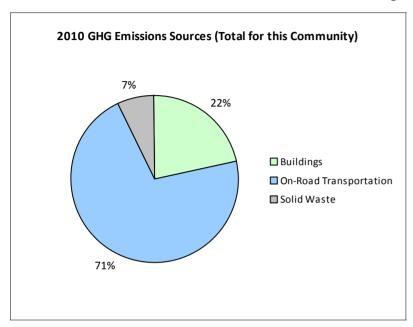
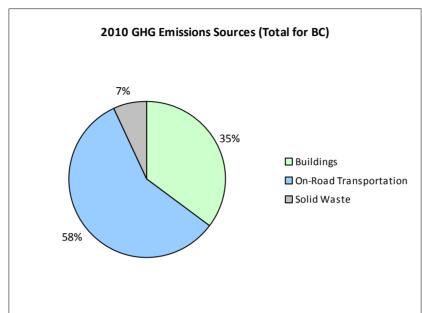
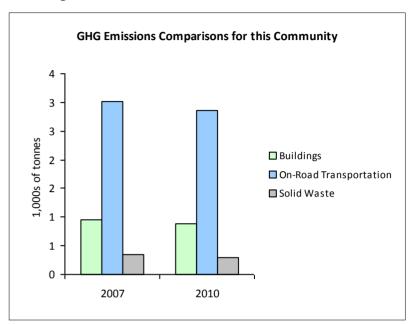


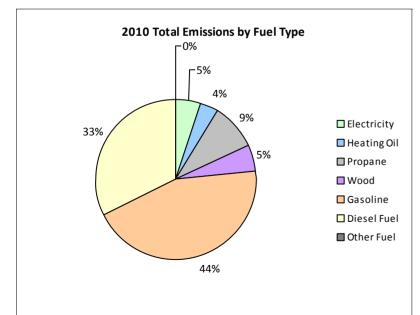
## **2010 Community Energy and Emissions Inventory**

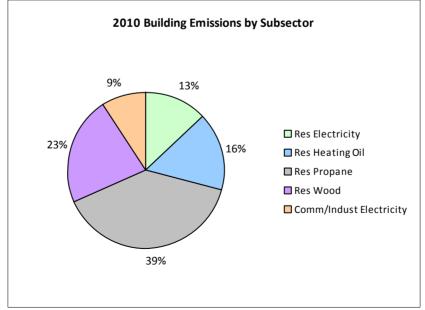
## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

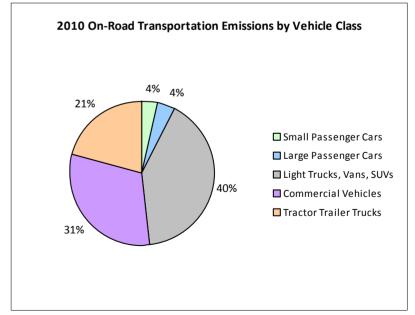














# 2010 Community Energy and Emissions Inventory

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	46,777 L	16,000	1,637	111	27	41,077 L	16,200	1,438	92
	Diesel Fuel			15,700	81	7			21,400	171	12
Large Passenger Cars	Gasoline	25	51,422 L	18,100	1,800	122	23	50,277 L	19,000	1,760	112
Light Trucks, Vans, SUVs	Gasoline	186	472,057 L	17,200	16,523	1,131	193	506,009 L	18,000	17,711	1,150
	Diesel Fuel	11	23,788 L	12,100	911	65			15,400	214	15
	Other Fuel			10,700	48	3			7,000	30	3
Commercial Vehicles	Gasoline	41	127,362 L	18,200	4,458	298	40	128,830 L	18,800	4,510	288
	Diesel Fuel	50	182,929 L	20,200	7,006	493	51	226,324 L	25,000	8,668	591
Tractor Trailer Trucks	Diesel Fuel	15	272,594 L	41,300	10,440	734	15	229,426 L	35,700	8,788	598
Motorhomes	Gasoline			19,800	199	12					
Motorcycles, Mopeds	Gasoline			5,300	33	2					
Buses	Gasoline			17,900	197	14					
	Diesel Fuel			27,700	273	20					
Totals		359	1,176,929 L	18,542	43,606	3,012	349	1,176,929 L	19,802	43,290	2,861

			20	007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	10,554 GJ	10,554	214	N/A	9,839 GJ	9,839	199
	Heating Oil	N/A	2,223 GJ	2,223	157	N/A	2,073 GJ	2,073	142
	Propane	N/A	6,057 GJ	6,057	370	N/A	5,647 GJ	5,647	345
	Electricity	319	4,935,730 kWh	17,769	123	310	4,553,242 kWh	16,392	114
Commercial/Small-Medium Industrial	Electricity	95	3,511,852 kWh	12,643	88	92	3,187,778 kWh	11,476	80
Totals		414		49,246	952	402		45,427	880

				2007				2010	
Solid Waste		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	223 t	N/A	344	0	266 t	N/A	293
Totals		0			344	0			293

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# **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: 482)	2010 (Population: 495)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Gasoline	697,618 L	24,847	1,690	726,193 L	25,419	1,642
Diesel Fuel	479,311 L	18,711	1,319	455,750 L	17,841	1,216
Other Fuel	0 L	48	3	0 L	30	3
Wood	10,554 GJ	10,554	214	9,839 GJ	9,839	199
Heating Oil	2,223 GJ	2,223	157	2,073 GJ	2,073	142
Propane	6,057 GJ	6,057	370	5,647 GJ	5,647	345
Electricity	8,447,582 kWh	30,412	211	7,741,020 kWh	27,868	194
Solid Waste	223 t	0	344	266 t	0	293
<b>Grand Totals</b>		92,852	4,308		88,717	4,034

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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	220	42	245	94	180	78
Semi-Detached House	0	0	5	2	5	2
Row House	10	2	0	0	5	2
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	5	2
Apartment, under 5 storeys	20	4	10	4	10	4
Other Single Attached House	0	0	0	0	5	2
Movable Dwelling	60	11	0	0	20	9

### **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	5	0
Agricultural Land Reserve	0	0
Other land use	56,158	100
Total Parks and Protected Area	5	0
Total Land Area	56,163	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	225	63	195	67	155	57
Car, Truck, Van as Passenger	25	7	30	10	0	0
Public Transit	0	0	0	0	0	0
Walked	70	19	65	22	85	31
Bicycle	30	8	0	0	15	6
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	3	0	0	15	6

### **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	5	0
Agricultural Land Reserve	0	0
Other land use	56,158	100
Total Parks and Protected Area	5	0
Total Land Area	56,163	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.



## 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,