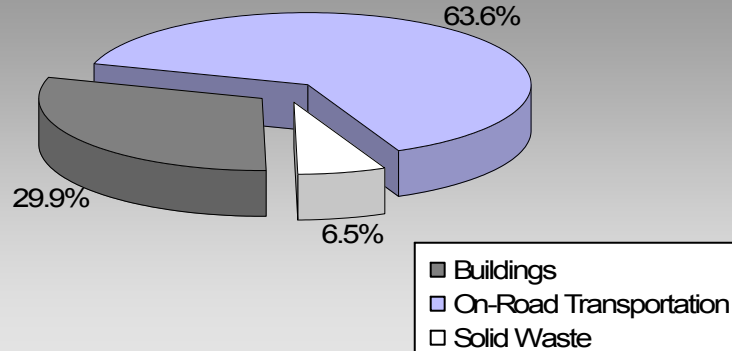


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

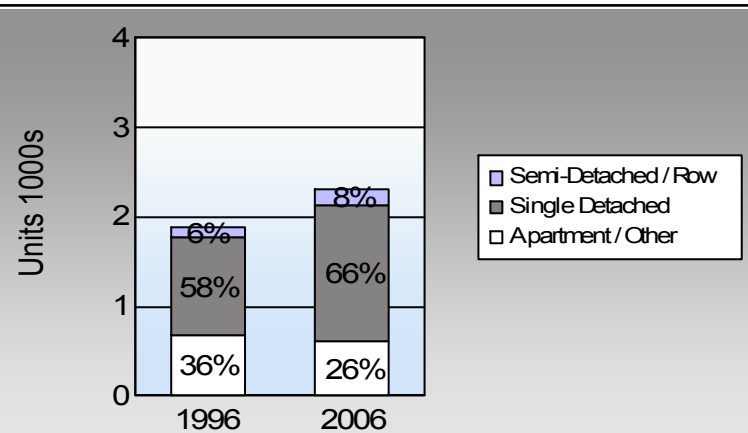
**Northern Rockies Regional Municipality  
2007 GHG Emissions Sources**



**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
	73.4%	78.8%
	13.1%	9.1%
	0.0%	0.0%
	12.5%	8.7%
	0.0%	1.6%

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

### Residential Density

Northern Rockies Regional Municipality: 5.4 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	559	829,920	Litres	13,874	29,047	1,970
	Diesel Fuel	10	12,470	Litres	15,605	478	34
<b>Small Passenger Cars</b>						<b>29,525</b>	<b>2,004</b>
Large Passenger Cars	Gasoline	337	915,821	Litres	20,587	32,054	2,174
	Diesel Fuel	28	87,453	Litres	22,026	3,349	239
	Other Fuel	< 10	2,130	Litres	11,835	82	3
<b>Large Passenger Cars</b>						<b>35,485</b>	<b>2,416</b>
Light Trucks, Vans, SUVs	Gasoline	2,218	7,726,474	Litres	21,370	270,427	18,409
	Diesel Fuel	610	1,898,163	Litres	23,604	72,700	5,187
	Other Fuel	37	80,366	Litres	14,576	3,078	123
<b>Light Trucks, Vans, SUVs</b>						<b>346,205</b>	<b>23,719</b>
Commercial Vehicles	Gasoline	43	224,325	Litres	18,103	7,851	527
	Diesel Fuel	159	861,573	Litres	23,142	32,998	2,318
	Other Fuel	< 10	8,619	Litres	11,356	330	13
<b>Commercial Vehicles</b>						<b>41,179</b>	<b>2,858</b>
Tractor Trailer Trucks	Gasoline	< 10	21,383	Litres	19,690	748	50
	Diesel Fuel	350	12,538,592	Litres	85,392	480,228	33,741
<b>Tractor Trailer Trucks</b>						<b>480,976</b>	<b>33,791</b>
Motorhomes	Gasoline	25	34,812	Litres	2,734	1,218	81
	Diesel Fuel	< 10	10,794	Litres	4,336	413	29
	Other Fuel	< 10	2,077	Litres	2,189	80	3
<b>Motorhomes</b>						<b>1,711</b>	<b>113</b>
Motorcycles, Mopeds	Gasoline	27	26,705	Litres	5,694	935	62
<b>Motorcycles, Mopeds</b>						<b>935</b>	<b>62</b>
Bus	Gasoline	< 10	87,606	Litres	34,182	3,066	206
	Diesel Fuel	< 10	16,749	Litres	21,692	641	45
<b>Bus</b>						<b>3,707</b>	<b>251</b>

<b>On Road Transportation Totals</b>	Gasoline:	345,346	23,479
	Diesel:	590,807	41,593
	Other Fuel:	3,570	142
	<b>All Fuels:</b>	<b>939,723</b>	<b>65,214</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	1,923	17,644,407	Kilowatt Hours	63,520	435
	Natural Gas	1,934	276,865	GigaJoules	276,865	14,121
	Heating Oil		5,020	GigaJoules	5,020	354
	Propane		13,591	GigaJoules	13,591	829
	Wood		37,375	GigaJoules	37,375	14
<b>Residential</b>					<b>396,371</b>	<b>15,753</b>
Commercial/Small-Medium Industrial	Electricity	444	27,802,042	Kilowatt Hours	100,087	686
	Natural Gas	441	278,497	GigaJoules	278,497	14,203
<b>Commercial/Small-Medium Industrial</b>					<b>378,584</b>	<b>14,889</b>
<b>Buildings Totals</b>	Electricity:				163,607	1,121
	Natural Gas:				555,362	28,324
	Propane:				13,591	829
	Wood:				37,375	14
	Heating Oil:				5,020	354
	<b>Buildings:</b>				<b>774,955</b>	<b>30,642</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	14,023	6,614

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	15,425,794	L	590,807	41,593
Electricity	45,446,449	kWh	163,607	1,121
Gasoline	9,867,046	L	345,346	23,479
Heating Oil	5,020	GJ	5,020	354
Natural Gas	555,362	GJ	555,362	28,324
Other Fuel	93,192	L	3,570	142
Propane	13,591	GJ	13,591	829
Solid Waste	14,023	T	0	6,614
Wood	37,375	GJ	37,375	14
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,714,678 GJ</b>	<b>102,470 tonnes</b>

### Memo Items

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
<b>Large Industrial</b>					<b>-</b>	<b>-</b>

<b>Agriculture</b>	Number of Animals	Methane	CO2e (t)
Enteric Fermentation	755	42	882

<b>Land-Use Change</b>	Area (ha)	CO2e (t)
Deforestation from Agriculture	41	-
Deforestation from Settlement	616	319,924
<b>Deforestation:</b>	<b>657</b>	<b>319,924</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	1,085	37	1,515	75	1,525	66
Semi-Detached House	0	0	30	1	50	2
Row House	115	4	115	6	135	6
Apartment, Duplex	30	1	15	1	25	1
Apartment, 5 storeys or higher	0	0	5	0	0	0
Apartment, under 5 storeys	330	11	290	14	305	13
Other Single Attached House	0	0	5	0	15	1
Movable Dwelling	320	11	50	2	255	11

### 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	2,150	73	2,265	76	2,720	79
Car, Truck, Van as Passenger	385	13	395	13	315	9
Public Transit	0	0	0	0	0	0
Walked	365	12	260	9	300	9
Bicycle	0	0	35	1	55	2
Motorcycle	0	0	0	0	10	0
Taxicab	0	0	10	0	20	1
Other Method	30	1	35	1	30	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	4,398.0
Net Land Area (ha) *	816.7
Residential Density (people per net ha)	5.4

### 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	708,559.2	8.2
Local Parks	190.3	0.0
Agricultural Land Reserve	48,567.2	0.6
Other land use	7,864,718.4	91.2
Total Land Area	8,622,035.0	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.