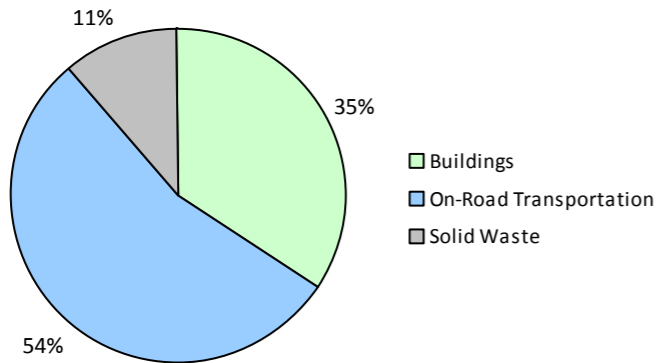
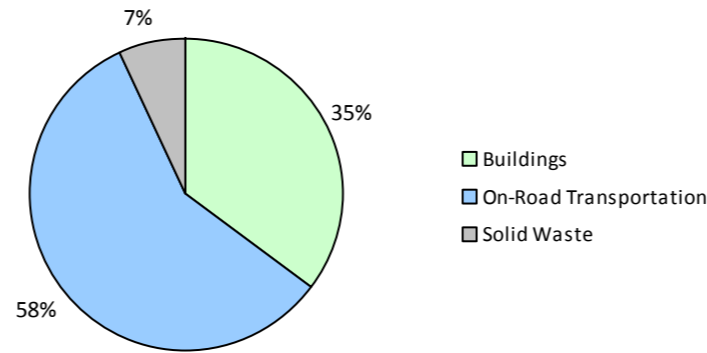


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

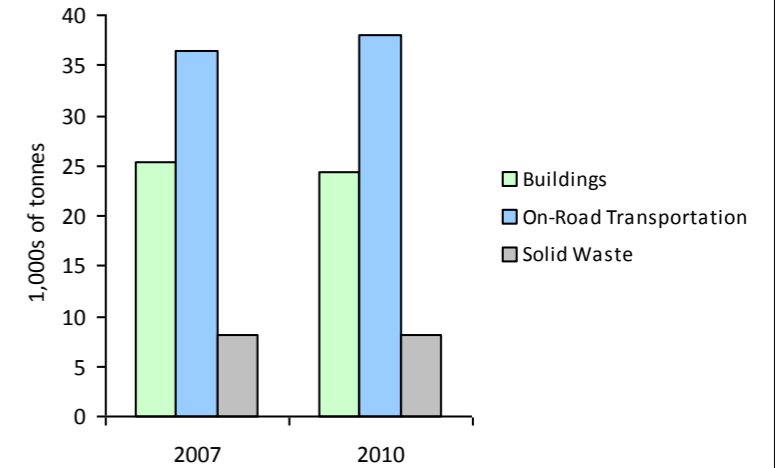
2010 GHG Emissions Sources (Total for this Community)



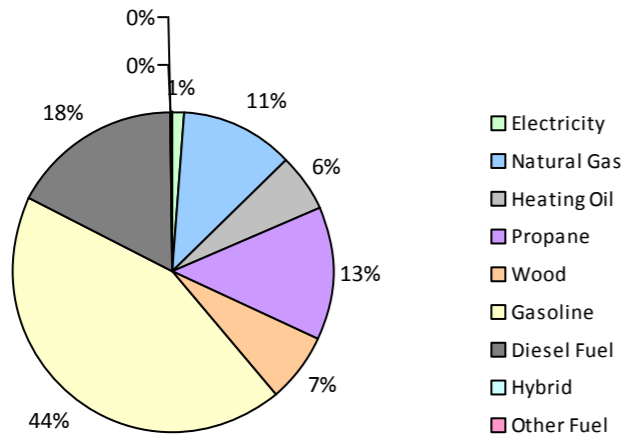
2010 GHG Emissions Sources (Total for BC)



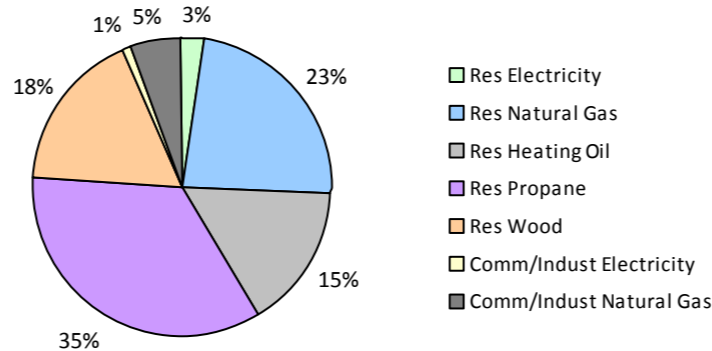
GHG Emissions Comparisons for this Community



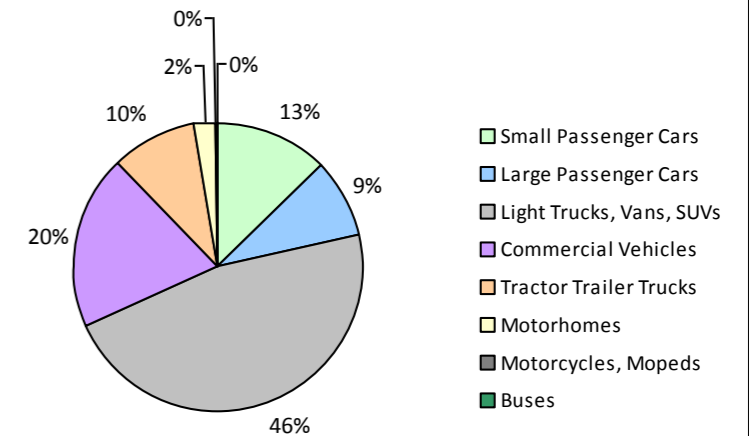
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Kootenay Boundary Regional District Unincorporated Areas 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)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Gasoline	1,471	1,934,616 L	15,500	67,711	4,642	1,452	2,033,928 L	15,800	71,188	4,585
	Diesel Fuel	74	123,494 L	24,200	4,729	337	76	119,101 L	23,300	4,561	315
Large Passenger Cars	Hybrid			23,300	162	10	12	15,199 L	21,600	532	36
	Gasoline	1,008	1,500,745 L	14,600	52,525	3,589	966	1,461,735 L	14,400	51,160	3,296
	Diesel Fuel			11,600	326	22	11	14,241 L	11,900	546	37
Light Trucks, Vans, SUVs	Hybrid								23,500	117	8
	Gasoline	2,949	6,615,511 L	17,000	231,543	15,908	3,096	7,310,979 L	17,500	255,884	16,633
	Diesel Fuel	219	433,768 L	11,200	16,614	1,181	170	366,868 L	13,400	14,050	970
	Other Fuel	22	42,833 L	11,500	1,085	65	14	23,927 L	11,200	605	36
Commercial Vehicles	Gasoline	286	727,814 L	17,200	25,475	1,710	335	925,503 L	17,400	32,395	2,071
	Diesel Fuel	456	1,488,889 L	18,600	57,024	4,006	580	2,043,195 L	20,400	78,254	5,334
	Other Fuel	22	48,619 L	12,100	1,230	75	16	40,308 L	12,000	1,018	61
Tractor Trailer Trucks	Diesel Fuel	96	1,533,350 L	34,300	58,728	4,125	93	1,427,783 L	33,500	54,684	3,728
Motorhomes	Gasoline	55	152,361 L	19,300	5,333	357	61	169,421 L	19,200	5,930	377
	Diesel Fuel	39	118,724 L	16,700	4,546	319	51	161,405 L	16,400	6,181	420
Motorcycles, Mopeds	Gasoline	154	28,086 L	4,700	984	66	168	40,388 L	5,700	1,414	90
Buses	Gasoline			18,800	258	17			17,400	142	10
	Diesel Fuel			21,900	858	60			22,700	596	41
Totals		6,851	14,748,810 L	16,281	529,131	36,489	7,101	14,748,810 L	16,837	579,257	38,048

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	222,494 GJ	222,494	4,508	N/A	214,158 GJ	214,158	4,339
	Heating Oil	N/A	57,233 GJ	57,233	4,034	N/A	55,088 GJ	55,088	3,767
	Propane	N/A	138,185 GJ	138,185	8,430	N/A	136,885 GJ	136,885	8,351
	Natural Gas	1,832	119,758 GJ	119,758	6,007	1,819	113,053 GJ	113,053	5,672
	Electricity	8,590	107,446,555 kWh	386,807	644	8,029	107,278,774 kWh	386,203	642
Commercial/Small-Medium Industrial	Natural Gas	107	29,158 GJ	29,158	1,462	103	26,628 GJ	26,628	1,334
	Electricity	1,471	41,767,879 kWh	150,364	249	1,380	39,762,956 kWh	143,147	238
Totals		12,000		1,103,999	25,334	11,331		1,075,162	24,343

Kootenay Boundary Regional District Unincorporated Areas 2010 Community Energy and Emissions Inventory

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	4,850 t	N/A	8,085	0	4,990 t	N/A	8,106
Totals	0			8,085	0			8,106

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
Totals	2			0	2			0

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 10,486)			2010 (Population: 10,876)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	162	10	15,199 L	649	44
Gasoline	10,959,133 L	383,829	26,289	11,941,954 L	418,113	27,062
Diesel Fuel	3,698,225 L	142,825	10,050	4,132,593 L	158,872	10,845
Other Fuel	91,452 L	2,315	140	64,235 L	1,623	97
Wood	222,494 GJ	222,494	4,508	214,158 GJ	214,158	4,339
Heating Oil	57,233 GJ	57,233	4,034	55,088 GJ	55,088	3,767
Propane	138,185 GJ	138,185	8,430	136,885 GJ	136,885	8,351
Natural Gas	148,916 GJ	148,916	7,469	139,681 GJ	139,681	7,006
Electricity	149,214,434 kWh	537,171	893	147,041,730 kWh	529,350	880
Solid Waste	4,850 t	0	8,085	4,990 t	0	8,106
Grand Totals		1,633,130	69,908		1,654,419	70,497

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	3,740	24	3,755	87	3,780	86
Semi-Detached House	15	0	10	0	30	1
Row House	5	0	20	0	20	0
Apartment, Duplex	20	0	45	1	20	0
Apartment, 5 storeys or higher	10	0	0	0	0	0
Apartment, under 5 storeys	15	0	65	2	40	1
Other Single Attached House	10	0	15	0	25	1
Movable Dwelling	395	3	390	9	505	11

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	3,330	81	3,500	84	3,650	83
Car, Truck, Van as Passenger	355	9	315	8	370	8
Public Transit	25	1	55	1	25	1
Walked	265	6	205	5	200	5
Bicycle	80	2	40	1	110	2
Motorcycle	5	0	20	0	5	0
Taxicab	10	0	0	0	5	0
Other Method	60	1	55	1	45	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	70,490	10
Local Parks	17	0
Agricultural Land Reserve	53,010	8
Other land use	579,294	82
Total Parks and Protected Area	70,507	10
Total Land Area	702,812	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	70,490	10
Local Parks	17	0
Agricultural Land Reserve	53,010	8
Other land use	579,294	82
Total Parks and Protected Area	70,507	10
Total Land Area	702,812	100

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

Kootenay Boundary Regional District Unincorporated Areas
2010 Community Energy and Emissions Inventory
Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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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,