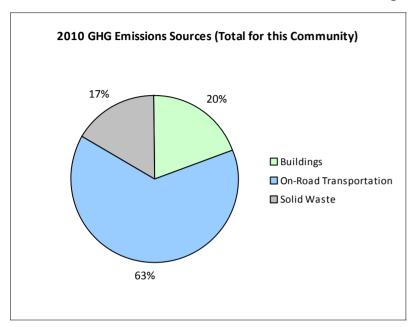
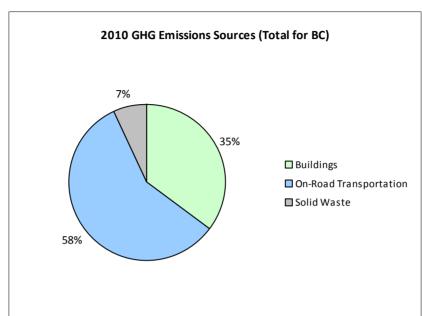
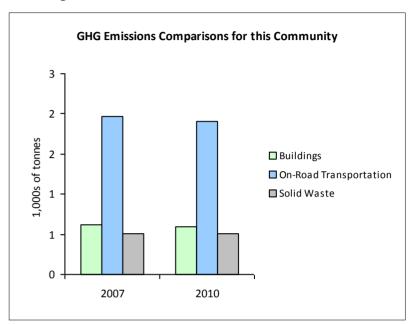


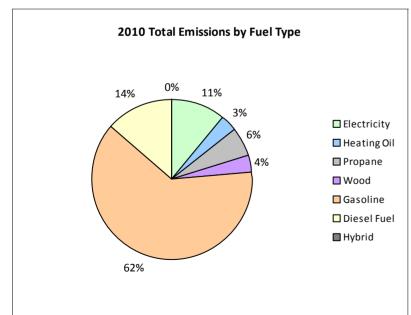
## **2010 Community Energy and Emissions Inventory**

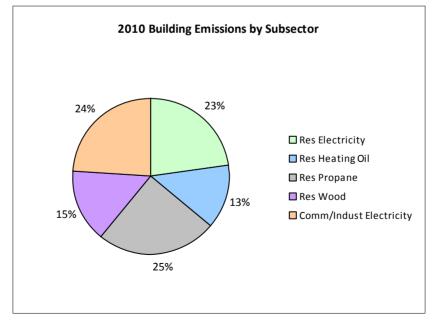
## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

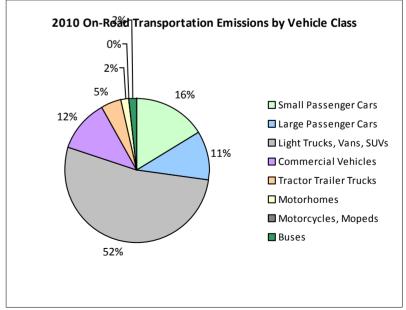














# 2010 Community Energy and Emissions Inventory

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	115	130,846 L	11,900	4,580	314	118	132,900 L	11,800	4,651	300
	Diesel Fuel			12,500	106	8			18,400	201	13
Large Passenger Cars	Hybrid								12,800	23	1
	Gasoline	76	101,716 L	11,400	3,561	243	69	88,990 L	11,100	3,114	202
Light Trucks, Vans, SUVs	Gasoline	187	421,238 L	15,400	14,743	1,015	178	430,079 L	16,900	15,052	974
	Diesel Fuel			12,600	424	31			16,100	487	34
	Other Fuel			10,300	86	6					
Commercial Vehicles	Gasoline	11	29,289 L	15,900	1,026	69	13	33,624 L	15,200	1,176	74
	Diesel Fuel	14	42,224 L	15,900	1,617	114	15	58,517 L	21,600	2,240	153
Tractor Trailer Trucks	Diesel Fuel			12,800	1,699	119			13,600	1,310	89
Motorhomes	Gasoline			20,800	192	12			18,500	176	12
	Diesel Fuel			15,500	307	21			21,200	286	20
Motorcycles, Mopeds	Gasoline			2,700	32	3			3,600	46	3
Buses	Diesel Fuel			10,500	103	7			21,800	448	30
	Other Fuel			12,400	68	4					
Totals		403	725,313 L	13,678	28,544	1,966	393	725,313 L	14,474	29,210	1,905

			200	7			2	2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	4,604 GJ	4,604	93	N/A	4,457 GJ	4,457	90
	Heating Oil	N/A	1,184 GJ	1,184	83	N/A	1,146 GJ	1,146	78
	Propane	N/A	2,497 GJ	2,497	152	N/A	2,418 GJ	2,418	148
	Electricity	392	5,771,620 kWh	20,778	144	397	5,466,438 kWh	19,679	137
Commercial/Small-Medium Industrial	Electricity	76	6,061,302 kWh	21,821	152	77	5,719,275 kWh	20,589	143
Totals		468		50,884	624	474		48,289	596



# **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	401 t	N/A	510	0	359 t	N/A	505
Totals		0			510	0			505

## **Memo Items**

			20	007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Electricity	1		0	0	1		0	0
Totals		1			0	1			0

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

	2007 (Pd	opulation: 814)	2010 (Population: 828)				
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)	
Hybrid	0 L	0		0 L	23	1	
Gasoline	683,089 L	24,134	1,656	685,593 L	24,215	1,565	
Diesel Fuel	42,224 L	4,256	300	58,517 L	4,972	339	
Other Fuel	0 L	154	10	0 L	0		
Wood	4,604 GJ	4,604	93	4,457 GJ	4,457	90	
Heating Oil	1,184 GJ	1,184	83	1,146 GJ	1,146	78	
Propane	2,497 GJ	2,497	152	2,418 GJ	2,418	148	
Electricity	11,832,922 kWh	42,599	296	11,185,713 kWh	40,268	280	
Solid Waste	401 t	0	510	359 t	0	505	
<b>Grand Totals</b>		79,428	3,100		77,499	3,006	

### 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	240	45	290	88	250	72
Semi-Detached House	0	0	10	3	0	0
Row House	25	5	20	6	0	0
Apartment, Duplex	0	0	5	2	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	0	0	0	0	0	0
Other Single Attached House	0	0	0	0	5	1
Movable Dwelling	30	6	5	2	90	26

#### **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	0	0
Other land use		
Total Parks and Protected Area	0	0
Total Land Area	0	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	1996			2006	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	185	61	130	72	190	69
Car, Truck,Van as Passenger	45	15	10	6	30	11
Public Transit	0	0	0	0	10	4
Walked	55	18	30	17	35	13
Bicycle	10	3	0	0	10	4
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	3	10	6	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	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	0	0
Agricultural Land Reserve	0	0
Other land use		
Total Parks and Protected Area	0	0
Total Land Area	0	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

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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,