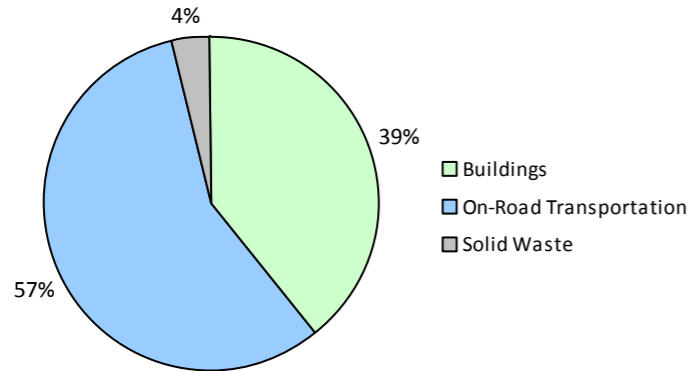


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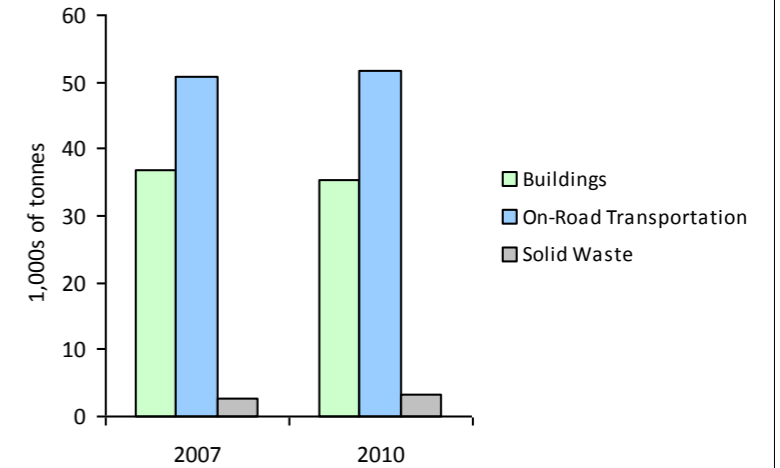
2010 GHG Emissions Sources (Total for this Community)



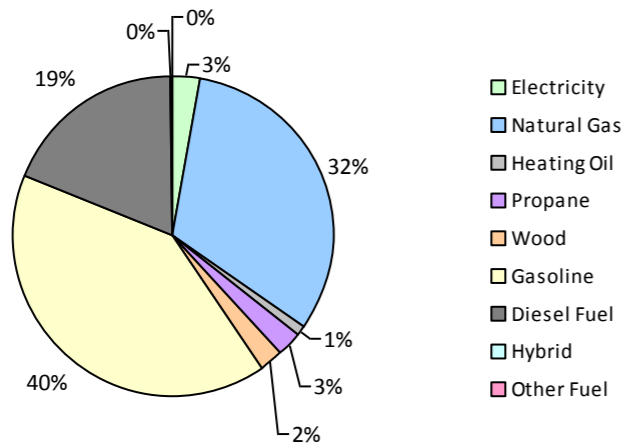
2010 GHG Emissions Sources (Total for BC)



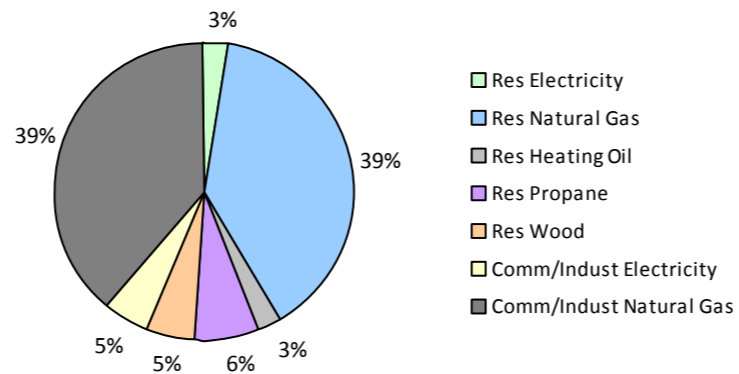
GHG Emissions Comparisons for this Community



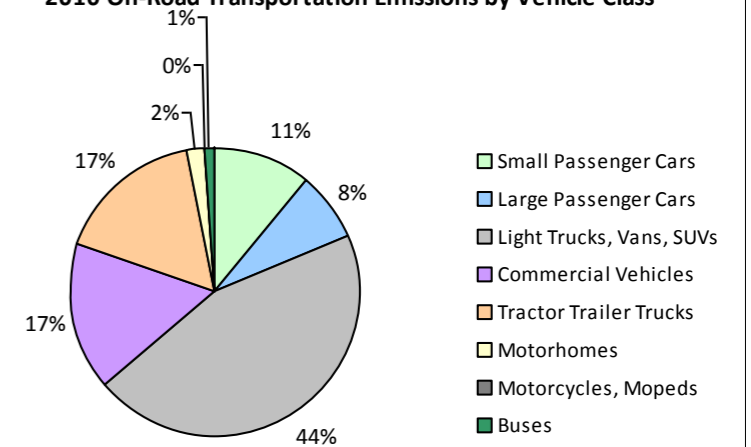
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Quesnel 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							25,400	44	4	
	Gasoline	1,592	2,595,568 L	17,500	90,845	6,170	1,568	2,502,475 L	17,300	87,587	5,620
	Diesel Fuel	34	55,067 L	23,900	2,109	151	30	44,226 L	21,400	1,694	117
Large Passenger Cars	Hybrid			33,600	260	18		32,400	374	23	
	Gasoline	975	2,020,124 L	18,300	70,705	4,797	895	1,776,625 L	17,600	62,182	3,989
	Diesel Fuel	12	17,065 L	15,200	653	47		15,900	332	24	
Light Trucks, Vans, SUVs	Hybrid							31,100	198	12	
	Gasoline	2,877	8,880,890 L	20,600	310,831	21,251	3,144	9,833,334 L	21,100	344,167	22,303
	Diesel Fuel	139	359,671 L	14,500	13,775	979	108	307,778 L	16,800	11,788	814
	Other Fuel	21	42,257 L	11,800	1,070	64	18	32,264 L	10,400	816	50
Commercial Vehicles	Hybrid							28,000	232	14	
	Gasoline	318	1,160,234 L	21,300	40,608	2,727	346	1,236,082 L	21,000	43,262	2,766
	Diesel Fuel	410	1,734,161 L	23,900	66,418	4,666	487	2,245,950 L	26,400	86,021	5,864
	Other Fuel			13,800	452	28		12,800	246	15	
Tractor Trailer Trucks	Diesel Fuel	118	3,147,331 L	56,100	120,542	8,470	122	3,297,906 L	56,200	126,310	8,612
Motorhomes	Gasoline	45	147,307 L	22,500	5,156	344	63	202,889 L	22,200	7,101	451
	Diesel Fuel	43	166,839 L	21,000	6,391	449	43	171,883 L	20,800	6,583	448
	Other Fuel			23,000	349	21		19,000	227	14	
Motorcycles, Mopeds	Gasoline	75	17,602 L	5,000	615	41	113	31,873 L	6,000	1,116	71
Buses	Gasoline			13,300	473	31		16,300	379	24	
	Diesel Fuel	38	211,849 L	19,700	8,114	570	37	206,445 L	20,400	7,907	538
<b>Totals</b>		<b>6,697</b>	<b>20,555,965 L</b>	<b>20,077</b>	<b>739,366</b>	<b>50,824</b>	<b>6,974</b>	<b>20,555,965 L</b>	<b>20,442</b>	<b>788,566</b>	<b>51,773</b>

## Quesnel 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	98,440 GJ	98,440	1,994	N/A	91,769 GJ	91,769	1,859
	Heating Oil	N/A	14,797 GJ	14,797	1,043	N/A	13,795 GJ	13,795	943
	Propane	N/A	40,262 GJ	40,262	2,456	N/A	37,533 GJ	37,533	2,290
	Natural Gas	3,326	297,870 GJ	297,870	14,942	3,348	271,467 GJ	271,467	13,616
	Electricity	4,378	38,086,301 kWh	137,111	952	4,425	38,409,181 kWh	138,273	960
Commercial/Small-Medium Industrial	Natural Gas	565	274,526 GJ	274,526	13,770	559	275,761 GJ	275,761	13,832
	Electricity	1,007	69,540,322 kWh	250,345	1,739	1,019	72,400,254 kWh	260,641	1,810
<b>Totals</b>		<b>9,276</b>		<b>1,113,351</b>	<b>36,896</b>	<b>9,351</b>		<b>1,089,239</b>	<b>35,310</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	5,093 t	N/A	2,648	0	5,731 t	N/A	3,222
<b>Totals</b>		<b>0</b>			<b>2,648</b>	<b>0</b>			<b>3,222</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	13	4,016,600 GJ	4,016,600	201,473	10		0	0
	Electricity	8		0	0	7		0	0
<b>Totals</b>		<b>21</b>		<b>4,016,600</b>	<b>201,473</b>	<b>17</b>			<b>0</b>

## Quesnel City 2010 Community Energy and Emissions Inventory

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### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 9,503)			2010 (Population: 9,746)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	260	18	0 L	848	53
Gasoline	14,821,725 L	519,233	35,361	15,583,278 L	545,794	35,224
Diesel Fuel	5,691,983 L	218,002	15,332	6,274,188 L	240,635	16,417
Other Fuel	42,257 L	1,871	113	32,264 L	1,289	79
Wood	98,440 GJ	98,440	1,994	91,769 GJ	91,769	1,859
Heating Oil	14,797 GJ	14,797	1,043	13,795 GJ	13,795	943
Propane	40,262 GJ	40,262	2,456	37,533 GJ	37,533	2,290
Natural Gas	572,396 GJ	572,396	28,712	547,228 GJ	547,228	27,448
Electricity	107,626,623 kWh	387,456	2,691	110,809,435 kWh	398,914	2,770
Solid Waste	5,093 t	0	2,648	5,731 t	0	3,222
<b>Grand Totals</b>		<b>1,852,717</b>	<b>90,368</b>		<b>1,877,805</b>	<b>90,305</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	1,950	37	2,745	68	2,685	69
Semi-Detached House	130	2	110	3	100	3
Row House	220	4	215	5	155	4
Apartment, Duplex	180	3	130	3	125	3
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	795	15	705	17	720	18
Other Single Attached House	10	0	5	0	20	1
Movable Dwelling	30	1	120	3	105	3

**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	2,585	75	3,435	81	3,330	81
Car, Truck, Van as Passenger	345	10	275	6	285	7
Public Transit	0	0	55	1	70	2
Walked	470	14	350	8	315	8
Bicycle	30	1	100	2	70	2
Motorcycle	0	0	10	0	0	0
Taxicab	0	0	0	0	10	0
Other Method	15	0	30	1	45	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	71	3
Agricultural Land Reserve	618	22
Other land use	2,091	75
Total Parks and Protected Area	71	3
Total Land Area	2,780	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	71	3
Agricultural Land Reserve	618	22
Other land use	2,091	75
Total Parks and Protected Area	71	3
Total Land Area	2,780	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	2,980	79
5 to 9.9 km	570	15
25 km or more	195	5
15 to 24.9 km	15	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,