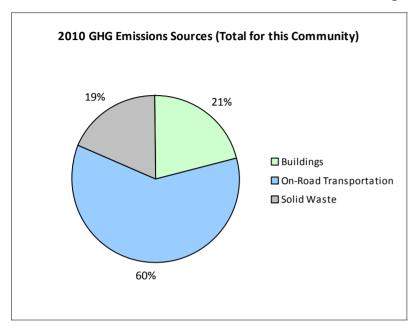
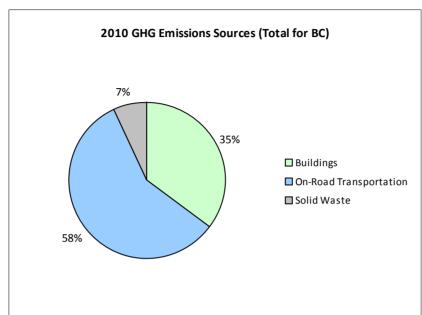
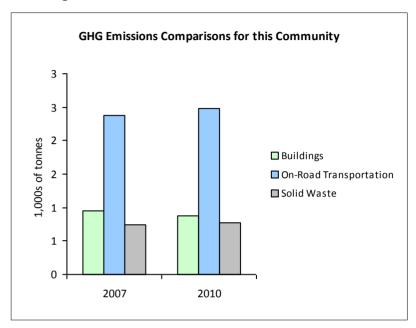


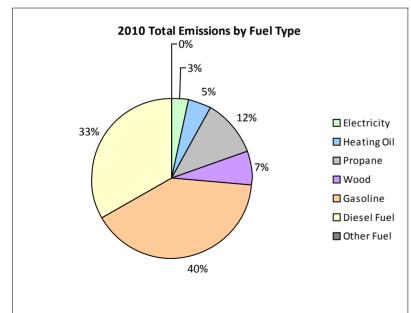
## **2010 Community Energy and Emissions Inventory**

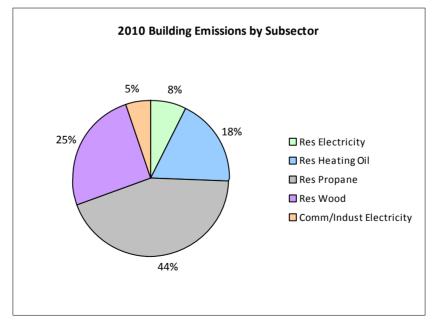
## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

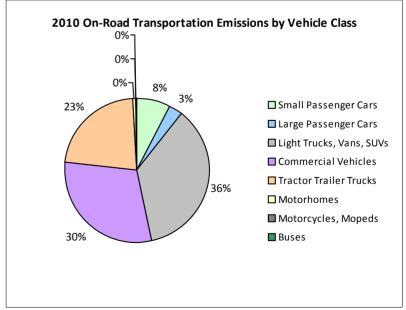














# 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

# **Core Items**

				2007					2010		
On-Road Transportation		Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Gasoline	55	83,314 L	16,200	2,917	198	48	79,059 L	17,800	2,766	176
	Diesel Fuel			26,800	293	21			26,900	207	14
Large Passenger Cars	Gasoline	19	37,608 L	17,400	1,316	90	16	31,535 L	17,300	1,104	71
	Diesel Fuel			14,800	112	7			8,600	62	4
Light Trucks, Vans, SUVs	Gasoline	154	382,153 L	17,100	13,376	917	152	375,562 L	17,100	13,144	852
	Diesel Fuel			13,000	702	51			13,300	522	36
	Other Fuel			11,800	51	2					
Commercial Vehicles	Gasoline	21	61,487 L	17,100	2,152	144	35	113,904 L	19,000	3,986	255
	Diesel Fuel	36	142,899 L	22,600	5,473	384	41	187,634 L	25,900	7,186	490
Tractor Trailer Trucks	Diesel Fuel	18	188,437 L	26,000	7,218	507	19	214,247 L	30,200	8,206	559
Motorhomes	Gasoline			17,700	252	16					
	Diesel Fuel			19,100	424	30			16,200	117	7
	Other Fuel								17,700	74	4
Motorcycles, Mopeds	Gasoline			6,500	27	2			5,000	20	0
Buses	Diesel Fuel			12,200	133	9			10,100	109	7
Totals		303	895,898 L	18,138	34,446	2,378	311	895,898 L	19,393	37,503	2,475

			2	007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	11,812 GJ	11,812	239	N/A	11,012 GJ	11,012	223
	Heating Oil	N/A	2,493 GJ	2,493	176	N/A	2,324 GJ	2,324	159
	Propane	N/A	6,802 GJ	6,802	415	N/A	6,341 GJ	6,341	387
	Electricity	255	2,999,908 kWh	10,800	75	253	2,660,371 kWh	9,577	67
Commercial/Small-Medium Industrial	Electricity	61	1,629,956 kWh	5,868	41	61	1,859,972 kWh	6,696	47
Totals		316		37,775	946	314		35,950	883

# 2010 Community Energy and Emissions Inventory

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

				2007				2010	
Solid Waste		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	337 t	N/A	743	0	367 t	N/A	774
Totals		0			743	0			774

# **Totals for Transportation, Buildings and Solid Waste**

	2007 (Pd	opulation: 450)	2010 (Population: 456)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Gasoline	564,562 L	20,040	1,367	600,060 L	21,020	1,354
Diesel Fuel	331,336 L	14,355	1,009	401,881 L	16,409	1,117
Other Fuel	0 L	51	2	0 L	74	4
Wood	11,812 GJ	11,812	239	11,012 GJ	11,012	223
Heating Oil	2,493 GJ	2,493	176	2,324 GJ	2,324	159
Propane	6,802 GJ	6,802	415	6,341 GJ	6,341	387
Electricity	4,629,864 kWh	16,668	116	4,520,343 kWh	16,273	114
Solid Waste	337 t	0	743	367 t	0	774
<b>Grand Totals</b>		72,221	4,067		73,453	4,132

Page 4 of 6 February 20, 2014

## **2010 Community Energy and Emissions Inventory**

## 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	160	42	190	88	165	80
Semi-Detached House	0	0	5	2	5	2
Row House	0	0	0	0	0	0
Apartment, Duplex	30	8	5	2	15	7
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	20	5	5	2	15	7
Other Single Attached House	0	0	5	2	0	0
Movable Dwelling	10	3	5	2	5	2

### **Parks and Protected Greenspace**

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

	200	9
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	0	0
Agricultural Land Reserve	250	19
Other land use	1,037	81
Total Parks and Protected Area	0	0
Total Land Area	1,287	100

<sup>\*</sup> Total is net of Indian Reserves

### 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	175	65	135	56	110	55
Car, Truck, Van as Passenger	50	19	40	17	40	20
Public Transit	0	0	0	0	0	0
Walked	45	17	35	15	30	15
Bicycle	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	30	13	20	10

### **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	9
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	0	0
Agricultural Land Reserve	250	19
Other land use	1,037	81
Total Parks and Protected Area	0	0
Total Land Area	1,287	100

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

<sup>\*\*</sup> Quantity of parkland may be underestimated

Page 5 of 6 February 20, 2014

# 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

This page intentionally left blank

Page 6 of 6 February 20, 2014

## 2010 Community Energy and Emissions Inventory

### 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

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) <a href="http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm">http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm</a>, and on the <a href="http://toolkit.bc.ca">http://toolkit.bc.ca</a> 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.

Page 7 of 6 February 20, 2014

## 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

## 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 (<a href="http://www.toolkit.bc.ca">http://www.toolkit.bc.ca</a>), 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: <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> For guidance on target setting and community actions, go to <a href="http://www.toolkit.bc.ca">http://www.toolkit.bc.ca</a> and <a href="http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm">http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm</a>

#### We Need Your Feedback

To continue to guide us on CEEI, please take the time to contact us directly at <a href="mailto:CEEIRPT@gov.bc.ca">CEEIRPT@gov.bc.ca</a>

#### 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,