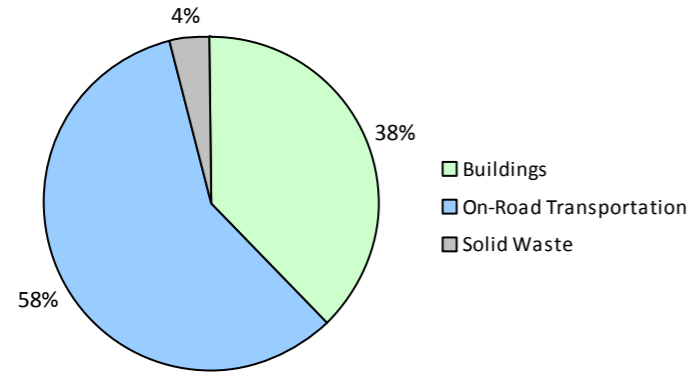
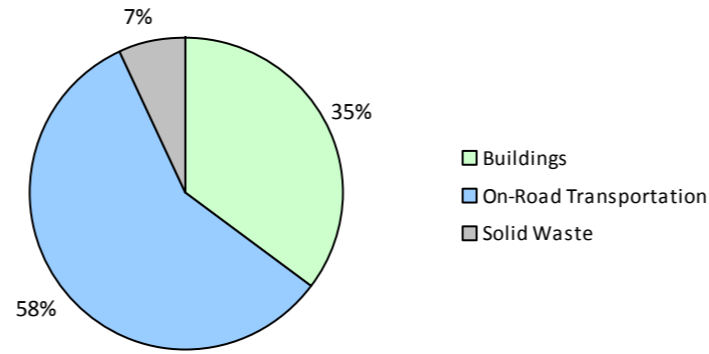


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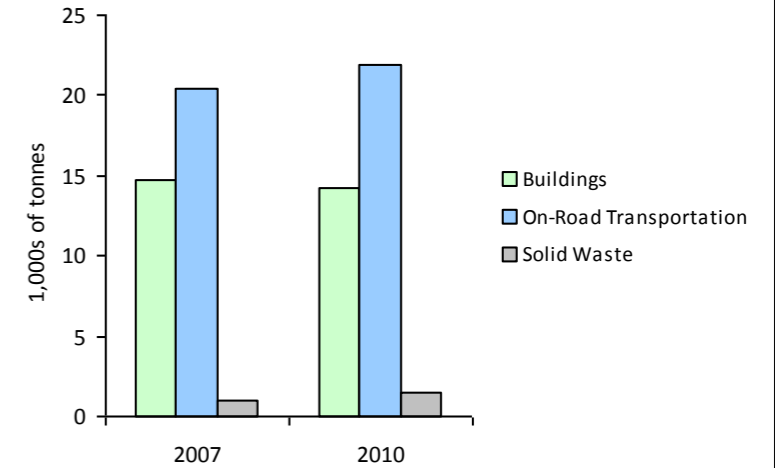
**2010 GHG Emissions Sources (Total for this Community)**



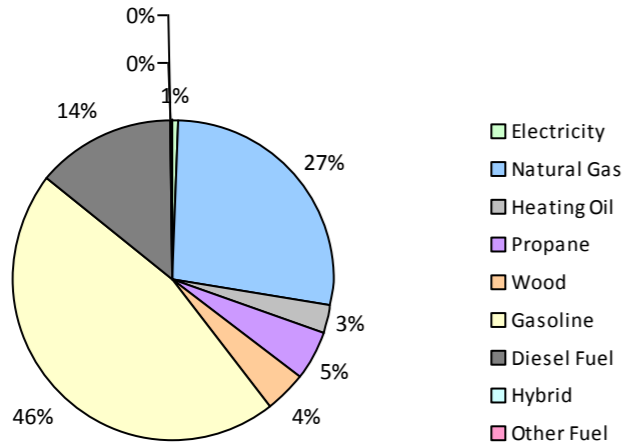
**2010 GHG Emissions Sources (Total for BC)**



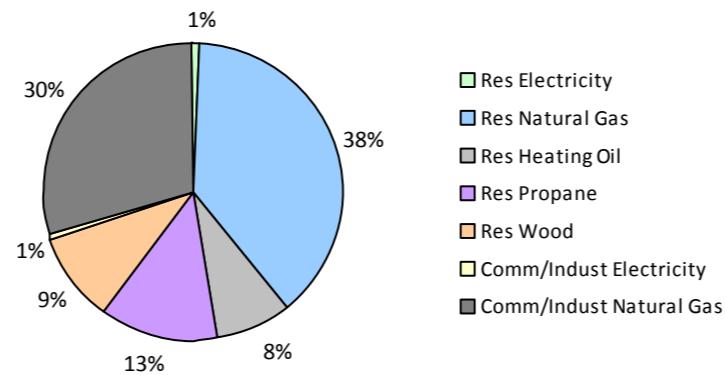
**GHG Emissions Comparisons for this Community**



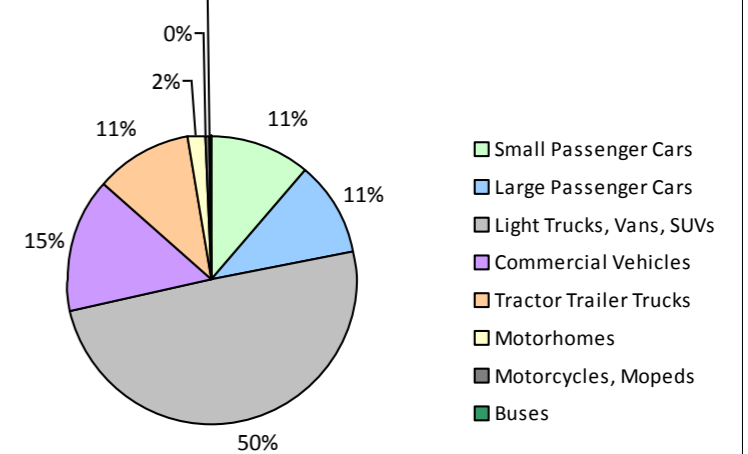
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



**2010 On-Road Transportation Emissions by Vehicle Class**



## Creston Town 2010 Community Energy and Emissions Inventory

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

### Core Items

On-Road Transportation		2007					2010				
		Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	747	1,047,051 L	15,000	36,647	2,490	749	1,029,684 L	14,700	36,039	2,314
	Diesel Fuel	36	54,492 L	22,100	2,087	149	38	56,700 L	21,700	2,172	151
	Other Fuel			8,100	21	0					
Large Passenger Cars	Hybrid			18,800	212	15	13	14,356 L	19,400	502	31
	Gasoline	728	1,154,755 L	14,100	40,416	2,742	676	1,032,300 L	13,600	36,131	2,322
	Diesel Fuel			11,600	308	22			12,200	316	22
Light Trucks, Vans, SUVs	Hybrid							23,500	215	15	
	Gasoline	1,623	3,945,023 L	16,600	138,077	9,434	1,886	4,613,801 L	16,900	161,483	10,463
	Diesel Fuel	74	143,315 L	10,900	5,489	389	57	117,951 L	11,800	4,517	310
	Other Fuel	10	21,322 L	12,600	540	33		10,000	343	21	
Commercial Vehicles	Hybrid							23,200	95	6	
	Gasoline	147	456,917 L	18,200	15,992	1,074	197	599,171 L	17,900	20,971	1,341
	Diesel Fuel	182	600,857 L	18,200	23,013	1,616	212	747,136 L	19,700	28,615	1,951
	Other Fuel			12,000	456	27		10,900	201	13	
Tractor Trailer Trucks	Gasoline			31,800	280	19					
	Diesel Fuel	47	700,715 L	34,400	26,837	1,886	50	904,755 L	40,400	34,652	2,363
	Other Fuel			13,400	79	4		11,000	139	8	
Motorhomes	Gasoline	37	104,171 L	19,200	3,646	244	41	113,136 L	19,100	3,960	251
	Diesel Fuel	24	71,324 L	16,400	2,732	192	23	69,953 L	16,100	2,679	183
	Other Fuel							19,700	157	10	
Motorcycles, Mopeds	Gasoline	58	12,261 L	4,600	429	28	76	19,967 L	5,700	699	45
Buses	Gasoline			15,700	456	30			16,600	538	34
	Diesel Fuel			18,000	769	54			16,700	361	25
	Other Fuel			12,600	66	4		9,000	48	3	
<b>Totals</b>		<b>3,713</b>	<b>8,312,203 L</b>	<b>15,921</b>	<b>298,552</b>	<b>20,452</b>	<b>4,018</b>	<b>8,312,203 L</b>	<b>16,211</b>	<b>334,833</b>	<b>21,882</b>

## Creston Town 2010 Community Energy and Emissions Inventory

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

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	68,477 GJ	68,477	1,387	N/A	65,911 GJ	65,911	1,335
	Heating Oil	N/A	17,639 GJ	17,639	1,243	N/A	16,978 GJ	16,978	1,161
	Propane	N/A	31,069 GJ	31,069	1,896	N/A	29,905 GJ	29,905	1,825
	Natural Gas	1,740	116,675 GJ	116,675	5,852	1,736	107,954 GJ	107,954	5,415
	Electricity	2,661	22,465,648 kWh	80,876	135	2,306	23,820,377 kWh	85,753	143
Commercial/Small-Medium Industrial	Natural Gas	261	82,282 GJ	82,282	4,127	250	83,915 GJ	83,915	4,209
	Electricity	428	21,174,576 kWh	76,228	127	392	22,114,689 kWh	79,613	133
<b>Totals</b>		<b>5,090</b>		<b>473,246</b>	<b>14,767</b>	<b>4,684</b>		<b>470,029</b>	<b>14,221</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	2,541 t	N/A	1,051	0	3,445 t	N/A	1,446
<b>Totals</b>		<b>0</b>			<b>1,051</b>	<b>0</b>			<b>1,446</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	2		0	0	2		0	0
<b>Totals</b>		<b>2</b>			<b>0</b>	<b>2</b>			<b>0</b>

## Creston Town 2010 Community Energy and Emissions Inventory

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

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 4,988)			2010 (Population: 5,245)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	212	15	14,356 L	812	52
Gasoline	6,720,178 L	235,943	16,061	7,408,059 L	259,821	16,770
Diesel Fuel	1,570,703 L	61,235	4,308	1,896,495 L	73,312	5,005
Other Fuel	21,322 L	1,162	68	0 L	888	55
Wood	68,477 GJ	68,477	1,387	65,911 GJ	65,911	1,335
Heating Oil	17,639 GJ	17,639	1,243	16,978 GJ	16,978	1,161
Propane	31,069 GJ	31,069	1,896	29,905 GJ	29,905	1,825
Natural Gas	198,957 GJ	198,957	9,979	191,869 GJ	191,869	9,624
Electricity	43,640,224 kWh	157,104	262	45,935,066 kWh	165,366	276
Solid Waste	2,541 t	0	1,051	3,445 t	0	1,446
<b>Grand Totals</b>		<b>771,798</b>	<b>36,270</b>		<b>804,862</b>	<b>37,549</b>

### 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	1,585	43	1,575	71	1,695	72
Semi-Detached House	15	0	40	2	55	2
Row House	130	3	135	6	110	5
Apartment, Duplex	130	3	100	5	65	3
Apartment, 5 storeys or higher	0	0	0	0	5	0
Apartment, under 5 storeys	215	6	230	10	320	14
Other Single Attached House	10	0	10	0	10	0
Movable Dwelling	50	1	125	6	90	4

#### 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	1,115	71	1,165	70	1,145	77
Car, Truck, Van as Passenger	70	4	110	7	75	5
Public Transit	10	1	10	1	20	1
Walked	370	23	365	22	245	16
Bicycle	0	0	15	1	10	1
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	1	10	1	0	0

#### 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	1
Agricultural Land Reserve	44	5
Other land use	763	94
Total Parks and Protected Area	7	1
Total Land Area	814	100

\* Total is net of Indian Reserves  
\*\* Quantity of parkland may be underestimated

#### 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	1
Agricultural Land Reserve	44	5
Other land use	763	94
Total Parks and Protected Area	7	1
Total Land Area	814	100

\* Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

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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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### 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](mailto: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) <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>, and on the <http://toolkit.bc.ca> 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.

## **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 (<http://www.toolkit.bc.ca>), 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:

<http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and

<http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>

### **We Need Your Feedback**

To continue to guide us on CEEI, please take the time to contact us directly at [CEEIRPT@gov.bc.ca](mailto:CEEIRPT@gov.bc.ca)

### **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,