89	6,505	90
Semi-Detached House	10	0	35	0	100	1
Row House	30	0	30	0	10	0
Apartment, Duplex	25	0	30	0	20	0
Apartment, 5 storeys or higher	0	0	0	0	5	0
Apartment, under 5 storeys	25	0	15	0	25	0
Other Single Attached House	30	0	20	0	25	0
Movable Dwelling	725	4	670	9	545	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.

	1996		2001		2006	
	People	%	People	%	People	%
Car, Truck, Van as Driver	6,135	81	6,285	84	6,645	83
Car, Truck, Van as Passenger	785	10	615	8	665	8
Public Transit	40	1	55	1	55	1
Walked	485	6	360	5	335	4
Bicycle	35	0	45	1	55	1
Motorcycle	0	0	35	0	10	0
Taxicab	10	0	5	0	0	0
Other Method	60	1	80	1	225	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	0.0	0.0
Provincial Parks / Protected Areas	1,081,127.1	13.9
Local Parks	96.5	0.0
Agricultural Land Reserve	462,204.4	5.9
Other land use	6,240,408.1	80.2
Total Land Area	7,783,836.1	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.