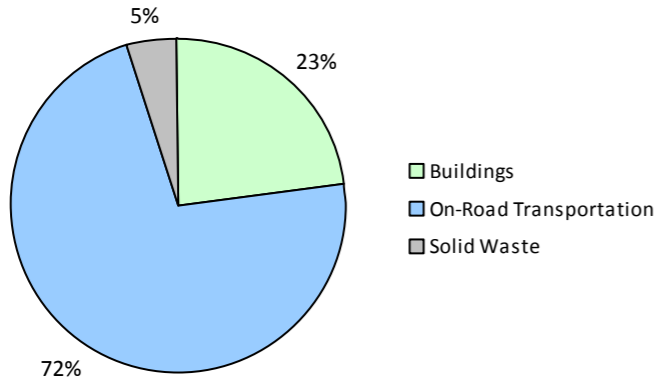


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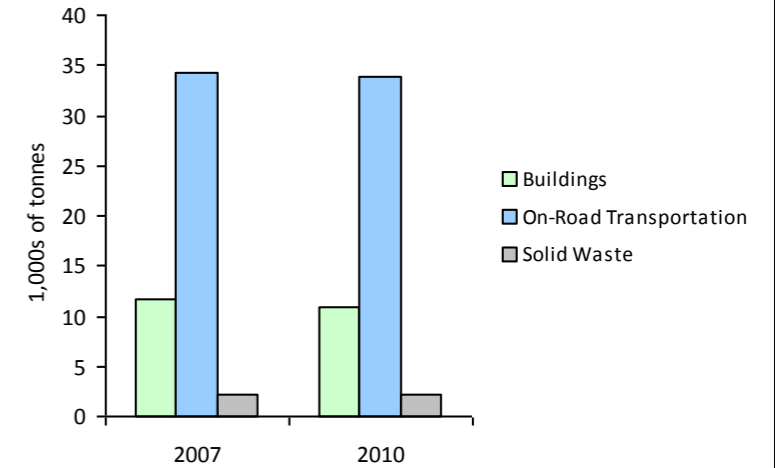
**2010 GHG Emissions Sources (Total for this Community)**



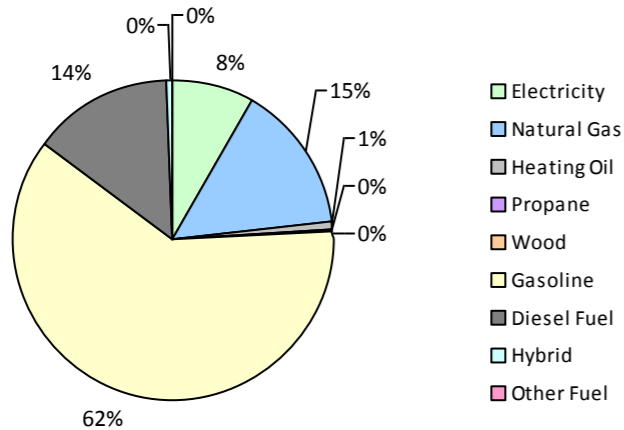
**2010 GHG Emissions Sources (Total for BC)**



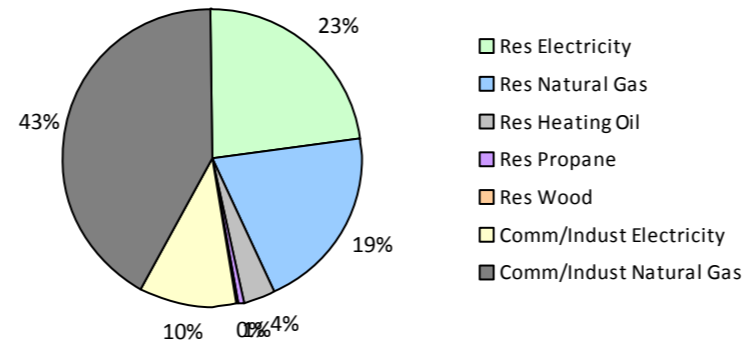
**GHG Emissions Comparisons for this Community**



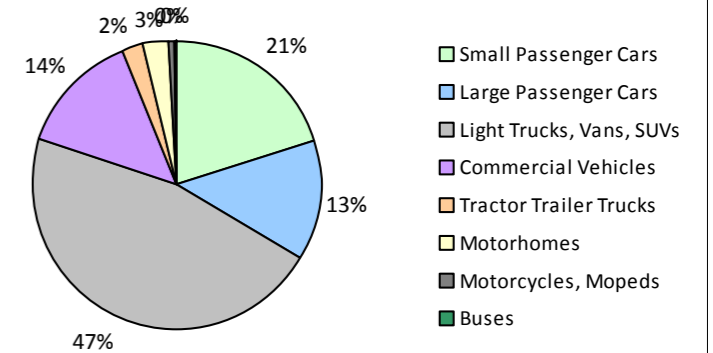
**2010 Total Emissions by Fuel Type**



**2010 Building Emissions by Subsector**



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



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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	11	7,140 L	13,600	250	17	20	13,232 L	13,200	463	29
	Gasoline	2,712	2,864,462 L	11,100	100,257	6,838	2,742	2,893,307 L	11,100	101,266	6,517
	Diesel Fuel	151	138,608 L	14,200	5,309	379	157	138,905 L	13,700	5,320	369
Large Passenger Cars	Hybrid	28	22,815 L	15,900	799	53	54	40,185 L	14,200	1,406	89
	Gasoline	1,556	2,064,084 L	11,600	72,243	4,904	1,454	1,889,295 L	11,500	66,125	4,245
	Diesel Fuel	43	47,179 L	11,700	1,807	129	42	41,482 L	10,700	1,589	111
	Other Fuel			9,700	33	2			6,100	21	1
Light Trucks, Vans, SUVs	Hybrid	11	13,338 L	15,200	467	32	29	36,504 L	15,100	1,277	82
	Gasoline	3,398	6,239,460 L	13,200	218,381	14,925	3,628	6,466,015 L	12,800	226,311	14,673
	Diesel Fuel	171	358,562 L	12,300	13,732	976	147	361,748 L	15,500	13,855	956
	Other Fuel	16	26,200 L	10,000	663	40	17	26,338 L	9,200	666	40
Commercial Vehicles	Gasoline	196	458,416 L	14,000	16,044	1,077	222	493,718 L	13,400	17,279	1,105
	Diesel Fuel	284	985,466 L	18,700	37,743	2,652	368	1,372,995 L	20,100	52,586	3,585
	Other Fuel			8,600	199	12			9,300	211	12
Tractor Trailer Trucks	Gasoline			11,200	112	8			9,900	103	7
	Diesel Fuel	37	329,982 L	21,900	12,638	888	34	309,238 L	22,500	11,844	807
Motorhomes	Gasoline	116	265,267 L	16,300	9,283	621	108	241,443 L	16,100	8,450	538
	Diesel Fuel	60	180,495 L	16,300	6,914	485	57	177,954 L	16,500	6,816	465
Motorcycles, Mopeds	Gasoline	252	58,610 L	5,500	2,051	137	286	76,327 L	6,300	2,671	169
Buses	Gasoline			15,200	633	43	11	23,776 L	13,400	832	53
	Diesel Fuel			17,800	539	38			15,400	327	22
<b>Totals</b>		<b>9,042</b>	<b>14,060,084 L</b>	<b>12,364</b>	<b>500,097</b>	<b>34,256</b>	<b>9,376</b>	<b>14,060,084 L</b>	<b>12,358</b>	<b>519,418</b>	<b>33,875</b>

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Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	2,286 GJ	2,286	46	N/A	2,213 GJ	2,213	45
	Heating Oil	N/A	5,953 GJ	5,953	420	N/A	5,763 GJ	5,763	394
	Propane	N/A	1,027 GJ	1,027	63	N/A	994 GJ	994	61
	Natural Gas	638	41,434 GJ	41,434	2,078	714	42,328 GJ	42,328	2,123
	Electricity	4,615	106,868,503 kWh	384,726	2,672	4,714	102,951,416 kWh	370,625	2,574
Commercial/Small-Medium Industrial	Natural Gas	109	105,904 GJ	105,904	5,312	112	93,193 GJ	93,193	4,675
	Electricity	432	42,881,203 kWh	154,372	1,072	455	44,704,263 kWh	160,935	1,118
<b>Totals</b>		<b>5,794</b>		<b>695,702</b>	<b>11,663</b>	<b>5,995</b>		<b>676,051</b>	<b>10,990</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	3,362 t	N/A	2,249	0	2,492 t	N/A	2,206
<b>Totals</b>		<b>0</b>			<b>2,249</b>	<b>0</b>			<b>2,206</b>

**Totals for Transportation, Buildings and Solid Waste**

Fuel Type	2007 (Population: 10,874)			2010 (Population: 11,112)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	43,293 L	1,516	102	89,921 L	3,146	200
Gasoline	11,950,299 L	419,004	28,553	12,083,881 L	423,037	27,307
Diesel Fuel	2,040,292 L	78,682	5,547	2,402,322 L	92,337	6,315
Other Fuel	26,200 L	895	54	26,338 L	898	53
Wood	2,286 GJ	2,286	46	2,213 GJ	2,213	45
Heating Oil	5,953 GJ	5,953	420	5,763 GJ	5,763	394
Propane	1,027 GJ	1,027	63	994 GJ	994	61
Natural Gas	147,338 GJ	147,338	7,390	135,521 GJ	135,521	6,798
Electricity	149,749,706 kWh	539,098	3,744	147,655,679 kWh	531,560	3,692
Solid Waste	3,362 t	0	2,249	2,492 t	0	2,206
<b>Grand Totals</b>		<b>1,195,799</b>	<b>48,168</b>		<b>1,195,469</b>	<b>47,071</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	3,635	48	3,745	92	3,675	86
Semi-Detached House	35	0	40	1	45	1
Row House	95	1	70	2	135	3
Apartment, Duplex	95	1	155	4	380	9
Apartment, 5 storeys or higher	0	0	5	0	0	0
Apartment, under 5 storeys	20	0	25	1	30	1
Other Single Attached House	10	0	10	0	5	0
Movable Dwelling	25	0	40	1	0	0

**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	3,640	85	3,745	83	3,755	81
Car, Truck, Van as Passenger	210	5	225	5	295	6
Public Transit	155	4	240	5	145	3
Walked	90	2	110	2	170	4
Bicycle	100	2	75	2	120	3
Motorcycle	10	0	25	1	35	1
Taxicab	0	0	0	0	0	0
Other Method	70	2	75	2	110	2

**Parks and Protected Greenspace**

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	13	0
Provincial Parks / Protected Areas	134	4
Local Parks	99	3
Agricultural Land Reserve	1,381	37
Other land use	2,093	56
Total Parks and Protected Area	245	7
Total Land Area	3,720	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	13	0
Provincial Parks / Protected Areas	134	4
Local Parks	99	3
Agricultural Land Reserve	1,381	37
Other land use	2,093	56
Total Parks and Protected Area	245	7
Total Land Area	3,720	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	1,310	34
5 to 9.9 km	650	17
25 km or more	635	16
15 to 24.9 km	1,085	28
10 to 14.9 km	195	5

**North Saanich District Municipality**  
**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,