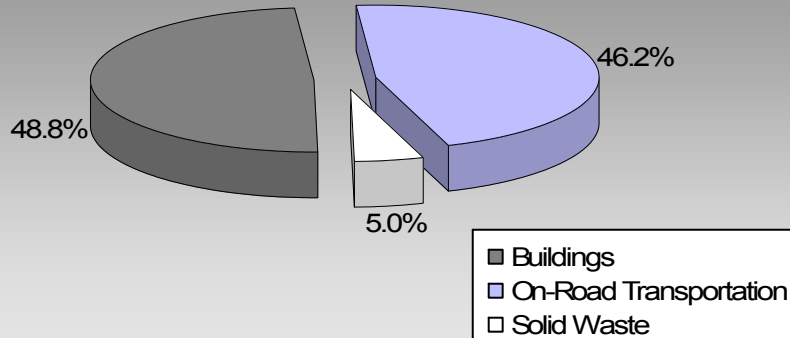


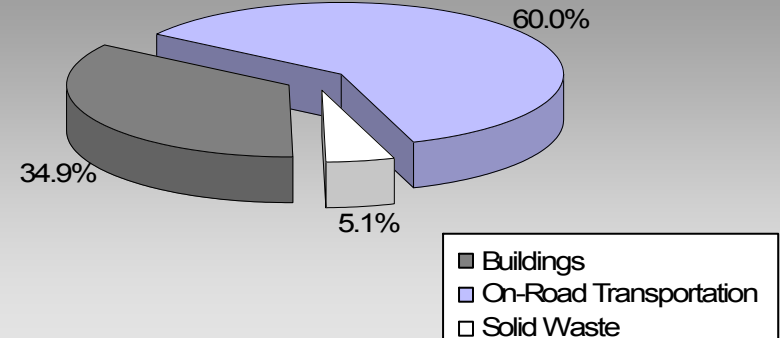
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

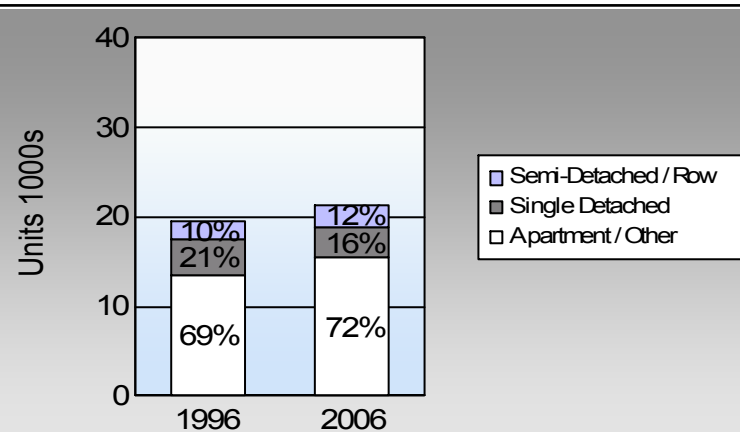
**North Vancouver City
2007 GHG Emissions Sources**



**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

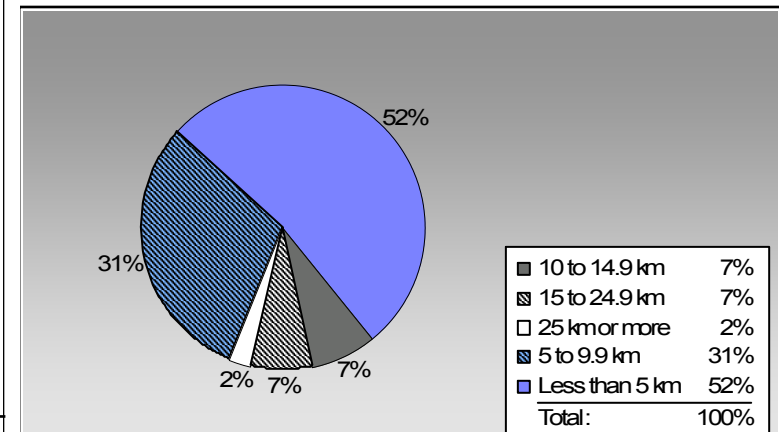
	1996	2006
	77.3%	62.1%
	6.5%	5.6%
	10.9%	20.3%
	3.4%	9.4%
	1.3%	1.9%

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

Residential Density

North Vancouver City: 46.3 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	11,129	14,454,534	Litres	13,195	505,909	34,377
	Diesel Fuel	280	279,778	Litres	13,515	10,715	764
	Other Fuel	< 10	3,372	Litres	9,830	129	5
Small Passenger Cars						516,753	35,146
Large Passenger Cars	Gasoline	4,466	7,691,026	Litres	14,523	269,186	18,242
	Diesel Fuel	75	122,619	Litres	12,894	4,696	335
	Other Fuel	< 10	12,686	Litres	11,088	486	19
Large Passenger Cars						274,368	18,596
Light Trucks, Vans, SUVs	Gasoline	7,973	15,193,688	Litres	13,445	531,779	36,306
	Diesel Fuel	197	489,778	Litres	17,045	18,759	1,338
	Other Fuel	30	59,460	Litres	11,042	2,277	91
Light Trucks, Vans, SUVs						552,815	37,735
Commercial Vehicles	Gasoline	37	152,109	Litres	16,157	5,324	357
	Diesel Fuel	98	435,594	Litres	20,572	16,683	1,172
	Other Fuel	10	30,167	Litres	11,356	1,155	46
Commercial Vehicles						23,162	1,575
Tractor Trailer Trucks	Gasoline	< 10	5,984	Litres	8,905	209	14
	Diesel Fuel	62	1,648,588	Litres	70,097	63,141	4,436
Tractor Trailer Trucks						63,350	4,450
Motorhomes	Gasoline	132	119,943	Litres	2,828	4,198	280
	Diesel Fuel	10	8,278	Litres	3,523	317	22
	Other Fuel	< 10	2,077	Litres	2,189	80	3
Motorhomes						4,595	305
Motorcycles, Mopeds	Gasoline	401	162,110	Litres	5,487	5,674	378
	Motorcycles, Mopeds						5,674
Bus	Gasoline	< 10	101,552	Litres	23,351	3,554	239
	Diesel Fuel	11	203,327	Litres	35,516	7,787	547
	Other Fuel	< 10	4,389	Litres		168	7
Bus						11,509	793

North Vancouver City Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	1,325,833	90,193
	Diesel:	122,098	8,614
	Other Fuel:	4,295	171
	All Fuels:	1,452,226	98,978

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	21,207	155,943,489	Kilowatt Hours	561,396	3,847
	Natural Gas	7,007	670,647	GigaJoules	670,647	34,203
	Heating Oil		13,067	GigaJoules	13,067	921
	Propane		19,406	GigaJoules	19,406	1,184
Residential					1,264,516	40,155
Commercial/Small-Medium Industrial	Electricity	2,274	239,928,680	Kilowatt Hours	863,743	5,918
	Natural Gas	1,469	1,146,962	GigaJoules	1,146,962	58,495
Commercial/Small-Medium Industrial					2,010,705	64,413
Buildings Totals	Electricity:				1,425,139	9,765
	Natural Gas:				1,817,609	92,698
	Propane:				19,406	1,184
	Wood:					
	Heating Oil:				13,067	921
	Buildings:					3,275,221

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	29,618	10,777

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	3,187,962	L	122,098	8,614
Electricity	395,872,169	kWh	1,425,139	9,765
Gasoline	37,880,946	L	1,325,833	90,193
Heating Oil	13,067	GJ	13,067	921
Natural Gas	1,817,609	GJ	1,817,609	92,698
Other Fuel	112,151	L	4,295	171
Propane	19,406	GJ	19,406	1,184
Solid Waste	29,618	T	0	10,777
Total of Transportation / Buildings / Solid Waste:			4,727,447 GJ	214,323 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	16	294,015	GigaJoules	294,015	14,995
Large Industrial					294,015	14,995

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	4,090	17	4,105	20	3,390	16
Semi-Detached House	530	2	820	4	760	4
Row House	1,415	6	1,780	9	1,755	8
Apartment, Duplex	1,755	7	1,775	9	2,270	11
Apartment, 5 storeys or higher	2,415	10	3,110	15	3,750	18
Apartment, under 5 storeys	9,160	39	9,080	44	9,375	44
Other Single Attached House	35	0	15	0	45	0
Movable Dwelling	45	0	25	0	10	0

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	30,060	77	30,270	79	14,720	62
Car, Truck, Van as Passenger	2,530	7	2,425	6	1,325	6
Public Transit	4,215	11	3,170	8	4,825	20
Walked	1,305	3	1,470	4	2,220	9
Bicycle	505	1	655	2	450	2
Motorcycle	65	0	50	0	55	0
Taxicab	10	0	20	0	45	0
Other Method	175	0	225	1	80	0

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	48,881.0
Net Land Area (ha) *	1,056.7
Residential Density (people per net ha)	46.3

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 %
Less than 5 km	10,660 52
5 to 9.9 km	6,235 31
10 to 14.9 km	1,500 7
15 to 24.9 km	1,430 7
25 km or more	495 2

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	128.0	10.7
Agricultural Land Reserve	0.0	0.0
Other land use	1,065.5	89.3
Total Land Area	1,193.4	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 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.