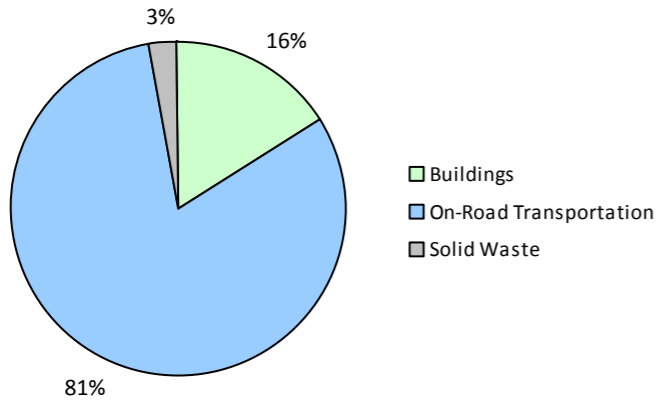


## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

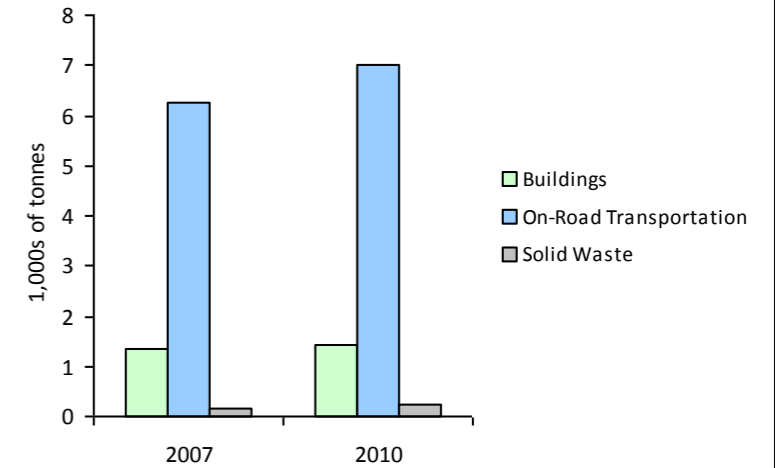
2010 GHG Emissions Sources (Total for this Community)



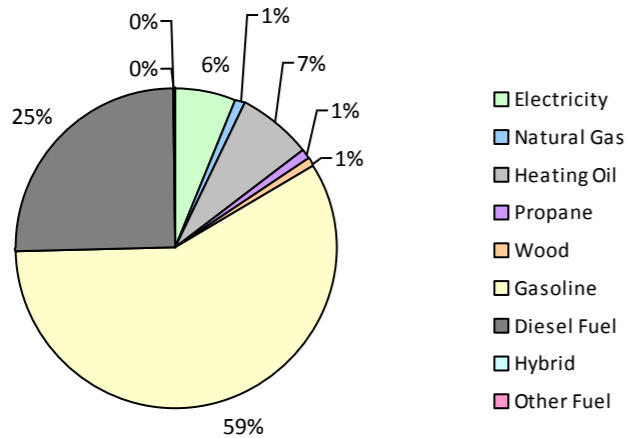
2010 GHG Emissions Sources (Total for BC)



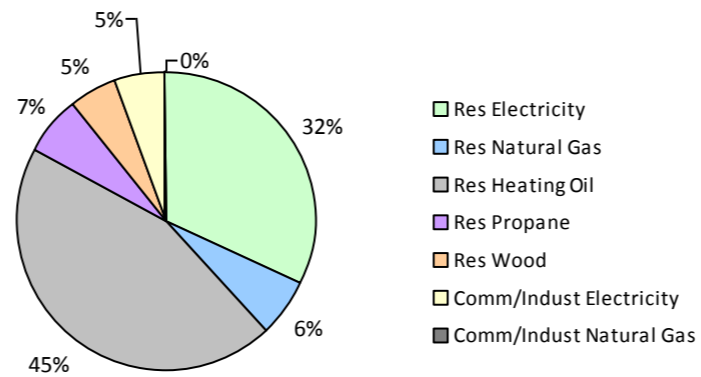
GHG Emissions Comparisons for this Community



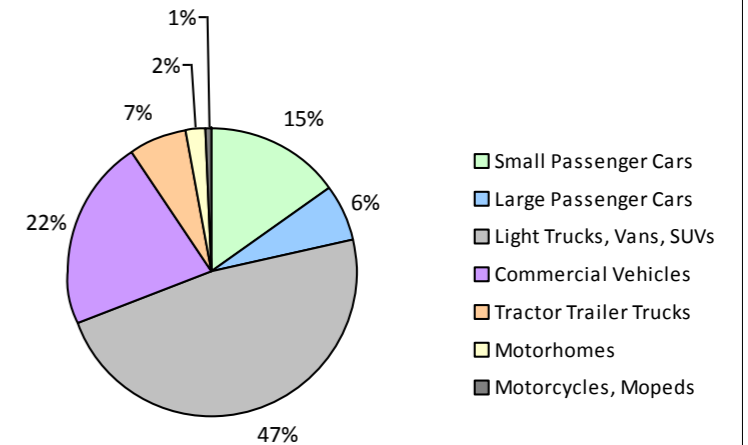
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



*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	Gasoline	381	428,427 L	11,800	14,995	1,026	410	449,919 L	11,600	15,747	1,015
	Diesel Fuel	18	19,486 L	16,300	746	53	23	20,758 L	13,700	795	56
Large Passenger Cars	Hybrid			12,700	78	4			16,800	114	8
	Gasoline	132	193,413 L	12,500	6,770	460	140	192,103 L	12,000	6,724	432
	Diesel Fuel			9,900	145	11		9,100	192	13	
Light Trucks, Vans, SUVs	Gasoline	589	1,137,744 L	13,800	39,821	2,722	713	1,333,452 L	13,400	46,670	3,028
	Diesel Fuel	44	94,981 L	12,600	3,637	258	42	101,114 L	14,700	3,872	267
	Other Fuel			9,300	118	7		7,900	102	6	
Commercial Vehicles	Gasoline	50	116,655 L	13,900	4,083	274	52	118,125 L	13,600	4,134	265
	Diesel Fuel	85	308,012 L	19,500	11,797	828	119	472,580 L	21,300	18,101	1,233
	Other Fuel			9,100	171	10		10,500	149	8	
Tractor Trailer Trucks	Diesel Fuel	18	158,826 L	21,300	6,082	428	18	179,560 L	24,200	6,877	468
Motorhomes	Gasoline			16,800	476	32	13	27,920 L	15,700	977	62
	Diesel Fuel	15	44,010 L	16,500	1,687	118	13	36,535 L	15,900	1,400	95
Motorcycles, Mopeds	Gasoline	49	11,920 L	5,700	417	28	69	18,237 L	6,200	638	41
Buses	Gasoline			11,900	124	9					
<b>Totals</b>		<b>1,381</b>	<b>2,513,474 L</b>	<b>13,312</b>	<b>91,147</b>	<b>6,268</b>	<b>1,612</b>	<b>2,513,474 L</b>	<b>13,300</b>	<b>106,492</b>	<b>6,997</b>

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	3,637 GJ	3,637	74	N/A	3,520 GJ	3,520	71
	Heating Oil	N/A	9,468 GJ	9,468	667	N/A	9,165 GJ	9,165	627
	Propane	N/A	1,633 GJ	1,633	100	N/A	1,581 GJ	1,581	96
	Natural Gas	5	70 GJ	70	4	45	1,700 GJ	1,700	85
	Electricity	805	17,534,300 kWh	63,123	438	893	18,143,672 kWh	65,317	454
Commercial/Small-Medium Industrial	Natural Gas					1	0	0	0
	Electricity	73	2,643,853 kWh	9,518	66	83	3,060,893 kWh	11,019	77
<b>Totals</b>		<b>883</b>		<b>87,449</b>	<b>1,349</b>	<b>1,022</b>		<b>92,302</b>	<b>1,410</b>

## Highlands District Municipality 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)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste      Solid Waste	0	214 t	N/A	143	0	266 t	N/A	235
<b>Totals</b>	<b>0</b>			<b>143</b>	<b>0</b>			<b>235</b>

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 2,036)			2010 (Population: 2,257)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	78	4	0 L	114	8
Gasoline	1,888,159 L	66,686	4,551	2,139,756 L	74,890	4,843
Diesel Fuel	625,315 L	24,094	1,696	810,547 L	31,237	2,132
Other Fuel	0 L	289	17	0 L	251	14
Wood	3,637 GJ	3,637	74	3,520 GJ	3,520	71
Heating Oil	9,468 GJ	9,468	667	9,165 GJ	9,165	627
Propane	1,633 GJ	1,633	100	1,581 GJ	1,581	96
Natural Gas	70 GJ	70	4	1,700 GJ	1,700	85
Electricity	20,178,153 kWh	72,641	504	21,204,565 kWh	76,336	531
Solid Waste	214 t	0	143	266 t	0	235
<b>Grand Totals</b>		<b>178,596</b>	<b>7,760</b>		<b>198,794</b>	<b>8,642</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	420	46	560	94	655	93
Semi-Detached House	15	2	10	2	5	1
Row House	0	0	0	0	0	0
Apartment, Duplex	35	4	15	3	35	5
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	0	0	0	0	5	1
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	20	2	10	2	5	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	715	88	850	89	745	83
Car, Truck, Van as Passenger	55	7	55	6	70	8
Public Transit	10	1	20	2	15	2
Walked	10	1	0	0	35	4
Bicycle	10	1	25	3	20	2
Motorcycle	10	1	0	0	15	2
Taxicab	0	0	0	0	0	0
Other Method	0	0	10	1	0	0

#### 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	720	19
Local Parks	531	14
Agricultural Land Reserve	0	0
Other land use	2,595	67
Total Parks and Protected Area	1,251	33
Total Land Area	3,846	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	720	19
Local Parks	531	14
Agricultural Land Reserve	0	0
Other land use	2,595	67
Total Parks and Protected Area	1,251	33
Total Land Area	3,846	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	75	10
5 to 9.9 km	230	29
25 km or more	10	1
15 to 24.9 km	135	17
10 to 14.9 km	335	43

**Highlands District Municipality**  
**2010 Community Energy and Emissions Inventory**  
*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

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

**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,