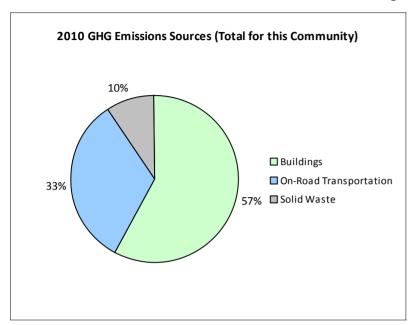
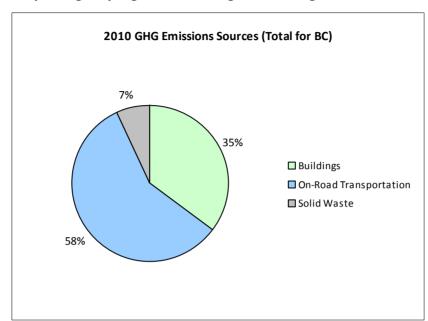
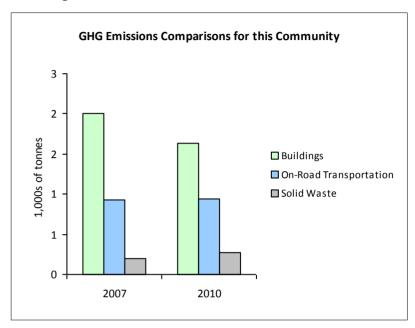


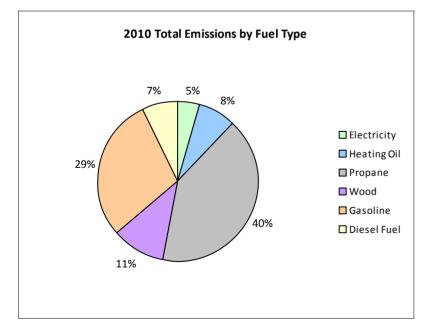
## **2010 Community Energy and Emissions Inventory**

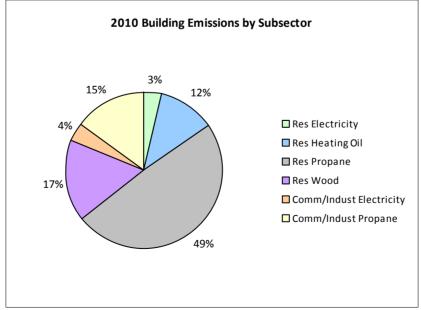
### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

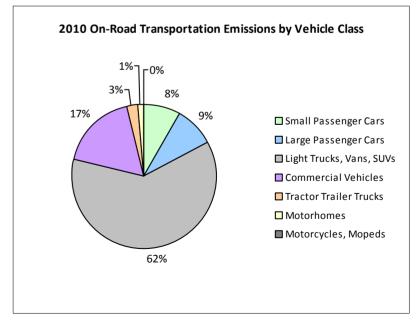














# 2010 Community Energy and Emissions Inventory

## 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	31	49,110 L	17,100	1,718	116	23	31,786 L	14,600	1,113	71
	Diesel Fuel			20,800	56	4			18,100	96	8
Large Passenger Cars	Gasoline	19	40,938 L	19,500	1,433	96	19	38,024 L	17,900	1,331	85
Light Trucks, Vans, SUVs	Gasoline	80	215,028 L	18,500	7,526	509	87	232,165 L	18,200	8,126	524
	Diesel Fuel	10	20,084 L	11,300	769	55			16,300	747	52
Commercial Vehicles	Gasoline			18,400	995	66	10	28,352 L	16,700	992	63
	Diesel Fuel			18,900	1,142	80	14	37,850 L	15,800	1,449	98
Tractor Trailer Trucks	Diesel Fuel								27,900	374	25
Motorhomes	Gasoline			17,400	87	6			19,600	202	12
Motorcycles, Mopeds	Gasoline								6,000	19	0
Totals		140	325,160 L	17,811	13,726	932	153	325,160 L	17,304	14,449	938

			2	2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	14,542 GJ	14,542	295	N/A	13,556 GJ	13,556	275
	Heating Oil	N/A	3,051 GJ	3,051	215	N/A	2,845 GJ	2,845	195
	Propane	148	16,167 GJ	16,167	986	148	13,047 GJ	13,047	796
	Electricity	263	2,516,254 kWh	9,059	63	267	2,274,040 kWh	8,187	57
Commercial/Small-Medium Industrial	Propane	11	6,214 GJ	6,214	379	11	3,976 GJ	3,976	243
	Electricity	44	2,799,655 kWh	10,079	70	46	2,599,152 kWh	9,357	65
Totals		466		59,112	2,008	472		50,968	1,631

				2007				2010	
Solid Waste		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	378 t	N/A	203	0	408 t	N/A	270
Totals		0			203	0			270

# **2010 Community Energy and Emissions Inventory**

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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

	2007 (Pd	opulation: 377)	2010 (Population: 396)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Gasoline	305,076 L	11,759	793	330,327 L	11,783	755
Diesel Fuel	20,084 L	1,967	139	37,850 L	2,666	183
Wood	14,542 GJ	14,542	295	13,556 GJ	13,556	275
Heating Oil	3,051 GJ	3,051	215	2,845 GJ	2,845	195
Propane	22,381 GJ	22,381	1,365	17,023 GJ	17,023	1,039
Electricity	5,315,909 kWh	19,138	133	4,873,192 kWh	17,544	122
Solid Waste	378 t	0	203	408 t	0	270
<b>Grand Totals</b>		72,838	3,143		65,417	2,839

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### **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	L	2006		
	Units	%	Units	%	Units	%	
Single Detached House	145	41	140	74	150	79	
Semi-Detached House	0	0	0	0	0	0	
Row House	10	3	20	11	20	11	
Apartment, Duplex	0	0	0	0	0	0	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	30	9	15	8	10	5	
Other Single Attached House	0	0	0	0	0	0	
Movable Dwelling	20	6	15	8	10	5	

### **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	1	0
Agricultural Land Reserve	0	0
Other land use	8,246	100
Total Parks and Protected Area	1	0
Total Land Area	8,247	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	80	62	75	71	75	75
Car, Truck, Van as Passenger	25	19	10	10	10	10
Public Transit	0	0	0	0	0	0
Walked	25	19	20	19	15	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	0	0	0	0

### **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	1	0
Agricultural Land Reserve	0	0
Other land use	8,246	100
Total Parks and Protected Area	1	0
Total Land Area	8,247	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

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# 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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### 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.

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### **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,