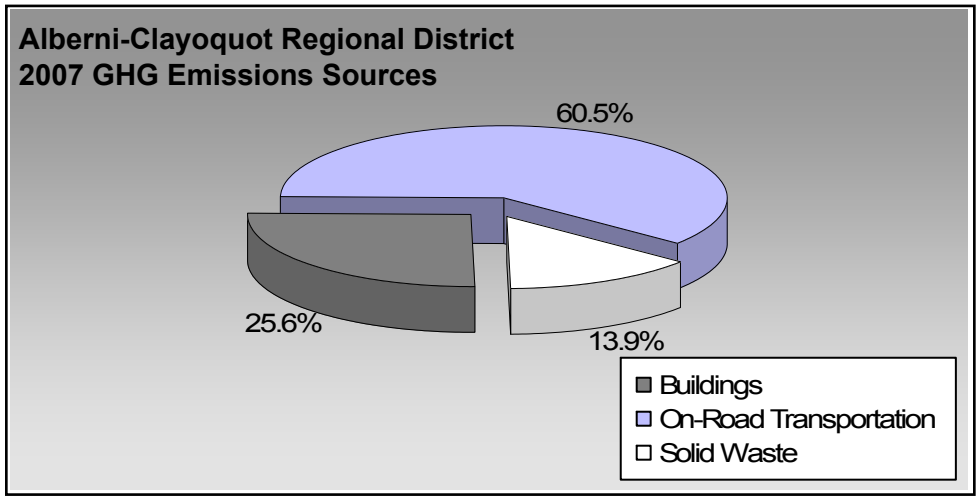
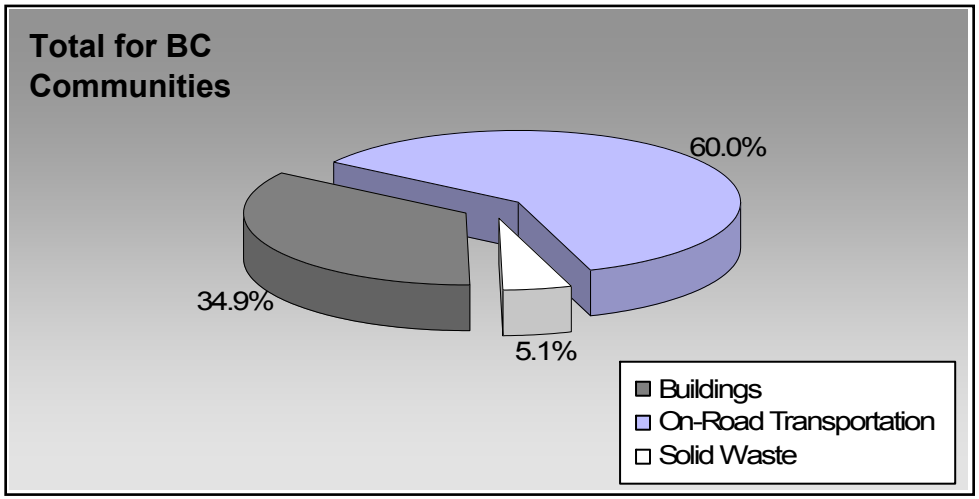
Alberni-Clayoquot Regional District
Updated 2007 Community Energy and Emissions Inventory

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

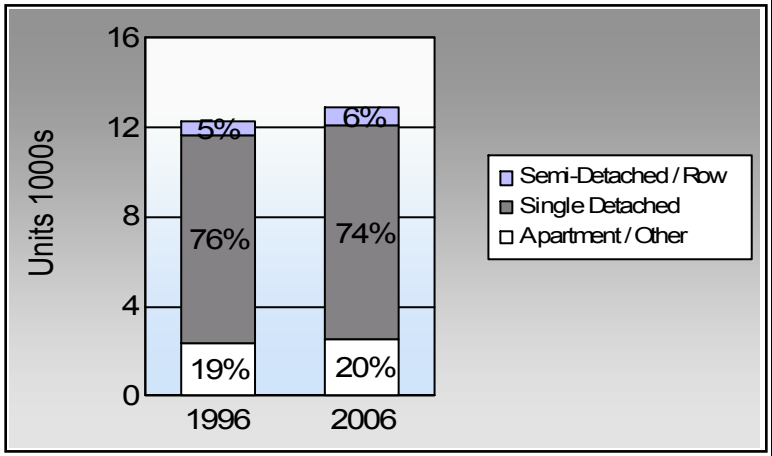
Where are the majority of our community's emissions coming from?





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
	77.1%	74.9%
	6.0%	8.9%
	0.7%	1.0%
	11.3%	10.7%
	2.0%	1.7%

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.

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	5,168	6,907,850	Litres	12,962	241,775	16,561
	Diesel Fuel	169	169,772	Litres	13,428	6,502	464
	Other Fuel	< 10	3,336	Litres	9,421	128	5
				Small Passenger Cars		**248,405**	**17,030**
Large Passenger Cars	Gasoline	3,137	6,497,749	Litres	16,638	227,421	15,514
	Diesel Fuel	68	148,634	Litres	16,632	5,693	405
	Other Fuel	18	41,276	Litres	15,553	1,581	63
				Large Passenger Cars		**234,695**	**15,982**
Light Trucks, Vans, SUVs	Gasoline	9,731	28,575,076	Litres	19,343	1,000,128	68,656
	Diesel Fuel	935	2,182,397	Litres	17,784	83,586	5,961
	Other Fuel	116	272,796	Litres	13,177	10,448	418
				Light Trucks, Vans, SUVs		**1,094,162**	**75,035**
Commercial Vehicles	Gasoline	135	633,627	Litres	17,092	22,177	1,486
	Diesel Fuel	184	807,081	Litres	19,478	30,911	2,172
	Other Fuel	18	59,031	Litres	11,666	2,261	90
				Commercial Vehicles		**55,349**	**3,748**
Tractor Trailer Trucks	Gasoline	< 10	26,168	Litres	11,108	916	61
	Diesel Fuel	245	6,357,205	Litres	65,235	243,481	17,107
	Other Fuel	< 10	4,039	Litres	7,549	155	6
				Tractor Trailer Trucks		**244,552**	**17,174**
Motorhomes	Gasoline	241	243,653	Litres	2,686	8,528	569
	Diesel Fuel	21	15,137	Litres	3,049	580	41
	Other Fuel	< 10	8,168	Litres	2,189	313	13
				Motorhomes		**9,421**	**623**
Motorcycles, Mopeds	Gasoline	278	112,301	Litres	4,811	3,931	262
				Motorcycles, Mopeds		**3,931**	**262**
Bus	Gasoline	27	269,540	Litres	25,445	9,434	633
	Diesel Fuel	41	639,404	Litres	30,793	24,489	1,721
	Other Fuel	< 10	17,556	Litres	15,902	672	27
				Bus		**34,595**	**2,381**

	Gasoline:	1,514,310	103,742
	Diesel:	395,242	27,871
	Other Fuel:	15,558	622
On Road Transportation Totals	**All Fuels:**	**1,925,110**	**132,235**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	15,941	234,752,123	Kilowatt Hours	845,107	5,791
	Natural Gas	4,260	260,223	GigaJoules	260,223	13,271
	Heating Oil		214,488	GigaJoules	214,488	15,119
	Propane		36,979	GigaJoules	36,979	2,256
	Wood		261,602	GigaJoules	261,602	97
			Residential		**1,618,399**	**36,534**
Commercial/Small-Medium Industrial	Electricity	2,412	148,388,853	Kilowatt Hours	534,199	3,660
	Natural Gas	511	309,387	GigaJoules	309,387	15,779
			Commercial/Small-Medium Industrial		**843,586**	**19,439**

	Electricity:	1,379,306	9,451
	Natural Gas:	569,610	29,050
	Propane:	36,979	2,256
	Wood:	261,602	97
	Heating Oil:	214,488	15,119
Buildings Totals	**Buildings:**	**2,461,985**	**55,973**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	27,645	30,366

Alberni-Clayoquot Regional District
Updated 2007 Community Energy and Emissions Inventory

Grand Total

	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	10,319,630	L	395,242	27,871
Electricity	383,140,976	kWh	1,379,306	9,451
Gasoline	43,265,964	L	1,514,310	103,742
Heating Oil	214,488	GJ	214,488	15,119
Natural Gas	569,610	GJ	569,610	29,050
Other Fuel	406,202	L	15,558	622
Propane	36,979	GJ	36,979	2,256
Solid Waste	27,645	T	0	30,366
Wood	261,602	GJ	261,602	97
Total of Transportation / Buildings / Solid Waste:			**4,387,095** GJ	**218,574** tonnes

Memo Items

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	1	withheld	GigaJoules	-	-
				Large Industrial	**-**	**-**

Agriculture

		Number of Animals	Methane	CO2e (t)
	Enteric Fermentation	1,816	119	2,499

Land-Use Change

	Area (ha)	CO2e (t)
Deforestation from Settlement	49	42,953
Deforestation from Agriculture	-	-
Deforestation:	**49**	**42,953**

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	9,305	43	9,645	77	9,530	74
Semi-Detached House	290	1	310	2	305	2
Row House	330	2	425	3	500	4
Apartment, Duplex	420	2	255	2	365	3
Apartment, 5 storeys or higher	125	1	105	1	110	1
Apartment, under 5 storeys	1,065	5	1,160	9	1,355	11
Other Single Attached House	45	0	55	0	35	0
Movable Dwelling	655	3	535	4	650	5

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 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	9,670	77	8,945	77	9,480	75
Car, Truck,Van as Passenge	750	6	850	7	1,120	9
Public Transit	85	1	130	1	120	1
Walked	1,420	11	1,120	10	1,350	11
Bicycle	245	2	120	1	220	2
Motorcycle	20	0	70	1	15	0
Taxicab	25	0	25	0	0	0
Other Method	320	3	360	3	355	3

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	22,291.2	3.3
Provincial Parks / Protected Areas	117,280.8	17.1
Local Parks	83.2	0.0
Agricultural Land Reserve	7,756.3	1.1
Other land use	537,096.9	78.5
Total Land Area	684,508.4	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