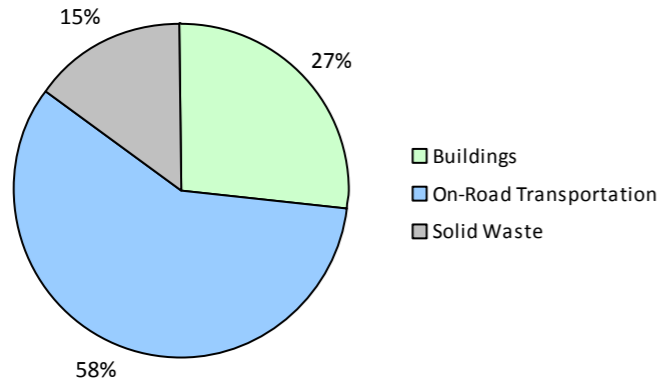
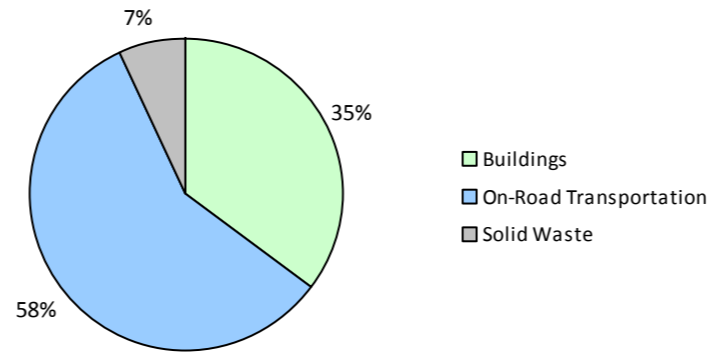


## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

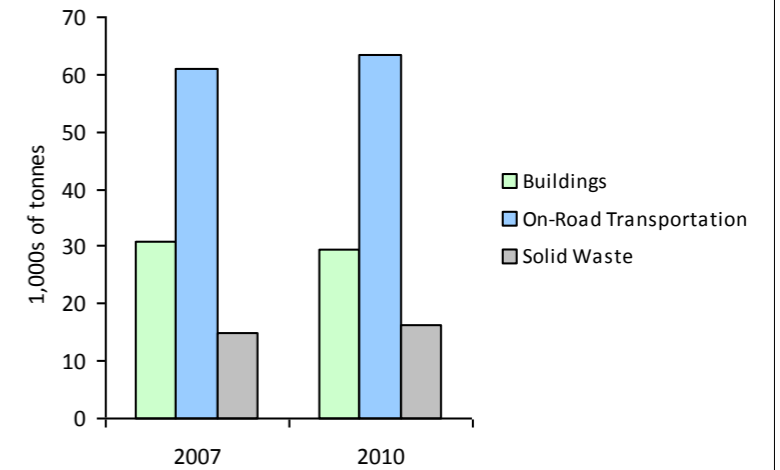
2010 GHG Emissions Sources (Total for this Community)



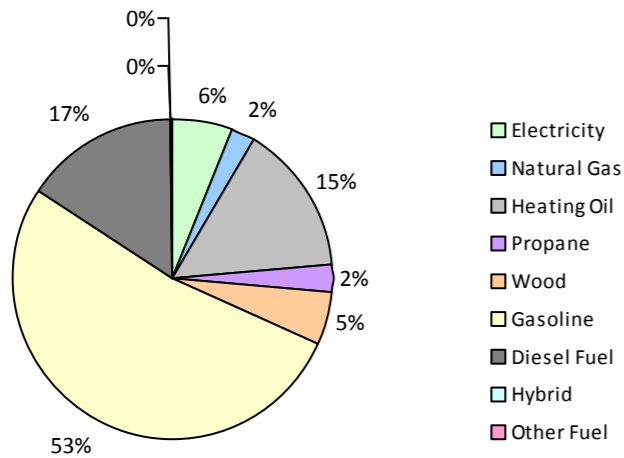
2010 GHG Emissions Sources (Total for BC)



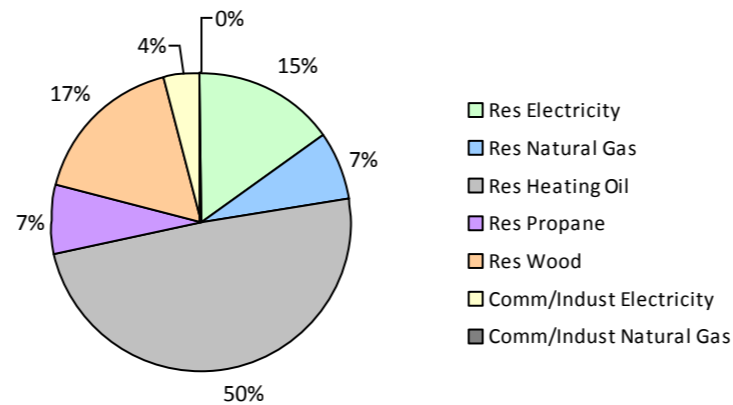
GHG Emissions Comparisons for this Community



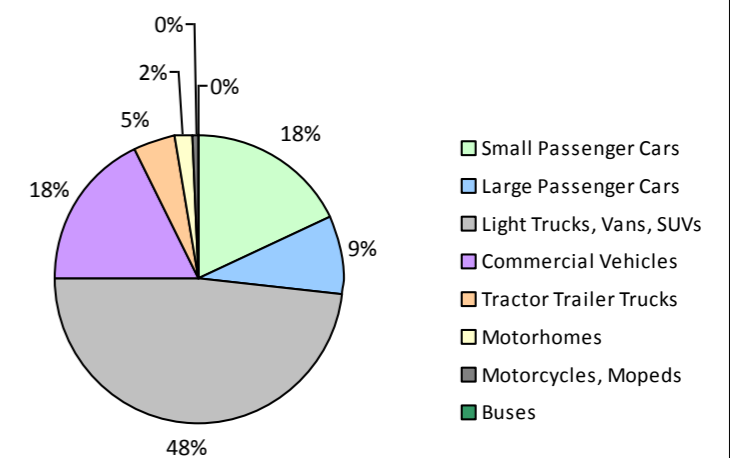
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



### 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			16,400	135	9	11	10,045 L	18,200	352	22
	Gasoline	3,217	4,413,705 L	15,200	154,481	10,552	3,313	4,613,292 L	15,700	161,465	10,409
	Diesel Fuel	239	401,529 L	26,200	15,378	1,096	241	385,522 L	24,400	14,765	1,022
Large Passenger Cars	Hybrid	18	20,775 L	21,600	727	49	44	51,700 L	21,200	1,809	115
	Gasoline	1,476	2,420,200 L	14,800	84,706	5,782	1,390	2,292,582 L	15,200	80,239	5,171
	Diesel Fuel	36	50,670 L	14,900	1,941	138	47	55,787 L	12,700	2,136	147
Light Trucks, Vans, SUVs	Hybrid			22,000	362	24	13	24,003 L	23,400	839	53
	Gasoline	4,970	11,356,257 L	16,700	397,469	27,316	5,450	12,774,203 L	17,500	447,097	29,079
	Diesel Fuel	352	740,905 L	12,000	28,377	2,017	267	614,733 L	14,200	23,544	1,627
	Other Fuel	42	81,595 L	11,800	2,065	125	27	49,722 L	10,700	1,259	76
Commercial Vehicles	Gasoline	452	1,206,749 L	16,400	42,237	2,835	515	1,393,667 L	17,200	48,779	3,117
	Diesel Fuel	687	2,299,044 L	19,000	88,054	6,186	847	3,102,599 L	21,100	118,828	8,100
	Other Fuel	32	67,371 L	12,300	1,704	104	24	48,341 L	11,700	1,224	75
Tractor Trailer Trucks	Diesel Fuel	91	1,218,235 L	31,900	46,659	3,278	83	1,140,223 L	30,900	43,672	2,978
Motorhomes	Gasoline	133	307,847 L	16,400	10,774	718	142	326,548 L	16,600	11,429	726
	Diesel Fuel	80	237,238 L	16,700	9,086	639	67	207,661 L	16,600	7,954	542
Motorcycles, Mopeds	Gasoline	323	71,216 L	5,300	2,493	166	394	101,622 L	6,000	3,558	224
Buses	Gasoline			17,500	520	34			16,700	688	44
	Diesel Fuel			21,100	402	29			19,900	532	36
<b>Totals</b>		<b>12,148</b>	<b>24,893,336 L</b>	<b>16,022</b>	<b>887,570</b>	<b>61,097</b>	<b>12,875</b>	<b>24,893,336 L</b>	<b>16,771</b>	<b>970,169</b>	<b>63,563</b>

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	260,095 GJ	260,095	5,270	N/A	251,781 GJ	251,781	5,101
	Heating Oil	N/A	216,892 GJ	216,892	15,289	N/A	209,960 GJ	209,960	14,359
	Propane	N/A	37,376 GJ	37,376	2,280	N/A	36,181 GJ	36,181	2,207
	Natural Gas	875	46,476 GJ	46,476	2,332	917	43,401 GJ	43,401	2,177
	Electricity	11,350	186,832,715 kWh	672,597	4,670	11,689	183,151,752 kWh	659,346	4,579
Commercial/Small-Medium Industrial	Natural Gas	84		0	0	77		0	0
	Electricity	993	46,931,965 kWh	168,955	1,173	1,070	47,008,264 kWh	169,230	1,175
<b>Totals</b>		<b>13,302</b>		<b>1,402,391</b>	<b>31,014</b>	<b>13,753</b>		<b>1,369,899</b>	<b>29,598</b>

## Comox Valley 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	14,559 t	N/A	14,947	0	15,843 t	N/A	16,379
<b>Totals</b>	<b>0</b>			<b>14,947</b>	<b>0</b>			<b>16,379</b>

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 22,857)			2010 (Population: 23,156)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	20,775 L	1,224	82	85,748 L	3,000	190
Gasoline	19,775,974 L	692,680	47,403	21,501,914 L	753,255	48,770
Diesel Fuel	4,947,621 L	189,897	13,383	5,506,525 L	211,431	14,452
Other Fuel	148,966 L	3,769	229	98,063 L	2,483	151
Wood	260,095 GJ	260,095	5,270	251,781 GJ	251,781	5,101
Heating Oil	216,892 GJ	216,892	15,289	209,960 GJ	209,960	14,359
Propane	37,376 GJ	37,376	2,280	36,181 GJ	36,181	2,207
Natural Gas	46,476 GJ	46,476	2,332	43,401 GJ	43,401	2,177
Electricity	233,764,680 kWh	841,552	5,843	230,160,016 kWh	828,576	5,754
Solid Waste	14,559 t	0	14,947	15,843 t	0	16,379
<b>Grand Totals</b>		<b>2,289,961</b>	<b>107,058</b>		<b>2,340,068</b>	<b>109,540</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	11,535	90	8,340	90	8,070	88
Semi-Detached House	85	1	105	1	310	3
Row House	30	0	25	0	35	0
Apartment, Duplex	145	1	55	1	85	1
Apartment, 5 storeys or higher	0	0	5	0	5	0
Apartment, under 5 storeys	85	1	70	1	105	1
Other Single Attached House	35	0	15	0	5	0
Movable Dwelling	855	7	640	7	585	6

#### 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	10,480	79	7,345	84	7,470	83
Car, Truck, Van as Passenger	1,050	8	570	7	615	7
Public Transit	190	1	20	0	100	1
Walked	645	5	360	4	270	3
Bicycle	315	2	215	2	215	2
Motorcycle	35	0	10	0	65	1
Taxicab	10	0	0	0	0	0
Other Method	530	4	250	3	245	3

#### 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	13,958	8
Local Parks	1,058	1
Agricultural Land Reserve	22,390	13
Other land use	129,472	78
Total Parks and Protected Area	15,015	9
Total Land Area	166,878	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	13,958	8
Local Parks	1,058	1
Agricultural Land Reserve	22,390	13
Other land use	129,472	78
Total Parks and Protected Area	15,015	9
Total Land Area	166,878	100

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

**Comox Valley 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,