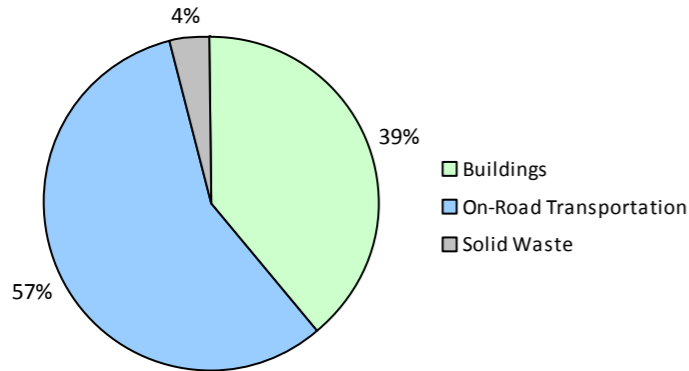
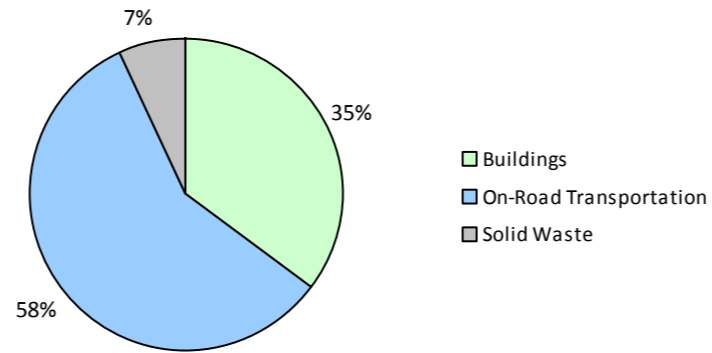


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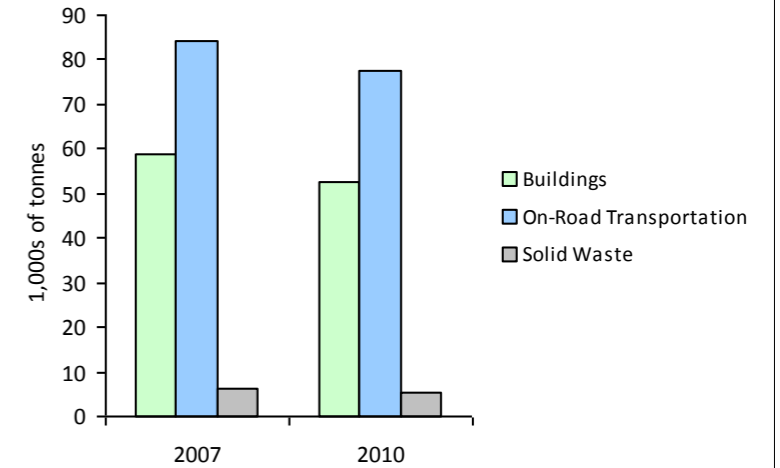
2010 GHG Emissions Sources (Total for this Community)



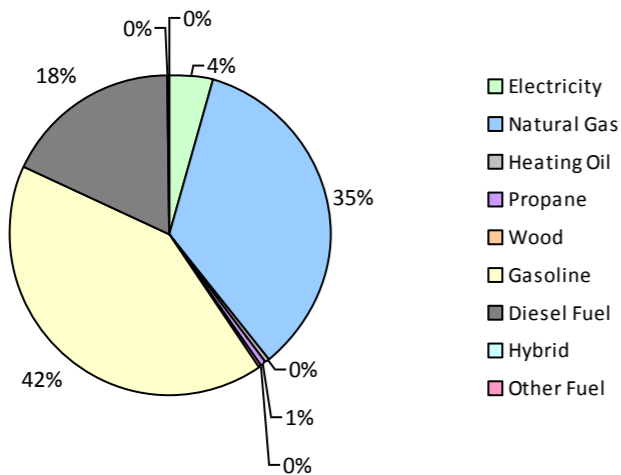
2010 GHG Emissions Sources (Total for BC)



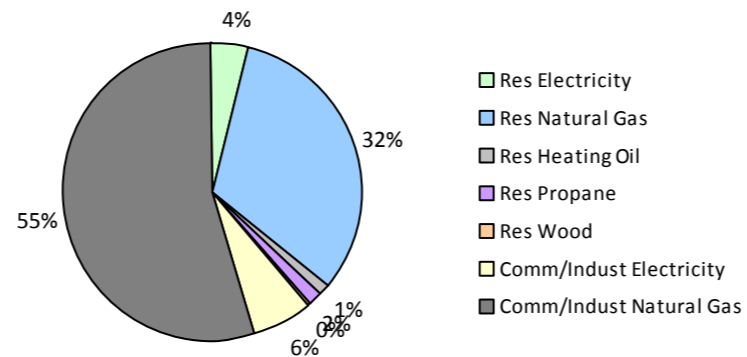
GHG Emissions Comparisons for this Community



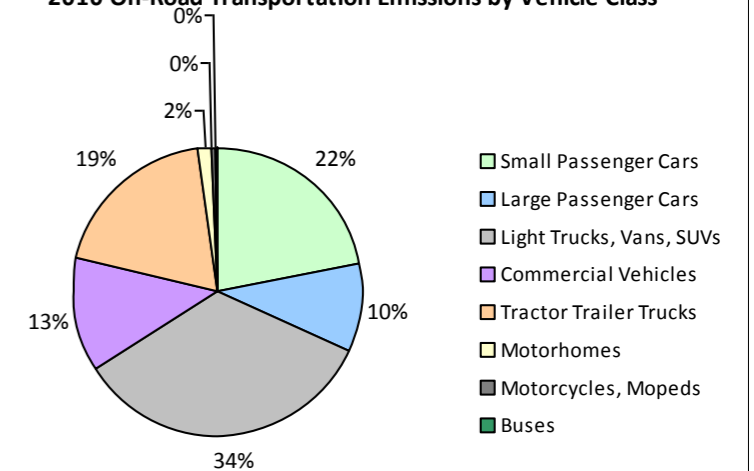
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



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			17,300	112	7			19,400	94	5
	Gasoline	6,116	8,052,770 L	13,900	281,848	19,096	5,836	7,536,112 L	13,600	263,764	16,906
	Diesel Fuel	92	106,280 L	17,300	4,070	290	103	119,881 L	17,000	4,592	318
	Other Fuel							7,300		22	0
Large Passenger Cars	Hybrid			15,200	215	14	34	38,117 L	19,400	1,334	85
	Gasoline	2,701	3,909,778 L	12,700	136,843	9,285	2,341	3,295,036 L	12,300	115,326	7,404
	Diesel Fuel	19	21,874 L	11,600	838	59	20	24,836 L	13,200	951	67
	Other Fuel			8,500	115	7		10,500		110	8
Light Trucks, Vans, SUVs	Hybrid			17,500	289	19	25	38,524 L	17,300	1,348	86
	Gasoline	5,357	11,251,099 L	15,100	393,789	26,864	5,551	11,353,312 L	14,800	397,366	25,708
	Diesel Fuel	97	231,281 L	14,100	8,859	630	77	190,577 L	15,500	7,298	505
	Other Fuel	20	37,399 L	11,200	946	57	10	18,479 L	11,000	468	29
Commercial Vehicles	Gasoline	571	1,491,383 L	15,700	52,198	3,503	558	1,450,754 L	15,600	50,776	3,245
	Diesel Fuel	596	2,248,620 L	19,100	86,122	6,051	682	2,559,038 L	19,400	98,011	6,682
	Other Fuel	41	84,804 L	11,300	2,145	130	28	54,432 L	10,700	1,376	84
Tractor Trailer Trucks	Gasoline			16,000	511	35			14,000	460	29
	Diesel Fuel	273	6,014,891 L	55,800	230,370	16,185	279	5,701,186 L	51,900	218,355	14,887
Motorhomes	Gasoline	185	453,618 L	18,000	15,876	1,064	116	279,104 L	17,500	9,770	623
	Diesel Fuel	64	206,528 L	17,500	7,910	556	71	245,796 L	17,800	9,414	643
	Other Fuel			24,700	94	6					
Motorcycles, Mopeds	Gasoline	317	75,296 L	5,300	2,635	176	328	90,392 L	6,200	3,164	201
Buses	Gasoline	20	88,202 L	28,200	3,086	208			22,100	885	57
	Diesel Fuel			28,100	1,459	102			29,700	1,088	74
Totals		16,469	34,273,823 L	14,958	1,230,330	84,344	16,059	34,273,823 L	14,744	1,185,972	77,646

Langley 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	5,837 GJ	5,837	118	N/A	5,437 GJ	5,437	110
	Heating Oil	N/A	9,828 GJ	9,828	693	N/A	9,154 GJ	9,154	626
	Propane	N/A	14,583 GJ	14,583	890	N/A	13,584 GJ	13,584	829
	Natural Gas	4,398	386,527 GJ	386,527	19,389	4,322	333,712 GJ	333,712	16,739
	Electricity	10,668	89,586,348 kWh	322,511	2,240	11,124	89,081,253 kWh	320,692	2,227
Commercial/Small-Medium Industrial	Natural Gas	1,345	638,711 GJ	638,711	32,038	1,275	575,018 GJ	575,018	28,843
	Electricity	2,054	143,689,222 kWh	517,281	3,592	2,096	135,819,770 kWh	488,951	3,396
Totals		18,465		1,895,278	58,960	18,817		1,746,548	52,770

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	14,479 t	N/A	6,078	0	11,006 t	N/A	5,221
Totals		0			6,078	0			5,221

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	5		0	0	5	110,693 GJ	110,693	5,552
	Electricity	2		0	0	2		0	0
Totals		7			0	7		110,693	5,552

Langley City 2010 Community Energy and Emissions Inventory

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Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 25,167)			2010 (Population: 25,858)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	616	40	76,641 L	2,776	176
Gasoline	25,322,146 L	886,786	60,231	24,004,710 L	841,511	54,173
Diesel Fuel	8,829,474 L	339,628	23,873	8,841,314 L	339,709	23,176
Other Fuel	122,203 L	3,300	200	72,911 L	1,976	121
Wood	5,837 GJ	5,837	118	5,437 GJ	5,437	110
Heating Oil	9,828 GJ	9,828	693	9,154 GJ	9,154	626
Propane	14,583 GJ	14,583	890	13,584 GJ	13,584	829
Natural Gas	1,025,238 GJ	1,025,238	51,427	908,730 GJ	908,730	45,582
Electricity	233,275,570 kWh	839,792	5,832	224,901,023 kWh	809,643	5,623
Solid Waste	14,479 t	0	6,078	11,006 t	0	5,221
Grand Totals		3,125,608	149,382		2,932,520	135,637

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	3,135	34	3,100	31	2,790	26
Semi-Detached House	245	3	290	3	245	2
Row House	925	10	1,000	10	1,050	10
Apartment, Duplex	345	4	440	4	670	6
Apartment, 5 storeys or higher	40	0	5	0	0	0
Apartment, under 5 storeys	4,625	50	5,225	52	5,800	55
Other Single Attached House	10	0	20	0	10	0
Movable Dwelling	10	0	5	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	8,370	83	9,010	83	38,455	85
Car, Truck, Van as Passenger	750	7	780	7	3,255	7
Public Transit	365	4	280	3	1,315	3
Walked	410	4	505	5	1,490	3
Bicycle	75	1	160	1	270	1
Motorcycle	30	0	20	0	115	0
Taxicab	25	0	0	0	25	0
Other Method	80	1	60	1	365	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	120	12
Agricultural Land Reserve	42	4
Other land use	867	84
Total Parks and Protected Area	120	12
Total Land Area	1,029	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	120	12
Agricultural Land Reserve	42	4
Other land use	867	84
Total Parks and Protected Area	120	12
Total Land Area	1,029	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	4,150	42
5 to 9.9 km	1,340	14
25 km or more	1,955	20
15 to 24.9 km	1,375	14
10 to 14.9 km	1,050	11

Langley City
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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

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,