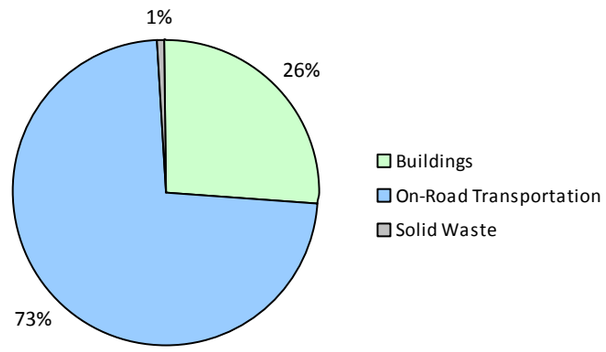
Clinton Village

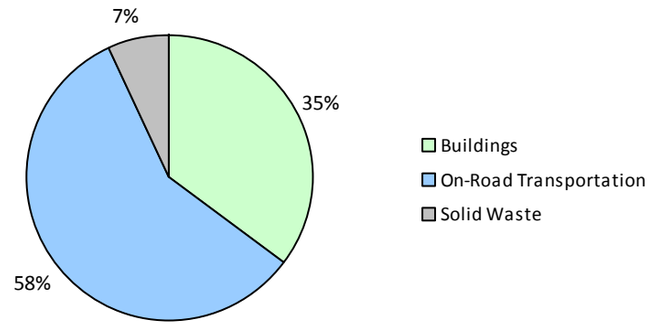
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

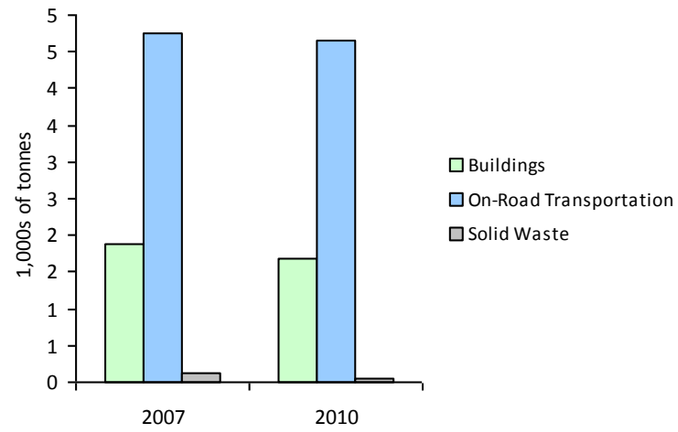
2010 GHG Emissions Sources (Total for this Community)



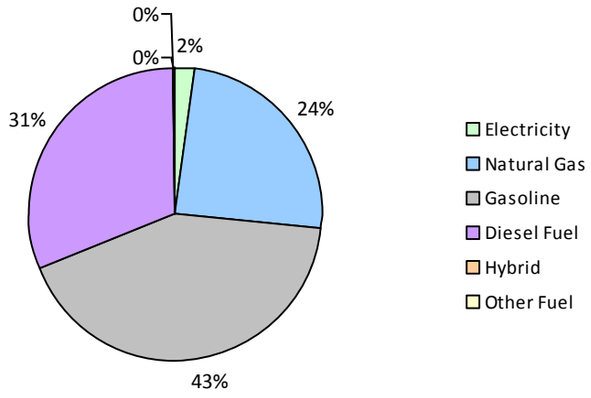
2010 GHG Emissions Sources (Total for BC)



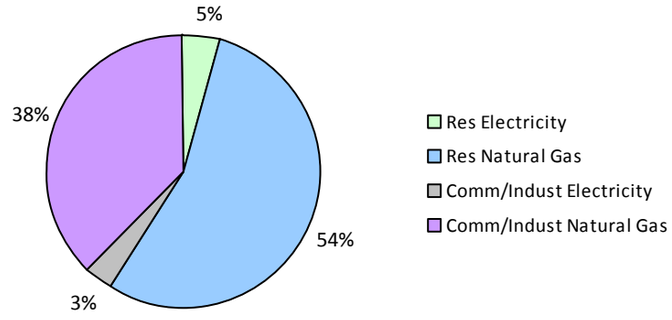
GHG Emissions Comparisons for this Community



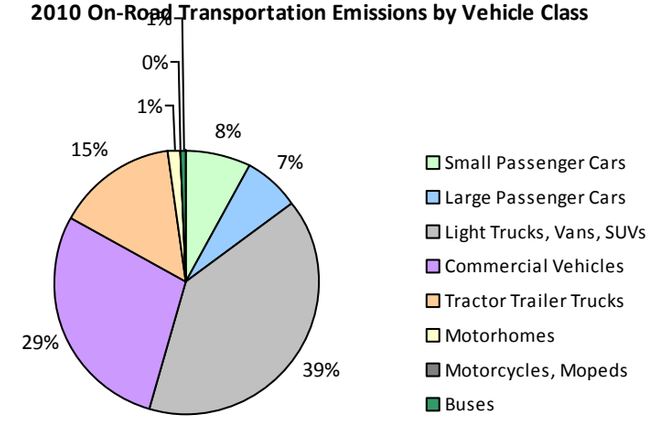
2010 Total Emissions by Fuel Type



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	Gasoline	127	180,562 L	15,000	6,320	428	115	159,167 L	14,600	5,570	357
	Diesel Fuel			25,000	133	9			22,600	355	25
Large Passenger Cars	Hybrid								17,900	38	4
	Gasoline	83	139,645 L	14,600	4,888	333	78	139,705 L	15,700	4,890	315
	Diesel Fuel			11,900	95	6					
Light Trucks, Vans, SUVs	Gasoline	280	702,427 L	17,200	24,585	1,685	305	737,834 L	16,600	25,824	1,677
	Diesel Fuel	27	70,102 L	14,700	2,685	191	19	51,077 L	15,000	1,956	135
	Other Fuel			12,300	266	16			8,800	114	7
Commercial Vehicles	Gasoline	41	117,033 L	16,700	4,096	275	45	125,227 L	16,300	4,383	280
	Diesel Fuel	72	313,956 L	24,300	12,024	845	89	407,797 L	25,800	15,618	1,065
	Other Fuel			12,300	172	11			12,800	120	8
Tractor Trailer Trucks	Gasoline			11,300	117	8					
	Diesel Fuel	16	329,244 L	46,100	12,610	886	13	268,203 L	45,100	10,272	700
Motorhomes	Gasoline								21,400	439	28
	Diesel Fuel			20,100	714	50			21,500	471	32
Motorcycles, Mopeds	Gasoline			6,300	31	2			6,700	54	4
Buses	Diesel Fuel			15,500	170	12			14,600	364	25
Totals		**646**	**1,852,969 L**	**17,804**	**68,906**	**4,757**	**664**	**1,852,969 L**	**17,873**	**70,468**	**4,662**

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Natural Gas	280	20,931 GJ	20,931	1,050	259	18,152 GJ	18,152	910
	Electricity	370	3,193,124 kWh	11,495	80	373	3,237,939 kWh	11,657	81
Commercial/Small-Medium Industrial	Natural Gas	46	13,724 GJ	13,724	688	45	12,845 GJ	12,845	644
	Electricity	78	2,179,885 kWh	7,848	55	80	2,292,995 kWh	8,255	57
Totals		**774**		**53,998**	**1,873**	**757**		**50,909**	**1,692**

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Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	611 t	N/A	130	0	188 t	N/A	55
Totals		**0**			**130**	**0**			**55**

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Electricity	1		0	0	1		0	0
Totals		**1**			**0**	**1**			**0**

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 573)			2010 (Population: 604)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	0		0 L	38	4
Gasoline	1,139,667 L	40,037	2,731	1,161,933 L	41,160	2,661
Diesel Fuel	713,302 L	28,431	1,999	727,077 L	29,036	1,982
Other Fuel	0 L	438	27	0 L	234	15
Natural Gas	34,655 GJ	34,655	1,738	30,997 GJ	30,997	1,554
Electricity	5,373,009 kWh	19,343	135	5,530,934 kWh	19,912	138
Solid Waste	611 t	0	130	188 t	0	55
Grand Totals		**122,904**	**6,760**		**121,377**	**6,409**

Clinton Village

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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	195	39	205	72	200	70
Semi-Detached House	10	2	5	2	5	2
Row House	60	12	10	4	20	7
Apartment, Duplex	0	0	5	2	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	10	2	5	2	15	5
Other Single Attached House	0	0	10	4	0	0
Movable Dwelling	30	6	45	16	45	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	130	59	125	69	170	71
Car, Truck,Van as Passenger	20	9	10	6	20	8
Public Transit	0	0	0	0	0	0
Walked	70	32	45	25	50	21
Bicycle	0	0	0	0	0	0
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	6	1
Agricultural Land Reserve	126	16
Other land use	673	84
Total Parks and Protected Area	6	1
Total Land Area	805	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	6	1
Agricultural Land Reserve	126	16
Other land use	673	84
Total Parks and Protected Area	6	1
Total Land Area	805	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

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,