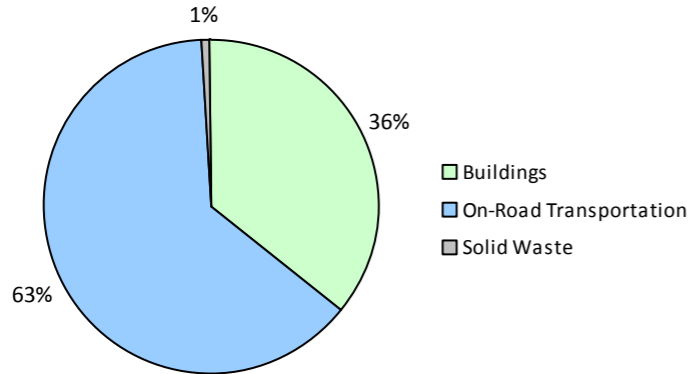


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

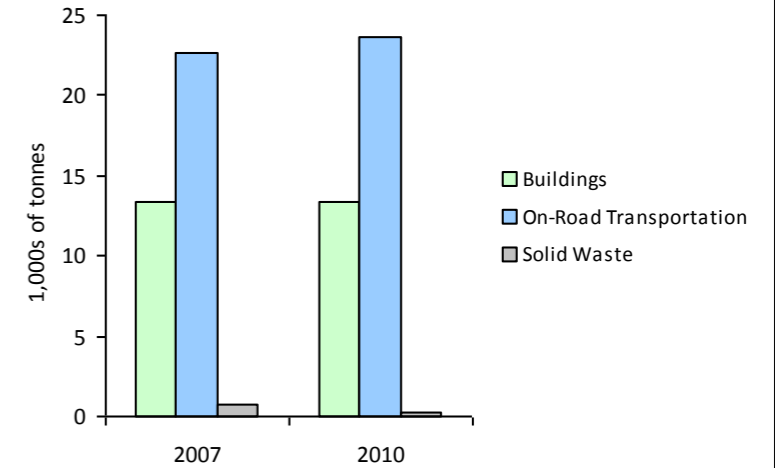
2010 GHG Emissions Sources (Total for this Community)



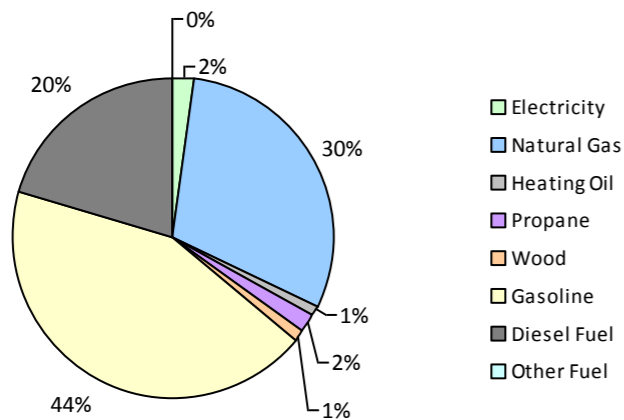
2010 GHG Emissions Sources (Total for BC)



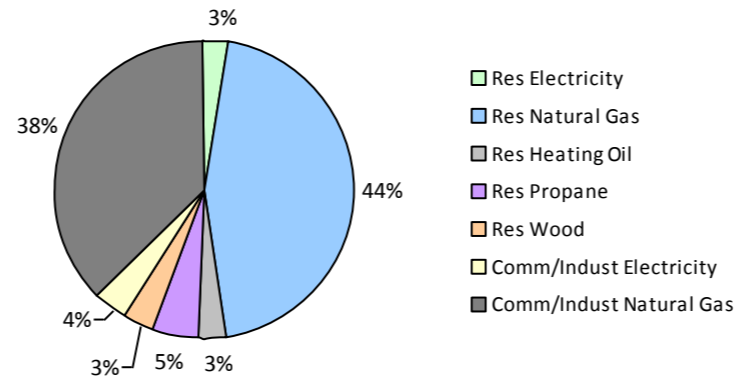
GHG Emissions Comparisons for this Community



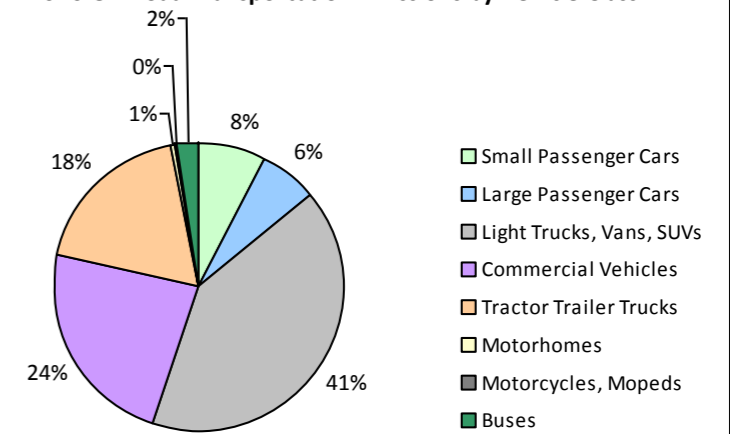
2010 Total Emissions by Fuel Type



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	Gasoline	481	766,550 L	16,700	26,829	1,816	498	778,669 L	16,400	27,253	1,746
	Diesel Fuel	19	33,295 L	25,400	1,275	91	17	28,645 L	23,800	1,097	76
Large Passenger Cars	Hybrid			16,700	37	4					
	Gasoline	380	658,335 L	15,100	23,042	1,563	382	679,006 L	15,600	23,764	1,523
	Diesel Fuel			12,700	51	4			17,600	184	13
Light Trucks, Vans, SUVs	Gasoline	1,330	3,657,755 L	18,500	128,021	8,728	1,458	4,118,337 L	19,200	144,142	9,327
	Diesel Fuel	66	131,795 L	11,200	5,047	359	53	115,981 L	12,500	4,442	306
	Other Fuel			10,800	328	20			10,500	231	14
Commercial Vehicles	Gasoline	285	1,102,417 L	23,100	38,585	2,593	357	1,414,300 L	23,600	49,501	3,165
	Diesel Fuel	169	602,169 L	19,800	23,063	1,620	230	923,968 L	22,500	35,387	2,412
Tractor Trailer Trucks	Diesel Fuel	75	1,814,094 L	56,500	69,480	4,882	71	1,668,485 L	56,700	63,902	4,355
Motorhomes	Gasoline	10	28,805 L	19,900	1,008	68	13	37,606 L	19,500	1,316	84
	Diesel Fuel	11	34,386 L	16,400	1,317	93	11	35,136 L	17,500	1,346	92
Motorcycles, Mopeds	Gasoline	35	8,476 L	5,200	296	20	68	19,530 L	6,200	684	44
Buses	Gasoline	29	107,501 L	22,900	3,762	253	25	101,774 L	25,300	3,562	228
	Diesel Fuel	32	181,810 L	20,300	6,963	490	21	114,417 L	20,100	4,383	299
Totals		2,922	9,127,388 L	19,042	329,104	22,604	3,204	9,127,388 L	19,580	361,194	23,684

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	23,885 GJ	23,885	484	N/A	22,991 GJ	22,991	466
	Heating Oil	N/A	6,141 GJ	6,141	433	N/A	5,911 GJ	5,911	404
	Propane	N/A	10,800 GJ	10,800	659	N/A	10,396 GJ	10,396	634
	Natural Gas	1,409	117,944 GJ	117,944	5,916	1,487	119,366 GJ	119,366	5,988
	Electricity	1,967	14,412,215 kWh	51,884	360	2,024	14,758,016 kWh	53,129	369
Commercial/Small-Medium Industrial	Natural Gas	192	100,847 GJ	100,847	5,058	194	100,989 GJ	100,989	5,066
	Electricity	295	18,851,608 kWh	67,866	471	312	19,347,029 kWh	69,649	484
Totals		3,863		379,367	13,381	4,017		382,431	13,411

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Solid Waste	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste Solid Waste	0	3,610 t	N/A	756	0	3,705 t	N/A	306
Totals	0			756	0			306

Memo Items

Buildings	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial Natural Gas	2		0	0	2		0	0
Electricity	3		0	0	3		0	0
Totals	5			0	5			0

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 3,704)			2010 (Population: 3,771)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	37	4	0 L	0	
Gasoline	6,329,839 L	221,543	15,041	7,149,222 L	250,222	16,117
Diesel Fuel	2,797,549 L	107,196	7,539	2,886,632 L	110,741	7,553
Other Fuel	0 L	328	20	0 L	231	14
Wood	23,885 GJ	23,885	484	22,991 GJ	22,991	466
Heating Oil	6,141 GJ	6,141	433	5,911 GJ	5,911	404
Propane	10,800 GJ	10,800	659	10,396 GJ	10,396	634
Natural Gas	218,791 GJ	218,791	10,974	220,355 GJ	220,355	11,054
Electricity	33,263,823 kWh	119,750	831	34,105,045 kWh	122,778	853
Solid Waste	3,610 t	0	756	3,705 t	0	306
Grand Totals		708,471	36,741		743,625	37,401

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	720	32	825	53	790	51
Semi-Detached House	145	6	125	8	125	8
Row House	135	6	115	7	110	7
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	15	1
Apartment, under 5 storeys	260	12	210	14	210	14
Other Single Attached House	0	0	5	0	0	0
Movable Dwelling	275	12	265	17	305	20

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	1,085	71	1,355	74	1,280	73
Car, Truck, Van as Passenger	220	14	245	13	310	18
Public Transit	25	2	35	2	30	2
Walked	120	8	130	7	120	7
Bicycle	10	1	10	1	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	10	1	10	1	0	0
Other Method	65	4	50	3	25	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	45	0
Local Parks	7	0
Agricultural Land Reserve	1,431	7
Other land use	18,192	92
Total Parks and Protected Area	53	0
Total Land Area	19,675	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	45	0
Local Parks	7	0
Agricultural Land Reserve	1,431	7
Other land use	18,192	92
Total Parks and Protected Area	53	0
Total Land Area	19,675	100

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

Sparwood District Municipality
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,