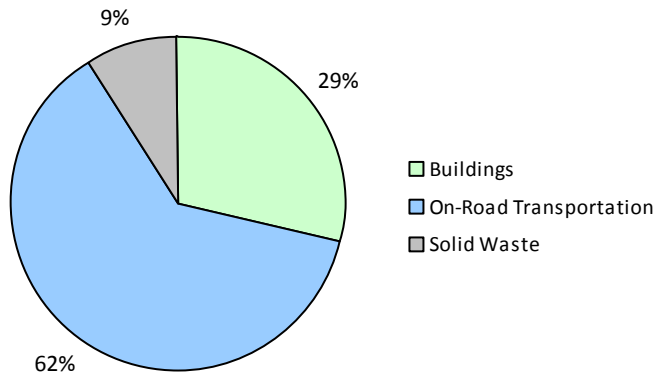
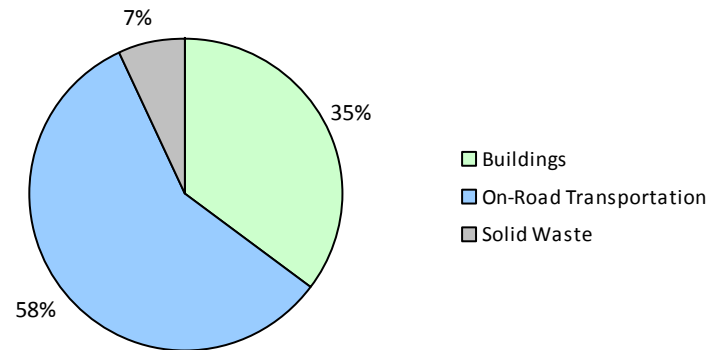


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

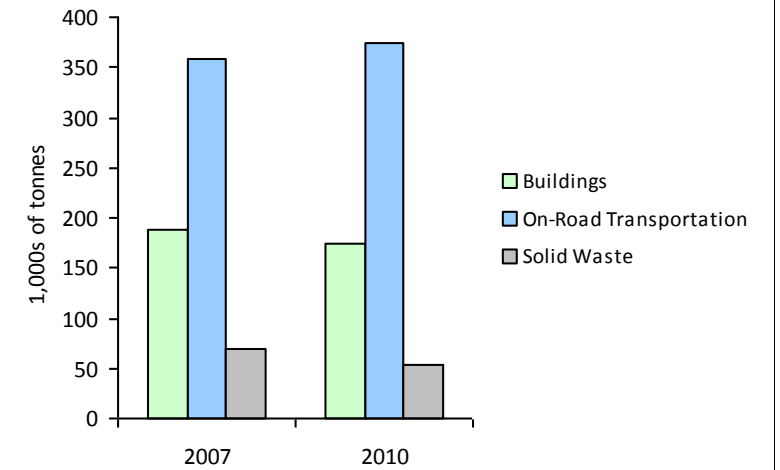
2010 GHG Emissions Sources (Total for this Community)



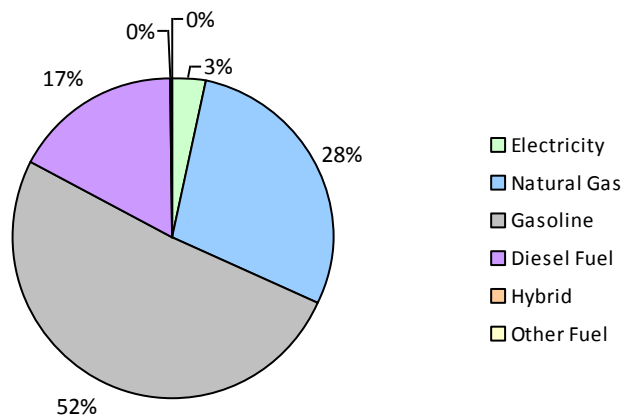
2010 GHG Emissions Sources (Total for BC)



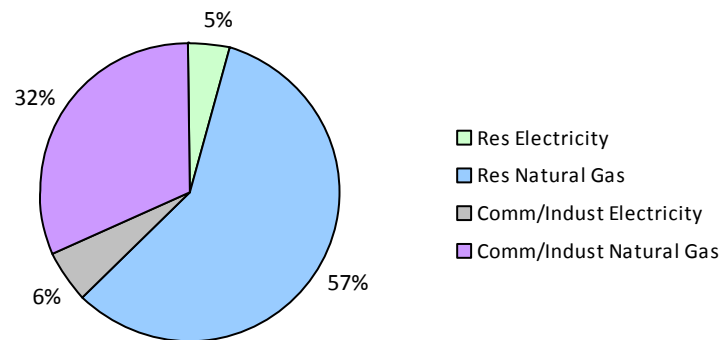
GHG Emissions Comparisons for this Community



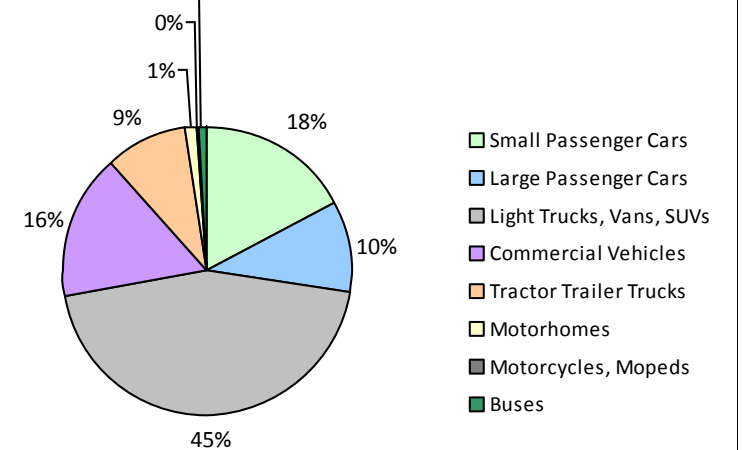
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Kamloops City 2010 Community Energy and Emissions Inventory

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	17	18,083 L	22,600	633	42	40	43,627 L	20,600	1,527	97
	Gasoline	16,876	26,529,200 L	16,700	928,522	62,947	17,415	27,990,421 L	17,100	979,664	62,749
	Diesel Fuel	479	803,328 L	24,700	30,767	2,193	534	909,203 L	24,700	34,823	2,411
	Other Fuel							21,600	219	13	
Large Passenger Cars	Hybrid	35	41,693 L	23,300	1,459	98	152	242,213 L	26,900	8,478	540
	Gasoline	8,830	17,361,666 L	17,400	607,658	41,182	8,469	16,747,777 L	17,600	586,172	37,554
	Diesel Fuel	88	128,728 L	15,300	4,930	350	74	98,077 L	14,200	3,756	260
	Other Fuel	10	17,503 L	13,500	443	27		11,900	348	21	
Light Trucks, Vans, SUVs	Hybrid	12	26,464 L	27,400	926	63	70	165,923 L	28,800	5,808	375
	Gasoline	22,021	61,975,073 L	19,300	2,169,127	148,134	24,273	70,314,092 L	20,000	2,460,993	159,311
	Diesel Fuel	1,099	2,753,347 L	14,000	105,453	7,493	805	2,398,231 L	17,600	91,852	6,341
	Other Fuel	247	522,447 L	12,400	13,218	800	131	251,463 L	11,200	6,363	386
Commercial Vehicles	Hybrid							18,500	228	14	
	Gasoline	1,933	6,423,490 L	19,800	224,823	15,100	2,305	7,729,079 L	20,000	270,518	17,295
	Diesel Fuel	2,800	12,369,963 L	24,600	473,770	33,286	3,366	16,905,874 L	28,200	647,495	44,140
	Other Fuel	77	185,580 L	13,000	4,695	284	45	103,277 L	12,400	2,613	158
Tractor Trailer Trucks	Gasoline			35,000	1,703	114		28,500	1,060	68	
	Diesel Fuel	695	14,291,352 L	46,200	547,359	38,459	681	13,326,343 L	44,000	510,400	34,795
Motorhomes	Gasoline	314	901,657 L	19,800	31,558	2,107	377	1,089,154 L	19,800	38,121	2,425
	Diesel Fuel	245	932,638 L	20,300	35,720	2,509	243	967,015 L	20,100	37,036	2,524
	Other Fuel	15	45,246 L	19,900	1,145	69	12	37,089 L	19,800	939	57
Motorcycles, Mopeds	Gasoline	1,052	250,818 L	5,200	8,779	586	1,452	421,219 L	6,200	14,742	935
Buses	Gasoline	68	186,769 L	17,000	6,536	439	65	175,738 L	17,000	6,150	394
	Diesel Fuel	98	581,811 L	21,200	22,284	1,566	169	895,500 L	35,300	34,298	2,338
	Other Fuel							10,800	54	4	
Totals		57,011	146,346,856 L	18,492	5,221,508	357,848	60,678	146,346,856 L	19,271	5,743,657	375,205

Kamloops 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	Natural Gas	26,798	2,212,827 GJ	2,212,827	110,995	27,634	2,001,434 GJ	2,001,434	100,392
	Electricity	33,941	323,155,847 kWh	1,163,360	8,079	35,212	336,524,176 kWh	1,211,486	8,413
Commercial/Small-Medium Industrial	Natural Gas	2,381	1,181,462 GJ	1,181,462	59,262	2,388	1,120,931 GJ	1,120,931	56,226
	Electricity	3,867	384,654,914 kWh	1,384,757	9,617	4,038	385,326,011 kWh	1,387,173	9,633
Totals		66,987		5,942,406	187,953	69,272		5,721,024	174,664

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	90,045 t	N/A	69,786	0	52,617 t	N/A	53,657
Totals		0			69,786	0			53,657

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	21		0	0	18		0	0
	Electricity	6	179,993,550 kWh	647,976	4,500	4	303,846,850 kWh	1,093,848	7,596
Totals		27		647,976	4,500	22		1,093,848	7,596

Kamloops 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: 84,375)			2010 (Population: 87,110)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	86,240 L	3,018	203	451,763 L	16,041	1,026
Gasoline	113,628,673 L	3,978,706	270,609	124,467,480 L	4,357,420	280,731
Diesel Fuel	31,861,167 L	1,220,283	85,856	35,500,243 L	1,359,660	92,809
Other Fuel	770,776 L	19,501	1,180	391,829 L	10,536	639
Natural Gas	3,394,289 GJ	3,394,289	170,257	3,122,365 GJ	3,122,365	156,618
Electricity	707,810,761 kWh	2,548,117	17,696	721,850,187 kWh	2,598,659	18,046
Solid Waste	90,045 t	0	69,786	52,617 t	0	53,657
Grand Totals		11,163,914	615,587		11,464,681	603,526

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	16,595	37	18,280	60	18,705	57
Semi-Detached House	1,930	4	2,070	7	2,240	7
Row House	2,385	5	2,840	9	2,695	8
Apartment, Duplex	1,295	3	1,070	3	2,080	6
Apartment, 5 storeys or higher	565	1	710	2	710	2
Apartment, under 5 storeys	4,375	10	4,450	14	5,565	17
Other Single Attached House	30	0	65	0	60	0
Movable Dwelling	1,525	3	1,230	4	590	2

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	28,000	81	28,600	82	31,345	79
Car, Truck, Van as Passenger	2,725	8	2,315	7	3,270	8
Public Transit	1,005	3	1,170	3	1,675	4
Walked	1,895	6	1,900	5	2,100	5
Bicycle	470	1	475	1	520	1
Motorcycle	75	0	35	0	115	0
Taxicab	40	0	30	0	60	0
Other Method	275	1	260	1	355	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	2,962	9
Local Parks	1,521	5
Agricultural Land Reserve	12,822	41
Other land use	14,181	45
Total Parks and Protected Area	4,483	14
Total Land Area	31,486	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	2,962	9
Local Parks	1,521	5
Agricultural Land Reserve	12,822	41
Other land use	14,181	45
Total Parks and Protected Area	4,483	14
Total Land Area	31,486	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	16,685	49
5 to 9.9 km	9,360	28
25 km or more	2,155	6
15 to 24.9 km	1,860	6
10 to 14.9 km	3,780	11

Kamloops City
2010 Community Energy and Emissions Inventory
Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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Kamloops City
2010 Community Energy and Emissions Inventory
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,