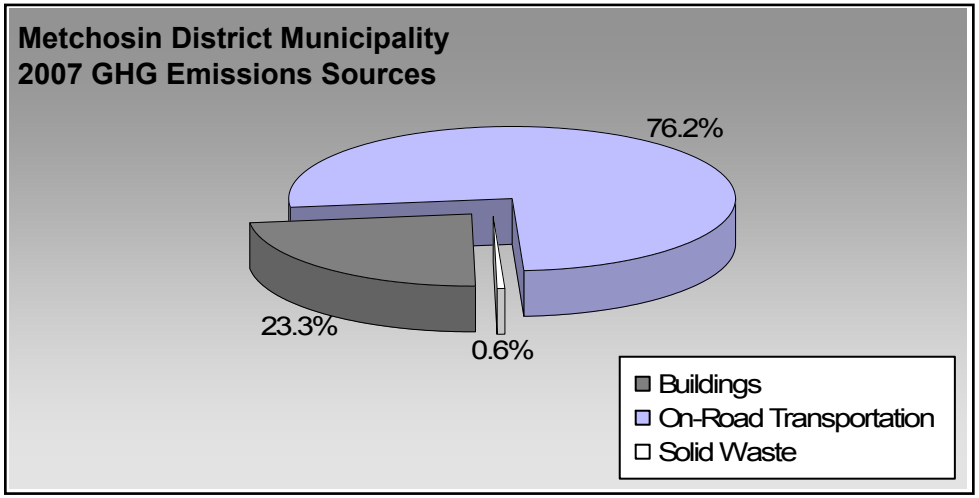
Metchosin District Municipality
Updated 2007 Community Energy and Emissions Inventory

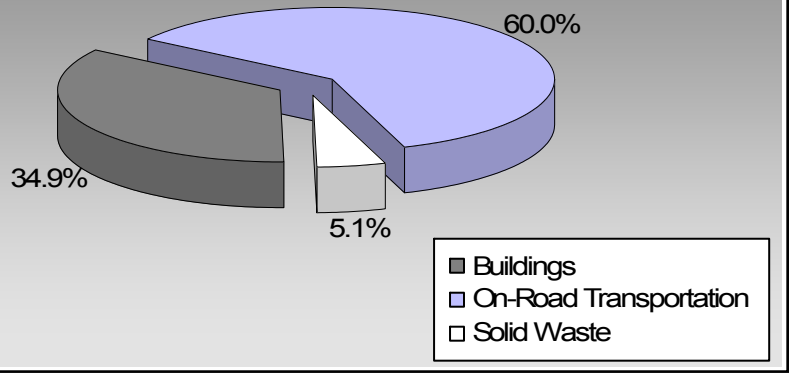
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Metchosin District Municipality
2007 GHG Emissions Sources

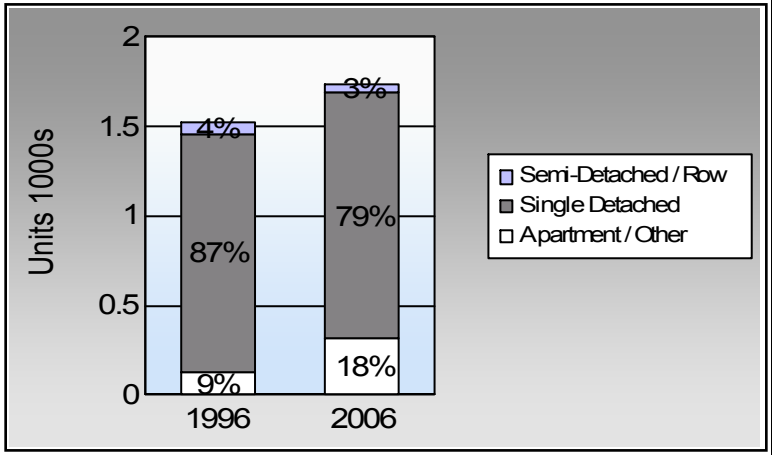


Total for BC Communities



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
	83.6%	86.1%
	7.2%	5.7%
	4.0%	2.9%
	1.7%	2.0%
	2.2%	1.6%

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

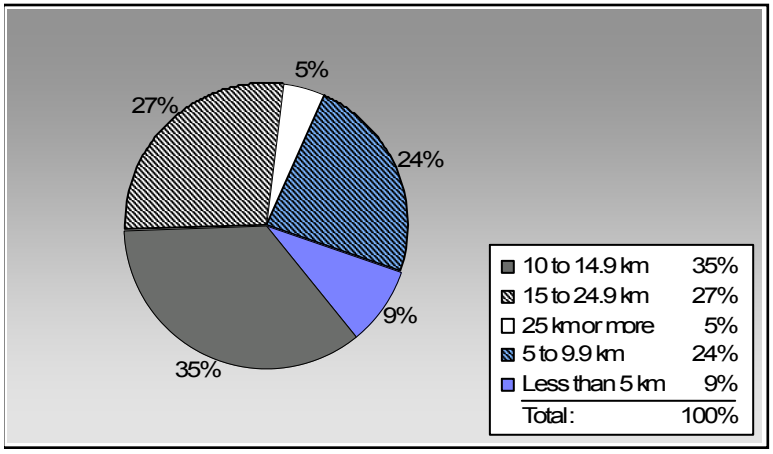
Residential Density

Metchosin District Municipality: 1.0 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.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	1,134	1,213,998	Litres	10,594	42,490	2,908
	Diesel Fuel	76	62,415	Litres	11,233	2,390	170
	Other Fuel	< 10	312	Litres		12	-
				Small Passenger Cars		**44,892**	**3,078**
Large Passenger Cars	Gasoline	555	820,273	Litres	11,950	28,710	1,957
	Diesel Fuel	15	21,386	Litres	11,904	819	58
	Other Fuel	< 10	389	Litres		15	1
				Large Passenger Cars		**29,544**	**2,016**
Light Trucks, Vans, SUVs	Gasoline	1,492	2,529,126	Litres	11,658	88,519	6,070
	Diesel Fuel	178	303,116	Litres	13,451	11,609	828
	Other Fuel	15	25,249	Litres	9,584	967	39
				Light Trucks, Vans, SUVs		**101,095**	**6,937**
Commercial Vehicles	Gasoline	15	39,478	Litres	9,188	1,382	92
	Diesel Fuel	41	132,293	Litres	15,005	5,067	356
	Other Fuel	< 10	14,207	Litres	10,922	544	22
				Commercial Vehicles		**6,993**	**470**
Tractor Trailer Trucks	Gasoline	< 10	8,425	Litres	11,271	295	20
	Diesel Fuel	39	1,066,479	Litres	68,794	40,846	2,870
				Tractor Trailer Trucks		**41,141**	**2,890**
Motorhomes	Gasoline	36	38,008	Litres	2,835	1,330	89
	Diesel Fuel	< 10	6,107	Litres	4,438	234	16
	Other Fuel	< 10	969	Litres	2,189	37	1
				Motorhomes		**1,601**	**106**
Motorcycles, Mopeds	Gasoline	93	36,642	Litres	5,326	1,282	86
				Motorcycles, Mopeds		**1,282**	**86**
Bus	Gasoline	< 10	20,482	Litres	15,902	717	48
				Bus		**717**	**48**

	Gasoline:	164,725	11,270
	Diesel:	60,965	4,298
	Other Fuel:	1,575	63
On Road Transportation Totals	**All Fuels:**	**227,265**	**15,631**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	1,886	37,825,368	Kilowatt Hours	136,171	933
	Natural Gas	100	7,691	GigaJoules	7,691	392
	Heating Oil		17,561	GigaJoules	17,561	1,238
	Propane		3,030	GigaJoules	3,030	185
			Residential		**164,453**	**2,748**
Commercial/Small-Medium Industrial	Electricity	152	10,556,731	Kilowatt Hours	38,004	260
	Natural Gas	39	34,582	GigaJoules	34,582	1,764
			Commercial/Small-Medium Industrial		**72,586**	**2,024**

	Electricity:	174,175	1,193
	Natural Gas:	42,273	2,156
	Propane:	3,030	185
	Wood:		
	Heating Oil:	17,561	1,238
Buildings Totals	**Buildings:**	**237,039**	**4,772**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	444	117

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	1,591,796	L	60,965	4,298
	Electricity	48,382,099	kWh	174,175	1,193
	Gasoline	4,706,432	L	164,725	11,270
	Heating Oil	17,561	GJ	17,561	1,238
	Natural Gas	42,273	GJ	42,273	2,156
	Other Fuel	41,126	L	1,575	63
	Propane	3,030	GJ	3,030	185
	Solid Waste	444	T	0	117
Total of Transportation / Buildings / Solid Waste:				**464,304** GJ	**20,520** tonnes

Memo Items

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

Metchosin District Municipality
Updated 2007 Community Energy and Emissions Inventory

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	1,330	47	1,405	83	1,365	79
Semi-Detached House	65	2	25	1	45	3
Row House	0	0	10	1	0	0
Apartment, Duplex	80	3	145	9	245	14
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	10	0	25	1	35	2
Other Single Attached House	0	0	5	0	5	0
Movable Dwelling	40	1	75	4	35	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	5,133.0
Net Land Area (ha) *	5,150.9
Residential Density (people per net ha)	1.0

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	1,680	84	1,785	86	1,950	86
Car, Truck,Van as Passenge	145	7	145	7	130	6
Public Transit	80	4	70	3	65	3
Walked	35	2	20	1	45	2
Bicycle	45	2	30	1	35	2
Motorcycle	10	1	0	0	30	1
Taxicab	0	0	0	0	0	0
Other Method	15	1	30	1	10	0

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	175	9
5 to 9.9 km	460	24
10 to 14.9 km	690	35
15 to 24.9 km	535	27
25 km or more	90	5

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	779.2	11.1
Agricultural Land Reserve	1,067.3	15.2
Other land use	5,165.5	73.7
Total Land Area	7,011.9	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 CO2e 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