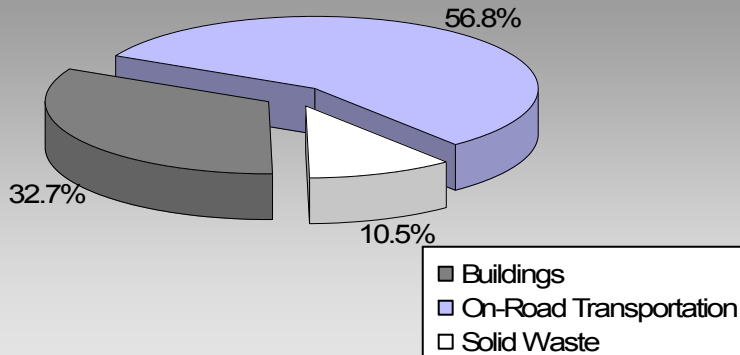


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

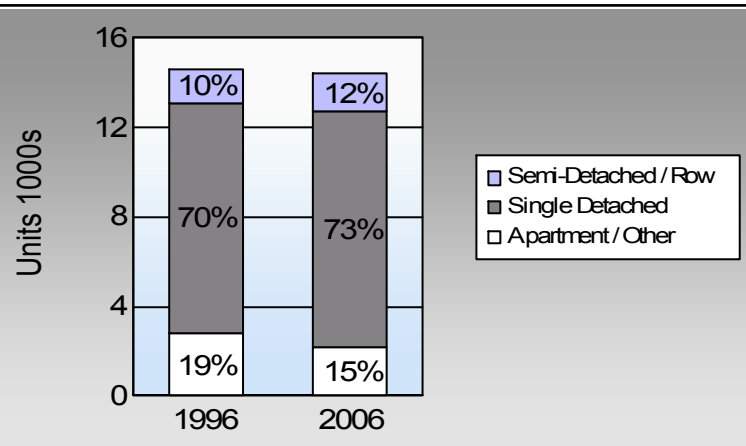
**Kitimat-Stikine Regional District
2007 GHG Emissions Sources**



**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
	74.7%	75.5%
	8.7%	9.3%
	1.4%	1.3%
	11.7%	10.9%
	1.7%	1.3%

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

On Road Transportation		<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	4,758	6,663,097	Litres	13,662	233,208	15,876
	Diesel Fuel	212	221,704	Litres	14,522	8,491	606
	Other Fuel	< 10	4,061	Litres	9,199	156	6
Small Passenger Cars						241,855	16,488
Large Passenger Cars	Gasoline	3,130	8,110,907	Litres	20,485	283,882	19,222
	Diesel Fuel	88	214,885	Litres	21,247	8,230	587
	Other Fuel	12	34,031	Litres	17,196	1,303	52
Large Passenger Cars						293,415	19,861
Light Trucks, Vans, SUVs	Gasoline	10,668	33,570,270	Litres	20,325	1,174,959	80,339
	Diesel Fuel	1,393	3,640,877	Litres	20,038	139,446	9,947
	Other Fuel	104	271,500	Litres	13,986	10,398	416
Light Trucks, Vans, SUVs						1,324,803	90,702
Commercial Vehicles	Gasoline	128	606,156	Litres	16,032	21,215	1,420
	Diesel Fuel	295	1,356,492	Litres	20,691	51,954	3,650
	Other Fuel	15	54,588	Litres	11,356	2,091	84
Commercial Vehicles						75,260	5,154
Tractor Trailer Trucks	Gasoline	< 10	8,332	Litres	7,085	292	19
	Diesel Fuel	366	8,721,236	Litres	60,758	334,023	23,468
	Other Fuel	< 10	4,166	Litres	7,085	160	6
Tractor Trailer Trucks						334,475	23,493
Motorhomes	Gasoline	121	168,903	Litres	2,786	5,912	394
	Diesel Fuel	18	23,880	Litres	4,316	915	64
	Other Fuel	< 10	3,461	Litres	2,189	133	5
Motorhomes						6,960	463
Motorcycles, Mopeds	Gasoline	163	107,547	Litres	5,105	3,764	251
Motorcycles, Mopeds						3,764	251
Bus	Gasoline	32	288,148	Litres	21,302	10,085	677
	Diesel Fuel	123	2,947,097	Litres	45,720	112,874	7,930
	Other Fuel	11	64,373	Litres	15,902	2,465	99
Bus						125,424	8,706

Kitimat-Stikine Regional District

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	1,733,317	118,198
	Diesel:	655,933	46,252
	Other Fuel:	16,706	668
On Road Transportation Totals	All Fuels:	2,405,956	165,118

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	16,819	217,582,626	Kilowatt Hours	783,297	5,367
	Natural Gas	8,541	1,193,248	GigaJoules	1,193,248	60,856
	Heating Oil		22,591	GigaJoules	22,591	1,592
	Propane		61,585	GigaJoules	61,585	3,757
	Wood			166,844	GigaJoules	166,844
Residential					2,227,565	71,634
Commercial/Small-Medium Industrial	Electricity	2,928	152,299,061	Kilowatt Hours	548,276	3,757
	Natural Gas	972	383,878	GigaJoules	383,878	19,578
Commercial/Small-Medium Industrial					932,154	23,335
					Electricity:	9,124
					Natural Gas:	80,434
					Propane:	3,757
					Wood:	62
					Heating Oil:	1,592
Buildings Totals	Buildings:				3,159,719	94,969

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	19,000	30,363

Kitimat-Stikine Regional District

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO ₂ e (t)
Diesel Fuel	17,126,171	L	655,933	46,252
Electricity	369,881,687	kWh	1,331,573	9,124
Gasoline	49,523,360	L	1,733,317	118,198
Heating Oil	22,591	GJ	22,591	1,592
Natural Gas	1,577,126	GJ	1,577,126	80,434
Other Fuel	436,180	L	16,706	668
Propane	61,585	GJ	61,585	3,757
Solid Waste	19,000	T	0	30,363
Wood	166,844	GJ	166,844	62
Total of Transportation / Buildings / Solid Waste:			5,565,675 GJ	290,450 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO ₂ e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	8	3,748,717	GigaJoules	3,748,717	191,185
Large Industrial					3,748,717	191,185

Agriculture		Number of Animals	Methane	CO ₂ e (t)
	Enteric Fermentation	2,918	132	2,772

Land-Use Change		Area (ha)	CO ₂ e (t)
	Deforestation from Settlement	11	5,402
	Deforestation from Agriculture	55	25,363
Deforestation:		66	30,765

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	10,300	41	10,690	73	10,530	73
Semi-Detached House	795	3	830	6	930	6
Row House	730	3	775	5	740	5
Apartment, Duplex	325	1	270	2	355	2
Apartment, 5 storeys or higher	0	0	120	1	5	0
Apartment, under 5 storeys	1,325	5	1,000	7	1,025	7
Other Single Attached House	90	0	40	0	45	0
Movable Dwelling	1,055	4	890	6	740	5

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	13,730	75	13,040	79	11,780	76
Car, Truck, Van as Passenger	1,605	9	1,235	7	1,455	9
Public Transit	250	1	180	1	200	1
Walked	2,150	12	1,600	10	1,700	11
Bicycle	320	2	160	1	205	1
Motorcycle	20	0	10	0	20	0
Taxicab	40	0	50	0	15	0
Other Method	270	1	235	1	225	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

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	1,689,041.0	15.9
Local Parks	586.8	0.0
Agricultural Land Reserve	66,350.3	0.6
Other land use	8,847,934.1	83.4
Total Land Area	10,603,912.2	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 CO ₂ e 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

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.