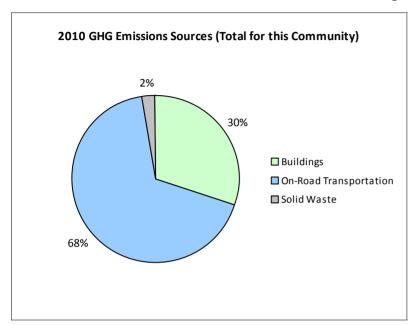
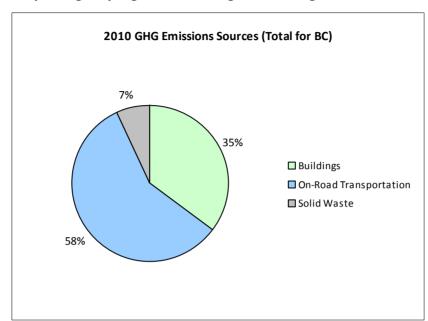
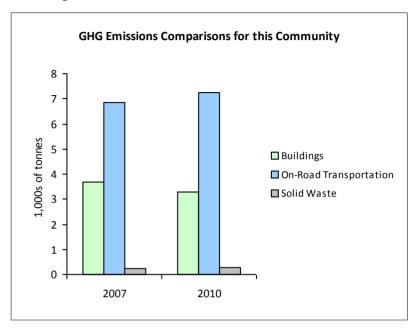


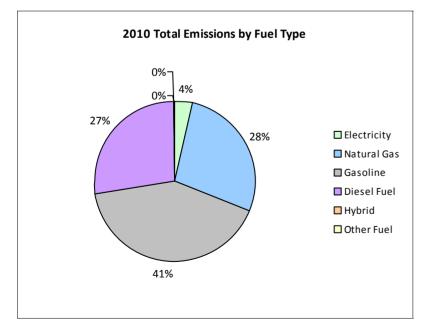
### **2010 Community Energy and Emissions Inventory**

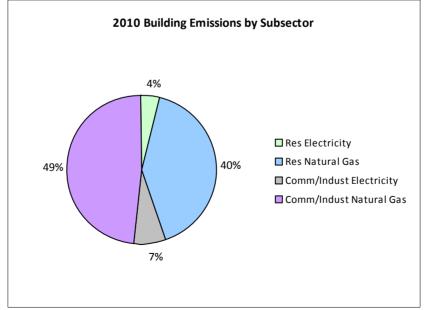
### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

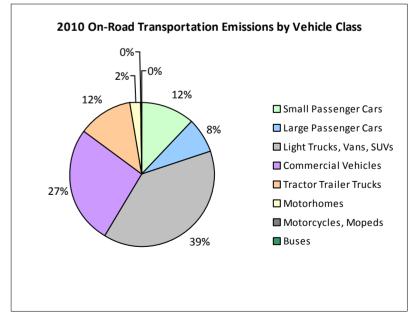














# 2010 Community Energy and Emissions Inventory

### 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	Hybrid								18,900	32	2
	Gasoline	241	373,862 L	16,500	13,084	884	242	373,647 L	16,400	13,077	836
	Diesel Fuel	10	17,680 L	26,700	678	48	10	16,344 L	24,900	626	44
Large Passenger Cars	Hybrid								19,200	41	4
	Gasoline	150	274,147 L	16,100	9,595	648	132	244,908 L	16,500	8,572	549
	Diesel Fuel			8,100	64	4			18,400	193	13
Light Trucks, Vans, SUVs	Hybrid			20,300	56	4			19,000	51	4
	Gasoline	402	1,037,457 L	17,700	36,311	2,482	443	1,119,802 L	17,400	39,193	2,543
	Diesel Fuel	33	87,231 L	14,800	3,341	237	28	81,177 L	17,200	3,109	215
	Other Fuel			11,200	388	23			9,900	344	21
Commercial Vehicles	Gasoline	41	116,529 L	16,800	4,078	274	51	138,540 L	16,000	4,849	309
	Diesel Fuel	106	449,697 L	23,700	17,223	1,210	136	625,436 L	26,000	23,954	1,632
	Other Fuel			12,200	174	10			18,800	88	5
Tractor Trailer Trucks	Gasoline			11,300	117	8					
	Diesel Fuel	21	306,562 L	33,000	11,741	824	22	337,073 L	34,800	12,909	879
Motorhomes	Gasoline	12	32,884 L	18,900	1,150	77	15	41,951 L	19,200	1,469	93
	Diesel Fuel	12	44,908 L	19,600	1,719	120			19,600	921	63
Motorcycles, Mopeds	Gasoline	15	4,097 L	5,900	143	9	26	7,510 L	6,200	262	16
Buses	Gasoline			19,900	115	8			14,400	163	10
Totals		1,043	2,745,054 L	17,936	99,977	6,870	1,105	2,745,054 L	18,237	109,853	7,238

			2	2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Natural Gas	399	28,807 GJ	28,807	1,445	401	26,182 GJ	26,182	1,313
	Electricity	573	5,496,627 kWh	19,788	137	572	5,508,605 kWh	19,831	138
Commercial/Small-Medium Industrial	Natural Gas	78	36,715 GJ	36,715	1,842	68	31,677 GJ	31,677	1,589
	Electricity	201	10,511,859 kWh	37,843	263	184	9,233,962 kWh	33,242	231
Totals		1,251		123,153	3,687	1,225		110,932	3,271



# 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	1,129 t	N/A	239	0	901 t	N/A	265
Totals		0			239	0			265

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

	2007 (Po	pulation: 1,058)	2010 (Population: 1,085)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	56	4	0 L	124	10
Gasoline	1,838,976 L	64,593	4,390	1,926,358 L	67,585	4,356
Diesel Fuel	906,078 L	34,766	2,443	1,060,030 L	41,712	2,846
Other Fuel	0 L	562	33	0 L	432	26
Natural Gas	65,522 GJ	65,522	3,287	57,859 GJ	57,859	2,902
Electricity	16,008,486 kWh	57,631	400	14,742,567 kWh	53,073	369
Solid Waste	1,129 t	0	239	901 t	0	265
Grand Totals		223,130	10,796		220,785	10,774

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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		2006	
	Units	%	Units	%	Units	%
Single Detached House	280	39	255	57	255	56
Semi-Detached House	55	8	15	3	30	7
Row House	15	2	10	2	10	2
Apartment, Duplex	20	3	5	1	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	30	4	35	8	55	12
Other Single Attached House	0	0	10	2	0	0
Movable Dwelling	45	6	120	27	105	23

#### **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	4	0
Agricultural Land Reserve	139	13
Other land use	934	87
Total Parks and Protected Area	4	0
Total Land Area	1,077	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	2001		5
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	330	63	265	65	305	70
Car, Truck, Van as Passenger	75	14	15	4	40	9
Public Transit	0	0	0	0	0	0
Walked	100	19	120	29	80	18
Bicycle	10	2	0	0	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	2	10	2	10	2

#### **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	4	0
Agricultural Land Reserve	139	13
Other land use	934	87
Total Parks and Protected Area	4	0
Total Land Area	1,077	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,