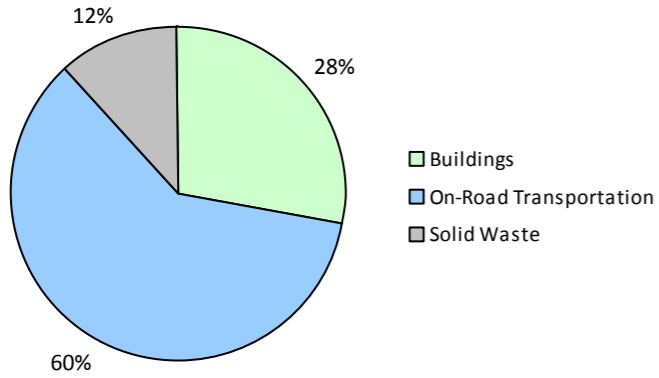


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

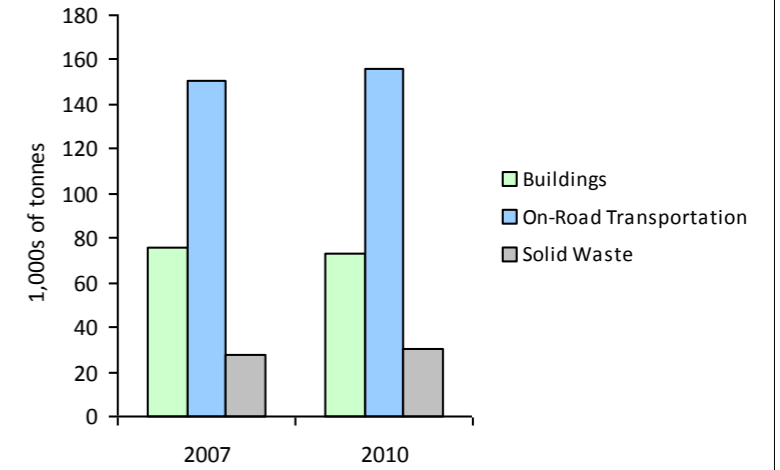
2010 GHG Emissions Sources (Total for this Community)



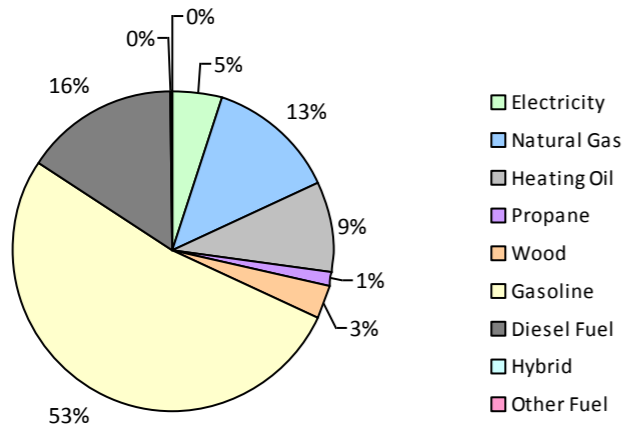
2010 GHG Emissions Sources (Total for BC)



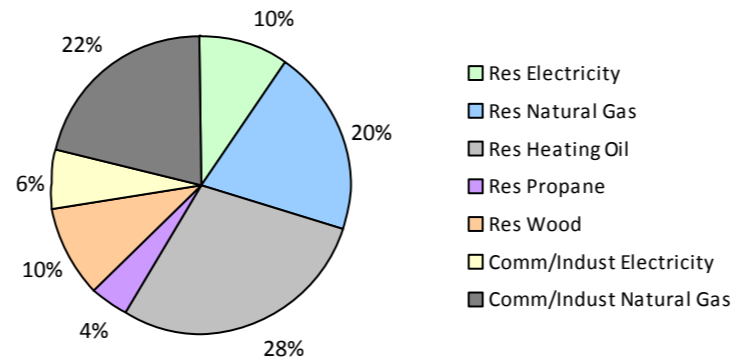
GHG Emissions Comparisons for this Community



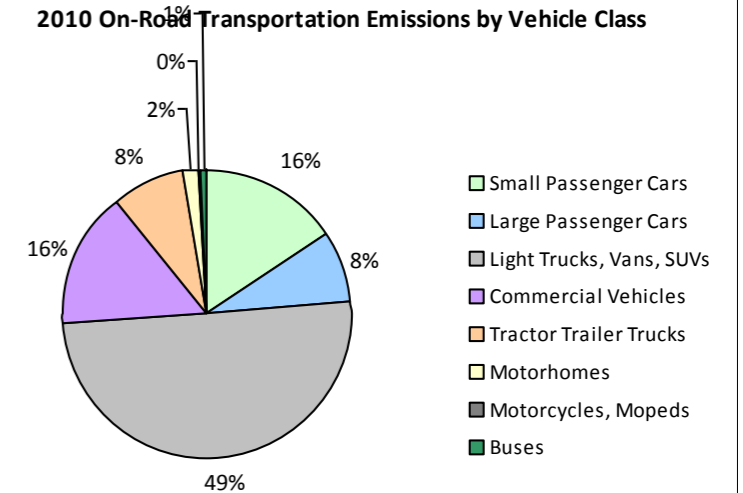
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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	12	11,121 L	19,800	389	26	22	21,947 L	19,700	769	49
	Gasoline	7,049	10,274,769 L	15,600	359,616	24,449	6,970	10,393,918 L	16,000	363,788	23,351
	Diesel Fuel	328	568,335 L	25,600	21,767	1,553	314	526,909 L	24,600	20,180	1,397
	Other Fuel								17,600	93	5
Large Passenger Cars	Hybrid	22	26,535 L	24,300	928	62	56	67,928 L	22,300	2,377	151
	Gasoline	3,285	5,721,403 L	15,400	200,249	13,607	3,111	5,346,608 L	15,200	187,131	12,018
	Diesel Fuel	49	63,316 L	13,900	2,425	172	77	87,513 L	12,200	3,352	232
	Other Fuel			13,700	139	9			6,200	22	0
Light Trucks, Vans, SUVs	Hybrid	12	20,380 L	21,500	713	49	21	43,671 L	24,400	1,528	99
	Gasoline	12,137	29,561,696 L	16,900	1,034,660	70,847	12,967	32,661,931 L	17,600	1,143,167	74,137
	Diesel Fuel	675	1,449,029 L	12,300	55,497	3,947	478	1,132,046 L	14,100	43,357	2,995
	Other Fuel	80	165,371 L	12,100	4,184	253	51	100,644 L	11,500	2,547	154
Commercial Vehicles	Hybrid								26,000	428	28
	Gasoline	1,067	3,075,533 L	17,100	107,644	7,227	1,221	3,530,302 L	17,200	123,561	7,897
	Diesel Fuel	1,481	5,165,749 L	19,700	197,849	13,901	1,698	6,297,742 L	21,100	241,204	16,442
	Other Fuel	38	83,903 L	12,200	2,123	128	28	52,597 L	10,800	1,330	80
Tractor Trailer Trucks	Gasoline			12,000	97	8			15,100	138	9
	Diesel Fuel	240	4,087,856 L	40,200	156,565	11,000	412	4,930,450 L	29,100	188,836	12,873
Motorhomes	Gasoline	227	531,404 L	16,500	18,599	1,241	263	623,033 L	16,700	21,805	1,386
	Diesel Fuel	131	399,853 L	16,600	15,315	1,077	139	447,412 L	16,700	17,136	1,168
	Other Fuel			17,500	598	37			17,000	398	24
Motorcycles, Mopeds	Gasoline	627	135,323 L	4,800	4,737	316	712	180,536 L	5,700	6,319	401
Buses	Gasoline	43	119,195 L	17,300	4,173	281	44	117,595 L	17,200	4,115	263
	Diesel Fuel	34	167,535 L	18,500	6,416	451	39	217,344 L	21,400	8,324	568
	Other Fuel			12,900	277	17			10,600	176	11
Totals		27,537	61,628,306 L	16,446	2,194,960	150,658	28,623	61,628,306 L	17,004	2,382,081	155,738

Strathcona Regional District 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	369,105 GJ	369,105	7,478	N/A	357,308 GJ	357,308	7,239
	Heating Oil	N/A	307,607 GJ	307,607	21,683	N/A	297,775 GJ	297,775	20,365
	Propane	N/A	52,980 GJ	52,980	3,232	N/A	51,287 GJ	51,287	3,129
	Natural Gas	5,646	318,233 GJ	318,233	15,963	6,012	292,638 GJ	292,638	14,679
	Electricity	20,340	292,883,891 kWh	1,054,381	7,322	21,166	287,255,930 kWh	1,034,121	7,182
Commercial/Small-Medium Industrial	Natural Gas	681	311,804 GJ	311,804	15,640	590	311,929 GJ	311,929	15,646
	Electricity	2,782	191,075,002 kWh	687,869	4,777	2,774	181,154,378 kWh	652,155	4,529
Totals		29,449		3,101,979	76,095	30,542		2,997,213	72,769

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	28,637 t	N/A	27,857	0	27,265 t	N/A	30,164
Totals		0			27,857	0			30,164

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	2		0	0				
	Electricity	2		0	0	3		0	0
Totals		4			0	3			0

Agriculture		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Enteric Fermentation	Methane	862	28 t	0	588				
Totals		862			588	0			

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Land-use Change - Deforestation	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Settlement Deforestation	28	0 ha	0	24,420				
Totals	28			24,420	0			

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 42,876)			2010 (Population: 44,386)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	58,036 L	2,030	137	133,546 L	5,102	327
Gasoline	49,419,323 L	1,729,775	117,976	52,853,923 L	1,850,024	119,462
Diesel Fuel	11,901,673 L	455,834	32,101	13,639,416 L	522,389	35,675
Other Fuel	249,274 L	7,321	444	153,241 L	4,566	274
Wood	369,105 GJ	369,105	7,478	357,308 GJ	357,308	7,239
Heating Oil	307,607 GJ	307,607	21,683	297,775 GJ	297,775	20,365
Propane	52,980 GJ	52,980	3,232	51,287 GJ	51,287	3,129
Natural Gas	630,037 GJ	630,037	31,603	604,567 GJ	604,567	30,325
Electricity	483,958,893 kWh	1,742,250	12,099	468,410,308 kWh	1,686,276	11,711
Solid Waste	28,637 t	0	27,857	27,265 t	0	30,164
Grand Totals		5,296,939	254,610		5,379,294	258,671

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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	8,565	68	12,185	74	12,455	71
Semi-Detached House	315	3	440	3	535	3
Row House	820	7	825	5	950	5
Apartment, Duplex	375	3	200	1	465	3
Apartment, 5 storeys or higher	45	0	20	0	60	0
Apartment, under 5 storeys	1,815	14	1,810	11	2,135	12
Other Single Attached House	10	0	35	0	20	0
Movable Dwelling	655	5	990	6	930	5

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	11,140	73	13,115	76	14,285	76
Car, Truck, Van as Passenger	1,620	11	1,495	9	1,635	9
Public Transit	425	3	470	3	460	2
Walked	1,240	8	1,030	6	1,290	7
Bicycle	185	1	315	2	335	2
Motorcycle	25	0	35	0	60	0
Taxicab	10	0	30	0	10	0
Other Method	710	5	875	5	755	4

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	238,213	13
Local Parks	392	0
Agricultural Land Reserve	19,032	1
Other land use	1,590,511	86
Total Parks and Protected Area	238,605	13
Total Land Area	1,848,147	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	238,213	13
Local Parks	392	0
Agricultural Land Reserve	19,032	1
Other land use	1,590,511	86
Total Parks and Protected Area	238,605	13
Total Land Area	1,848,147	100

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

Strathcona Regional District
2010 Community Energy and Emissions Inventory
Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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

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

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,