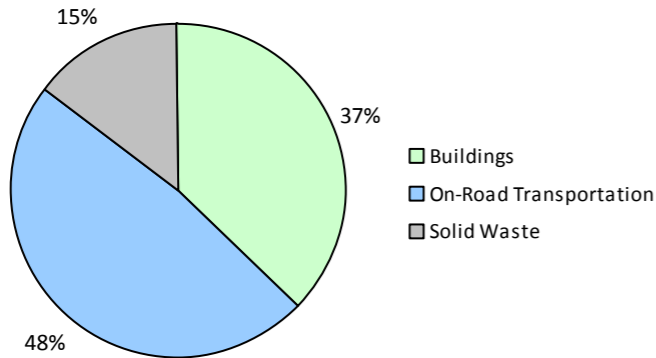
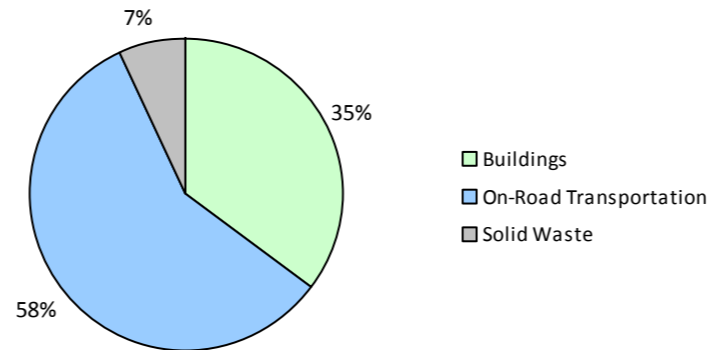


## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

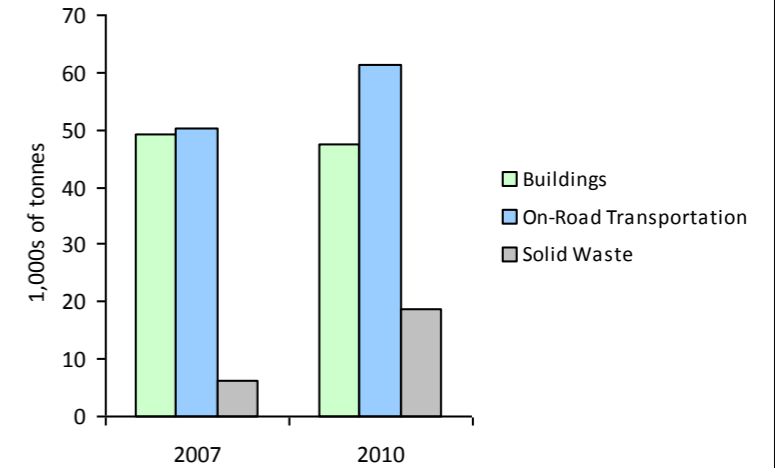
2010 GHG Emissions Sources (Total for this Community)



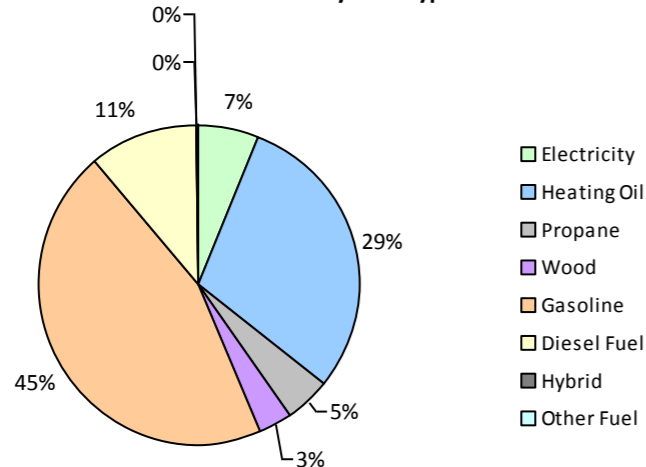
2010 GHG Emissions Sources (Total for BC)



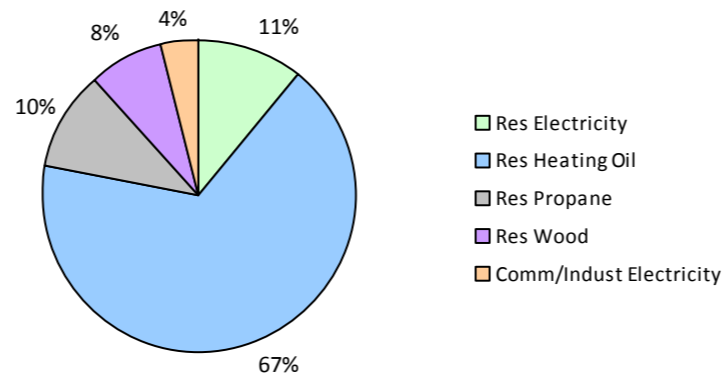
GHG Emissions Comparisons for this Community



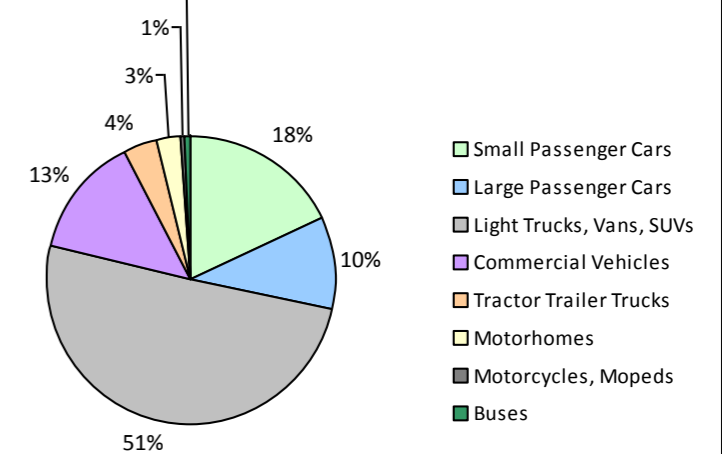
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Capital 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	19	11,418 L	13,500	401	28	25	14,639 L	13,000	512	33
	Gasoline	4,122	3,997,836 L	11,400	139,925	9,600	4,760	4,695,336 L	11,400	164,336	10,627
	Diesel Fuel	176	140,973 L	14,100	5,399	385	216	179,304 L	13,900	6,868	476
	Other Fuel			10,000	6	0			11,100	100	4
Large Passenger Cars	Hybrid	34	19,238 L	32,400	673	46	69	44,665 L	28,100	1,563	100
	Gasoline	1,877	2,373,150 L	12,100	83,061	5,679	2,097	2,635,677 L	11,900	92,249	5,956
	Diesel Fuel	50	47,634 L	9,900	1,824	130	73	63,742 L	9,600	2,442	168
	Other Fuel			31,300	35	2			16,900	34	2
Light Trucks, Vans, SUVs	Hybrid			15,700	291	19	20	24,946 L	15,400	873	56
	Gasoline	5,805	9,914,639 L	13,400	347,012	23,857	7,552	12,691,012 L	13,200	444,184	28,931
	Diesel Fuel	384	773,149 L	11,800	29,612	2,104	347	746,453 L	13,800	28,590	1,974
	Other Fuel	48	74,947 L	10,100	1,896	115	37	55,728 L	9,600	1,410	85
Commercial Vehicles	Hybrid								15,300	167	10
	Gasoline	334	687,674 L	13,500	24,069	1,614	481	983,740 L	13,500	34,431	2,199
	Diesel Fuel	403	1,273,314 L	18,200	48,769	3,426	650	2,275,893 L	20,200	87,167	5,942
	Other Fuel	21	38,191 L	10,500	967	59	20	34,380 L	10,200	869	53
Tractor Trailer Trucks	Gasoline								12,300	129	8
	Diesel Fuel	76	460,170 L	24,500	17,624	1,237	113	859,849 L	25,200	32,933	2,246
Motorhomes	Gasoline	185	407,413 L	16,200	14,260	951	220	485,594 L	16,300	16,996	1,078
	Diesel Fuel	80	226,174 L	16,400	8,662	609	96	278,207 L	16,300	10,654	727
	Other Fuel			16,600	139	8			16,400	216	13
Motorcycles, Mopeds	Gasoline	434	93,696 L	5,400	3,281	218	577	146,359 L	6,200	5,122	325
Buses	Gasoline	11	25,120 L	15,900	879	59	15	33,909 L	15,000	1,188	75
	Diesel Fuel	14	66,034 L	83,700	2,531	178	17	73,881 L	91,200	2,830	194
	Other Fuel			11,300	49	4			11,000	46	4
<b>Totals</b>		<b>14,073</b>	<b>20,630,770 L</b>	<b>12,703</b>	<b>731,365</b>	<b>50,328</b>	<b>17,385</b>	<b>20,630,770 L</b>	<b>12,856</b>	<b>935,909</b>	<b>61,286</b>

## Capital Regional District Unincorporated Areas 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	184,018 GJ	184,018	3,728	N/A	178,137 GJ	178,137	3,609
	Heating Oil	N/A	479,445 GJ	479,445	33,796	N/A	464,120 GJ	464,120	31,741
	Propane	N/A	82,743 GJ	82,743	5,048	N/A	80,098 GJ	80,098	4,887
	Electricity	14,001	213,536,652 kWh	768,731	5,339	14,351	208,284,703 kWh	749,824	5,206
Commercial/Small-Medium Industrial	Electricity	1,555	51,653,539 kWh	185,953	1,291	1,696	74,604,215 kWh	268,575	1,866
<b>Totals</b>		<b>15,556</b>		<b>1,700,890</b>	<b>49,202</b>	<b>16,047</b>		<b>1,740,754</b>	<b>47,309</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	9,214 t	N/A	6,164	0	21,273 t	N/A	18,835
<b>Totals</b>		<b>0</b>			<b>6,164</b>	<b>0</b>			<b>18,835</b>

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 24,673)			2010 (Population: 26,302)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	30,656 L	1,365	93	84,250 L	3,115	199
Gasoline	17,499,528 L	612,487	41,978	21,671,627 L	758,635	49,199
Diesel Fuel	2,987,448 L	114,421	8,069	4,477,329 L	171,484	11,727
Other Fuel	113,138 L	3,092	188	90,108 L	2,675	161
Wood	184,018 GJ	184,018	3,728	178,137 GJ	178,137	3,609
Heating Oil	479,445 GJ	479,445	33,796	464,120 GJ	464,120	31,741
Propane	82,743 GJ	82,743	5,048	80,098 GJ	80,098	4,887
Electricity	265,190,191 kWh	954,684	6,630	282,888,918 kWh	1,018,399	7,072
Solid Waste	9,214 t	0	6,164	21,273 t	0	18,835
<b>Grand Totals</b>		<b>2,432,255</b>	<b>105,694</b>		<b>2,676,663</b>	<b>127,430</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	9,600	11	8,505	85	8,520	79
Semi-Detached House	350	0	195	2	240	2
Row House	350	0	245	2	315	3
Apartment, Duplex	285	0	195	2	275	3
Apartment, 5 storeys or higher	90	0	0	0	65	1
Apartment, under 5 storeys	265	0	180	2	65	1
Other Single Attached House	20	0	30	0	30	0
Movable Dwelling	1,430	2	650	7	1,320	12

#### 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	8,310	76	5,975	78	6,825	75
Car, Truck, Van as Passenger	910	8	550	7	915	10
Public Transit	620	6	295	4	370	4
Walked	600	5	535	7	610	7
Bicycle	185	2	100	1	165	2
Motorcycle	40	0	60	1	75	1
Taxicab	15	0	10	0	20	0
Other Method	290	3	100	1	155	2

#### Parks and Protected Greenspace

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

	2009	
	Units	%
National Parks	3,897	2
Provincial Parks / Protected Areas	5,081	3
Local Parks	6,999	4
Agricultural Land Reserve	8,223	4
Other land use	163,706	87
Total Parks and Protected Area	15,977	9
Total Land Area	187,906	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	3,897	2
Provincial Parks / Protected Areas	5,081	3
Local Parks	6,999	4
Agricultural Land Reserve	8,223	4
Other land use	163,706	87
Total Parks and Protected Area	15,977	9
Total Land Area	187,906	100

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

**Capital 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](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,