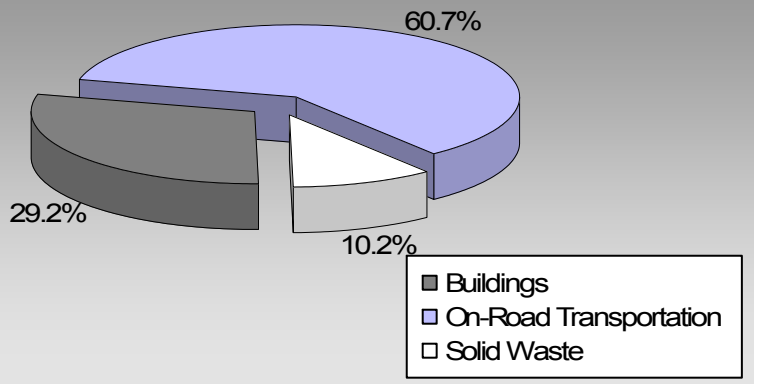
Kitimat District Municipality
Updated 2007 Community Energy and Emissions Inventory

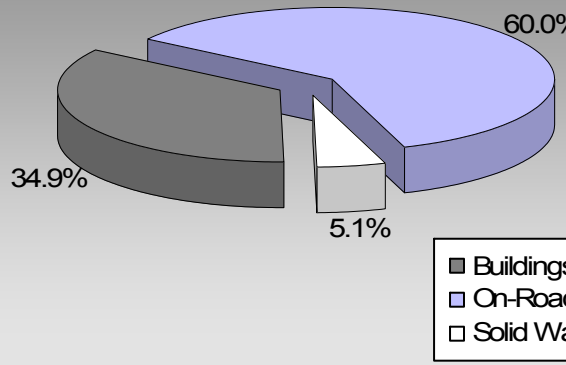
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Kitimat District Municipality
2007 GHG Emissions Sources

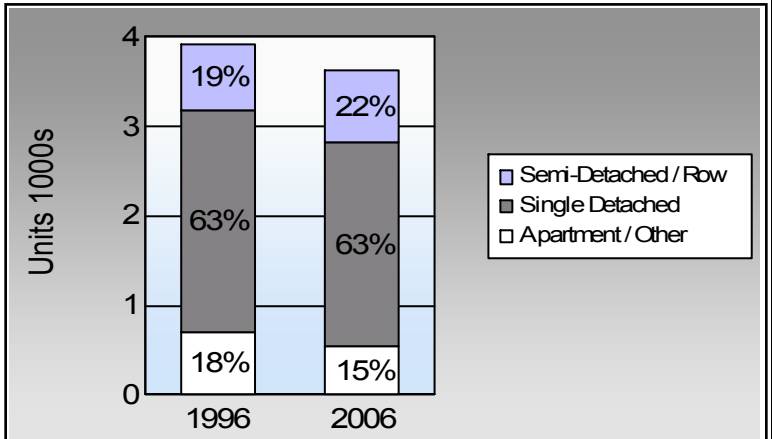


Total for BC Communities



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
	81.6%	81.6%
	6.7%	8.7%
	3.1%	2.0%
	5.9%	6.0%
	1.0%	0.4%

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

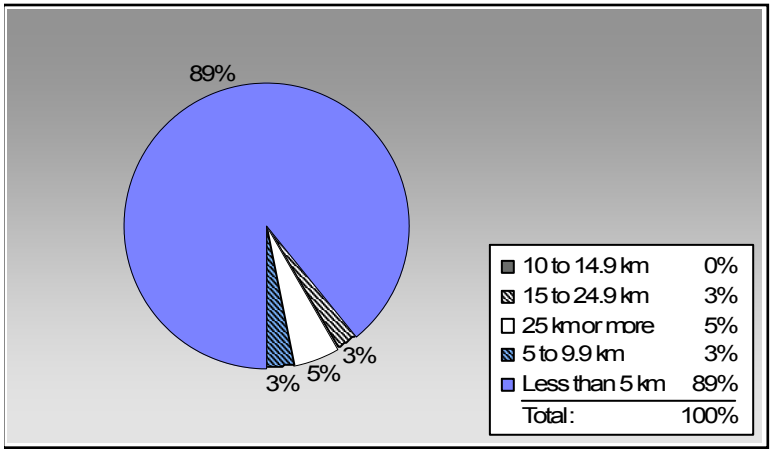
Residential Density

Kitimat District Municipality: 1.4 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	1,227	1,697,328	Litres	13,772	59,406	4,037
	Diesel Fuel	72	71,111	Litres	14,515	2,724	194
	Other Fuel	< 10	1,157	Litres	11,688	44	2
				Small Passenger Cars		**62,174**	**4,233**
Large Passenger Cars	Gasoline	801	2,061,427	Litres	20,479	72,150	4,886
	Diesel Fuel	33	71,649	Litres	22,172	2,744	196
	Other Fuel	< 10	6,375	Litres	15,213	244	10
				Large Passenger Cars		**75,138**	**5,092**
Light Trucks, Vans, SUVs	Gasoline	2,910	9,117,404	Litres	20,793	319,109	21,785
	Diesel Fuel	268	705,231	Litres	20,427	27,010	1,927
	Other Fuel	27	63,357	Litres	14,260	2,427	97
				Light Trucks, Vans, SUVs		**348,546**	**23,809**
Commercial Vehicles	Gasoline	27	128,893	Litres	16,471	4,511	302
	Diesel Fuel	35	174,066	Litres	21,238	6,667	468
	Other Fuel	< 10	15,802	Litres	11,356	605	24
				Commercial Vehicles		**11,783**	**794**
Tractor Trailer Trucks	Diesel Fuel	48	885,892	Litres	49,296	33,930	2,384
	Other Fuel	< 10	2,380	Litres	7,085	91	4
				Tractor Trailer Trucks		**34,021**	**2,388**
Motorhomes	Gasoline	26	43,311	Litres	3,102	1,516	101
	Diesel Fuel	< 10	7,355	Litres	4,706	282	20
	Other Fuel	< 10	1,108	Litres	2,189	42	2
				Motorhomes		**1,840**	**123**
Motorcycles, Mopeds	Gasoline	67	42,122	Litres	5,195	1,474	98
				Motorcycles, Mopeds		**1,474**	**98**
Bus	Gasoline	< 10	42,717	Litres	18,772	1,495	100
	Diesel Fuel	103	2,716,464	Litres	50,643	104,041	7,310
	Other Fuel	10	58,521	Litres	15,902	2,241	90
				Bus		**107,777**	**7,500**

	Gasoline:	459,661	31,309
	Diesel:	177,398	12,499
	Other Fuel:	5,694	229
On Road Transportation Totals	**All Fuels:**	**642,753**	**44,037**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	4,222	46,822,942	Kilowatt Hours	168,562	1,155
	Natural Gas	3,048	233,082	GigaJoules	233,082	11,887
	Heating Oil		7,189	GigaJoules	7,189	507
	Propane		19,607	GigaJoules	19,607	1,196
	Wood		53,057	GigaJoules	53,057	20
			Residential		**481,497**	**14,765**
Commercial/Small-Medium Industrial	Electricity	510	36,031,207	Kilowatt Hours	129,712	889
	Natural Gas	235	108,007	GigaJoules	108,007	5,508
			Commercial/Small-Medium Industrial		**237,719**	**6,397**

	Electricity:	298,274	2,044
	Natural Gas:	341,089	17,395
	Propane:	19,607	1,196
	Wood:	53,057	20
	Heating Oil:	7,189	507
Buildings Totals	**Buildings:**	**719,216**	**21,162**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	4,442	7,385

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	4,631,768	L	177,398	12,499
	Electricity	82,854,149	kWh	298,274	2,044
	Gasoline	13,133,202	L	459,661	31,309
	Heating Oil	7,189	GJ	7,189	507
	Natural Gas	341,089	GJ	341,089	17,395
	Other Fuel	148,700	L	5,694	229
	Propane	19,607	GJ	19,607	1,196
	Solid Waste	4,442	T	0	7,385
	Wood	53,057	GJ	53,057	20
Total of Transportation / Buildings / Solid Waste:				**1,361,969** GJ	**72,584** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	4	3,645,907	GigaJoules	3,645,907	185,941
				Large Industrial	**3,645,907**	**185,941**

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Updated 2007 Community Energy and Emissions Inventory

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

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	2,470	39	2,370	63	2,280	63
Semi-Detached House	410	6	410	11	455	13
Row House	320	5	380	10	350	10
Apartment, Duplex	35	1	40	1	60	2
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	525	8	440	12	375	10
Other Single Attached House	60	1	0	0	0	0
Movable Dwelling	90	1	150	4	105	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
Population	9,226.0
Net Land Area (ha) *	6,409.5
Residential Density (people per net ha)	1.4

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	4,155	82	3,945	85	3,415	82
Car, Truck,Van as Passenge	340	7	245	5	365	9
Public Transit	160	3	120	3	85	2
Walked	300	6	260	6	250	6
Bicycle	50	1	0	0	15	0
Motorcycle	15	0	0	0	15	0
Taxicab	20	0	25	1	10	0
Other Method	50	1	40	1	30	1

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	%
Less than 5 km	3,455	89
5 to 9.9 km	115	3
10 to 14.9 km	0	0
15 to 24.9 km	100	3
25 km or more	200	5

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	24.6	0.1
Local Parks	463.2	1.8
Agricultural Land Reserve	509.4	2.0
Other land use	24,655.3	96.1
Total Land Area	25,652.4	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 (see survey on CEEI website).

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

Buildings

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

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO2e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

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

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)

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