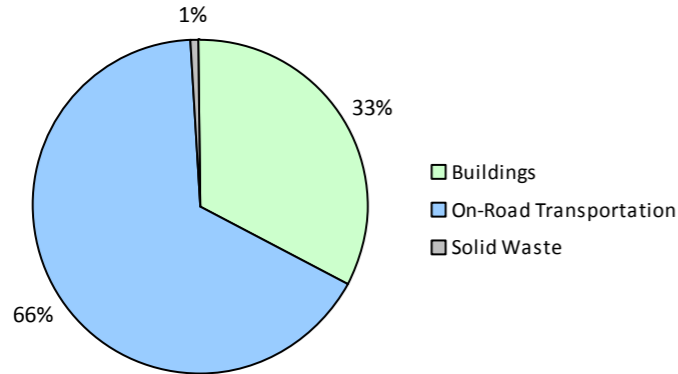
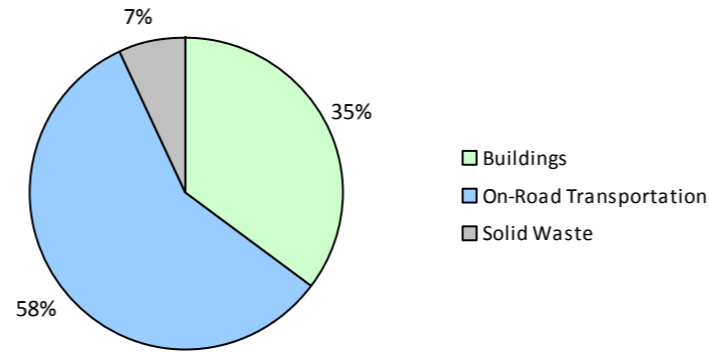


## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

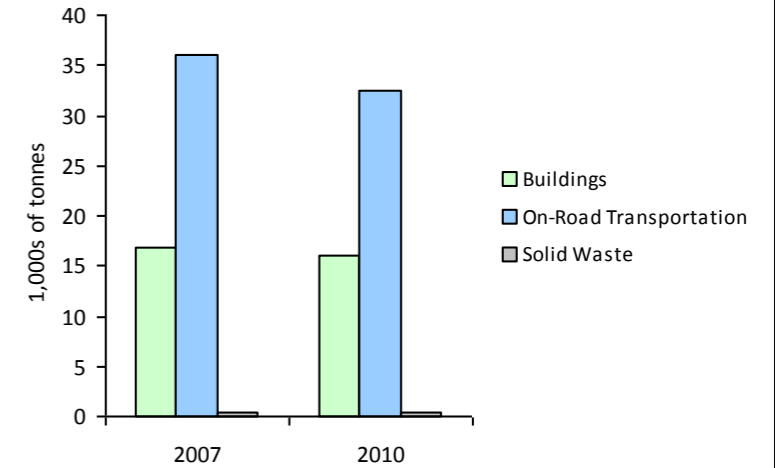
2010 GHG Emissions Sources (Total for this Community)



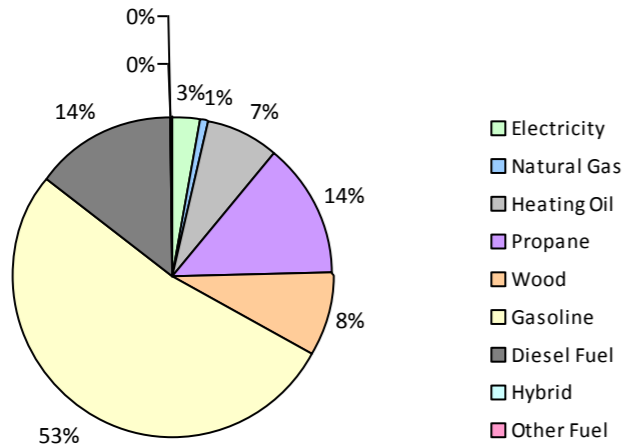
2010 GHG Emissions Sources (Total for BC)



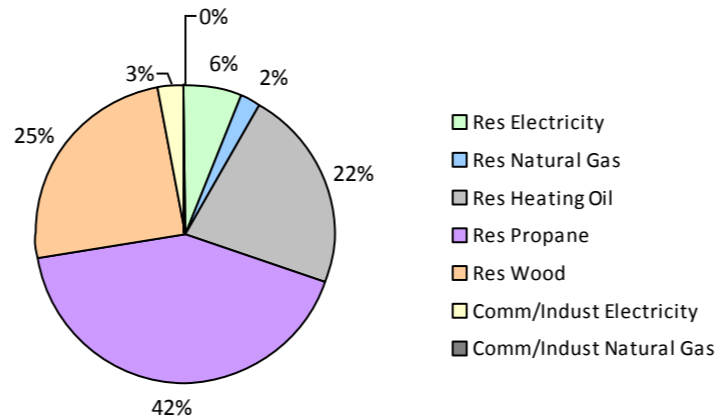
GHG Emissions Comparisons for this Community



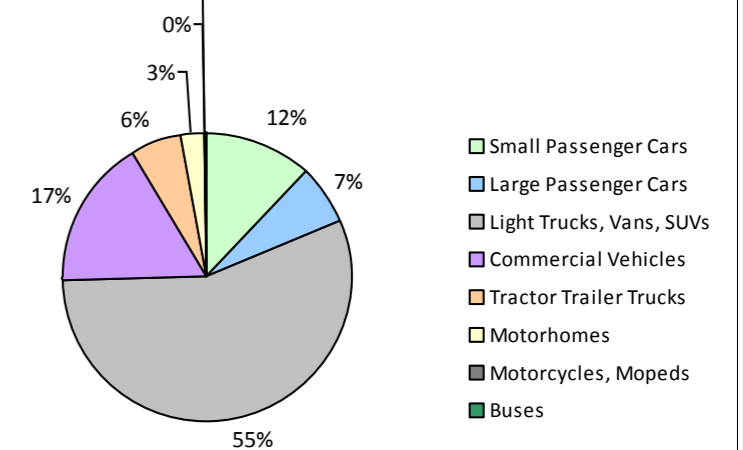
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Powell River Regional District Unincorporated Areas 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)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Gasoline	1,310	1,735,766 L	14,200	60,752	4,151	1,291	1,667,140 L	14,300	58,350	3,766
	Diesel Fuel	58	74,977 L	19,800	2,872	204	55	66,933 L	19,400	2,564	177
Large Passenger Cars	Hybrid							23,500	317	22	
	Gasoline	706	1,100,072 L	13,600	38,502	2,634	631	926,798 L	13,200	32,438	2,095
	Diesel Fuel	18	22,248 L	12,300	852	61	21	21,887 L	11,000	838	59
Light Trucks, Vans, SUVs	Hybrid							17,900	51	2	
	Gasoline	2,987	7,398,199 L	17,500	258,938	17,806	3,015	7,470,039 L	17,700	261,451	17,026
	Diesel Fuel	242	516,402 L	12,000	19,778	1,406	164	374,826 L	13,200	14,356	989
	Other Fuel	20	41,458 L	12,500	1,050	64	13	26,337 L	12,100	667	40
Commercial Vehicles	Gasoline	279	839,092 L	18,100	29,368	1,970	303	888,590 L	18,200	31,099	1,986
	Diesel Fuel	318	1,135,629 L	20,200	43,495	3,056	347	1,336,198 L	22,100	51,177	3,488
	Other Fuel	20	44,920 L	12,400	1,137	71	15	32,043 L	12,300	810	50
Tractor Trailer Trucks	Diesel Fuel	73	1,351,595 L	31,900	51,767	3,637	51	702,415 L	24,700	26,901	1,833
Motorhomes	Gasoline	64	177,958 L	20,100	6,228	415	75	210,970 L	20,100	7,384	470
	Diesel Fuel	41	128,804 L	18,400	4,932	346	40	136,929 L	18,500	5,244	357
Motorcycles, Mopeds	Gasoline	106	20,996 L	4,800	735	50	119	28,556 L	5,700	1,000	63
Buses	Gasoline			18,000	664	45		16,500	229	14	
	Diesel Fuel			19,200	856	60		39,700	589	41	
<b>Totals</b>		<b>6,242</b>	<b>14,588,116 L</b>	<b>16,277</b>	<b>521,926</b>	<b>35,976</b>	<b>6,140</b>	<b>14,588,116 L</b>	<b>16,503</b>	<b>495,465</b>	<b>32,478</b>

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	206,508 GJ	206,508	4,184	N/A	199,908 GJ	199,908	4,050
	Heating Oil	N/A	53,109 GJ	53,109	3,744	N/A	51,412 GJ	51,412	3,516
	Propane	N/A	112,050 GJ	112,050	6,836	N/A	108,468 GJ	108,468	6,618
	Natural Gas	134	7,386 GJ	7,386	370	145	7,211 GJ	7,211	362
	Electricity	2,950	41,460,917 kWh	149,259	1,037	3,054	41,018,422 kWh	147,666	1,025
Commercial/Small-Medium Industrial	Natural Gas	19	1,303 GJ	1,303	65	16	0 GJ	0	0
	Electricity	388	20,891,774 kWh	75,210	523	430	18,048,143 kWh	64,973	451
<b>Totals</b>		<b>3,491</b>		<b>604,825</b>	<b>16,759</b>	<b>3,645</b>		<b>579,638</b>	<b>16,022</b>

## Powell River Regional District Unincorporated Areas 2010 Community Energy and Emissions Inventory

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

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	1,495 t	N/A	317	0	1,548 t	N/A	456
<b>Totals</b>		<b>0</b>			<b>317</b>	<b>0</b>			<b>456</b>

### Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 6,630)			2010 (Population: 6,863)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	0		0 L	368	24
Gasoline	11,272,083 L	395,187	27,071	11,192,093 L	391,951	25,420
Diesel Fuel	3,229,655 L	124,552	8,770	2,639,188 L	101,669	6,944
Other Fuel	86,378 L	2,187	135	58,380 L	1,477	90
Wood	206,508 GJ	206,508	4,184	199,908 GJ	199,908	4,050
Heating Oil	53,109 GJ	53,109	3,744	51,412 GJ	51,412	3,516
Propane	112,050 GJ	112,050	6,836	108,468 GJ	108,468	6,618
Natural Gas	8,689 GJ	8,689	435	7,211 GJ	7,211	362
Electricity	62,352,691 kWh	224,469	1,560	59,066,565 kWh	212,639	1,476
Solid Waste	1,495 t	0	317	1,548 t	0	456
<b>Grand Totals</b>		<b>1,126,751</b>	<b>53,052</b>		<b>1,075,103</b>	<b>48,956</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	2,590	27	2,610	87	2,730	89
Semi-Detached House	10	0	40	1	25	1
Row House	20	0	0	0	5	0
Apartment, Duplex	25	0	25	1	30	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	15	0	15	1	60	2
Other Single Attached House	0	0	15	1	15	0
Movable Dwelling	165	2	295	10	215	7

**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	2,060	82	2,055	83	2,015	76
Car, Truck, Van as Passenger	170	7	105	4	170	6
Public Transit	0	0	20	1	50	2
Walked	155	6	165	7	145	5
Bicycle	55	2	40	2	125	5
Motorcycle	10	0	20	1	25	1
Taxicab	0	0	0	0	0	0
Other Method	75	3	80	3	130	5

**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	12,733	2
Local Parks		
Agricultural Land Reserve	9,213	2
Other land use	502,042	96
Total Parks and Protected Area	12,733	2
Total Land Area	523,987	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	12,733	2
Local Parks		
Agricultural Land Reserve	9,213	2
Other land use	502,042	96
Total Parks and Protected Area	12,733	2
Total Land Area	523,987	100

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

**Powell River Regional District Unincorporated Areas**  
**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,