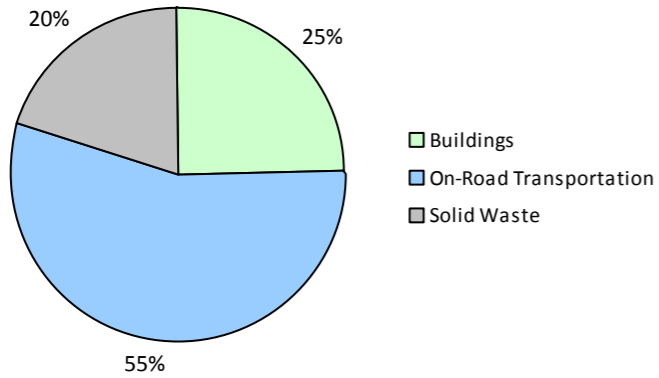
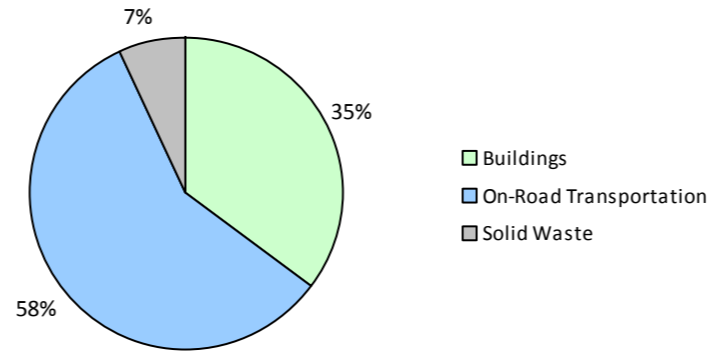


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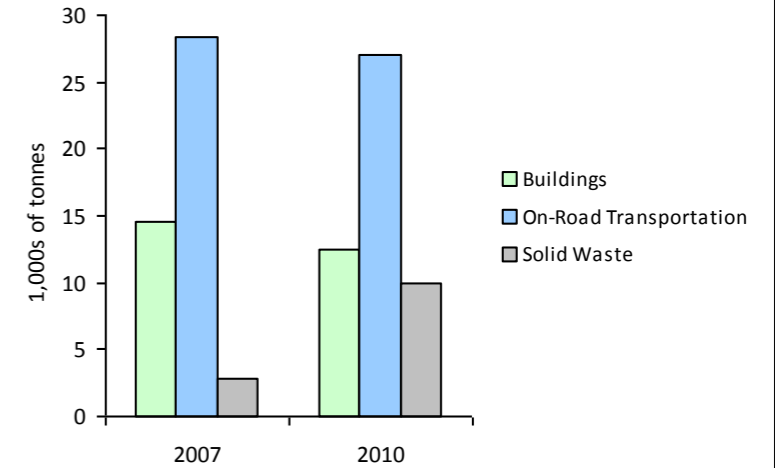
**2010 GHG Emissions Sources (Total for this Community)**



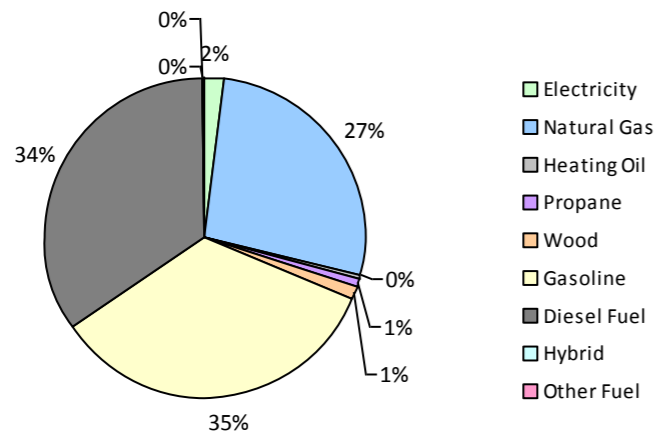
**2010 GHG Emissions Sources (Total for BC)**



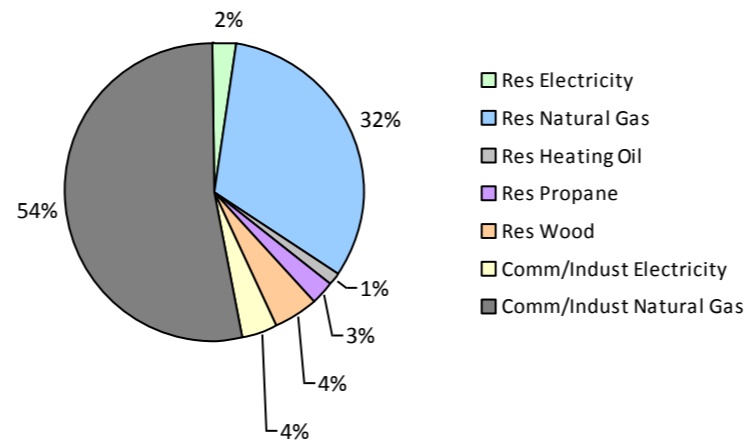
**GHG Emissions Comparisons for this Community**



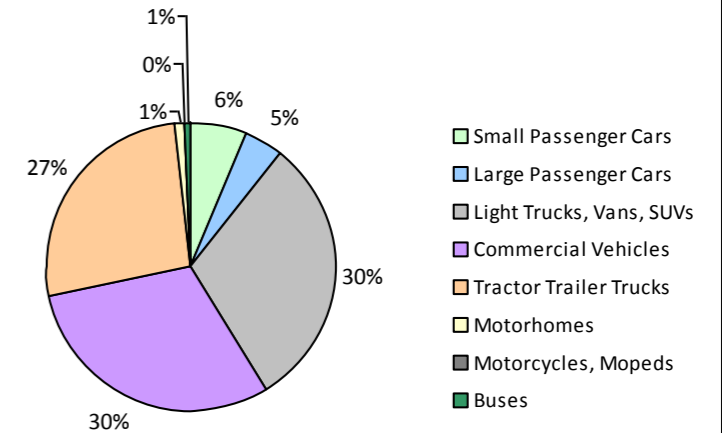
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



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



## Chetwynd District Municipality 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	392	783,029 L	21,200	27,405	1,837	380	712,795 L	19,800	24,948	1,589
	Diesel Fuel	29	58,476 L	29,300	2,239	160	23	42,720 L	27,100	1,636	113
Large Passenger Cars	Hybrid								28,200	300	20
	Gasoline	250	642,788 L	22,700	22,497	1,513	221	536,749 L	21,300	18,787	1,199
	Diesel Fuel			13,400	191	13			12,500	89	6
	Other Fuel			15,100	52	4			9,600	35	2
Light Trucks, Vans, SUVs	Gasoline	971	3,241,222 L	22,200	113,444	7,696	1,061	3,377,134 L	21,200	118,200	7,637
	Diesel Fuel	61	209,414 L	19,500	8,020	571	50	188,346 L	22,000	7,215	499
	Other Fuel	21	42,128 L	11,600	1,065	65	17	29,979 L	10,200	758	45
Commercial Vehicles	Gasoline	272	1,071,665 L	23,400	37,509	2,520	314	1,199,361 L	22,600	41,978	2,684
	Diesel Fuel	339	1,610,789 L	26,900	61,693	4,335	387	2,127,731 L	31,000	81,492	5,556
	Other Fuel			13,000	385	23			11,800	290	18
Tractor Trailer Trucks	Gasoline			63,300	1,494	101			65,100	1,607	103
	Diesel Fuel	141	3,331,707 L	55,200	127,604	8,965	125	2,733,271 L	50,600	104,684	7,137
Motorhomes	Gasoline	21	61,657 L	20,000	2,157	145	22	63,632 L	19,600	2,227	141
	Diesel Fuel	11	41,159 L	19,300	1,577	110	13	50,678 L	20,300	1,941	132
	Other Fuel			17,500	135	9			23,300	179	11
Motorcycles, Mopeds	Gasoline	30	8,072 L	5,800	282	19	35	9,800 L	6,000	344	21
Buses	Gasoline			14,300	474	32			15,200	570	36
	Diesel Fuel	17	113,017 L	20,200	4,329	304			24,100	1,664	113
<b>Totals</b>		<b>2,555</b>	<b>11,215,123 L</b>	<b>24,361</b>	<b>412,552</b>	<b>28,422</b>	<b>2,648</b>	<b>11,215,123 L</b>	<b>23,771</b>	<b>408,944</b>	<b>27,062</b>

## Chetwynd District Municipality 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	28,755 GJ	28,755	583	N/A	26,806 GJ	26,806	543
	Heating Oil	N/A	2,291 GJ	2,291	161	N/A	2,136 GJ	2,136	146
	Propane	N/A	6,218 GJ	6,218	379	N/A	5,797 GJ	5,797	354
	Natural Gas	874	85,386 GJ	85,386	4,283	880	78,722 GJ	78,722	3,949
	Electricity	1,270	12,234,273 kWh	44,043	306	1,319	12,287,050 kWh	44,233	307
Commercial/Small-Medium Industrial	Natural Gas	199	165,996 GJ	165,996	8,326	198	131,575 GJ	131,575	6,600
	Electricity	311	20,382,366 kWh	73,376	510	317	20,148,197 kWh	72,533	504
<b>Totals</b>		<b>2,654</b>		<b>406,065</b>	<b>14,548</b>	<b>2,714</b>		<b>361,802</b>	<b>12,403</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	2,584 t	N/A	2,801	0	6,925 t	N/A	9,978
<b>Totals</b>		<b>0</b>			<b>2,801</b>	<b>0</b>			<b>9,978</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	4		0	0	4		0	0
	Electricity	4		0	0	4	521,670,842 kWh	1,878,014	13,042
<b>Totals</b>		<b>8</b>			<b>0</b>	<b>8</b>		<b>1,878,014</b>	<b>13,042</b>

## Chetwynd District Municipality 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: 2,637)			2010 (Population: 2,714)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	0		0 L	300	20
Gasoline	5,808,433 L	205,262	13,863	5,899,471 L	208,661	13,410
Diesel Fuel	5,364,562 L	205,653	14,458	5,142,746 L	198,721	13,556
Other Fuel	42,128 L	1,637	101	29,979 L	1,262	76
Wood	28,755 GJ	28,755	583	26,806 GJ	26,806	543
Heating Oil	2,291 GJ	2,291	161	2,136 GJ	2,136	146
Propane	6,218 GJ	6,218	379	5,797 GJ	5,797	354
Natural Gas	251,382 GJ	251,382	12,609	210,297 GJ	210,297	10,549
Electricity	32,616,639 kWh	117,419	816	32,435,247 kWh	116,766	811
Solid Waste	2,584 t	0	2,801	6,925 t	0	9,978
<b>Grand Totals</b>		<b>818,617</b>	<b>45,771</b>		<b>770,746</b>	<b>49,443</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	530	33	620	61	640	62
Semi-Detached House	55	3	35	3	45	4
Row House	60	4	60	6	115	11
Apartment, Duplex	10	1	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	275	17	220	22	180	17
Other Single Attached House	10	1	5	0	5	0
Movable Dwelling	125	8	80	8	45	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	1,055	76	770	72	935	69
Car, Truck, Van as Passenger	160	11	105	10	230	17
Public Transit	10	1	10	1	20	1
Walked	125	9	155	14	155	11
Bicycle	10	1	10	1	10	1
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	35	3	20	2	10	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	34	1
Agricultural Land Reserve	322	5
Other land use	5,799	94
Total Parks and Protected Area	34	1
Total Land Area	6,156	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	34	1
Agricultural Land Reserve	322	5
Other land use	5,799	94
Total Parks and Protected Area	34	1
Total Land Area	6,156	100

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

**Chetwynd District Municipality**  
**2010 Community Energy and Emissions Inventory**  
*Monitoring and reporting on progress towards greenhouse gas emissions reduction targets*

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*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](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,