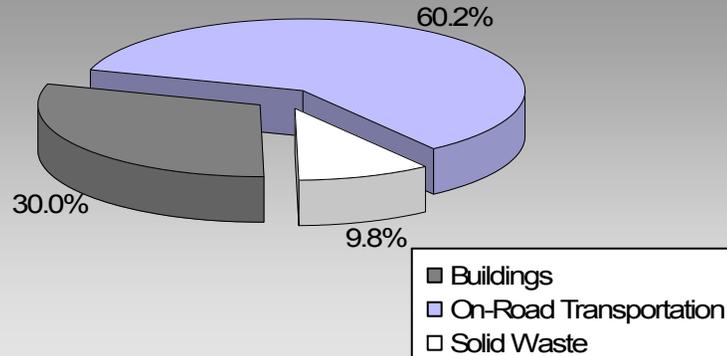


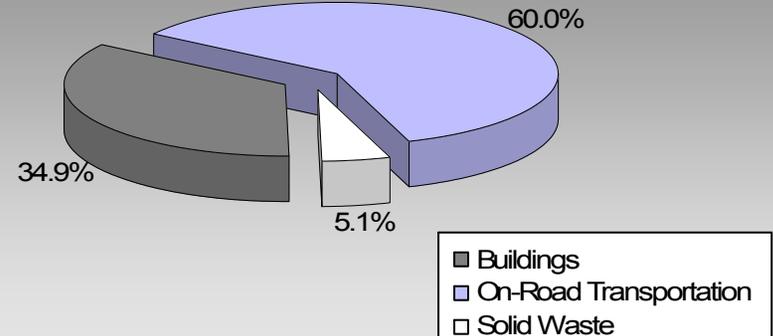
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

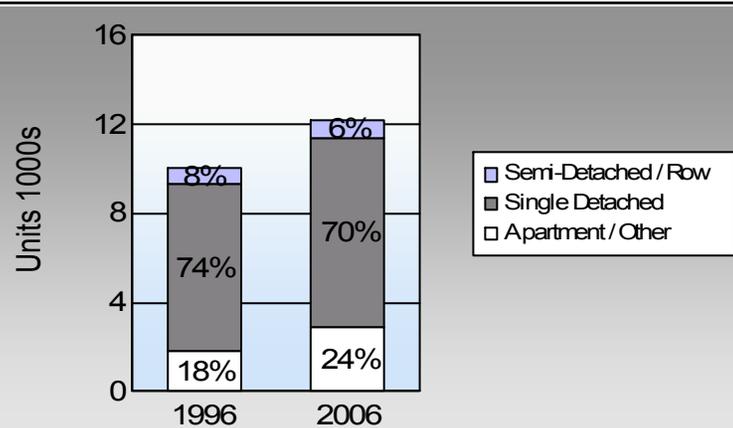
**Mission District Municipality
2007 GHG Emissions Sources**



**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

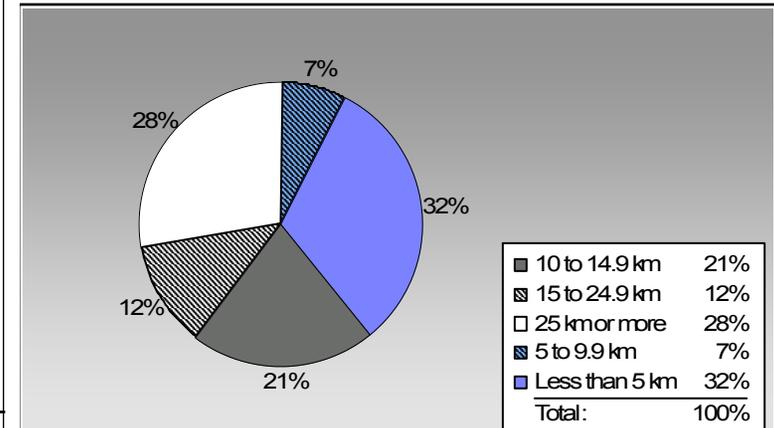
	1996	2006
	84.2%	85.2%
	7.7%	7.6%
	2.2%	3.1%
	4.0%	2.5%
	0.8%	0.3%

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

Residential Density

Mission District Municipality: 2.9 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.

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	6,728	10,106,839	Litres	14,686	353,739	24,146
	Diesel Fuel	244	274,765	Litres	15,221	10,524	750
	Other Fuel	< 10	1,771	Litres	9,644	68	3
Small Passenger Cars						364,331	24,899
Large Passenger Cars	Gasoline	3,168	7,310,081	Litres	18,199	255,853	17,395
	Diesel Fuel	55	126,761	Litres	17,343	4,855	346
	Other Fuel	15	32,912	Litres	15,600	1,261	50
Large Passenger Cars						261,969	17,791
Light Trucks, Vans, SUVs	Gasoline	9,192	28,671,244	Litres	20,669	1,003,494	68,635
	Diesel Fuel	773	1,968,323	Litres	19,694	75,387	5,377
	Other Fuel	66	170,552	Litres	13,920	6,532	261
Light Trucks, Vans, SUVs						1,085,413	74,273
Commercial Vehicles	Gasoline	61	252,788	Litres	13,149	8,848	590
	Diesel Fuel	156	770,128	Litres	21,054	29,496	2,072
	Other Fuel	11	42,397	Litres	13,149	1,624	65
Commercial Vehicles						39,968	2,727
Tractor Trailer Trucks	Gasoline	< 10	34,515	Litres	19,625	1,208	81
	Diesel Fuel	242	7,683,748	Litres	80,336	294,288	20,677
	Other Fuel	< 10	1,785	Litres		68	3
Tractor Trailer Trucks						295,564	20,761
Motorhomes	Gasoline	177	187,455	Litres	2,773	6,561	438
	Diesel Fuel	23	21,506	Litres	4,028	824	58
	Other Fuel	10	6,368	Litres	2,189	244	10
Motorhomes						7,629	506
Motorcycles, Mopeds	Gasoline	489	198,482	Litres	5,219	6,947	463
Motorcycles, Mopeds						6,947	463
Bus	Gasoline	< 10	62,170	Litres	19,492	2,176	146
	Diesel Fuel	20	199,280	Litres	20,260	7,632	536
	Other Fuel	< 10	5,852	Litres		224	9
Bus						10,032	691

Mission District Municipality

Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	1,638,826	111,894
	Diesel:	423,006	29,816
	Other Fuel:	10,021	401
	All Fuels:	2,071,853	142,111

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	12,196	168,417,806	Kilowatt Hours	606,304	4,154
	Natural Gas	10,129	905,534	GigaJoules	905,534	46,183
	Heating Oil		28,388	GigaJoules	28,388	2,001
	Propane		41,975	GigaJoules	41,975	2,561
Residential					1,582,201	54,899
Commercial/Small-Medium Industrial	Electricity	1,316	89,961,451	Kilowatt Hours	323,861	2,219
	Natural Gas	680	270,501	GigaJoules	270,501	13,796
Commercial/Small-Medium Industrial					594,362	16,015
Buildings Totals	Electricity:				930,165	6,373
	Natural Gas:				1,176,035	59,979
	Propane:				41,975	2,561
	Wood:					
	Heating Oil:				28,388	2,001
	Buildings:				2,176,563	70,914

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	16,743	23,236

Mission District Municipality

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	11,044,511	L	423,006	29,816
Electricity	258,379,257	kWh	930,165	6,373
Gasoline	46,823,574	L	1,638,826	111,894
Heating Oil	28,388	GJ	28,388	2,001
Natural Gas	1,176,035	GJ	1,176,035	59,979
Other Fuel	261,637	L	10,021	401
Propane	41,975	GJ	41,975	2,561
Solid Waste	16,743	T	0	23,236
Total of Transportation / Buildings / Solid Waste:			4,248,416 GJ	236,261 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	7	79,878	GigaJoules	79,878	4,074
Large Industrial					79,878	4,074

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	7,430	43	7,935	74	8,480	70
Semi-Detached House	180	1	210	2	290	2
Row House	595	3	470	4	480	4
Apartment, Duplex	635	4	925	9	1,635	13
Apartment, 5 storeys or higher	100	1	105	1	70	1
Apartment, under 5 storeys	765	4	965	9	1,130	9
Other Single Attached House	10	0	20	0	30	0
Movable Dwelling	335	2	80	1	65	1

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	10,005	84	11,115	85	13,630	85
Car, Truck, Van as Passenger	910	8	935	7	1,220	8
Public Transit	255	2	415	3	490	3
Walked	480	4	405	3	405	3
Bicycle	95	1	65	1	40	0
Motorcycle	15	0	15	0	55	0
Taxicab	15	0	15	0	0	0
Other Method	105	1	70	1	165	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	37,167.0
Net Land Area (ha) *	12,894.6
Residential Density (people per net ha)	2.9

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	4,055	32
5 to 9.9 km	915	7
10 to 14.9 km	2,695	21
15 to 24.9 km	1,530	12
25 km or more	3,615	28

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	230.8	0.9
Local Parks	83.8	0.3
Agricultural Land Reserve	1,532.3	6.0
Other land use	23,850.0	92.8
Total Land Area	25,696.8	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.