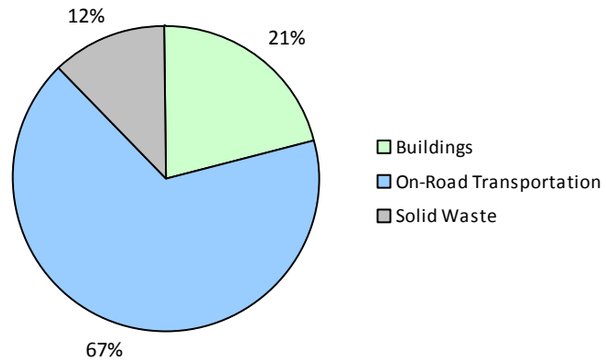
Chase Village

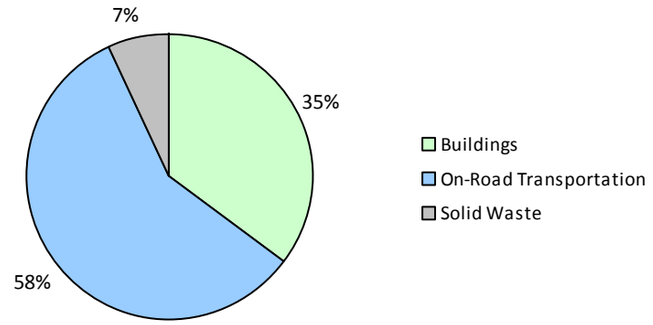
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

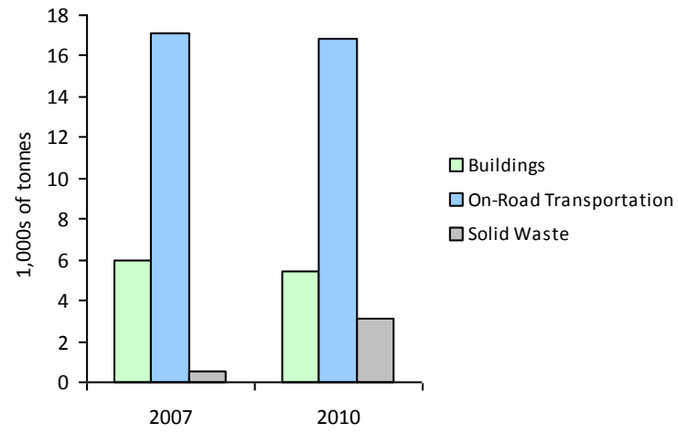
2010 GHG Emissions Sources (Total for this Community)



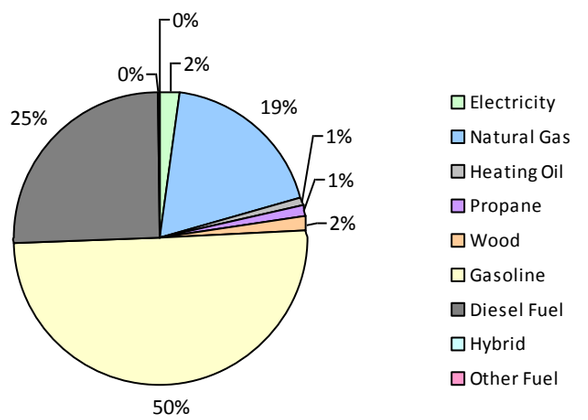
2010 GHG Emissions Sources (Total for BC)



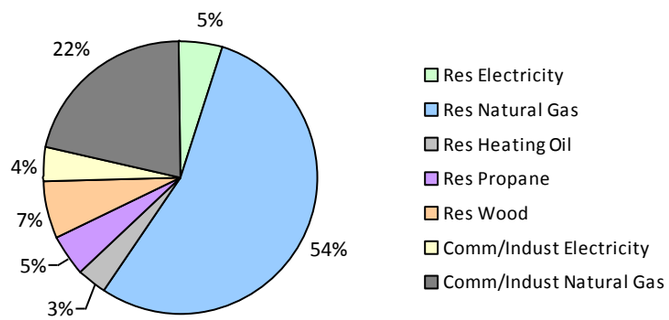
GHG Emissions Comparisons for this Community



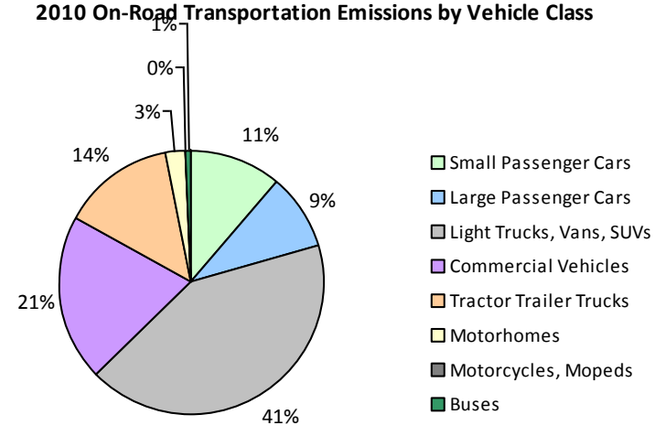
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



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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	Hybrid								25,700	44	4
	Gasoline	540	820,667 L	16,100	28,723	1,938	542	806,621 L	15,700	28,232	1,803
	Diesel Fuel	21	38,356 L	27,100	1,469	105	27	43,367 L	23,900	1,662	116
Large Passenger Cars	Hybrid								17,500	219	13
	Gasoline	398	737,839 L	16,500	25,824	1,743	384	690,004 L	16,000	24,150	1,541
	Diesel Fuel			14,800	382	26			16,400	291	20
Light Trucks, Vans, SUVs	Hybrid			18,500	53	4			20,100	117	8
	Gasoline	1,005	2,706,466 L	18,500	94,726	6,455	1,106	2,891,821 L	18,000	101,214	6,546
	Diesel Fuel	52	128,695 L	14,000	4,928	350	56	160,003 L	17,000	6,129	423
	Other Fuel			10,300	311	18			10,200	223	15
Commercial Vehicles	Gasoline	112	363,674 L	19,200	12,729	855	127	405,320 L	18,800	14,186	907
	Diesel Fuel	167	758,800 L	25,800	29,062	2,042	212	978,019 L	26,300	37,458	2,554
	Other Fuel			12,300	174	10			10,600	101	6
Tractor Trailer Trucks	Gasoline			20,500	160	12			16,400	129	8
	Diesel Fuel	50	1,140,044 L	50,300	43,664	3,068	46	883,296 L	42,800	33,831	2,306
Motorhomes	Gasoline	27	77,434 L	19,500	2,710	181	32	91,992 L	19,500	3,219	205
	Diesel Fuel	19	75,389 L	20,600	2,888	203	20	80,933 L	20,200	3,100	211
	Other Fuel			15,700	119	7			26,300	105	6
Motorcycles, Mopeds	Gasoline	31	8,249 L	5,700	289	20	36	9,800 L	5,800	343	22
Buses	Gasoline			18,900	328	22			22,700	754	49
	Diesel Fuel			20,200	623	44			19,300	559	39
Totals		**2,422**	**6,855,613 L**	**18,670**	**249,162**	**17,103**	**2,588**	**6,855,613 L**	**18,287**	**256,066**	**16,802**

Chase Village

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Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	19,242 GJ	19,242	390	N/A	18,521 GJ	18,521	375
	Heating Oil	N/A	2,601 GJ	2,601	183	N/A	2,504 GJ	2,504	171
	Propane	N/A	4,588 GJ	4,588	280	N/A	4,417 GJ	4,417	269
	Natural Gas	962	65,232 GJ	65,232	3,272	967	58,626 GJ	58,626	2,940
	Electricity	1,141	11,308,603 kWh	40,711	283	1,163	11,366,604 kWh	40,920	284
Commercial/Small-Medium Industrial	Natural Gas	117	26,990 GJ	26,990	1,354	110	23,622 GJ	23,622	1,185
	Electricity	193	8,024,794 kWh	28,889	201	180	8,508,005 kWh	30,629	213
Totals		**2,413**		**188,253**	**5,963**	**2,420**		**179,239**	**5,437**

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	2,571 t	N/A	503	0	2,064 t	N/A	3,080
Totals		**0**			**503**	**0**			**3,080**

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 2,409)			2010 (Population: 2,487)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	53	4	0 L	380	25
Gasoline	4,714,329 L	165,489	11,226	4,895,558 L	172,227	11,081
Diesel Fuel	2,141,284 L	83,016	5,838	2,145,618 L	83,030	5,669
Other Fuel	0 L	604	35	0 L	429	27
Wood	19,242 GJ	19,242	390	18,521 GJ	18,521	375
Heating Oil	2,601 GJ	2,601	183	2,504 GJ	2,504	171
Propane	4,588 GJ	4,588	280	4,417 GJ	4,417	269
Natural Gas	92,222 GJ	92,222	4,626	82,248 GJ	82,248	4,125
Electricity	19,333,397 kWh	69,600	484	19,874,609 kWh	71,549	497
Solid Waste	2,571 t	0	503	2,064 t	0	3,080
Grand Totals		**437,415**	**23,569**		**435,305**	**25,319**

Chase Village

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	695	40	715	66	720	66
Semi-Detached House	35	2	30	3	45	4
Row House	60	3	65	6	40	4
Apartment, Duplex	15	1	5	0	5	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	75	4	95	9	105	10
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	155	9	180	17	175	16

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	540	74	535	74	675	78
Car, Truck,Van as Passenger	35	5	65	9	60	7
Public Transit	10	1	0	0	10	1
Walked	140	19	110	15	110	13
Bicycle	0	0	15	2	10	1
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	0	0	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	10	2
Agricultural Land Reserve	39	8
Other land use	409	89
Total Parks and Protected Area	10	2
Total Land Area	458	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	2
Agricultural Land Reserve	39	8
Other land use	409	89
Total Parks and Protected Area	10	2
Total Land Area	458	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	465	63
5 to 9.9 km	0	0
25 km or more	265	36
15 to 24.9 km	10	1
10 to 14.9 km	0	0

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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

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,