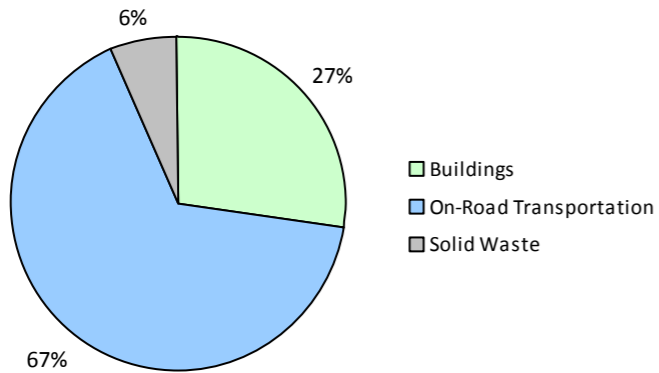


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

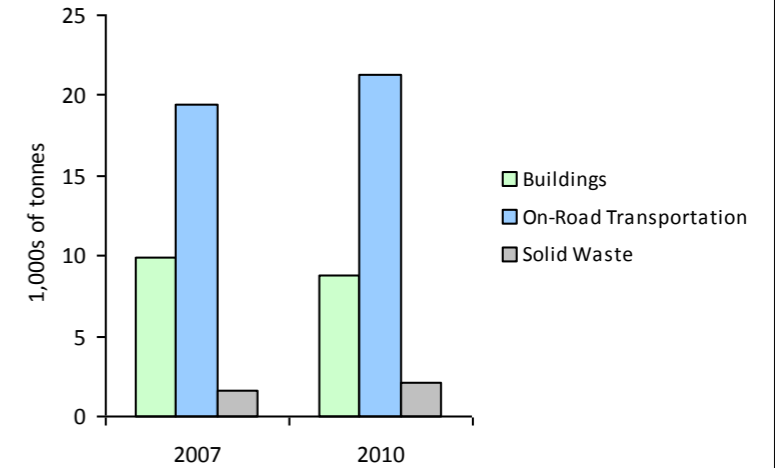
2010 GHG Emissions Sources (Total for this Community)



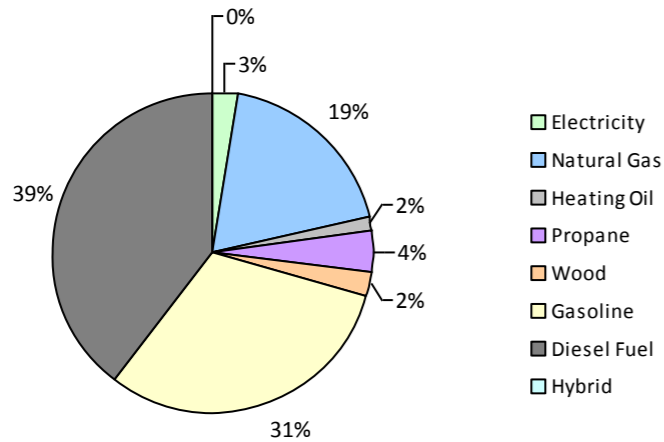
2010 GHG Emissions Sources (Total for BC)



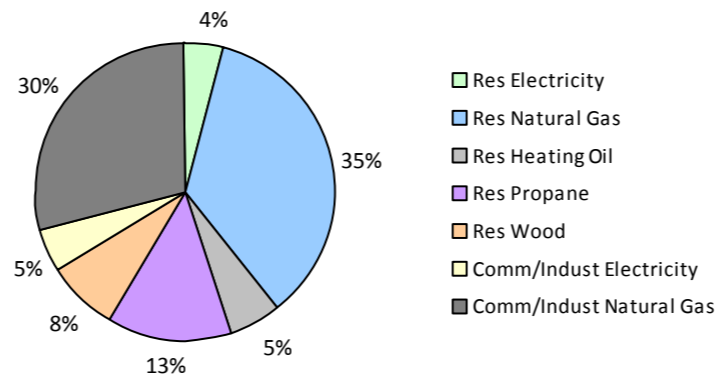
GHG Emissions Comparisons for this Community



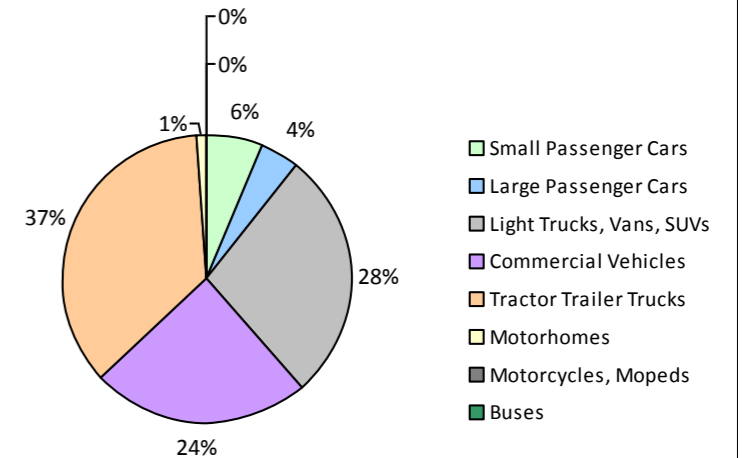
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Houston 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)	CO ₂ e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	CO ₂ e (t)
Small Passenger Cars	Gasoline	296	567,020 L	20,600	19,846	1,331	316	587,056 L	20,000	20,547	1,311
	Diesel Fuel	10	18,916 L	27,700	724	52		24,700	511	36	
Large Passenger Cars	Hybrid							27,900	125	8	
	Gasoline	161	387,431 L	21,700	13,559	910	173	415,989 L	21,400	14,559	929
Light Trucks, Vans, SUVs	Hybrid							39,400	148	10	
	Gasoline	755	2,304,952 L	20,500	80,673	5,481	837	2,495,628 L	20,200	87,348	5,640
	Diesel Fuel	49	120,913 L	14,000	4,632	330	42	114,515 L	16,200	4,387	303
	Other Fuel			12,000	264	16					
Commercial Vehicles	Gasoline	146	507,482 L	20,400	17,762	1,194	172	565,527 L	19,400	19,794	1,266
	Diesel Fuel	272	1,174,110 L	24,600	44,968	3,160	320	1,473,663 L	26,100	56,442	3,848
	Other Fuel			10,000	47	3					
Tractor Trailer Trucks	Diesel Fuel	83	2,487,824 L	69,200	95,283	6,695	100	2,944,299 L	67,100	112,767	7,688
Motorhomes	Gasoline	14	41,742 L	20,700	1,460	97	16	47,685 L	20,300	1,669	106
	Diesel Fuel			18,900	1,137	80		21,400	1,328	90	
Motorcycles, Mopeds	Gasoline	21	5,965 L	6,000	209	14	24	7,317 L	6,600	256	16
Buses	Gasoline			15,400	90	6		12,100	135	8	
	Diesel Fuel			11,600	141	10		6,200	65	5	
Totals		1,807	7,616,355 L	23,166	280,795	19,379	2,000	7,616,355 L	23,246	320,081	21,264

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO ₂ e (t)	Connections	Consumption	Energy (GJ)	CO ₂ e (t)
Residential	Wood	N/A	36,098 GJ	36,098	731	N/A	33,651 GJ	33,651	682
	Heating Oil	N/A	7,580 GJ	7,580	534	N/A	7,066 GJ	7,066	483
	Propane	N/A	20,591 GJ	20,591	1,256	N/A	19,195 GJ	19,195	1,171
	Natural Gas	911	69,462 GJ	69,462	3,484	911	61,515 GJ	61,515	3,086
	Electricity	1,452	15,736,540 kWh	56,651	393	1,461	15,358,186 kWh	55,289	384
Commercial/Small-Medium Industrial	Natural Gas	152	59,103 GJ	59,103	2,965	152	51,961 GJ	51,961	2,606
	Electricity	270	19,549,388 kWh	70,378	489	272	16,178,138 kWh	58,241	404
Totals		2,785		319,863	9,852	2,796		286,918	8,816

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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	3,072 t	N/A	1,652	0	3,094 t	N/A	2,050
Totals		0			1,652	0			2,050

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Natural Gas	2		0	0	2		0	0
	Electricity	2		0	0	2		0	0
Totals		4			0	4			0

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 3,062)			2010 (Population: 3,008)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	0 L	0		0 L	273	18
Gasoline	3,814,592 L	133,599	9,033	4,119,202 L	144,308	9,276
Diesel Fuel	3,801,763 L	146,885	10,327	4,532,477 L	175,500	11,970
Other Fuel	0 L	311	19	0 L	0	
Wood	36,098 GJ	36,098	731	33,651 GJ	33,651	682
Heating Oil	7,580 GJ	7,580	534	7,066 GJ	7,066	483
Propane	20,591 GJ	20,591	1,256	19,195 GJ	19,195	1,171
Natural Gas	128,565 GJ	128,565	6,449	113,476 GJ	113,476	5,692
Electricity	35,285,928 kWh	127,029	882	31,536,324 kWh	113,530	788
Solid Waste	3,072 t	0	1,652	3,094 t	0	2,050
Grand Totals		600,658	30,883		606,999	32,130

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	815	36	825	62	845	69
Semi-Detached House	15	1	10	1	10	1
Row House	170	8	80	6	60	5
Apartment, Duplex	10	0	5	0	5	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	195	9	175	13	145	12
Other Single Attached House	0	0	0	0	5	0
Movable Dwelling	215	10	240	18	150	12

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	1,375	79	1,375	82	1,305	82
Car, Truck, Van as Passenger	90	5	125	7	145	9
Public Transit	0	0	0	0	0	0
Walked	190	11	120	7	115	7
Bicycle	35	2	20	1	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	10	1
Other Method	50	3	35	2	10	1

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	62	1
Agricultural Land Reserve	7,158	99
Other land use	6	0
Total Parks and Protected Area	62	1
Total Land Area	7,226	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	62	1
Agricultural Land Reserve	7,158	99
Other land use	6	0
Total Parks and Protected Area	62	1
Total Land Area	7,226	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,