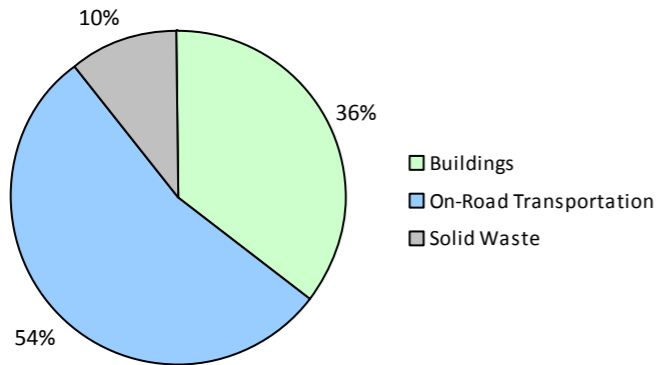


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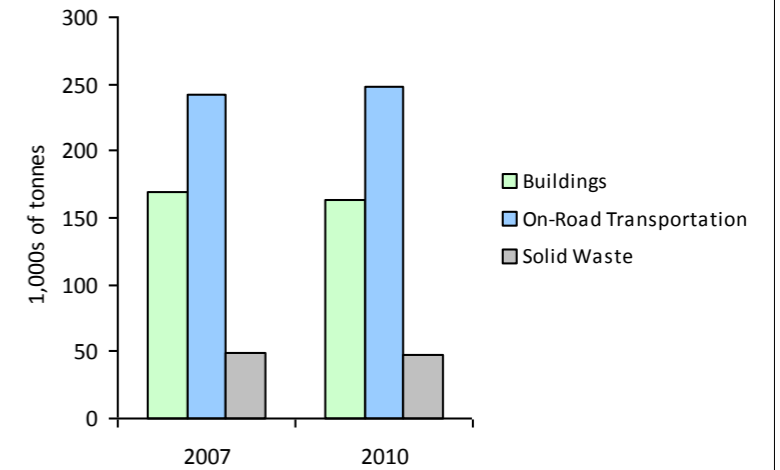
2010 GHG Emissions Sources (Total for this Community)



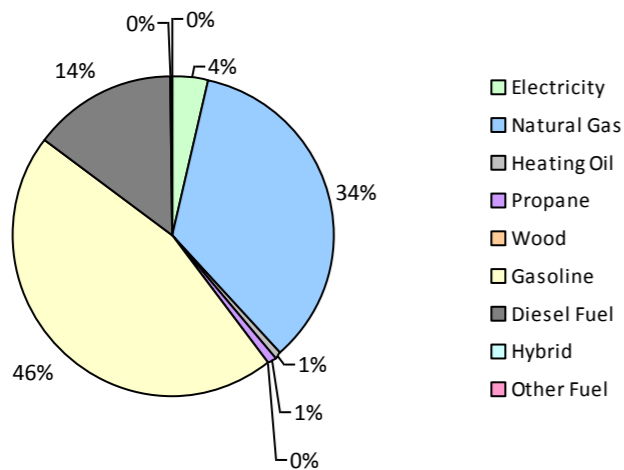
2010 GHG Emissions Sources (Total for BC)



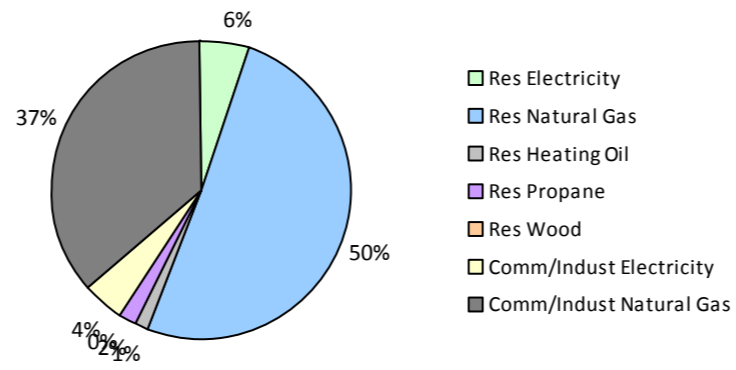
GHG Emissions Comparisons for this Community



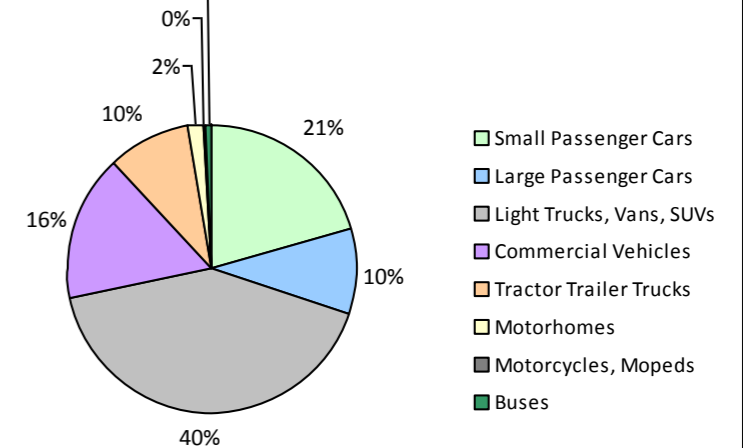
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Chilliwack 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	15	13,993 L	20,000	490	32	22	21,332 L	19,300	746	47
	Gasoline	13,874	21,171,599 L	16,200	741,005	50,227	14,542	21,973,100 L	16,200	769,058	49,278
	Diesel Fuel	556	897,952 L	23,800	34,391	2,453	540	837,551 L	22,800	32,078	2,220
	Other Fuel			15,800	36	4			14,900	38	3
Large Passenger Cars	Hybrid	31	31,964 L	19,500	1,118	74	132	151,402 L	20,000	5,300	338
	Gasoline	6,725	11,041,692 L	14,400	386,459	26,214	6,320	10,234,122 L	14,300	358,195	22,970
	Diesel Fuel	79	95,174 L	12,500	3,645	260	72	86,115 L	13,000	3,299	228
	Other Fuel			13,100	247	15			12,900	123	8
Light Trucks, Vans, SUVs	Hybrid			21,600	466	32	35	64,408 L	20,800	2,254	144
	Gasoline	16,314	39,474,958 L	16,900	1,381,623	94,276	18,302	43,752,971 L	16,800	1,531,354	99,083
	Diesel Fuel	460	1,117,033 L	14,200	42,782	3,044	370	1,039,475 L	17,400	39,812	2,753
	Other Fuel	72	145,858 L	12,200	3,691	224	34	60,751 L	10,700	1,538	93
Commercial Vehicles	Hybrid								19,800	246	15
	Gasoline	2,251	5,693,522 L	15,300	199,272	13,367	2,297	5,791,138 L	15,200	202,689	12,948
	Diesel Fuel	2,162	7,647,750 L	19,200	292,909	20,579	2,677	10,580,855 L	21,800	405,247	27,626
	Other Fuel	82	175,810 L	11,700	4,449	269	58	117,230 L	11,100	2,965	179
Tractor Trailer Trucks	Gasoline			13,500	1,051	71			17,300	796	52
	Diesel Fuel	536	9,094,961 L	41,000	348,336	24,473	578	9,022,661 L	37,900	345,569	23,559
	Other Fuel			12,400	170	10			10,200	68	4
Motorhomes	Gasoline	388	969,289 L	17,300	33,924	2,266	388	970,337 L	17,300	33,962	2,161
	Diesel Fuel	231	751,735 L	17,100	28,792	2,023	220	747,092 L	17,200	28,614	1,951
	Other Fuel			18,400	370	23			16,600	457	28
Motorcycles, Mopeds	Gasoline	866	206,757 L	5,200	7,237	482	1,093	306,180 L	6,200	10,716	680
Buses	Gasoline	51	146,029 L	17,900	5,110	343	62	166,677 L	17,100	5,834	373
	Diesel Fuel	67	323,252 L	18,000	12,381	870	67	324,010 L	19,300	12,410	847
	Other Fuel	17	43,160 L	12,400	1,092	66	12	28,447 L	11,500	719	44
Totals		44,777	99,042,488 L	16,442	3,531,046	241,697	47,821	99,042,488 L	16,580	3,794,087	247,632

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Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	21,001 GJ	21,001	425	N/A	19,563 GJ	19,563	396
	Heating Oil	N/A	35,235 GJ	35,235	2,484	N/A	32,822 GJ	32,822	2,245
	Propane	N/A	52,125 GJ	52,125	3,180	N/A	48,555 GJ	48,555	2,962
	Natural Gas	22,876	1,790,094 GJ	1,790,094	89,791	23,454	1,626,211 GJ	1,626,211	81,571
	Electricity	29,721	345,559,155 kWh	1,244,012	8,639	31,892	369,424,835 kWh	1,329,928	9,236
Commercial/Small-Medium Industrial	Natural Gas	2,230	1,170,603 GJ	1,170,603	58,717	2,213	1,197,559 GJ	1,197,559	60,070
	Electricity	3,346	264,527,150 kWh	952,297	6,613	3,516	276,354,141 kWh	994,874	6,909
Totals		58,173		5,265,367	169,849	61,075		5,249,512	163,389

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	30,151 t	N/A	48,536	0	27,077 t	N/A	47,832
Totals		0			48,536	0			47,832

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	23	378,067 GJ	378,067	18,964	18	301,776 GJ	301,776	15,137
Totals		23		378,067	18,964	18		301,776	15,137

Chilliwack 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: 73,294)			2010 (Population: 77,975)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	45,957 L	2,074	138	237,142 L	8,546	544
Gasoline	78,703,846 L	2,755,681	187,246	83,194,525 L	2,912,604	187,545
Diesel Fuel	19,927,857 L	763,236	53,702	22,637,759 L	867,029	59,184
Other Fuel	364,828 L	10,055	611	206,428 L	5,908	359
Wood	21,001 GJ	21,001	425	19,563 GJ	19,563	396
Heating Oil	35,235 GJ	35,235	2,484	32,822 GJ	32,822	2,245
Propane	52,125 GJ	52,125	3,180	48,555 GJ	48,555	2,962
Natural Gas	2,960,697 GJ	2,960,697	148,508	2,823,770 GJ	2,823,770	141,641
Electricity	610,086,305 kWh	2,196,309	15,252	645,778,976 kWh	2,324,802	16,145
Solid Waste	30,151 t	0	48,536	27,077 t	0	47,832
Grand Totals		8,796,413	460,082		9,043,599	458,853

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	14,910	40	15,890	66	16,670	62
Semi-Detached House	720	2	720	3	935	3
Row House	1,850	5	2,200	9	3,025	11
Apartment, Duplex	265	1	440	2	605	2
Apartment, 5 storeys or higher	150	0	140	1	235	1
Apartment, under 5 storeys	4,220	11	4,600	19	5,135	19
Other Single Attached House	55	0	35	0	30	0
Movable Dwelling	320	1	215	1	235	1

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	18,765	81	21,025	85	24,730	83
Car, Truck, Van as Passenger	1,640	7	1,665	7	2,820	9
Public Transit	185	1	275	1	340	1
Walked	1,350	6	1,105	4	1,315	4
Bicycle	740	3	410	2	385	1
Motorcycle	110	0	0	0	35	0
Taxicab	35	0	0	0	65	0
Other Method	240	1	215	1	240	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	675	2
Local Parks	304	1
Agricultural Land Reserve	17,123	61
Other land use	9,855	35
Total Parks and Protected Area	979	4
Total Land Area	27,957	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	675	2
Local Parks	304	1
Agricultural Land Reserve	17,123	61
Other land use	9,855	35
Total Parks and Protected Area	979	4
Total Land Area	27,957	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	10,900	44
5 to 9.9 km	5,090	20
25 km or more	5,960	24
15 to 24.9 km	1,580	6
10 to 14.9 km	1,490	6

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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,