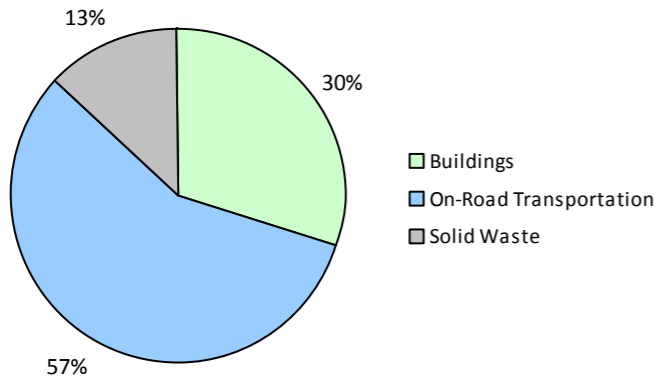
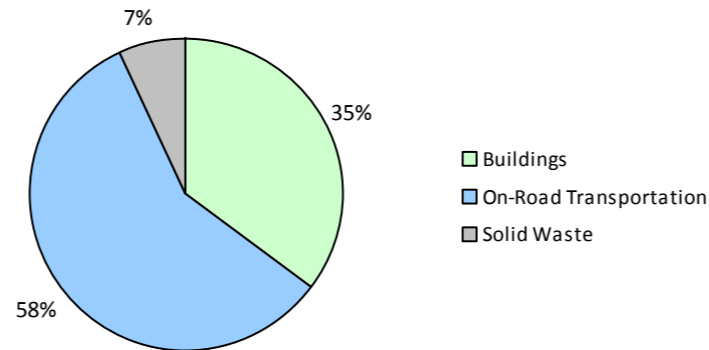


### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

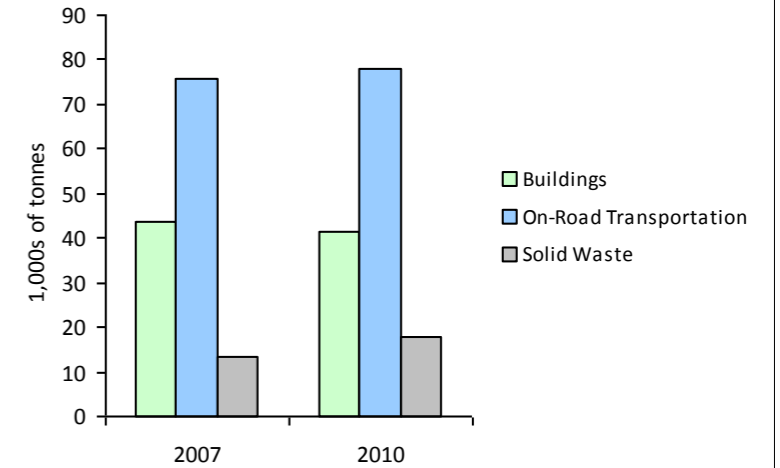
2010 GHG Emissions Sources (Total for this Community)



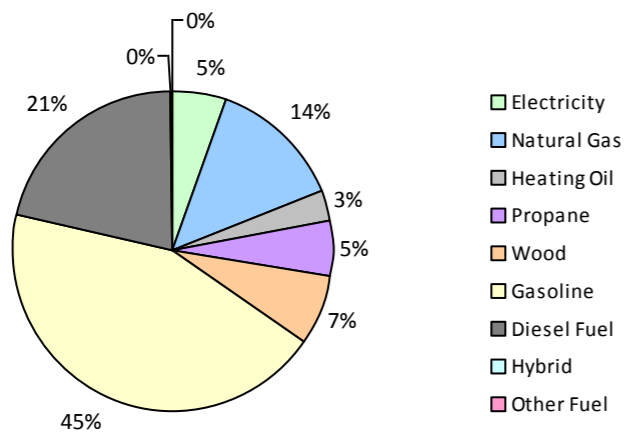
2010 GHG Emissions Sources (Total for BC)



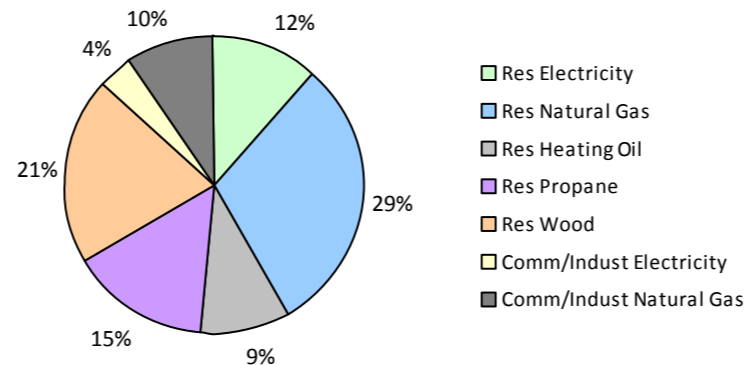
GHG Emissions Comparisons for this Community



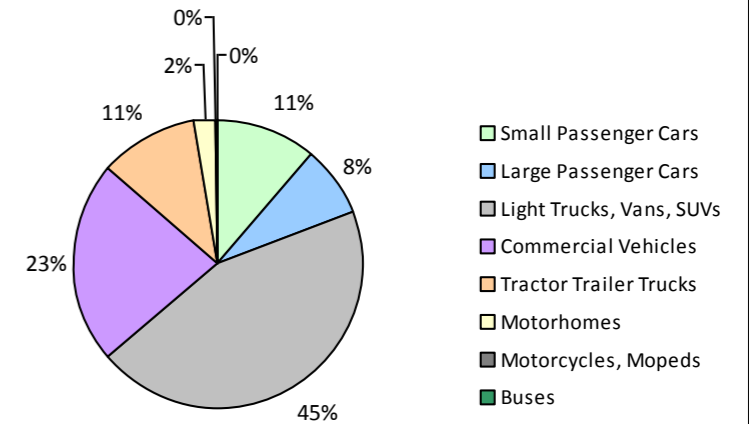
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Columbia-Shuswap 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)	CO2e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Hybrid							18,700	255	17	
	Gasoline	2,376	3,634,110 L	16,600	127,195	8,633	2,475	3,735,591 L	16,400	130,747	8,389
	Diesel Fuel	145	221,189 L	22,800	8,472	605	136	200,078 L	21,800	7,664	531
Large Passenger Cars	Hybrid			21,500	206	13	17	21,030 L	22,800	737	47
	Gasoline	1,547	2,918,991 L	17,100	102,164	6,929	1,486	2,741,369 L	16,500	95,948	6,151
	Diesel Fuel	20	32,096 L	16,300	1,229	87	20	28,955 L	15,500	1,110	77
Light Trucks, Vans, SUVs	Hybrid							26,500	403	28	
	Gasoline	4,813	13,468,756 L	19,800	471,406	32,241	5,222	14,310,431 L	19,500	500,865	32,474
	Diesel Fuel	348	866,233 L	14,200	33,177	2,359	265	736,451 L	16,100	28,206	1,949
	Other Fuel	46	102,169 L	13,600	2,584	157	23	44,521 L	12,600	1,127	69
Commercial Vehicles	Gasoline	520	1,698,660 L	20,100	59,453	3,993	603	1,937,010 L	20,000	67,795	4,331
	Diesel Fuel	915	3,740,745 L	23,800	143,271	10,066	1,167	5,105,989 L	26,000	195,560	13,332
	Other Fuel	14	36,025 L	14,300	913	54	19	44,980 L	14,000	1,138	70
Tractor Trailer Trucks	Diesel Fuel	171	3,171,567 L	53,200	121,471	8,536	180	3,334,943 L	51,600	127,728	8,708
Motorhomes	Gasoline	101	315,560 L	21,700	11,043	738	125	392,513 L	21,700	13,737	875
	Diesel Fuel	71	273,663 L	20,400	10,481	736	78	318,156 L	20,300	12,185	831
Motorcycles, Mopeds	Gasoline	211	46,258 L	5,000	1,618	108	274	72,612 L	5,900	2,541	161
Buses	Gasoline			18,700	677	46		20,500	542	35	
	Diesel Fuel	12	82,412 L	21,200	3,157	222		21,700	654	45	
<b>Totals</b>		<b>11,310</b>	<b>30,608,434 L</b>	<b>19,175</b>	<b>1,098,517</b>	<b>75,523</b>	<b>12,090</b>	<b>30,608,434 L</b>	<b>19,274</b>	<b>1,188,942</b>	<b>78,120</b>

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	441,045 GJ	441,045	8,936	N/A	424,521 GJ	424,521	8,601
	Heating Oil	N/A	59,462 GJ	59,462	4,191	N/A	57,235 GJ	57,235	3,914
	Propane	N/A	104,633 GJ	104,633	6,384	N/A	100,713 GJ	100,713	6,145
	Natural Gas	3,458	255,403 GJ	255,403	12,811	3,577	245,058 GJ	245,058	12,292
	Electricity	14,914	190,629,338 kWh	686,265	4,766	15,598	199,730,953 kWh	719,031	4,993
Commercial/Small-Medium Industrial	Natural Gas	189	94,841 GJ	94,841	4,757	188	78,517 GJ	78,517	3,938
	Electricity	1,522	65,442,809 kWh	235,594	1,637	1,678	61,131,706 kWh	220,074	1,529
<b>Totals</b>		<b>20,083</b>		<b>1,877,243</b>	<b>43,482</b>	<b>21,041</b>		<b>1,845,149</b>	<b>41,412</b>

## Columbia-Shuswap 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	17,485 t	N/A	13,244	0	13,943 t	N/A	17,883
<b>Totals</b>	<b>0</b>			<b>13,244</b>	<b>0</b>			<b>17,883</b>

### Memo Items

Buildings	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial      Natural Gas	2		0	0	1		0	0
<b>Totals</b>	<b>2</b>			<b>0</b>	<b>1</b>			<b>0</b>

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 21,058)			2010 (Population: 22,383)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	206	13	21,030 L	1,395	92
Gasoline	22,082,335 L	773,556	52,688	23,189,526 L	812,175	52,416
Diesel Fuel	8,387,905 L	321,258	22,611	9,724,572 L	373,107	25,473
Other Fuel	138,194 L	3,497	211	89,501 L	2,265	139
Wood	441,045 GJ	441,045	8,936	424,521 GJ	424,521	8,601
Heating Oil	59,462 GJ	59,462	4,191	57,235 GJ	57,235	3,914
Propane	104,633 GJ	104,633	6,384	100,713 GJ	100,713	6,145
Natural Gas	350,244 GJ	350,244	17,568	323,575 GJ	323,575	16,230
Electricity	256,072,147 kWh	921,859	6,403	260,862,659 kWh	939,105	6,522
Solid Waste	17,485 t	0	13,244	13,943 t	0	17,883
<b>Grand Totals</b>		<b>2,975,760</b>	<b>132,249</b>		<b>3,034,091</b>	<b>137,415</b>

*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	5,930	28	6,615	85	7,515	86
Semi-Detached House	85	0	30	0	70	1
Row House	45	0	65	1	60	1
Apartment, Duplex	90	0	65	1	95	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	80	0	50	1	85	1
Other Single Attached House	25	0	25	0	25	0
Movable Dwelling	1,075	5	945	12	880	10

**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	5,220	84	5,575	84	6,525	84
Car, Truck, Van as Passenger	470	8	455	7	510	7
Public Transit	35	1	35	1	35	0
Walked	325	5	355	5	475	6
Bicycle	45	1	85	1	60	1
Motorcycle	15	0	15	0	30	0
Taxicab	0	0	10	0	0	0
Other Method	140	2	100	2	110	1

**Parks and Protected Greenspace**

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	295,102	10
Provincial Parks / Protected Areas	96,950	3
Local Parks	18	0
Agricultural Land Reserve	47,983	2
Other land use	2,524,111	85
Total Parks and Protected Area	392,070	13
Total Land Area	2,964,165	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	295,102	10
Provincial Parks / Protected Areas	96,950	3
Local Parks	18	0
Agricultural Land Reserve	47,983	2
Other land use	2,524,111	85
Total Parks and Protected Area	392,070	13
Total Land Area	2,964,165	100

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

**Columbia-Shuswap Regional District Unincorporated Areas**  
**2010 Community Energy and Emissions Inventory**  
*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

This page  
intentionally left  
blank

### 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](mailto: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](mailto: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,