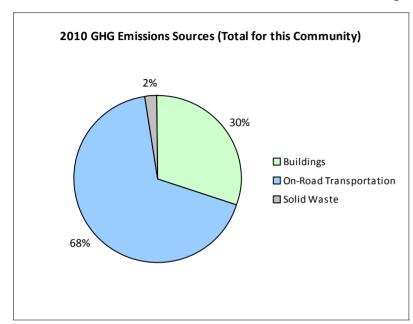
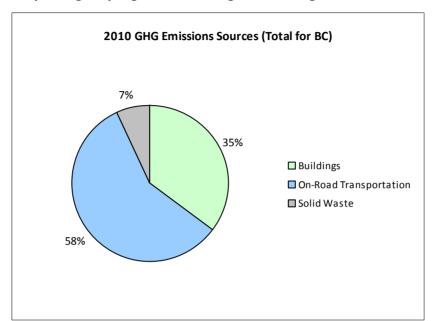
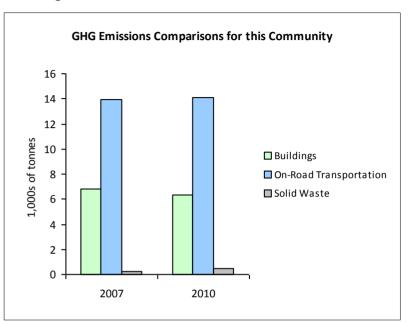


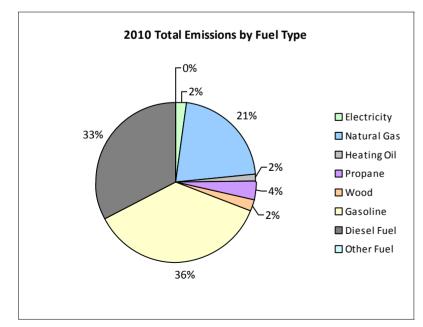
### **2010 Community Energy and Emissions Inventory**

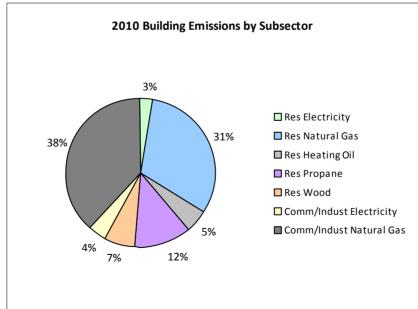
### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

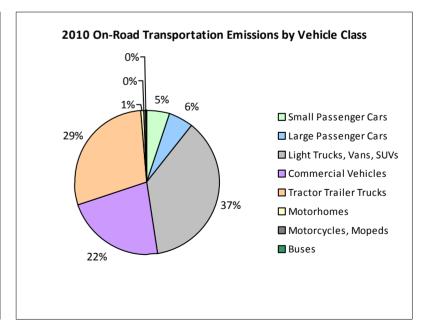














### 2010 Community Energy and Emissions Inventory

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	199	407,296 L	22,100	14,256	955	184	327,033 L	19,100	11,446	729
	Diesel Fuel			30,000	622	44			21,600	339	23
Large Passenger Cars	Hybrid			29,300	51	4					
	Gasoline	137	357,086 L	23,500	12,498	838	142	351,233 L	22,200	12,294	782
	Diesel Fuel			14,800	102	7			17,000	112	8
Light Trucks, Vans, SUVs	Gasoline	640	2,235,458 L	23,600	78,241	5,300	690	2,209,686 L	21,800	77,339	4,986
	Diesel Fuel	31	80,985 L	14,600	3,102	221	21	61,915 L	16,600	2,371	164
	Other Fuel			12,600	207	12			11,300	141	9
Commercial Vehicles	Gasoline	74	273,103 L	21,600	9,558	642	108	378,249 L	20,600	13,239	847
	Diesel Fuel	145	656,626 L	25,700	25,148	1,768	178	875,552 L	28,100	33,533	2,286
	Other Fuel			10,300	101	7			10,300	103	6
Tractor Trailer Trucks	Gasoline			10,900	107	8			10,000	94	5
	Diesel Fuel	49	1,470,143 L	69,200	56,307	3,956	50	1,555,741 L	70,700	59,585	4,063
Motorhomes	Gasoline			20,600	840	56			20,700	753	48
	Diesel Fuel			20,300	889	63			18,500	1,245	84
Motorcycles, Mopeds	Gasoline						10	3,169 L	6,800	111	8
Buses	Gasoline			19,100	218	14			21,300	470	29
	Diesel Fuel			22,300	218	15			21,600	387	26
Totals		1,275	5,480,697 L	25,012	202,465	13,910	1,383	5,480,697 L	23,779	213,562	14,103

			2	2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	23,016 GJ	23,016	466	N/A	21,456 GJ	21,456	435
	Heating Oil	N/A	4,832 GJ	4,832	341	N/A	4,504 GJ	4,504	308
	Propane	N/A	13,123 GJ	13,123	801	N/A	12,234 GJ	12,234	746
	Natural Gas	509	43,500 GJ	43,500	2,182	509	38,818 GJ	38,818	1,947
	Electricity	773	7,838,820 kWh	28,220	196	780	7,690,642 kWh	27,686	192
Commercial/Small-Medium Industrial	Natural Gas	140	49,759 GJ	49,759	2,496	140	48,408 GJ	48,408	2,428
	Electricity	229	13,181,934 kWh	47,455	330	225	9,670,133 kWh	34,812	242
Totals		1,651		209,905	6,812	1,654		187,918	6,298



### **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	1,454 t	N/A	210	0	1,703 t	N/A	446
Totals		0			210	0			446

### **Memo Items**

				2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Natural Gas	3	296,814 GJ	296,814	14,888	2		0	0
	Electricity	3		0	0	2		0	0
Totals		6		296,814	14,888	4			0

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

	2007 (Po	pulation: 1,362)		2010 (Population: 1,295)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)	
Hybrid	0 L	51	4	0 L	0		
Gasoline	3,272,943 L	115,718	7,813	3,269,370 L	115,746	7,434	
Diesel Fuel	2,207,754 L	86,388	6,074	2,493,208 L	97,572	6,654	
Other Fuel	0 L	308	19	0 L	244	15	
Wood	23,016 GJ	23,016	466	21,456 GJ	21,456	435	
Heating Oil	4,832 GJ	4,832	341	4,504 GJ	4,504	308	
Propane	13,123 GJ	13,123	801	12,234 GJ	12,234	746	
Natural Gas	93,259 GJ	93,259	4,678	87,226 GJ	87,226	4,375	
Electricity	21,020,754 kWh	75,675	526	17,360,775 kWh	62,498	434	
Solid Waste	1,454 t	0	210	1,703 t	0	446	
Grand Totals		412,370	20,932		401,480	20,847	

### 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	455	39	450	62	395	72
Semi-Detached House	10	1	20	3	5	1
Row House	45	4	55	8	25	5
Apartment, Duplex	10	1	10	1	5	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	125	11	105	14	85	16
Other Single Attached House	0	0	5	1	5	1
Movable Dwelling	65	6	80	11	25	5

### **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	0	0	
Local Parks	7	0	
Agricultural Land Reserve	21	1	
Other land use	2,383	99	
Total Parks and Protected Area	7	0	
Total Land Area	2,410	100	

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

### Commute to Work - Employed labour force - by mode of commute

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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	790	75	760	79	510	78
Car, Truck, Van as Passenger	80	8	105	11	55	8
Public Transit	0	0	0	0	0	0
Walked	150	14	90	9	70	11
Bicycle	25	2	0	0	10	2
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	10	1	0	0
Other Method	10	1	0	0	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	)
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	7	0
Agricultural Land Reserve	21	1
Other land use	2,383	99
Total Parks and Protected Area	7	0
Total Land Area	2,410	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**

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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

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.



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

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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### 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,