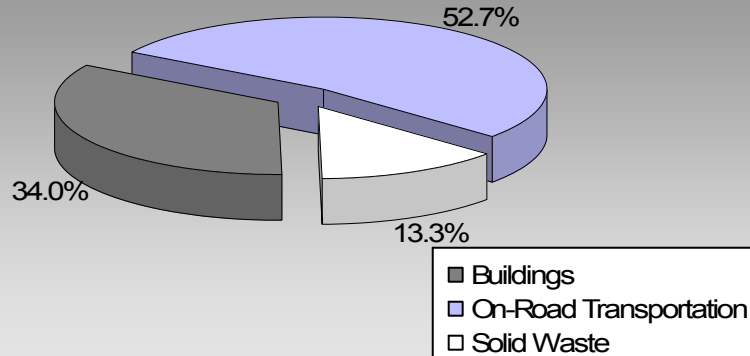


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

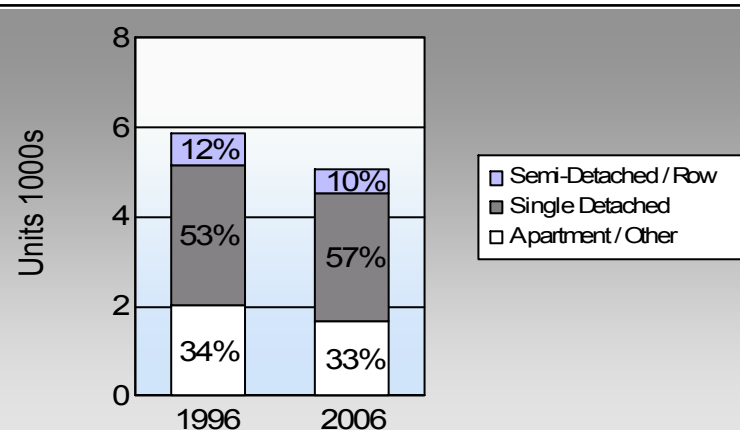
Prince Rupert City
2007 GHG Emissions Sources



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
	64.0%	61.6%
	12.5%	13.9%
	2.6%	3.4%
	15.4%	16.6%
	1.9%	1.1%

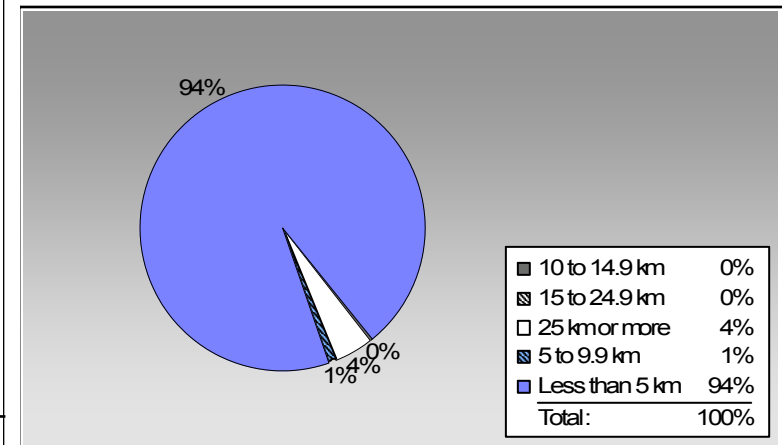
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

Residential Density

Prince Rupert City: 3.3 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	1,527	2,017,471	Litres	13,253	70,611	4,815
	Diesel Fuel	41	38,857	Litres	13,903	1,488	106
Small Passenger Cars						72,099	4,921
Large Passenger Cars	Gasoline	947	2,135,106	Litres	18,278	74,729	5,078
	Diesel Fuel	25	53,819	Litres	17,243	2,061	147
	Other Fuel	21	40,879	Litres	14,247	1,566	63
Large Passenger Cars						78,356	5,288
Light Trucks, Vans, SUVs	Gasoline	3,319	10,375,023	Litres	20,792	363,126	24,801
	Diesel Fuel	269	739,226	Litres	20,644	28,312	2,020
	Other Fuel	29	66,238	Litres	14,339	2,537	101
Light Trucks, Vans, SUVs						393,975	26,922
Commercial Vehicles	Gasoline	32	131,958	Litres	14,393	4,619	309
	Diesel Fuel	75	370,845	Litres	22,482	14,203	998
	Other Fuel	< 10	30,800	Litres	12,496	1,180	47
Commercial Vehicles						20,002	1,354
Tractor Trailer Trucks	Gasoline	< 10	7,598	Litres	22,614	266	18
	Diesel Fuel	83	2,233,178	Litres	71,240	85,531	6,009
	Other Fuel	< 10	2,703	Litres		104	4
Tractor Trailer Trucks						85,901	6,031
Motorhomes	Gasoline	43	43,686	Litres	2,533	1,529	102
	Diesel Fuel	< 10	4,448	Litres	4,160	170	12
	Other Fuel	< 10	1,108	Litres	2,189	42	2
Motorhomes						1,741	116
Motorcycles, Mopeds	Gasoline	86	41,258	Litres	5,544	1,444	96
Motorcycles, Mopeds						1,444	96
Bus	Gasoline	< 10	55,433	Litres	18,035	1,940	130
	Diesel Fuel	< 10	64,511	Litres	48,219	2,471	174
Bus						4,411	304

Prince Rupert City Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	518,264	35,349
	Diesel:	134,236	9,466
	Other Fuel:	5,429	217
	All Fuels:	657,929	45,032

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	5,957	75,857,730	Kilowatt Hours	273,088	1,871
	Natural Gas	3,034	253,466	GigaJoules	253,466	12,926
	Heating Oil		4,333	GigaJoules	4,333	305
	Propane		11,842	GigaJoules	11,842	722
	Wood		31,902	GigaJoules	31,902	12
Residential					574,631	15,836
Commercial/Small-Medium Industrial	Electricity	989	104,468,201	Kilowatt Hours	376,085	2,577
	Natural Gas	414	207,971	GigaJoules	207,971	10,607
Commercial/Small-Medium Industrial					584,056	13,184
Buildings Totals	Electricity:				649,173	4,448
	Natural Gas:				461,437	23,533
	Propane:				11,842	722
	Wood:				31,902	12
	Heating Oil:				4,333	305
	Buildings:				1,158,687	29,020

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	10,129	11,361

Prince Rupert City

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	3,504,884	L	134,236	9,466
Electricity	180,325,931	kWh	649,173	4,448
Gasoline	14,807,533	L	518,264	35,349
Heating Oil	4,333	GJ	4,333	305
Natural Gas	461,437	GJ	461,437	23,533
Other Fuel	141,728	L	5,429	217
Propane	11,842	GJ	11,842	722
Solid Waste	10,129	T	0	11,361
Wood	31,902	GJ	31,902	12
Total of Transportation / Buildings / Solid Waste:			1,816,616 GJ	85,413 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	9	263,294	GigaJoules	263,294	13,428
Large Industrial					263,294	13,428

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	3,140	35	3,140	58	2,860	57
Semi-Detached House	255	3	280	5	205	4
Row House	475	5	350	6	310	6
Apartment, Duplex	660	7	610	11	755	15
Apartment, 5 storeys or higher	130	1	75	1	25	0
Apartment, under 5 storeys	1,015	11	865	16	795	16
Other Single Attached House	25	0	10	0	5	0
Movable Dwelling	180	2	130	2	105	2

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	4,730	64	4,485	68	3,570	62
Car, Truck, Van as Passenger	925	13	780	12	805	14
Public Transit	195	3	200	3	195	3
Walked	1,135	15	890	13	960	17
Bicycle	140	2	55	1	65	1
Motorcycle	10	0	15	0	10	0
Taxicab	100	1	85	1	85	1
Other Method	160	2	125	2	110	2

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	12,846.0
Net Land Area (ha) *	3,927.7
Residential Density (people per net ha)	3.3

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	4,675	94
5 to 9.9 km	40	1
10 to 14.9 km	20	0
15 to 24.9 km	0	0
25 km or more	215	4

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	29.6	0.5
Agricultural Land Reserve	0.0	0.0
Other land use	5,495.5	99.5
Total Land Area	5,525.1	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.