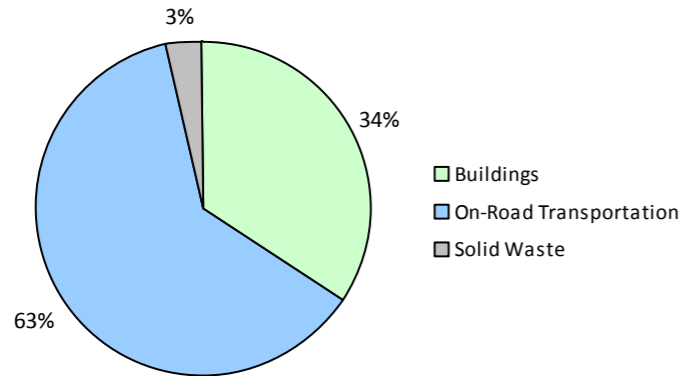


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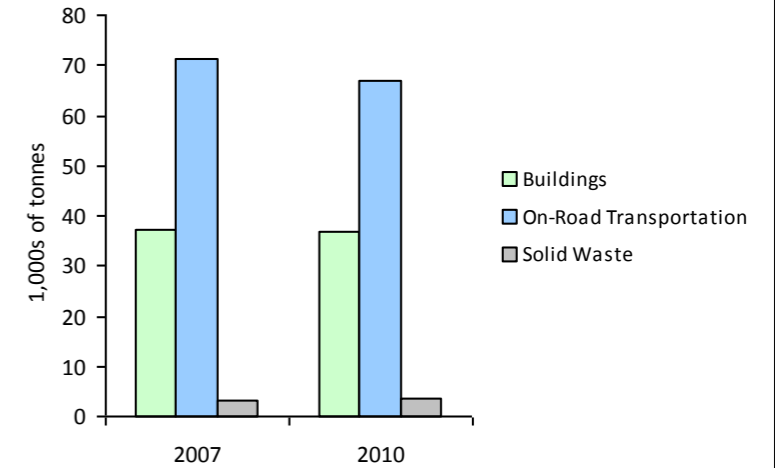
**2010 GHG Emissions Sources (Total for this Community)**



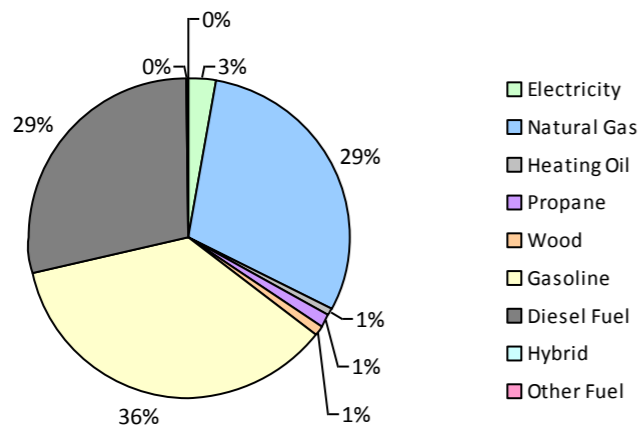
**2010 GHG Emissions Sources (Total for BC)**



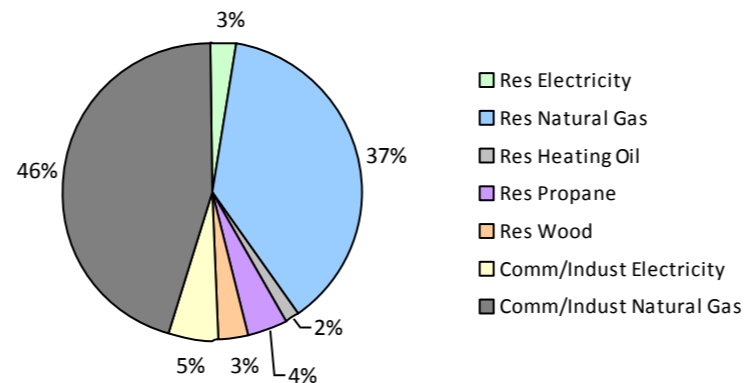
**GHG Emissions Comparisons for this Community**



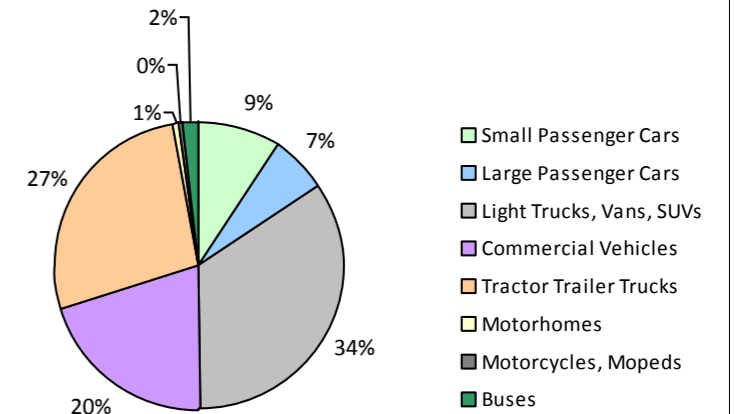
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



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



## Williams Lake City 2010 Community Energy and Emissions Inventory

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### 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	Hybrid							24,600	173	11	
	Gasoline	1,844	2,982,754 L	17,400	104,396	7,079	1,728	2,735,232 L	17,100	95,734	6,143
	Diesel Fuel	37	56,196 L	22,400	2,152	154	34	48,354 L	20,600	1,852	128
	Other Fuel							26,300	64	4	
Large Passenger Cars	Hybrid			22,000	180	11	23	40,106 L	29,500	1,404	89
	Gasoline	995	2,096,760 L	18,800	73,386	4,964	918	1,921,504 L	18,700	67,253	4,306
	Diesel Fuel	11	18,796 L	18,500	720	51		14,000	393	27	
Light Trucks, Vans, SUVs	Hybrid			30,300	83	6		30,900	693	45	
	Gasoline	2,929	9,044,728 L	20,700	316,566	21,604	3,084	9,659,125 L	21,200	338,069	21,885
	Diesel Fuel	143	365,628 L	14,300	14,003	994	90	271,748 L	17,900	10,408	719
	Other Fuel	28	62,799 L	13,100	1,589	96	16	31,214 L	11,400	790	48
Commercial Vehicles	Gasoline	442	1,626,765 L	21,600	56,937	3,825	510	1,910,206 L	22,200	66,857	4,274
	Diesel Fuel	662	2,904,020 L	24,900	111,224	7,815	709	3,534,160 L	28,600	135,358	9,228
	Other Fuel	13	32,770 L	13,400	830	51		11,900	517	31	
Tractor Trailer Trucks	Gasoline			10,800	344	23		17,600	348	22	
	Diesel Fuel	273	8,382,688 L	64,600	321,057	22,558	233	6,979,816 L	61,900	267,328	18,224
Motorhomes	Gasoline	45	144,911 L	22,100	5,072	338	43	137,698 L	22,100	4,819	306
	Diesel Fuel	31	120,475 L	20,900	4,614	324	30	121,792 L	20,900	4,665	318
	Other Fuel			22,900	348	21		22,800	182	11	
Motorcycles, Mopeds	Gasoline	105	22,267 L	4,500	779	51	138	37,288 L	5,800	1,305	83
Buses	Gasoline			22,300	1,021	69	15	45,977 L	18,900	1,609	103
	Diesel Fuel	80	508,805 L	19,600	19,488	1,370	70	401,384 L	19,500	15,374	1,048
<b>Totals</b>		<b>7,638</b>	<b>28,370,362 L</b>	<b>21,261</b>	<b>1,034,789</b>	<b>71,404</b>	<b>7,641</b>	<b>28,370,362 L</b>	<b>21,635</b>	<b>1,015,195</b>	<b>67,053</b>

## Williams Lake City 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	64,171 GJ	64,171	1,300	N/A	59,822 GJ	59,822	1,212
	Heating Oil	N/A	9,654 GJ	9,654	681	N/A	9,000 GJ	9,000	616
	Propane	N/A	26,285 GJ	26,285	1,604	N/A	24,504 GJ	24,504	1,495
	Natural Gas	3,382	303,187 GJ	303,187	15,208	3,429	275,018 GJ	275,018	13,795
	Electricity	4,590	42,287,656 kWh	152,235	1,057	4,704	42,088,726 kWh	151,519	1,052
Commercial/Small-Medium Industrial	Natural Gas	763	305,239 GJ	305,239	15,311	727	335,450 GJ	335,450	16,826
	Electricity	1,145	87,260,716 kWh	314,138	2,182	1,163	79,983,128 kWh	287,939	2,000
<b>Totals</b>		<b>9,880</b>		<b>1,174,909</b>	<b>37,343</b>	<b>10,023</b>		<b>1,143,252</b>	<b>36,996</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	5,952 t	N/A	3,094	0	6,469 t	N/A	3,637
<b>Totals</b>		<b>0</b>			<b>3,094</b>	<b>0</b>			<b>3,637</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	10	696,091 GJ	696,091	34,916	7		0	0
	Electricity	5		0	0	4		0	0
<b>Totals</b>		<b>15</b>		<b>696,091</b>	<b>34,916</b>	<b>11</b>			<b>0</b>

## Williams Lake City 2010 Community Energy and Emissions Inventory

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### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 11,106)			2010 (Population: 11,002)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	263	17	40,106 L	2,270	145
Gasoline	15,918,185 L	558,501	37,953	16,447,030 L	575,994	37,122
Diesel Fuel	12,356,608 L	473,258	33,266	11,357,254 L	435,378	29,692
Other Fuel	95,569 L	2,767	168	31,214 L	1,553	94
Wood	64,171 GJ	64,171	1,300	59,822 GJ	59,822	1,212
Heating Oil	9,654 GJ	9,654	681	9,000 GJ	9,000	616
Propane	26,285 GJ	26,285	1,604	24,504 GJ	24,504	1,495
Natural Gas	608,426 GJ	608,426	30,519	610,468 GJ	610,468	30,621
Electricity	129,548,372 kWh	466,373	3,239	122,071,854 kWh	439,458	3,052
Solid Waste	5,952 t	0	3,094	6,469 t	0	3,637
<b>Grand Totals</b>		<b>2,209,698</b>	<b>111,841</b>		<b>2,158,447</b>	<b>107,686</b>

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**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	1,925	33	2,135	49	2,100	47
Semi-Detached House	170	3	210	5	235	5
Row House	300	5	355	8	350	8
Apartment, Duplex	220	4	330	8	390	9
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	770	13	785	18	825	19
Other Single Attached House	30	1	15	0	30	1
Movable Dwelling	440	8	500	12	530	12

**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	3,665	74	3,915	79	3,765	74
Car, Truck, Van as Passenger	520	10	280	6	570	11
Public Transit	35	1	25	1	65	1
Walked	600	12	580	12	485	10
Bicycle	55	1	65	1	95	2
Motorcycle	10	0	10	0	20	0
Taxicab	10	0	0	0	0	0
Other Method	80	2	50	1	65	1

**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	47	2
Agricultural Land Reserve	186	6
Other land use	2,905	93
Total Parks and Protected Area	47	2
Total Land Area	3,138	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	47	2
Agricultural Land Reserve	186	6
Other land use	2,905	93
Total Parks and Protected Area	47	2
Total Land Area	3,138	100

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

**Commute Distance**

Shorter commute distances generally reduce GHG emissions by increasing the likelihood of people walking, cycling or using transit. Commute distance is also indicative of the 'completeness' of a community from an employment perspective.

	2006	
	Units	%
Less than 5 km	3,760	82
5 to 9.9 km	335	7
25 km or more	490	11
15 to 24.9 km	0	0
10 to 14.9 km	10	0

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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,