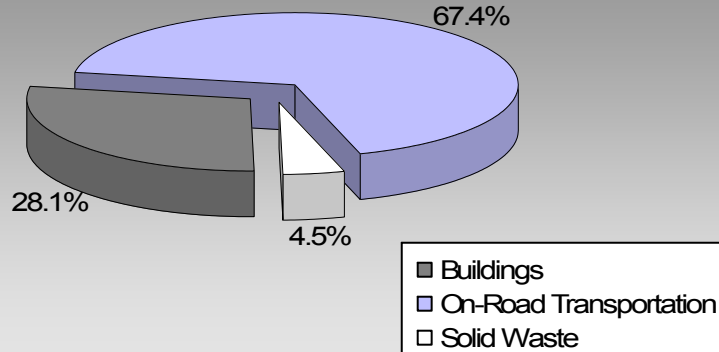


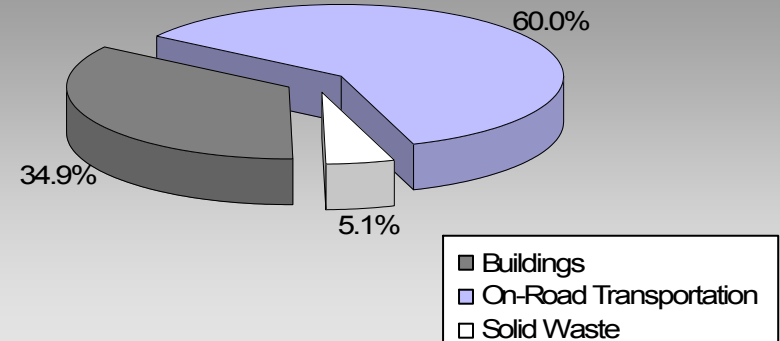
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

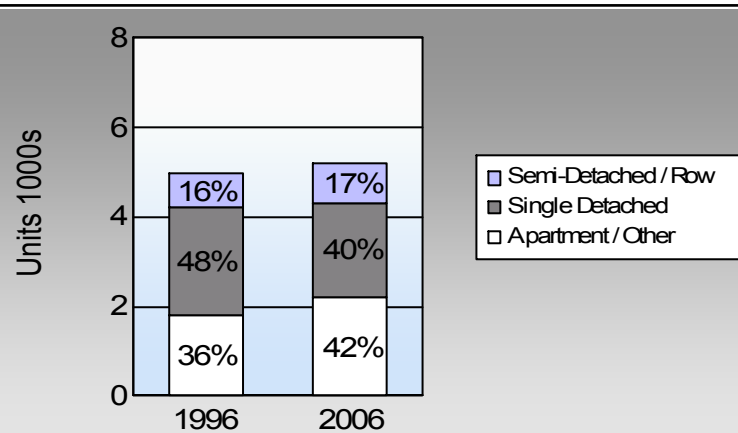
**Sidney Town  
2007 GHG Emissions Sources**



**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

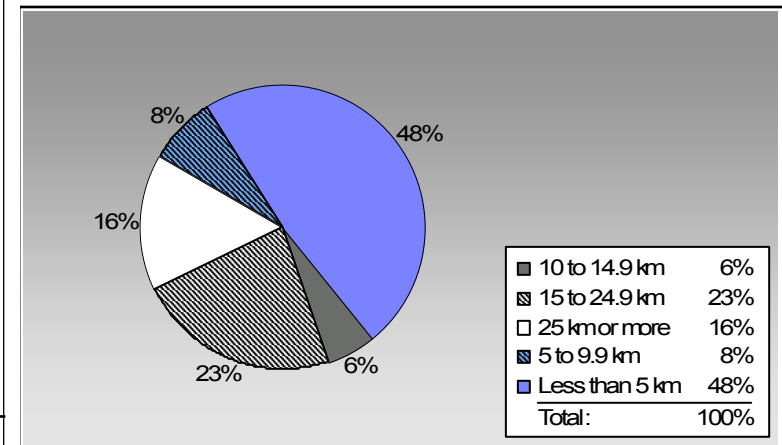
	1996	2006
	74.8%	65.0%
	4.4%	5.5%
	4.4%	7.5%
	10.3%	15.6%
	4.9%	4.5%

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

### Residential Density

Sidney Town: 26.3 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.

# Sidney Town

## Updated 2007 Community Energy and Emissions Inventory

### Sectors

<b>On Road Transportation</b>		<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	2,778	2,975,707	Litres	10,809	104,150	7,109
	Diesel Fuel	71	57,300	Litres	11,108	2,195	156
<b>Small Passenger Cars</b>						<b>106,345</b>	<b>7,265</b>
Large Passenger Cars	Gasoline	1,530	2,165,146	Litres	11,848	75,780	5,159
	Diesel Fuel	43	61,769	Litres	12,017	2,366	168
	Other Fuel	< 10	7,970	Litres	11,052	305	12
<b>Large Passenger Cars</b>						<b>78,451</b>	<b>5,339</b>
Light Trucks, Vans, SUVs	Gasoline	2,576	4,385,306	Litres	11,940	153,486	10,500
	Diesel Fuel	151	255,959	Litres	13,405	9,803	699
	Other Fuel	16	29,186	Litres	10,323	1,118	45
<b>Light Trucks, Vans, SUVs</b>						<b>164,407</b>	<b>11,244</b>
Commercial Vehicles	Gasoline	21	62,966	Litres	11,730	2,204	148
	Diesel Fuel	62	188,351	Litres	14,701	7,214	507
	Other Fuel	< 10	9,414	Litres	9,937	361	14
<b>Commercial Vehicles</b>						<b>9,779</b>	<b>669</b>
Tractor Trailer Trucks	Diesel Fuel	114	3,072,935	Litres	72,571	117,693	8,269
<b>Tractor Trailer Trucks</b>						<b>117,693</b>	<b>8,269</b>
Motorhomes	Gasoline	111	107,696	Litres	3,045	3,769	252
	Diesel Fuel	< 10	6,955	Litres	3,182	266	19
	Other Fuel	< 10	1,384	Litres	2,189	53	2
<b>Motorhomes</b>						<b>4,088</b>	<b>273</b>
Motorcycles, Mopeds	Gasoline	180	62,806	Litres	5,259	2,198	147
<b>Motorcycles, Mopeds</b>						<b>2,198</b>	<b>147</b>
Bus	Gasoline	< 10	27,713	Litres	36,050	970	65
	Diesel Fuel	< 10	139,450	Litres	63,968	5,341	375
<b>Bus</b>						<b>6,311</b>	<b>440</b>

# Sidney Town

## Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	342,557	23,380
	Diesel:	144,878	10,193
	Other Fuel:	1,837	73
<b>On Road Transportation Totals</b>	<b>All Fuels:</b>	<b>489,272</b>	<b>33,646</b>

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	5,495	67,422,600	Kilowatt Hours	242,721	1,663	
	Natural Gas	1,471	62,809	GigaJoules	62,809	3,203	
	Heating Oil		41,294	GigaJoules	41,294	2,911	
	Propane		7,146	GigaJoules	7,146	436	
<b>Residential</b>					<b>353,970</b>	<b>8,213</b>	
Commercial/Small-Medium Industrial	Electricity	906	52,440,801	Kilowatt Hours	188,787	1,294	
	Natural Gas	254	89,034	GigaJoules	89,034	4,541	
<b>Commercial/Small-Medium Industrial</b>					<b>277,821</b>	<b>5,835</b>	
					Electricity:	431,508	2,957
					Natural Gas:	151,843	7,744
					Propane:	7,146	436
					Wood:		
					Heating Oil:	41,294	2,911
<b>Buildings Totals</b>					<b>Buildings:</b>	<b>631,791</b>	<b>14,048</b>

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	8,506	2,236

# Sidney Town

## Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	3,782,719	L	144,878	10,193
Electricity	119,863,401	kWh	431,508	2,957
Gasoline	9,787,340	L	342,557	23,380
Heating Oil	41,294	GJ	41,294	2,911
Natural Gas	151,843	GJ	151,843	7,744
Other Fuel	47,954	L	1,837	73
Propane	7,146	GJ	7,146	436
Solid Waste	8,506	T	0	2,236
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,121,063 GJ</b>	<b>49,930 tonnes</b>

### Memo Items

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

### 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](mailto: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	2,405	33	2,550	51	2,105	40
Semi-Detached House	300	4	465	9	430	8
Row House	490	7	465	9	475	9
Apartment, Duplex	260	4	215	4	615	12
Apartment, 5 storeys or higher	105	1	105	2	105	2
Apartment, under 5 storeys	1,340	18	1,155	23	1,445	28
Other Single Attached House	10	0	30	1	20	0
Movable Dwelling	75	1	60	1	15	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	2,885	75	2,850	74	2,820	65
Car, Truck, Van as Passenger	170	4	170	4	240	6
Public Transit	170	4	250	6	325	7
Walked	395	10	385	10	675	16
Bicycle	190	5	160	4	195	4
Motorcycle	0	0	50	1	0	0
Taxicab	0	0	0	0	0	0
Other Method	45	1	10	0	85	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	11,578.0
Net Land Area (ha) *	440.0
Residential Density (people per net ha)	26.3

#### 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	1,795 48
5 to 9.9 km	290 8
10 to 14.9 km	205 6
15 to 24.9 km	860 23
25 km or more	580 16

### 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	25.0	4.9
Agricultural Land Reserve	41.4	8.1
Other land use	441.6	86.9
Total Land Area	508.0	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](mailto:CEEIRPT@gov.bc.ca) (see survey on CEEI website).

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### 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

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### Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

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### Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO <sub>2</sub> e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

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### Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

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### 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)

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# 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](mailto: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.