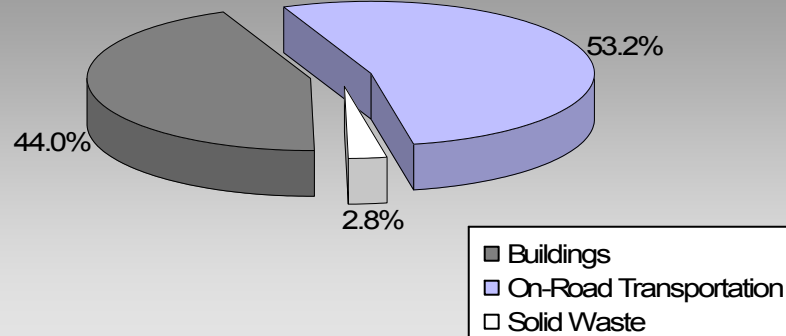


# Updated 2007 Community Energy and Emissions Inventory

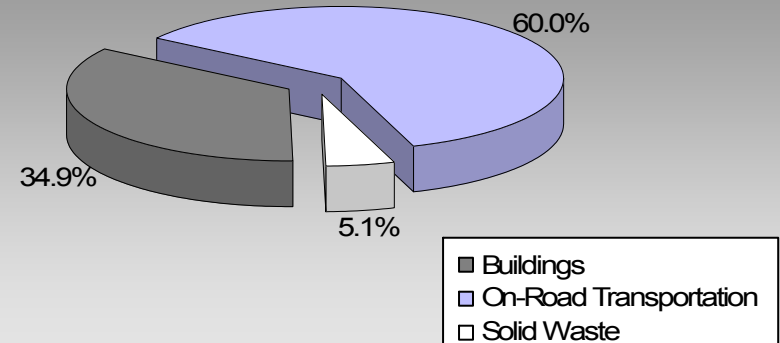
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

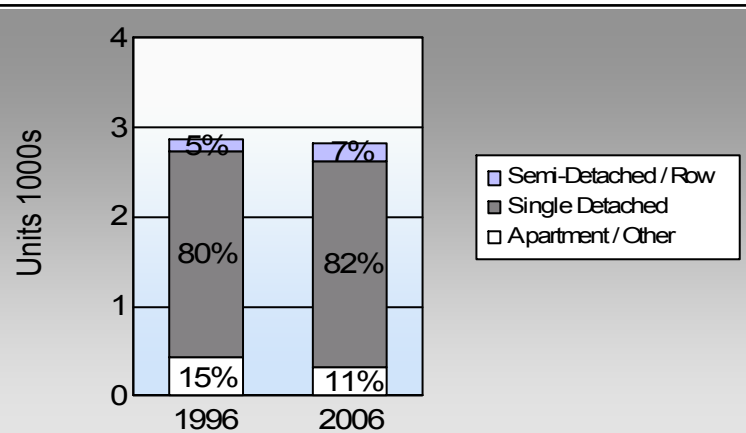
**Kimberley City  
2007 GHG Emissions Sources**



**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
	75.7%	73.1%
	9.2%	11.6%
	0.4%	0.4%
	12.3%	11.1%
	0.9%	1.8%

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

#### Residential Density

Kimberley City: 1.2 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	1,176	1,719,093	Litres	13,947	60,168	4,096
	Diesel Fuel	67	69,512	Litres	14,499	2,662	190
<b>Small Passenger Cars</b>						<b>62,830</b>	<b>4,286</b>
Large Passenger Cars	Gasoline	780	1,621,186	Litres	16,393	56,742	3,848
	Diesel Fuel	16	34,060	Litres	16,512	1,304	93
	Other Fuel	< 10	12,029	Litres	13,005	461	18
<b>Large Passenger Cars</b>						<b>58,507</b>	<b>3,959</b>
Light Trucks, Vans, SUVs	Gasoline	2,255	7,027,117	Litres	19,700	245,949	16,823
	Diesel Fuel	187	462,394	Litres	18,784	17,710	1,263
	Other Fuel	21	56,127	Litres	13,201	2,150	86
<b>Light Trucks, Vans, SUVs</b>						<b>265,809</b>	<b>18,172</b>
Commercial Vehicles	Gasoline	13	54,957	Litres	15,552	1,923	129
	Diesel Fuel	35	165,262	Litres	21,742	6,330	445
	Other Fuel	< 10	6,097	Litres	11,933	233	9
<b>Commercial Vehicles</b>						<b>8,486</b>	<b>583</b>
Tractor Trailer Trucks	Gasoline	< 10	6,049	Litres	15,089	212	14
	Diesel Fuel	22	524,851	Litres	67,030	20,102	1,412
<b>Tractor Trailer Trucks</b>						<b>20,314</b>	<b>1,426</b>
Motorhomes	Gasoline	33	49,222	Litres	2,649	1,723	115
	Diesel Fuel	< 10	2,344	Litres	4,240	90	6
	Other Fuel	< 10	554	Litres		21	1
<b>Motorhomes</b>						<b>1,834</b>	<b>122</b>
Motorcycles, Mopeds	Gasoline	41	25,016	Litres	4,817	876	58
<b>Motorcycles, Mopeds</b>						<b>876</b>	<b>58</b>
Bus	Gasoline	< 10	69,489	Litres	31,424	2,432	163
	Diesel Fuel	< 10	41,449	Litres	57,487	1,588	112
	Other Fuel	< 10	2,926	Litres		112	4
<b>Bus</b>						<b>4,132</b>	<b>279</b>

# Kimberley City

## Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	370,025	25,246
	Diesel:	49,786	3,521
	Other Fuel:	2,977	118
<b>On Road Transportation Totals</b>	<b>All Fuels:</b>	<b>422,788</b>	<b>28,885</b>

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	4,056	30,965,758	Kilowatt Hours	111,477	764	
	Natural Gas	3,205	268,044	GigaJoules	268,044	13,670	
	Heating Oil		13,858	GigaJoules	13,858	977	
	Propane		24,325	GigaJoules	24,325	1,484	
	Wood		29,139	GigaJoules	29,139	11	
<b>Residential</b>					<b>446,843</b>	<b>16,906</b>	
Commercial/Small-Medium Industrial	Electricity	477	24,519,119	Kilowatt Hours	88,269	605	
	Natural Gas	245	124,884	GigaJoules	124,884	6,369	
<b>Commercial/Small-Medium Industrial</b>					<b>213,153</b>	<b>6,974</b>	
					Electricity:	199,746	1,369
					Natural Gas:	392,928	20,039
					Propane:	24,325	1,484
					Wood:	29,139	11
					Heating Oil:	13,858	977
<b>Buildings Totals</b>	<b>Buildings:</b>				<b>659,996</b>	<b>23,880</b>	

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	7,394	1,525

# Kimberley City

## Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	1,299,872	L	49,786	3,521
Electricity	55,484,877	kWh	199,746	1,369
Gasoline	10,572,129	L	370,025	25,246
Heating Oil	13,858	GJ	13,858	977
Natural Gas	392,928	GJ	392,928	20,039
Other Fuel	77,733	L	2,977	118
Propane	24,325	GJ	24,325	1,484
Solid Waste	7,394	T	0	1,525
Wood	29,139	GJ	29,139	11
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,082,784 GJ</b>	<b>54,290 tonnes</b>

### Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	1	withheld	GigaJoules	-	-
<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	2,285	44	2,360	81	2,315	82
Semi-Detached House	70	1	90	3	95	3
Row House	75	1	90	3	105	4
Apartment, Duplex	50	1	30	1	15	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	260	5	280	10	240	8
Other Single Attached House	20	0	10	0	5	0
Movable Dwelling	110	2	40	1	55	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	2,060	76	2,220	79	2,015	73
Car, Truck, Van as Passenger	250	9	255	9	320	12
Public Transit	10	0	0	0	10	0
Walked	335	12	260	9	305	11
Bicycle	25	1	50	2	50	2
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	40	1	15	1	55	2

#### 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	6,705.0
Net Land Area (ha) *	5,792.5
Residential Density (people per net ha)	1.2

#### 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	10.8	0.2
Agricultural Land Reserve	130.2	2.1
Other land use	5,999.4	97.7
<b>Total Land Area</b>	<b>6,140.3</b>	<b>100.0</b>

## 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.