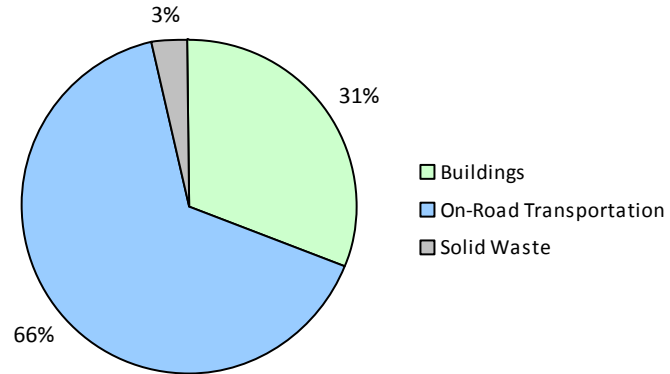
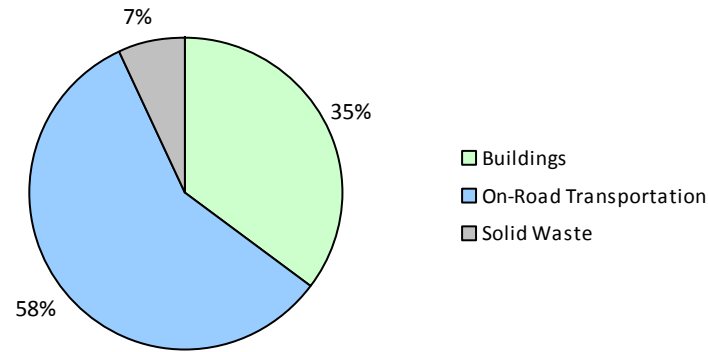


## Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

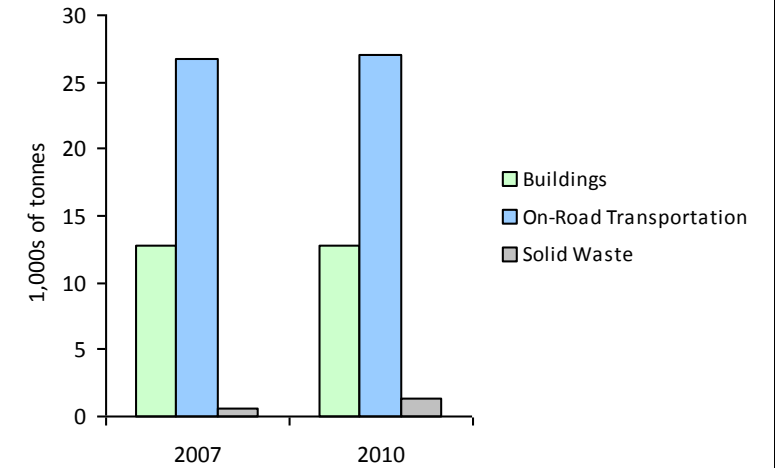
2010 GHG Emissions Sources (Total for this Community)



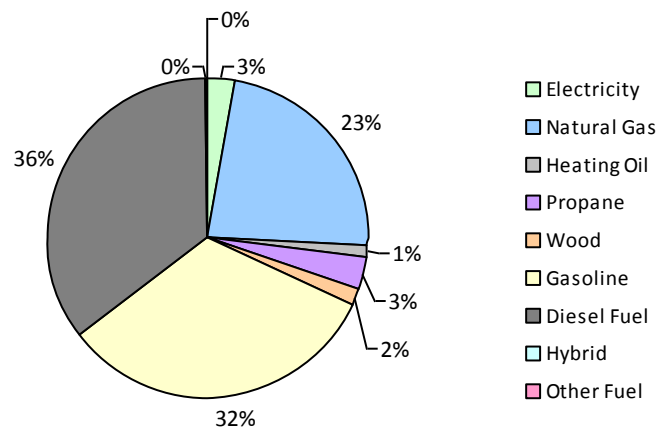
2010 GHG Emissions Sources (Total for BC)



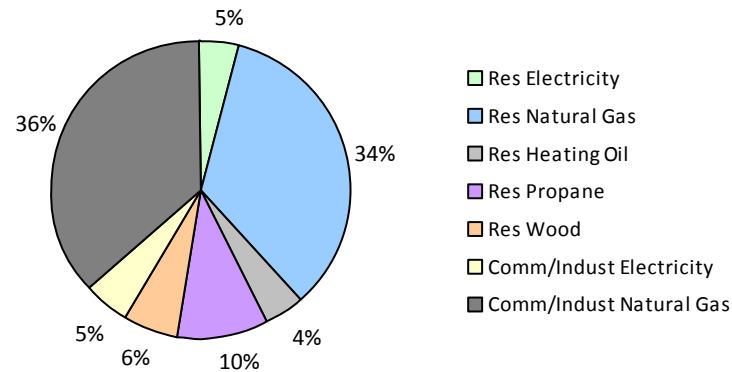
GHG Emissions Comparisons for this Community



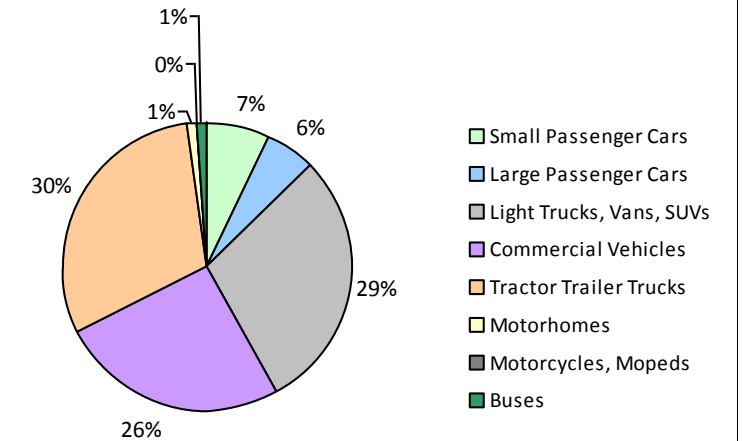
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



## Vanderhoof 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	Hybrid							27,800	96	6	
	Gasoline	480	850,781 L	18,900	29,778	2,004	484	795,900 L	17,600	27,856	1,781
	Diesel Fuel	28	50,642 L	26,500	1,939	138	30	47,934 L	23,300	1,836	127
Large Passenger Cars	Hybrid							26,700	218	13	
	Gasoline	322	741,737 L	20,600	25,961	1,747	315	681,277 L	19,300	23,844	1,522
	Diesel Fuel			9,800	116	8		12,200	134	9	
Light Trucks, Vans, SUVs	Gasoline	1,074	3,140,456 L	19,600	109,916	7,481	1,173	3,311,768 L	19,100	115,912	7,491
	Diesel Fuel	64	160,745 L	14,400	6,157	438	47	125,214 L	15,600	4,795	332
	Other Fuel			11,600	437	26		12,800	167	11	
Commercial Vehicles	Gasoline	222	722,660 L	19,000	25,294	1,697	274	865,694 L	18,600	30,299	1,937
	Diesel Fuel	363	1,535,238 L	23,700	58,800	4,130	414	1,896,708 L	25,800	72,644	4,952
	Other Fuel			11,800	526	33		11,200	291	19	
Tractor Trailer Trucks	Gasoline			10,700	273	18		15,500	204	14	
	Diesel Fuel	141	3,165,006 L	52,300	121,219	8,517	129	3,140,620 L	55,800	120,286	8,200
Motorhomes	Gasoline	17	49,920 L	20,100	1,747	116	18	51,088 L	19,600	1,789	112
	Diesel Fuel	11	41,925 L	19,500	1,606	113	12	47,822 L	20,100	1,832	126
	Other Fuel			27,500	106	7					
Motorcycles, Mopeds	Gasoline	23	6,254 L	5,800	219	14	43	11,670 L	5,900	408	27
Buses	Gasoline			11,100	202	14		13,100	221	14	
	Diesel Fuel	19	96,518 L	18,900	3,696	260	20	97,753 L	17,300	3,744	255
	Other Fuel			13,200	390	24		11,700	298	19	
<b>Totals</b>		<b>2,764</b>	<b>10,561,882 L</b>	<b>21,586</b>	<b>388,382</b>	<b>26,785</b>	<b>2,959</b>	<b>10,561,882 L</b>	<b>21,157</b>	<b>406,874</b>	<b>26,967</b>

## Vanderhoof 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	38,655 GJ	38,655	783	N/A	36,035 GJ	36,035	730
	Heating Oil	N/A	8,115 GJ	8,115	572	N/A	7,565 GJ	7,565	517
	Propane	N/A	22,043 GJ	22,043	1,345	N/A	20,549 GJ	20,549	1,254
	Natural Gas	1,172	95,125 GJ	95,125	4,771	1,172	85,749 GJ	85,749	4,301
	Electricity	1,898	22,748,230 kWh	81,894	569	1,937	23,299,701 kWh	83,879	583
Commercial/Small-Medium Industrial	Natural Gas	246	80,776 GJ	80,776	4,052	246	93,928 GJ	93,928	4,711
	Electricity	400	25,084,859 kWh	90,305	627	414	25,209,474 kWh	90,754	630
<b>Totals</b>		<b>3,716</b>		<b>416,913</b>	<b>12,719</b>	<b>3,769</b>		<b>418,459</b>	<b>12,726</b>

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	4,424 t	N/A	640	0	5,324 t	N/A	1,395
<b>Totals</b>		<b>0</b>			<b>640</b>	<b>0</b>			<b>1,395</b>

### Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	1		0	0	1		0	0
	Electricity	2		0	0	2		0	0
<b>Totals</b>		<b>3</b>			<b>0</b>	<b>3</b>			<b>0</b>

## Vanderhoof 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: 4,144)			2010 (Population: 4,049)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	0		0 L	314	19
Gasoline	5,511,808 L	193,390	13,091	5,717,397 L	200,533	12,898
Diesel Fuel	5,050,074 L	193,533	13,604	5,356,051 L	205,271	14,001
Other Fuel	0 L	1,459	90	0 L	756	49
Wood	38,655 GJ	38,655	783	36,035 GJ	36,035	730
Heating Oil	8,115 GJ	8,115	572	7,565 GJ	7,565	517
Propane	22,043 GJ	22,043	1,345	20,549 GJ	20,549	1,254
Natural Gas	175,901 GJ	175,901	8,823	179,677 GJ	179,677	9,012
Electricity	47,833,089 kWh	172,199	1,196	48,509,175 kWh	174,633	1,213
Solid Waste	4,424 t	0	640	5,324 t	0	1,395
<b>Grand Totals</b>		<b>805,295</b>	<b>40,144</b>		<b>825,333</b>	<b>41,088</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	1,015	39	1,220	77	1,125	73
Semi-Detached House	65	3	80	5	60	4
Row House	145	6	80	5	90	6
Apartment, Duplex	10	0	15	1	15	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	145	6	105	7	135	9
Other Single Attached House	0	0	0	0	5	0
Movable Dwelling	185	7	90	6	120	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	1,380	75	1,485	77	1,480	80
Car, Truck, Van as Passenger	205	11	200	10	160	9
Public Transit	0	0	0	0	0	0
Walked	195	11	215	11	210	11
Bicycle	30	2	15	1	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	30	2	10	1	0	0

**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	11	0
Agricultural Land Reserve	3,608	61
Other land use	2,311	39
Total Parks and Protected Area	11	0
Total Land Area	5,931	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	11	0
Agricultural Land Reserve	3,608	61
Other land use	2,311	39
Total Parks and Protected Area	11	0
Total Land Area	5,931	100

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

**Vanderhoof 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,