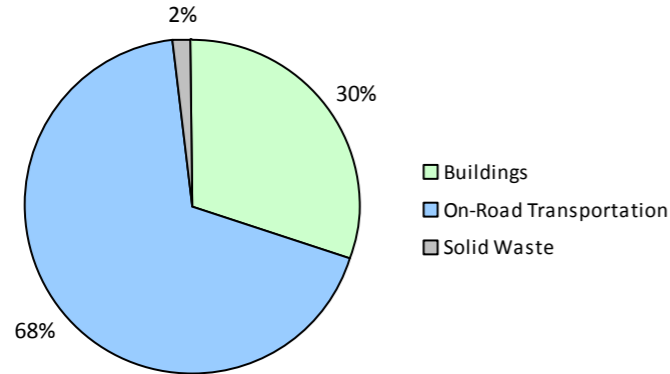
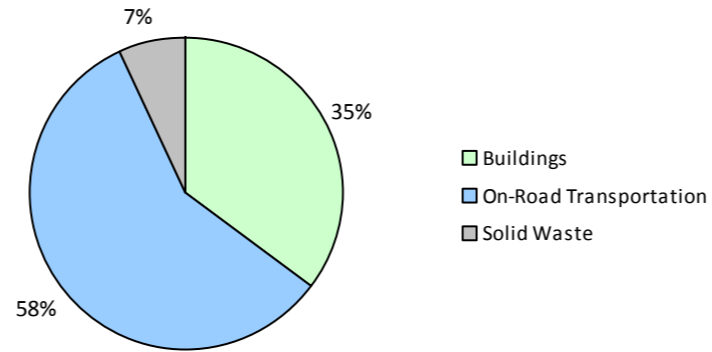


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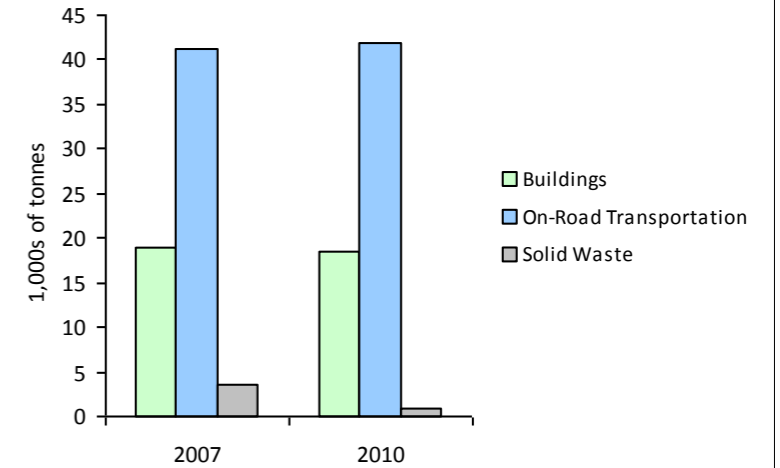
**2010 GHG Emissions Sources (Total for this Community)**



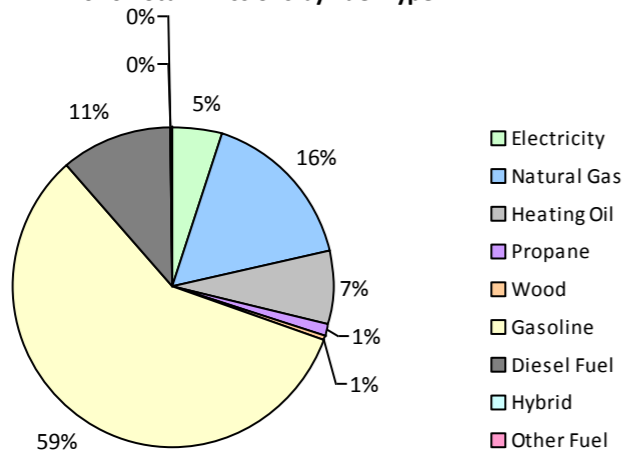
**2010 GHG Emissions Sources (Total for BC)**



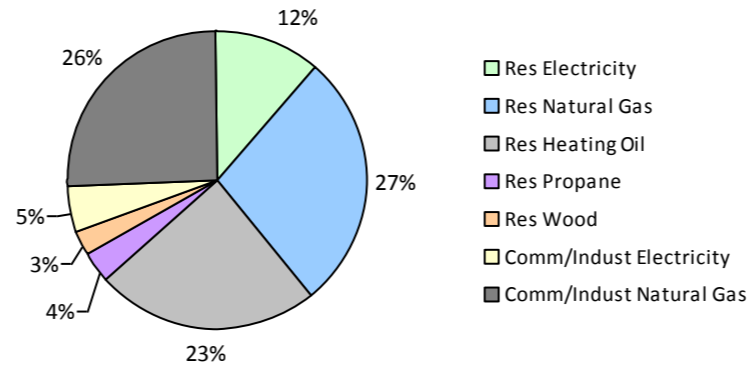
**GHG Emissions Comparisons for this Community**



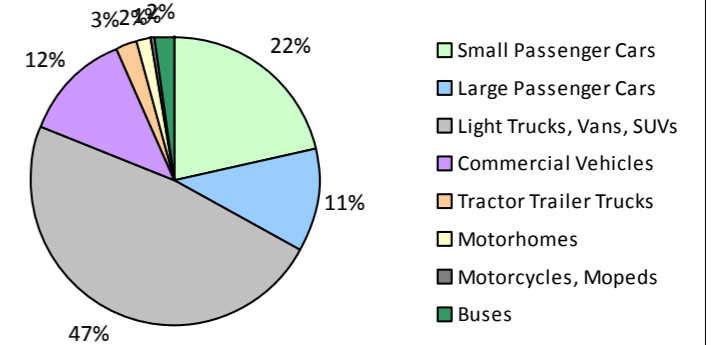
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



**2010 On-Road Transportation Emissions by Vehicle Class**



## Colwood City 2010 Community Energy and Emissions Inventory

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### Core Items

On-Road Transportation		2007					2010				
		Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Hybrid			13,800	158	11			12,900	124	8
	Gasoline	3,418	3,900,748 L	12,000	136,527	9,292	3,493	3,936,268 L	11,900	137,770	8,853
	Diesel Fuel	79	79,262 L	15,500	3,036	217	88	85,095 L	15,000	3,259	226
	Other Fuel								9,700	24	0
Large Passenger Cars	Hybrid			15,700	254	17	26	27,968 L	18,900	979	62
	Gasoline	1,554	2,268,927 L	12,700	79,413	5,398	1,494	2,096,786 L	12,400	73,387	4,714
	Diesel Fuel	22	18,030 L	8,400	690	49	17	15,834 L	9,900	607	42
	Other Fuel			10,000	67	4			11,300	85	4
Light Trucks, Vans, SUVs	Hybrid			18,000	200	13	12	16,845 L	17,100	590	38
	Gasoline	4,035	7,788,211 L	13,800	272,587	18,634	4,465	8,442,901 L	13,600	295,501	19,153
	Diesel Fuel	184	381,745 L	12,000	14,621	1,039	140	317,442 L	13,400	12,158	840
	Other Fuel	27	48,111 L	10,600	1,218	73	21	33,931 L	9,900	858	52
Commercial Vehicles	Gasoline	289	649,531 L	13,500	22,734	1,527	362	820,852 L	13,600	28,729	1,837
	Diesel Fuel	235	817,831 L	18,300	31,323	2,200	326	1,252,992 L	20,400	47,990	3,272
	Other Fuel			11,200	421	26			9,300	217	14
Tractor Trailer Trucks	Gasoline			12,300	248	16			12,000	120	8
	Diesel Fuel	40	404,782 L	24,400	15,504	1,089	33	432,627 L	32,400	16,570	1,130
Motorhomes	Gasoline	75	171,565 L	16,600	6,004	401	67	150,734 L	16,300	5,276	335
	Diesel Fuel	53	151,801 L	16,300	5,813	408	45	130,741 L	16,300	5,006	341
	Other Fuel			15,300	226	13					
Motorcycles, Mopeds	Gasoline	321	73,602 L	5,300	2,576	172	367	97,743 L	6,300	3,421	216
Buses	Gasoline	12	28,557 L	15,900	1,000	67			12,600	506	32
	Diesel Fuel	48	216,276 L	16,700	8,284	581	67	288,509 L	16,600	11,050	753
	Other Fuel	14	31,190 L	11,300	790	47			11,200	487	30
<b>Totals</b>		<b>10,406</b>	<b>17,030,169 L</b>	<b>12,923</b>	<b>603,694</b>	<b>41,294</b>	<b>11,023</b>	<b>17,030,169 L</b>	<b>12,971</b>	<b>644,714</b>	<b>41,960</b>

## Colwood City 2010 Community Energy and Emissions Inventory

### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	25,284 GJ	25,284	512	N/A	24,476 GJ	24,476	496
	Heating Oil	N/A	65,936 GJ	65,936	4,648	N/A	63,829 GJ	63,829	4,365
	Propane	N/A	11,388 GJ	11,388	695	N/A	11,024 GJ	11,024	673
	Natural Gas	1,999	99,378 GJ	99,378	4,985	2,277	102,454 GJ	102,454	5,139
	Electricity	5,414	85,213,394 kWh	306,768	2,130	5,941	86,215,960 kWh	310,377	2,155
Commercial/Small-Medium Industrial	Natural Gas	154	100,001 GJ	100,001	5,016	138	96,290 GJ	96,290	4,830
	Electricity	362	36,866,222 kWh	132,718	922	406	36,850,256 kWh	132,661	921
<b>Totals</b>		<b>7,929</b>		<b>741,473</b>	<b>18,908</b>	<b>8,762</b>		<b>741,111</b>	<b>18,579</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	5,430 t	N/A	3,633	0	1,101 t	N/A	974
<b>Totals</b>		<b>0</b>			<b>3,633</b>	<b>0</b>			<b>974</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1		0	0				
<b>Totals</b>		<b>1</b>			<b>0</b>				

## Colwood City 2010 Community Energy and Emissions Inventory

*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 15,581)			2010 (Population: 16,579)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	612	41	44,813 L	1,693	108
Gasoline	14,881,141 L	521,089	35,507	15,545,284 L	544,710	35,148
Diesel Fuel	2,069,727 L	79,271	5,583	2,523,240 L	96,640	6,604
Other Fuel	79,301 L	2,722	163	33,931 L	1,671	100
Wood	25,284 GJ	25,284	512	24,476 GJ	24,476	496
Heating Oil	65,936 GJ	65,936	4,648	63,829 GJ	63,829	4,365
Propane	11,388 GJ	11,388	695	11,024 GJ	11,024	673
Natural Gas	199,379 GJ	199,379	10,001	198,744 GJ	198,744	9,969
Electricity	122,079,616 kWh	439,486	3,052	123,066,216 kWh	443,038	3,076
Solid Waste	5,430 t	0	3,633	1,101 t	0	974
<b>Grand Totals</b>		<b>1,345,167</b>	<b>63,835</b>		<b>1,385,825</b>	<b>61,513</b>

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**Supporting Indicators**

No new supporting indicator data have been provided in the 2010 reports. Work is currently underway to produce a complete second round of data for the indicators below in the 2012 reports (available in 2014). In the interim, we are including the same supporting indicator data that was provided in the 2007 reports. Feedback is requested on all supporting indicators; please contact us directly at

**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	3,350	42	3,230	66	3,130	57
Semi-Detached House	655	8	590	12	600	11
Row House	235	3	300	6	330	6
Apartment, Duplex	195	2	475	10	970	18
Apartment, 5 storeys or higher	0	0	5	0	0	0
Apartment, under 5 storeys	245	3	250	5	455	8
Other Single Attached House	0	0	5	0	5	0
Movable Dwelling	0	0	15	0	10	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	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	4,840	76	4,855	76	5,555	75
Car, Truck, Van as Passenger	465	7	505	8	570	8
Public Transit	610	10	485	8	605	8
Walked	220	3	245	4	345	5
Bicycle	145	2	160	3	195	3
Motorcycle	20	0	25	0	65	1
Taxicab	0	0	10	0	10	0
Other Method	75	1	80	1	65	1

**Parks and Protected Greenspace**

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	61	3
Agricultural Land Reserve	77	4
Other land use	1,639	92
Total Parks and Protected Area	61	3
Total Land Area	1,777	100

\* Total is net of Indian Reserves  
 \*\* Quantity of parkland may be underestimated

**Residential Density**

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	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	61	3
Agricultural Land Reserve	77	4
Other land use	1,639	92
Total Parks and Protected Area	61	3
Total Land Area	1,777	100

\* Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

**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	
	Units	%
Less than 5 km	2,105	33
5 to 9.9 km	2,260	35
25 km or more	220	3
15 to 24.9 km	310	5
10 to 14.9 km	1,560	24

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**Supporting Indicators Under Consideration**

Work is currently underway to produce a complete second round of supporting indicators for the 2012 reports (available in 2014). These reports will new data for the five supporting indicators included in the 2007 and 2010 Reports:

- **Housing Type:** Private dwellings by structural type
- **Commute to Work:** Employed labour force - by mode of commute
- **Commute Distance**
- **Residential Density**
- **Parks and Protected Greenspace**

And in addition, the 2012 reports we are working to be able to include:

- **Proximity to Transit**
- **Building Energy Intensity**
- **Building Floor Space**
- **Waste Diversion**

We are continuing to work towards reporting on even more supporting indicators in the future including:

- **Proximity to Services** (e.g. destinations such as grocery store, school, other retail etc.)
- **Transit Ridership**
- **Water Use**
- **Impervious Surface Cover:** % change in impervious surface cover
- **Tree Canopy Cover:** % change in tree canopy cover
- **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)

Please give us feedback by contacting us directly at [CEEIRPT@gov.bc.ca](mailto:CEEIRPT@gov.bc.ca)

Many local governments have been undertaking a significant amount of climate action in both the corporate and community-wide spheres, as demonstrated in both the public reports from the Climate Action Revenue Incentive Program (CARIP) <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>, and on the <http://toolkit.bc.ca> website. These two resources may be helpful to those who are interested in learning from other BC local governments. The toolkit also contains additional information and resources including decision-support/planning frameworks and tools for undertaking actions to reduce GHG emissions and energy consumption.

## This is your local government's 2010 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 as well as supporting indicators 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, fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program, as well as supporting local government efforts to monitor progress towards Regional Growth Strategy objectives.

### A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2010 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 from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items'. 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.

### For More Information

The full list of all BC local government 2010 CEEI Reports, User Guide, Technical Methods and Guidance Document, and additional information on the Supporting 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, please take the time to 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,