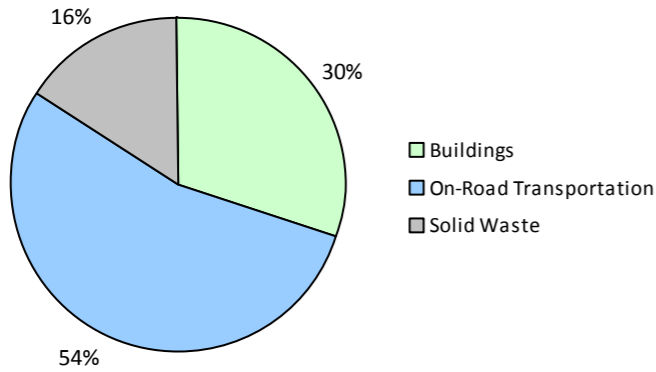
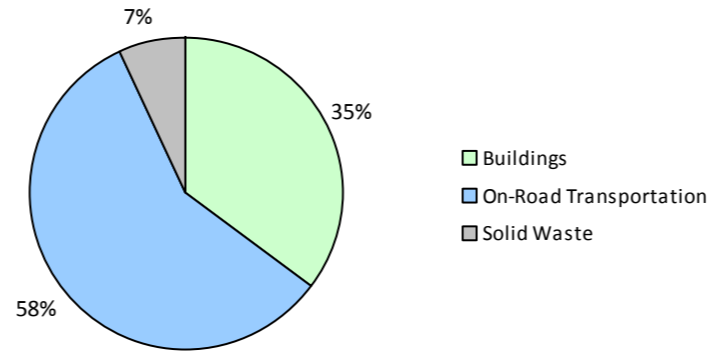


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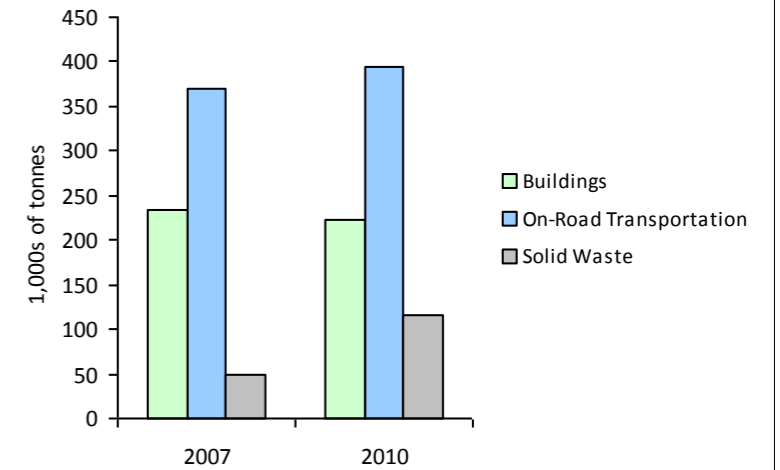
**2010 GHG Emissions Sources (Total for this Community)**



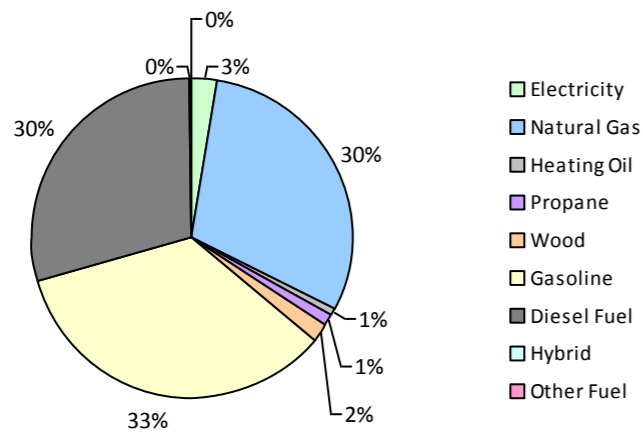
**2010 GHG Emissions Sources (Total for BC)**



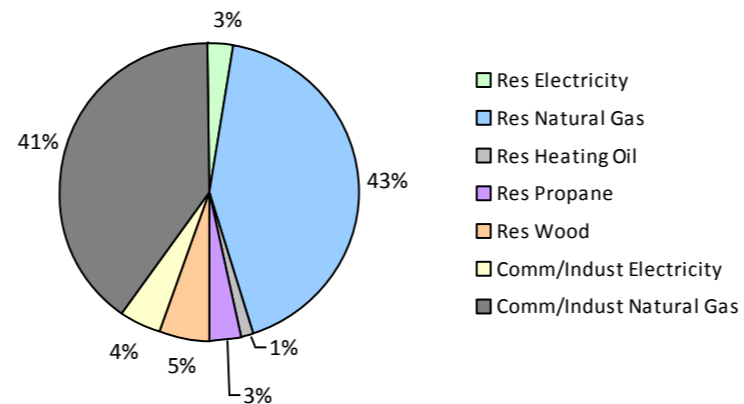
**GHG Emissions Comparisons for this Community**



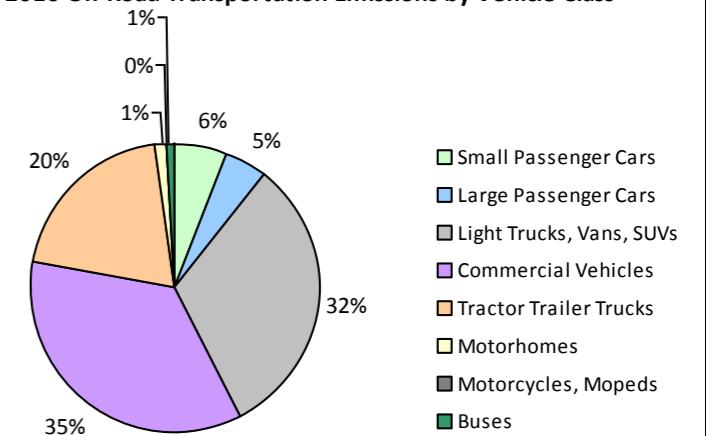
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



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



## Peace River Regional District 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	Hybrid			25,200	165	11			24,200	381	24
	Gasoline	5,823	10,766,450 L	19,500	376,825	25,440	5,511	10,274,192 L	19,700	359,597	23,003
	Diesel Fuel	206	389,557 L	27,600	14,921	1,064	209	405,749 L	28,100	15,540	1,076
	Other Fuel								21,700	99	7
Large Passenger Cars	Hybrid			30,800	394	25	42	78,145 L	32,200	2,735	173
	Gasoline	3,739	8,706,018 L	20,300	304,711	20,619	3,395	7,969,730 L	20,400	278,941	17,864
	Diesel Fuel	46	59,942 L	13,800	2,295	163	35	42,080 L	12,700	1,612	111
	Other Fuel			12,400	393	24			17,300	131	9
Light Trucks, Vans, SUVs	Hybrid			28,500	397	27	38	104,343 L	29,800	3,652	236
	Gasoline	15,198	46,674,839 L	20,300	1,633,619	111,320	16,429	53,198,311 L	21,600	1,861,941	120,394
	Diesel Fuel	679	1,894,233 L	15,800	72,548	5,160	522	1,680,141 L	18,900	64,349	4,446
	Other Fuel	226	487,567 L	12,500	12,336	746	135	265,434 L	11,500	6,716	407
Commercial Vehicles	Hybrid							30,600	499	32	
	Gasoline	4,629	17,401,581 L	22,200	609,056	40,918	5,298	20,787,775 L	23,400	727,573	46,522
	Diesel Fuel	5,792	27,331,054 L	26,400	1,046,779	73,546	6,169	35,069,739 L	32,000	1,343,171	91,565
	Other Fuel	98	246,782 L	13,000	6,243	379	63	147,830 L	12,400	3,741	226
Tractor Trailer Trucks	Gasoline	17	110,056 L	24,000	3,852	257	15	116,982 L	28,200	4,096	260
	Diesel Fuel	1,625	31,255,121 L	45,000	1,197,071	84,107	1,582	30,750,330 L	45,200	1,177,738	80,288
	Other Fuel			12,400	427	27			12,800	190	12
Motorhomes	Gasoline	233	673,602 L	19,900	23,576	1,572	257	747,198 L	19,900	26,152	1,660
	Diesel Fuel	193	750,285 L	19,800	28,736	2,018	212	843,203 L	19,800	32,295	2,201
	Other Fuel	21	60,597 L	19,600	1,533	93	12	37,052 L	20,100	938	56
Motorcycles, Mopeds	Gasoline	441	106,298 L	5,100	3,720	247	572	166,071 L	6,200	5,813	369
Buses	Gasoline	48	174,727 L	19,000	6,115	411	81	298,119 L	21,600	10,434	668
	Diesel Fuel	107	705,106 L	24,300	27,005	1,897	134	859,005 L	22,900	32,900	2,243
	Other Fuel	28	90,644 L	15,300	2,294	139	18	57,088 L	14,900	1,444	88
<b>Totals</b>		<b>39,149</b>	<b>147,884,459 L</b>	<b>22,054</b>	<b>5,375,011</b>	<b>370,210</b>	<b>40,729</b>	<b>147,884,459 L</b>	<b>23,698</b>	<b>5,962,678</b>	<b>393,940</b>

## Peace River Regional District 2010 Community Energy and Emissions Inventory

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

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	617,894 GJ	617,894	12,519	N/A	576,017 GJ	576,017	11,670
	Heating Oil	N/A	49,176 GJ	49,176	3,466	N/A	45,843 GJ	45,843	3,135
	Propane	N/A	133,373 GJ	133,373	8,137	N/A	124,334 GJ	124,334	7,586
	Natural Gas	17,606	1,924,516 GJ	1,924,516	96,533	17,604	1,854,690 GJ	1,854,690	93,032
	Electricity	25,238	273,339,978 kWh	984,023	6,834	26,456	279,981,473 kWh	1,007,932	7,000
Commercial/Small-Medium Industrial	Natural Gas	2,889	1,963,353 GJ	1,963,353	98,482	2,883	1,801,250 GJ	1,801,250	90,351
	Electricity	4,584	357,009,544 kWh	1,285,233	8,926	4,830	379,588,325 kWh	1,366,517	9,490
<b>Totals</b>		<b>50,317</b>		<b>6,957,568</b>	<b>234,897</b>	<b>51,773</b>		<b>6,776,583</b>	<b>222,264</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	71,225 t	N/A	50,069	0	113,757 t	N/A	116,349
<b>Totals</b>		<b>0</b>			<b>50,069</b>	<b>0</b>			<b>116,349</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Natural Gas	32	2,202,468 GJ	2,202,468	110,476	34	1,988,629 GJ	1,988,629	99,750
	Electricity	16	1,521,888,498 kWh	5,478,794	38,049	23	1,444,109,368 kWh	5,198,790	36,104
<b>Totals</b>		<b>48</b>		<b>7,681,262</b>	<b>148,525</b>	<b>57</b>		<b>7,187,419</b>	<b>135,854</b>

Agriculture		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Enteric Fermentation	Methane	172,250	10,413 t	0	218,673				
<b>Totals</b>		<b>172,250</b>			<b>218,673</b>	<b>0</b>			

## Peace River Regional District 2010 Community Energy and Emissions Inventory

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

Land-use Change - Deforestation	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Agriculture Deforestation	935	0 ha	0	323,488				
Settlement Deforestation	1,567	0 ha	0	735,471				
<b>Totals</b>	<b>2,502</b>			<b>1,058,959</b>	<b>0</b>			

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 60,214)			2010 (Population: 63,368)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	956	63	182,488 L	7,267	465
Gasoline	84,613,571 L	2,961,474	200,784	93,558,378 L	3,274,547	210,740
Diesel Fuel	62,385,298 L	2,389,355	167,955	69,650,247 L	2,667,605	181,930
Other Fuel	885,590 L	23,226	1,408	507,404 L	13,259	805
Wood	617,894 GJ	617,894	12,519	576,017 GJ	576,017	11,670
Heating Oil	49,176 GJ	49,176	3,466	45,843 GJ	45,843	3,135
Propane	133,373 GJ	133,373	8,137	124,334 GJ	124,334	7,586
Natural Gas	3,887,869 GJ	3,887,869	195,015	3,655,940 GJ	3,655,940	183,383
Electricity	630,349,522 kWh	2,269,256	15,760	659,569,798 kWh	2,374,449	16,490
Solid Waste	71,225 t	0	50,069	113,757 t	0	116,349
<b>Grand Totals</b>		<b>12,332,579</b>	<b>655,176</b>		<b>12,739,261</b>	<b>732,553</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	13,755	41	14,095	69	15,605	70
Semi-Detached House	400	1	595	3	790	4
Row House	825	2	980	5	1,285	6
Apartment, Duplex	210	1	70	0	125	1
Apartment, 5 storeys or higher	100	0	100	0	90	0
Apartment, under 5 storeys	2,460	7	2,455	12	2,595	12
Other Single Attached House	35	0	60	0	30	0
Movable Dwelling	1,915	6	2,050	10	1,825	8

**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	18,680	77	19,150	79	22,835	79
Car, Truck, Van as Passenger	2,920	12	2,335	10	2,995	10
Public Transit	160	1	195	1	185	1
Walked	1,895	8	2,055	8	2,140	7
Bicycle	185	1	190	1	235	1
Motorcycle	10	0	0	0	90	0
Taxicab	45	0	50	0	55	0
Other Method	365	2	255	1	400	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	1,113,783	9
Local Parks	632	0
Agricultural Land Reserve	1,289,444	11
Other land use	9,568,649	80
Total Parks and Protected Area	1,114,415	9
Total Land Area	11,972,508	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	1,113,783	9
Local Parks	632	0
Agricultural Land Reserve	1,289,444	11
Other land use	9,568,649	80
Total Parks and Protected Area	1,114,415	9
Total Land Area	11,972,508	100

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

**Peace River Regional District**  
**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,