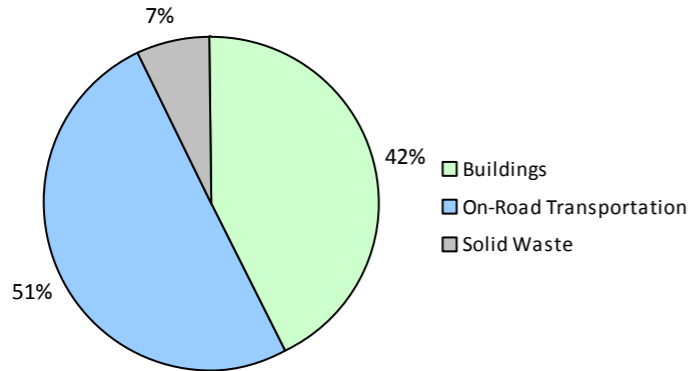


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

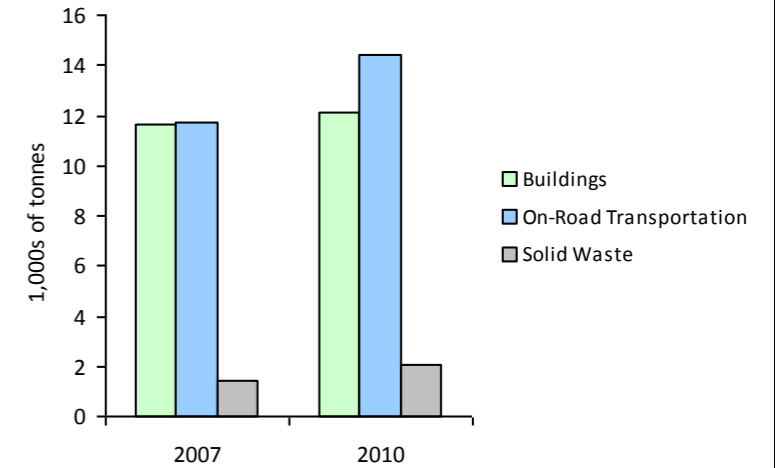
2010 GHG Emissions Sources (Total for this Community)



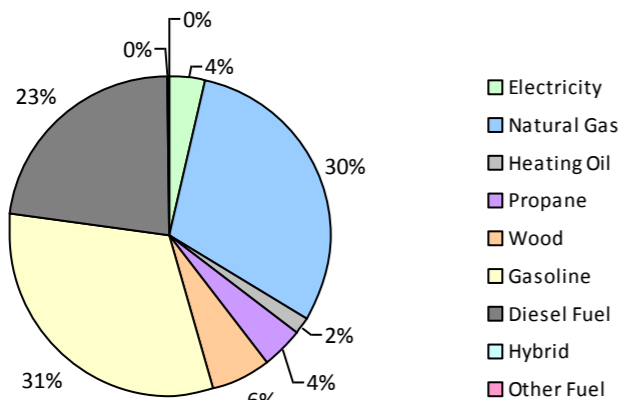
2010 GHG Emissions Sources (Total for BC)



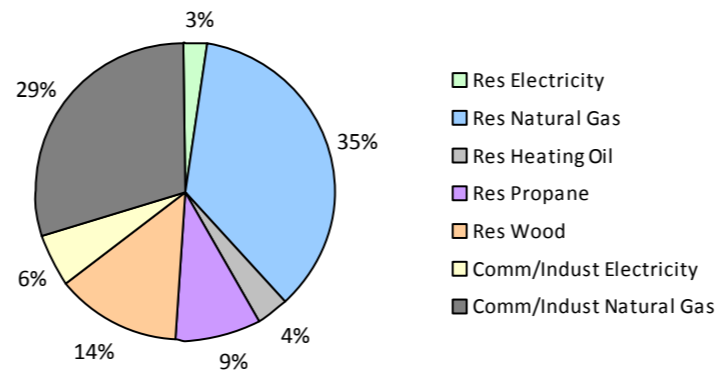
GHG Emissions Comparisons for this Community



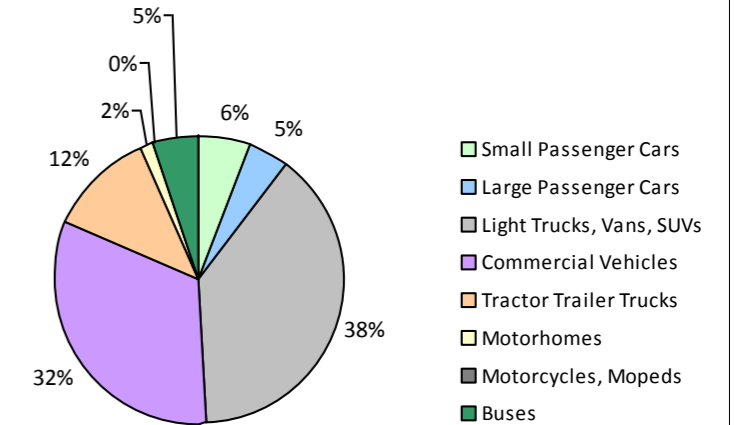
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Tumbler Ridge District Municipality 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							14,700	30	3	
	Gasoline	233	375,473 L	16,900	13,142	888	214	366,629 L	18,000	12,833	820
	Diesel Fuel			23,700	498	36		20,900	340	24	
Large Passenger Cars	Gasoline	141	301,221 L	18,500	10,543	713	135	292,674 L	18,800	10,244	655
	Diesel Fuel			9,400	112	9		9,300	110	7	
Light Trucks, Vans, SUVs	Hybrid			27,300	153	10		23,900	374	24	
	Gasoline	728	1,992,475 L	18,300	69,737	4,757	807	2,307,093 L	19,200	80,748	5,225
	Diesel Fuel	43	116,014 L	15,300	4,444	316	38	112,557 L	16,900	4,311	298
	Other Fuel			11,900	366	22		10,900	276	17	
Commercial Vehicles	Gasoline	133	428,906 L	19,000	15,012	1,009	167	615,311 L	21,800	21,536	1,378
	Diesel Fuel	208	873,550 L	23,900	33,457	2,351	268	1,249,489 L	26,600	47,855	3,262
	Other Fuel			8,300	75	4					
Tractor Trailer Trucks	Diesel Fuel	34	498,938 L	34,900	19,109	1,343	38	661,198 L	41,000	25,324	1,727
Motorhomes	Gasoline	16	45,907 L	19,900	1,607	107	18	53,542 L	20,300	1,874	119
	Diesel Fuel	15	54,672 L	19,500	2,095	147	13	50,144 L	19,900	1,921	131
Motorcycles, Mopeds	Gasoline	15		5,100	0	0	28	8,029 L	6,100	281	17
Buses	Gasoline						10	49,259 L	27,200	1,724	110
	Diesel Fuel			25,100	272	18	37	228,258 L	22,900	8,742	597
Totals		1,566	4,687,156 L	19,092	170,622	11,730	1,773	4,687,156 L	20,738	218,523	14,414

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	87,283 GJ	87,283	1,768	N/A	81,367 GJ	81,367	1,648
	Heating Oil	N/A	6,943 GJ	6,943	489	N/A	6,472 GJ	6,472	443
	Propane	N/A	18,821 GJ	18,821	1,148	N/A	17,545 GJ	17,545	1,070
	Natural Gas	1,072	85,342 GJ	85,342	4,281	1,072	85,829 GJ	85,829	4,305
	Electricity	1,475	11,761,622 kWh	42,342	294	1,483	12,225,511 kWh	44,012	306
Commercial/Small-Medium Industrial	Natural Gas	100	61,555 GJ	61,555	3,088	100	72,200 GJ	72,200	3,622
	Electricity	160	21,456,013 kWh	77,242	536	182	28,950,476 kWh	104,222	724
Totals		2,807		379,528	11,604	2,837		411,647	12,118

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Solid Waste	2007				2010			
	Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste Solid Waste	0	1,336 t	N/A	1,448	0	1,425 t	N/A	2,053
Totals	0			1,448	0			2,053

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	3		0	0
Totals	3			0	4			0

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 2,434)			2010 (Population: 2,428)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	153	10	0 L	404	27
Gasoline	3,143,982 L	110,041	7,474	3,692,537 L	129,240	8,324
Diesel Fuel	1,543,174 L	59,987	4,220	2,301,646 L	88,603	6,046
Other Fuel	0 L	441	26	0 L	276	17
Wood	87,283 GJ	87,283	1,768	81,367 GJ	81,367	1,648
Heating Oil	6,943 GJ	6,943	489	6,472 GJ	6,472	443
Propane	18,821 GJ	18,821	1,148	17,545 GJ	17,545	1,070
Natural Gas	146,897 GJ	146,897	7,369	158,029 GJ	158,029	7,927
Electricity	33,217,635 kWh	119,584	830	41,175,987 kWh	148,234	1,030
Solid Waste	1,336 t	0	1,448	1,425 t	0	2,053
Grand Totals		550,150	24,782		630,170	28,585

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	830	40	520	74	870	83
Semi-Detached House	10	0	5	1	0	0
Row House	20	1	15	2	0	0
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	145	7	35	5	0	0
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	230	11	130	18	175	17

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	1,130	59	595	66	745	63
Car, Truck, Van as Passenger	570	30	160	18	175	15
Public Transit	0	0	10	1	25	2
Walked	190	10	115	13	105	9
Bicycle	0	0	25	3	30	3
Motorcycle	0	0	0	0	0	0
Taxicab	10	1	0	0	0	0
Other Method	15	1	0	0	95	8

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	10	0
Agricultural Land Reserve	0	0
Other land use	157,749	100
Total Parks and Protected Area	10	0
Total Land Area	157,759	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	10	0
Agricultural Land Reserve	0	0
Other land use	157,749	100
Total Parks and Protected Area	10	0
Total Land Area	157,759	100

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

Tumbler Ridge 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

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

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,