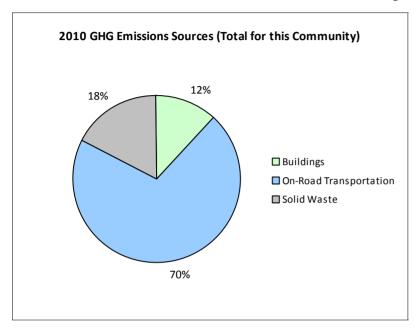
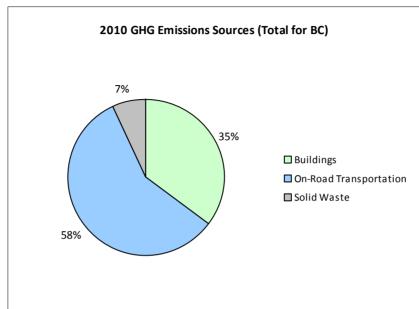
# BRITISH COLUMBIA LiveSmart BC

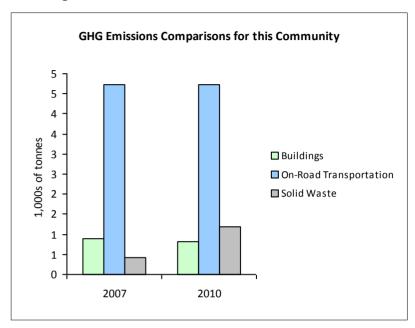
## McBride Village

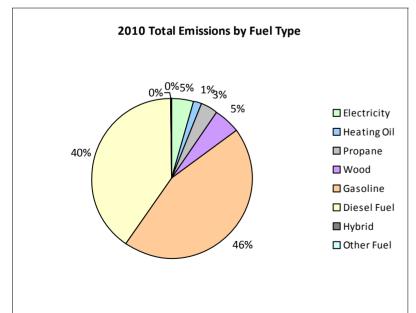
## **2010 Community Energy and Emissions Inventory**

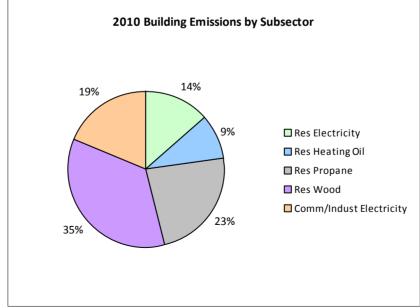
#### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

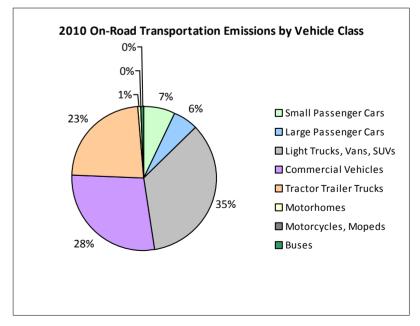














# 2010 Community Energy and Emissions Inventory

## 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	90	155,512 L	18,600	5,444	364	93	148,047 L	17,100	5,182	329
	Diesel Fuel			23,100	180	13			20,500	207	13
Large Passenger Cars	Hybrid								27,100	66	4
	Gasoline	61	139,394 L	20,500	4,879	327	56	115,198 L	18,400	4,032	257
	Diesel Fuel			10,700	43	4			7,700	32	1
Light Trucks, Vans, SUVs	Gasoline	228	671,658 L	20,200	23,508	1,595	251	663,169 L	18,100	23,211	1,497
	Diesel Fuel	23	59,067 L	14,500	2,263	160	19	54,263 L	16,300	2,079	143
	Other Fuel			11,400	151	9			12,600	111	6
Commercial Vehicles	Gasoline	32	110,452 L	20,400	3,865	259	43	131,651 L	18,000	4,608	295
	Diesel Fuel	60	267,035 L	24,800	10,227	718	83	393,521 L	26,500	15,072	1,028
Tractor Trailer Trucks	Gasoline			15,200	148	10			39,400	905	58
	Diesel Fuel	21	442,991 L	47,100	16,966	1,192	20	395,713 L	43,400	15,156	1,032
Motorhomes	Gasoline			15,700	247	17			16,200	167	11
	Diesel Fuel			17,200	497	35			24,300	342	23
Motorcycles, Mopeds	Gasoline		·	<u> </u>	·			·	6,800	89	6
Buses	Gasoline		_	18,600	212	14			20,000	339	22
Totals		515	1,846,109 L	21,347	68,630	4,717	565	1,846,109 L	20,027	71,598	4,725

			200	07				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	15,400 GJ	15,400	312	N/A	14,357 GJ	14,357	291
	Heating Oil	N/A	1,228 GJ	1,228	87	N/A	1,145 GJ	1,145	78
	Propane	N/A	3,336 GJ	3,336	204	N/A	3,110 GJ	3,110	190
	Electricity	292	4,762,538 kWh	17,145	119	303	4,510,916 kWh	16,239	113
Commercial/Small-Medium Industrial	Electricity	119	7,149,850 kWh	25,739	179	128	6,123,619 kWh	22,045	153
Totals		411		62,848	901	431		56,896	825

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# 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	666 t	N/A	417	0	1,404 t	N/A	1,186
Totals		0			417	0			1,186

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

	2007 (Pd	opulation: 659)		2010 (Population: 677)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)	
Hybrid	0 L	0		0 L	66	4	
Gasoline	1,077,016 L	38,303	2,586	1,058,065 L	38,533	2,475	
Diesel Fuel	769,093 L	30,176	2,122	843,497 L	32,888	2,240	
Other Fuel	0 L	151	9	0 L	111	6	
Wood	15,400 GJ	15,400	312	14,357 GJ	14,357	291	
Heating Oil	1,228 GJ	1,228	87	1,145 GJ	1,145	78	
Propane	3,336 GJ	3,336	204	3,110 GJ	3,110	190	
Electricity	11,912,388 kWh	42,884	298	10,634,535 kWh	38,284	266	
Solid Waste	666 t	0	417	1,404 t	0	1,186	
Grand Totals		131,478	6,035		128,494	6,736	

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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	195	42	215	78	205	80
Semi-Detached House	0	0	0	0	10	4
Row House	0	0	0	0	0	0
Apartment, Duplex	0	0	10	4	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	60	13	20	7	15	6
Other Single Attached House	0	0	10	4	0	0
Movable Dwelling	10	2	20	7	25	10

#### **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	148	34
Other land use	284	66
Total Parks and Protected Area	1	0
Total Land Area	433	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	1996			2006	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	125	48	230	70	230	65
Car, Truck, Van as Passenger	25	10	10	3	20	6
Public Transit	0	0	10	3	0	0
Walked	85	33	70	21	85	24
Bicycle	25	10	0	0	10	3
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	10	3	10	3

#### **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	1	0
Agricultural Land Reserve	148	34
Other land use	284	66
Total Parks and Protected Area	1	0
Total Land Area	433	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,