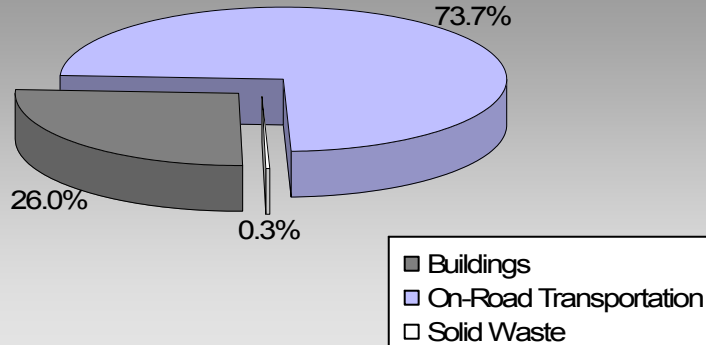


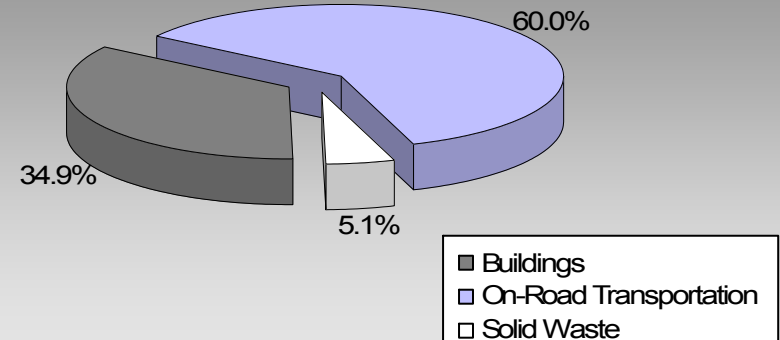
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

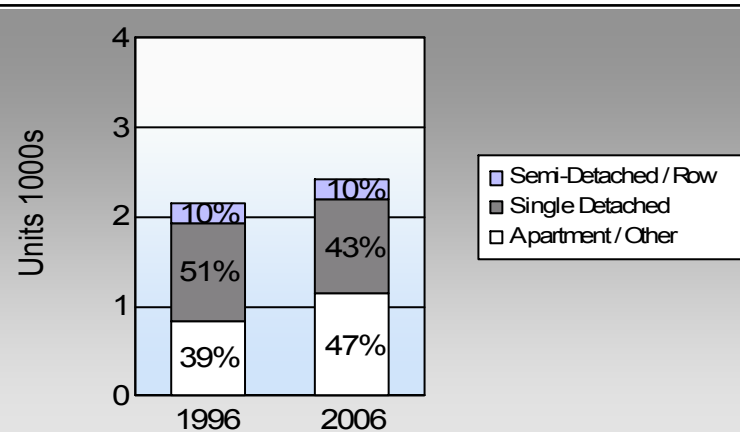
**Duncan City
2007 GHG Emissions Sources**



**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
	69.2%	66.1%
	8.6%	11.1%
	1.7%	2.0%
	19.5%	17.1%
	0.0%	1.7%

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

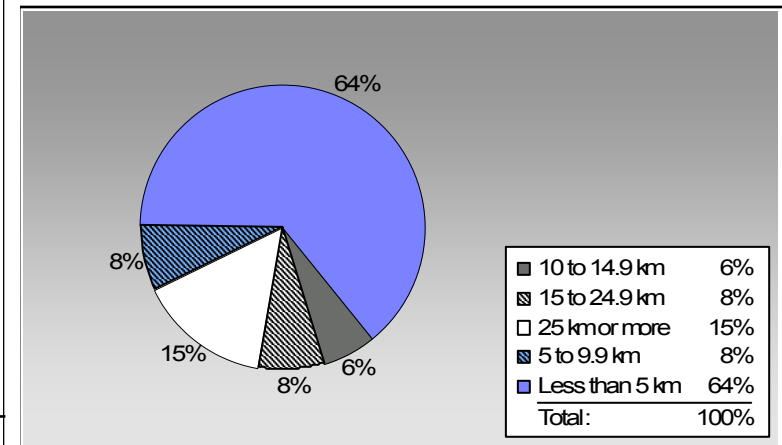
Residential Density

Duncan City: 27.3 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	1,038	1,398,270	Litres	13,062	48,939	3,356
	Diesel Fuel	35	33,881	Litres	12,672	1,298	92
Small Passenger Cars						50,237	3,448
Large Passenger Cars	Gasoline	524	1,221,704	Litres	18,446	42,760	2,920
	Diesel Fuel	< 10	21,618	Litres	18,002	828	59
	Other Fuel	< 10	9,380	Litres	15,944	359	14
Large Passenger Cars						43,947	2,993
Light Trucks, Vans, SUVs	Gasoline	1,168	3,521,418	Litres	19,604	123,250	8,457
	Diesel Fuel	67	161,363	Litres	17,623	6,180	441
	Other Fuel	15	35,762	Litres	13,530	1,370	55
Light Trucks, Vans, SUVs						130,800	8,953
Commercial Vehicles	Gasoline	19	153,459	Litres	15,844	5,371	360
	Diesel Fuel	35	150,327	Litres	19,015	5,758	405
	Other Fuel	< 10	13,374	Litres	12,291	512	20
Commercial Vehicles						11,641	785
Tractor Trailer Trucks	Gasoline	< 10	34,905	Litres	14,841	1,222	82
	Diesel Fuel	69	2,553,172	Litres	90,610	97,787	6,870
Tractor Trailer Trucks						99,009	6,952
Motorhomes	Gasoline	42	32,524	Litres	2,480	1,138	76
	Diesel Fuel	< 10	3,500	Litres	3,398	134	9
	Other Fuel	< 10	415	Litres		16	1
Motorhomes						1,288	86
Motorcycles, Mopeds	Gasoline	36	15,605	Litres	5,064	546	36
Motorcycles, Mopeds						546	36
Bus	Gasoline	< 10	41,495	Litres	23,020	1,452	97
	Diesel Fuel	< 10	34,073	Litres	31,000	1,305	92
	Other Fuel	< 10	1,463	Litres		56	2
Bus						2,813	191

Duncan City

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	224,678	15,384
	Diesel:	113,290	7,968
	Other Fuel:	2,313	92
On Road Transportation Totals	All Fuels:	340,281	23,444

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	2,535	28,034,741	Kilowatt Hours	100,925	692
	Natural Gas	367	19,326	GigaJoules	19,326	985
	Heating Oil		32,849	GigaJoules	32,849	2,316
	Propane		5,681	GigaJoules	5,681	347
	Wood		39,919	GigaJoules	39,919	15
Residential					198,700	4,355
Commercial/Small-Medium Industrial	Electricity	667	34,166,210	Kilowatt Hours	122,998	843
	Natural Gas	154	60,411	GigaJoules	60,411	3,081
Commercial/Small-Medium Industrial					183,409	3,924
					Electricity:	1,535
					Natural Gas:	4,066
					Propane:	347
					Wood:	15
					Heating Oil:	2,316
Buildings Totals	Buildings:				382,109	8,279

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	538	105

Duncan City

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	2,957,934	L	113,290	7,968
Electricity	62,200,951	kWh	223,923	1,535
Gasoline	6,419,380	L	224,678	15,384
Heating Oil	32,849	GJ	32,849	2,316
Natural Gas	79,737	GJ	79,737	4,066
Other Fuel	60,394	L	2,313	92
Propane	5,681	GJ	5,681	347
Solid Waste	538	T	0	105
Wood	39,919	GJ	39,919	15
Total of Transportation / Buildings / Solid Waste:			722,390 GJ	31,828 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
Large Industrial					-	-

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	1,085	34	1,045	47	1,045	43
Semi-Detached House	100	3	55	2	85	4
Row House	110	3	155	7	150	6
Apartment, Duplex	25	1	25	1	35	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	820	25	910	41	1,070	44
Other Single Attached House	0	0	40	2	35	1
Movable Dwelling	0	0	5	0	0	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	1,010	69	1,065	72	1,160	66
Car, Truck, Van as Passenger	125	9	165	11	195	11
Public Transit	25	2	10	1	35	2
Walked	285	20	215	15	300	17
Bicycle	0	0	15	1	30	2
Motorcycle	0	0	0	0	10	1
Taxicab	0	0	0	0	10	1
Other Method	15	1	0	0	15	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	5,008.0
Net Land Area (ha) *	183.3
Residential Density (people per net ha)	27.3

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	960	64
5 to 9.9 km	115	8
10 to 14.9 km	90	6
15 to 24.9 km	115	8
25 km or more	225	15

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	23.1	11.1
Agricultural Land Reserve	0.0	0.0
Other land use	185.2	88.9
Total Land Area	208.3	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.