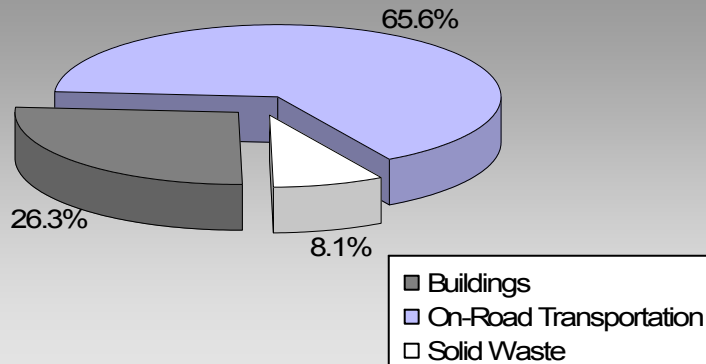


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

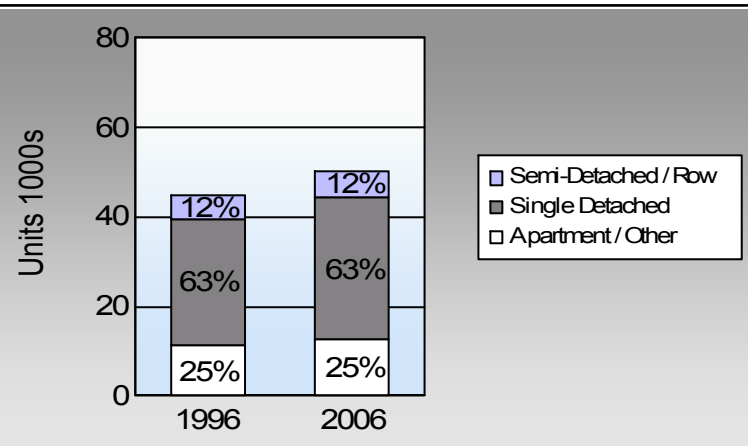
**Thompson-Nicola Regional District
2007 GHG Emissions Sources**



**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
	80.0%	79.7%
	8.5%	8.4%
	2.2%	3.1%
	6.7%	6.1%
	1.4%	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	24,031	32,863,203	Litres	13,468	1,150,212	78,420
	Diesel Fuel	863	896,668	Litres	14,149	34,342	2,449
	Other Fuel	15	17,472	Litres	10,153	669	27
Small Passenger Cars						1,185,223	80,896
Large Passenger Cars	Gasoline	14,126	33,111,372	Litres	18,949	1,158,898	78,719
	Diesel Fuel	270	670,119	Litres	19,054	25,666	1,829
	Other Fuel	47	126,110	Litres	15,839	4,830	193
Large Passenger Cars						1,189,394	80,741
Light Trucks, Vans, SUVs	Gasoline	37,850	115,930,305	Litres	19,932	4,057,561	277,719
	Diesel Fuel	5,034	12,837,148	Litres	19,982	491,663	35,071
	Other Fuel	396	1,011,925	Litres	13,449	38,757	1,550
Light Trucks, Vans, SUVs						4,587,981	314,340
Commercial Vehicles	Gasoline	338	1,477,086	Litres	14,616	51,698	3,454
	Diesel Fuel	1,122	5,340,163	Litres	21,803	204,528	14,370
	Other Fuel	33	144,656	Litres	11,848	5,540	222
Commercial Vehicles						261,766	18,046
Tractor Trailer Trucks	Gasoline	33	214,342	Litres	17,367	7,502	503
	Diesel Fuel	1,843	62,868,404	Litres	87,692	2,407,860	169,176
	Other Fuel	< 10	11,902	Litres	7,085	456	18
Tractor Trailer Trucks						2,415,818	169,697
Motorhomes	Gasoline	742	992,619	Litres	2,873	34,742	2,319
	Diesel Fuel	136	142,423	Litres	4,281	5,455	383
	Other Fuel	25	26,304	Litres	2,189	1,007	40
Motorhomes						41,204	2,742
Motorcycles, Mopeds	Gasoline	1,280	626,749	Litres	5,332	21,936	1,463
	Motorcycles, Mopeds						21,936
Bus	Gasoline	67	641,499	Litres	22,911	22,452	1,508
	Diesel Fuel	177	2,210,353	Litres	24,870	84,657	5,948
	Other Fuel	< 10	52,669	Litres	15,902	2,017	81
Bus						109,126	7,537

Thompson-Nicola Regional District

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	6,505,001	444,105
	Diesel:	3,254,171	229,226
	Other Fuel:	53,276	2,131
On Road Transportation Totals	All Fuels:	9,812,448	675,462

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>	
Residential	Electricity	55,332	579,069,507	Kilowatt Hours	2,084,649	14,284	
	Natural Gas	34,934	2,829,688	GigaJoules	2,829,688	144,313	
	Heating Oil		85,640	GigaJoules	85,640	6,037	
	Propane		150,977	GigaJoules	150,977	9,211	
	Wood		754,479	GigaJoules	754,479	279	
Residential					5,905,433	174,124	
Commercial/Small-Medium Industrial	Electricity	8,258	615,088,644	Kilowatt Hours	2,214,317	15,172	
	Natural Gas	3,464	1,610,655	GigaJoules	1,610,655	82,143	
Commercial/Small-Medium Industrial					3,824,972	97,315	
					Electricity:	4,298,966	29,456
					Natural Gas:	4,440,343	226,456
					Propane:	150,977	9,211
					Wood:	754,479	279
					Heating Oil:	85,640	6,037
Buildings Totals	Buildings:				9,730,405	271,439	

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	139,007	83,311

Grand Total	CONSUMPTION		ENERGY (GJ)	CO ₂ e (t)
Diesel Fuel	84,965,278	L	3,254,171	229,226
Electricity	1,194,158,151	kWh	4,298,966	29,456
Gasoline	185,857,175	L	6,505,001	444,105
Heating Oil	85,640	GJ	85,640	6,037
Natural Gas	4,440,343	GJ	4,440,343	226,456
Other Fuel	1,391,038	L	53,276	2,131
Propane	150,977	GJ	150,977	9,211
Solid Waste	139,007	T	0	83,311
Wood	754,479	GJ	754,479	279
Total of Transportation / Buildings / Solid Waste:			19,542,853 GJ	1,030,212 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO ₂ e (t)
Large Industrial	Electricity	21	withheld	Kilowatt Hours	-	-
	Natural Gas	33	withheld	GigaJoules	-	-
Large Industrial					-	-

Agriculture		Number of Animals	Methane	CO ₂ e (t)
	Enteric Fermentation	144,519	8,775	184,275

Land-Use Change		Area (ha)	CO ₂ e (t)
	Deforestation from Agriculture	30	13,726
	Deforestation from Settlement	108	52,124
Deforestation:		138	65,850

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	28,155	39	30,785	65	31,775	63
Semi-Detached House	2,290	3	2,470	5	2,705	5
Row House	2,885	4	3,385	7	3,270	6
Apartment, Duplex	1,515	2	1,190	3	2,385	5
Apartment, 5 storeys or higher	570	1	715	2	720	1
Apartment, under 5 storeys	5,425	7	5,370	11	6,535	13
Other Single Attached House	85	0	150	0	130	0
Movable Dwelling	3,765	5	3,580	8	2,835	6

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	39,770	80	40,680	81	44,890	80
Car, Truck, Van as Passenger	4,220	8	3,635	7	4,740	8
Public Transit	1,075	2	1,195	2	1,725	3
Walked	3,325	7	3,650	7	3,460	6
Bicycle	675	1	650	1	745	1
Motorcycle	95	0	55	0	125	0
Taxicab	55	0	20	0	80	0
Other Method	505	1	500	1	590	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	792,819.1	17.7
Local Parks	1,648.9	0.0
Agricultural Land Reserve	574,519.4	12.9
Other land use	3,099,870.5	69.4
Total Land Area	4,468,857.9	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.