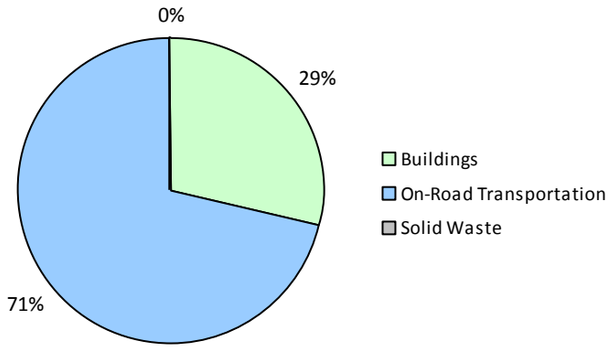
Bulkley-Nechako Regional District Unincorporated Areas

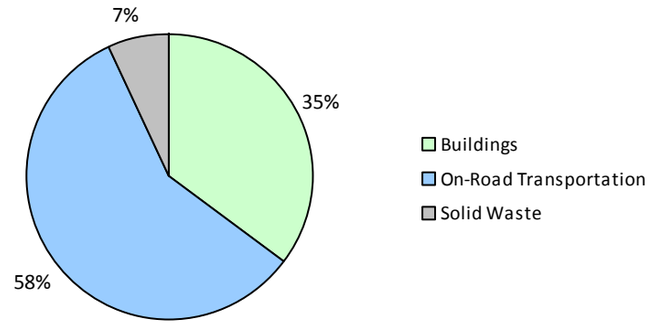
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

2010 GHG Emissions Sources (Total for this Community)

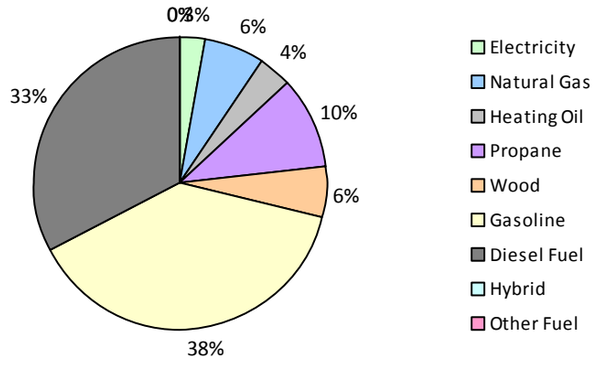


2010 GHG Emissions Sources (Total for BC)

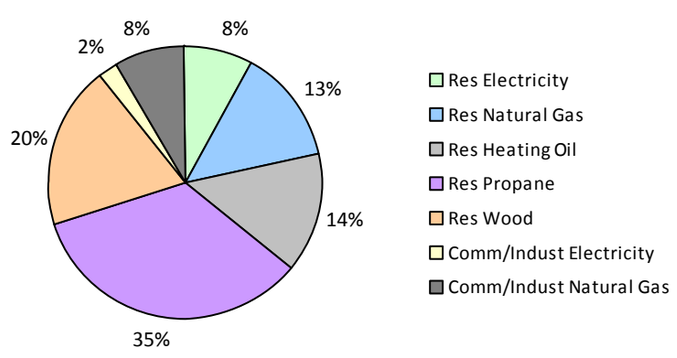


GHG Emissions Comparisons for this Community

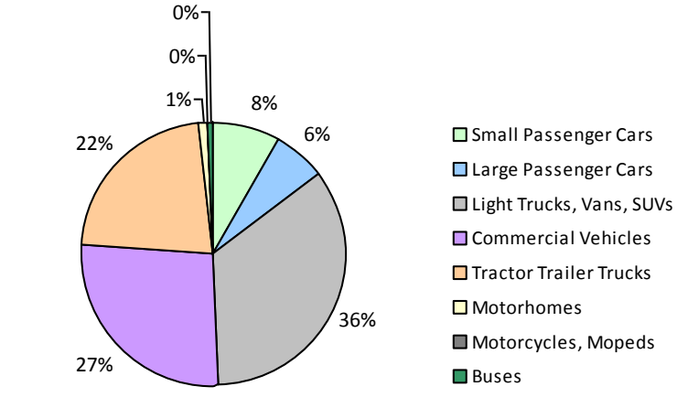
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Bulkley-Nechako Regional District Unincorporated Areas

2010 Community Energy and Emissions Inventory

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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	2,100	3,221,315 L	17,700	112,745	7,675	2,113	3,334,709 L	17,600	116,714	7,498
	Diesel Fuel	112	178,398 L	24,800	6,833	488	128	195,141 L	22,700	7,474	516
Large Passenger Cars	Hybrid			27,400	289	19	19	32,047 L	31,100	1,123	71
	Gasoline	1,281	2,528,941 L	19,200	88,513	6,025	1,253	2,526,885 L	19,000	88,441	5,685
	Diesel Fuel	14	13,522 L	10,800	518	37	12	11,064 L	11,500	425	30
Light Trucks, Vans, SUVs	Hybrid								23,500	152	10
	Gasoline	5,190	12,404,880 L	17,800	434,171	29,817	5,420	13,704,556 L	18,200	479,659	31,162
	Diesel Fuel	371	852,853 L	13,400	32,664	2,323	293	694,167 L	14,400	26,586	1,836
	Other Fuel	39	76,161 L	11,700	1,927	116	18	29,872 L	10,400	756	46
Commercial Vehicles	Gasoline	847	2,357,766 L	18,000	82,522	5,543	936	2,701,476 L	18,000	94,552	6,043
	Diesel Fuel	1,531	5,831,113 L	22,400	223,333	15,690	1,694	7,262,820 L	25,000	278,167	18,961
	Other Fuel	17	37,528 L	12,100	949	58	14	26,006 L	10,400	656	41
Tractor Trailer Trucks	Gasoline			12,000	436	28					
	Diesel Fuel	390	9,170,215 L	57,900	351,219	24,677	350	8,080,263 L	58,000	309,474	21,098
Motorhomes	Gasoline	65	179,991 L	19,900	6,299	419	75	216,273 L	20,200	7,570	480
	Diesel Fuel	51	194,687 L	20,000	7,457	523	60	230,502 L	19,800	8,829	601
Motorcycles, Mopeds	Gasoline	119	22,632 L	4,900	791	53	173	43,414 L	5,700	1,522	98
Buses	Gasoline	23	59,819 L	21,100	2,093	140	18	44,852 L	16,600	1,569	101
	Diesel Fuel	25	144,403 L	19,900	5,532	389	22	127,672 L	20,000	4,891	333
	Other Fuel			14,000	378	23					
Totals		**12,175**	**37,274,224 L**	**19,607**	**1,358,669**	**94,043**	**12,598**	**37,274,224 L**	**19,984**	**1,428,560**	**94,610**

Bulkley-Nechako Regional District Unincorporated Areas

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	405,001 GJ	405,001	8,205	N/A	377,553 GJ	377,553	7,649
	Heating Oil	N/A	84,946 GJ	84,946	5,988	N/A	79,189 GJ	79,189	5,416
	Propane	N/A	230,550 GJ	230,550	14,066	N/A	214,925 GJ	214,925	13,113
	Natural Gas	1,730	122,997 GJ	122,997	6,170	1,730	103,211 GJ	103,211	5,178
	Electricity	9,344	132,709,077 kWh	477,752	3,319	9,476	130,363,626 kWh	469,309	3,258
Commercial/Small-Medium Industrial	Natural Gas	139	38,700 GJ	38,700	1,941	139	64,698 GJ	64,698	3,246
	Electricity	1,219	36,079,151 kWh	129,885	901	1,275	32,643,513 kWh	117,517	817
Totals		**12,432**		**1,489,831**	**40,590**	**12,620**		**1,426,402**	**38,677**

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	21 t	N/A	15	0	20 t	N/A	16
Totals		**0**			**15**	**0**			**16**

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Electricity	2		0	0	2		0	0
Totals		**2**			**0**	**2**			**0**

Bulkley-Nechako Regional District Unincorporated Areas

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: 19,689)			2010 (Population: 20,321)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	289	19	32,047 L	1,275	81
Gasoline	20,775,344 L	727,570	49,700	22,572,165 L	790,027	51,067
Diesel Fuel	16,385,191 L	627,556	44,127	16,601,629 L	635,846	43,375
Other Fuel	113,689 L	3,254	197	55,878 L	1,412	87
Wood	405,001 GJ	405,001	8,205	377,553 GJ	377,553	7,649
Heating Oil	84,946 GJ	84,946	5,988	79,189 GJ	79,189	5,416
Propane	230,550 GJ	230,550	14,066	214,925 GJ	214,925	13,113
Natural Gas	161,697 GJ	161,697	8,111	167,909 GJ	167,909	8,424
Electricity	168,788,228 kWh	607,637	4,220	163,007,139 kWh	586,826	4,075
Solid Waste	21 t	0	15	20 t	0	16
Grand Totals		**2,848,500**	**134,648**		**2,854,962**	**133,303**

Bulkley-Nechako Regional District Unincorporated Areas

2010 Community Energy and Emissions Inventory

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	5,915	34	6,405	89	6,505	90
Semi-Detached House	10	0	35	0	100	1
Row House	30	0	30	0	10	0
Apartment, Duplex	25	0	30	0	20	0
Apartment, 5 storeys or higher	0	0	0	0	5	0
Apartment, under 5 storeys	25	0	15	0	25	0
Other Single Attached House	30	0	20	0	25	0
Movable Dwelling	725	4	670	9	545	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	6,135	81	6,285	84	6,645	83
Car, Truck,Van as Passenger	785	10	615	8	665	8
Public Transit	40	1	55	1	55	1
Walked	485	6	360	5	335	4
Bicycle	35	0	45	1	55	1
Motorcycle	0	0	35	0	10	0
Taxicab	10	0	5	0	0	0
Other Method	60	1	80	1	225	3

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	1,081,127	14
Local Parks	97	0
Agricultural Land Reserve	462,204	6
Other land use	6,240,408	80
Total Parks and Protected Area	1,081,224	14
Total Land Area	7,783,836	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	1,081,127	14
Local Parks	97	0
Agricultural Land Reserve	462,204	6
Other land use	6,240,408	80
Total Parks and Protected Area	1,081,224	14
Total Land Area	7,783,836	100

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

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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

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

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