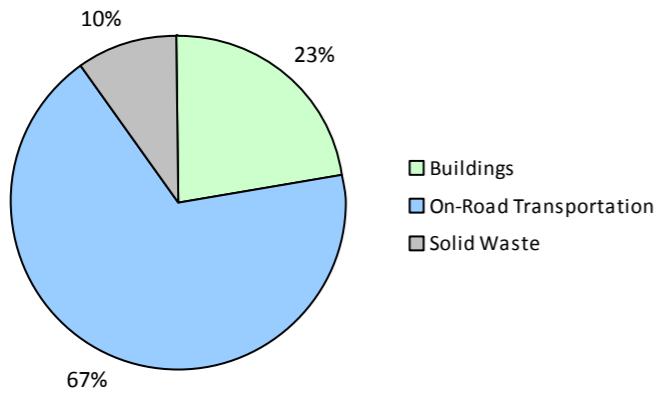
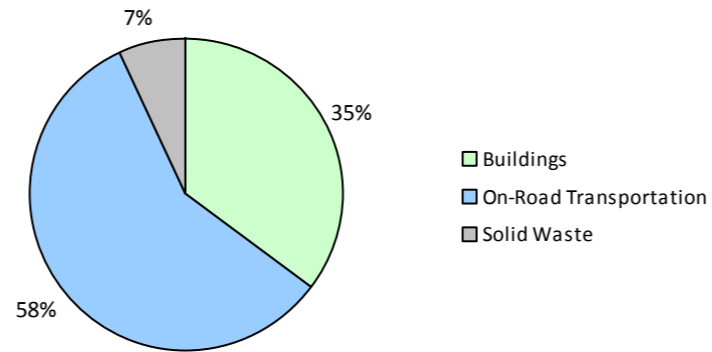


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

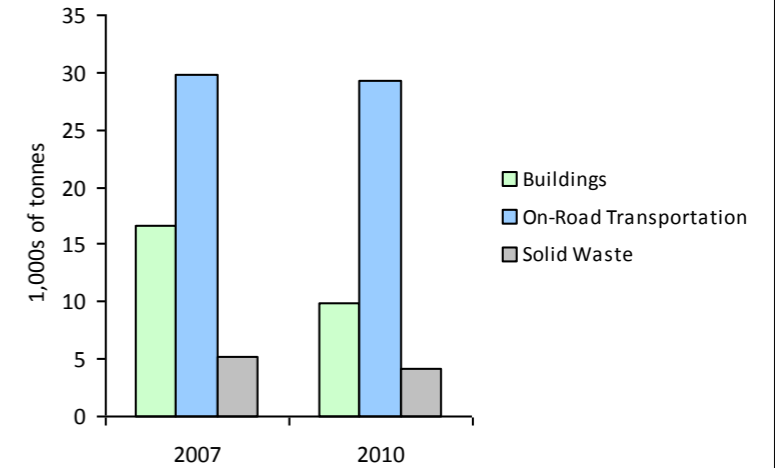
2010 GHG Emissions Sources (Total for this Community)



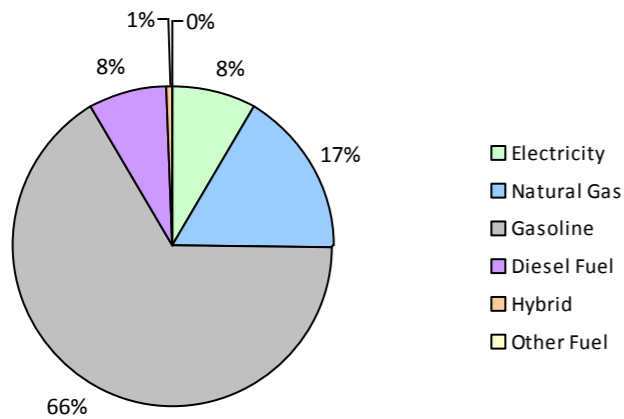
2010 GHG Emissions Sources (Total for BC)



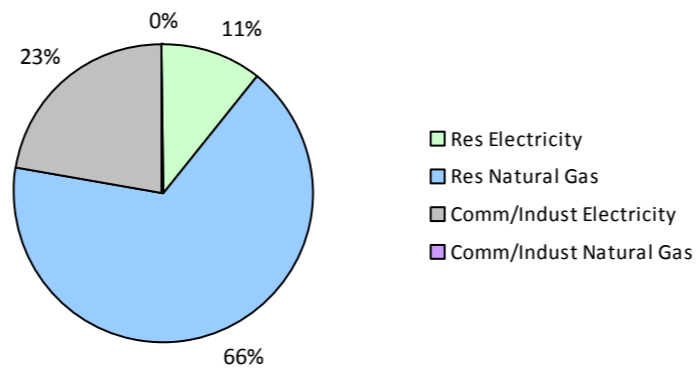
GHG Emissions Comparisons for this Community



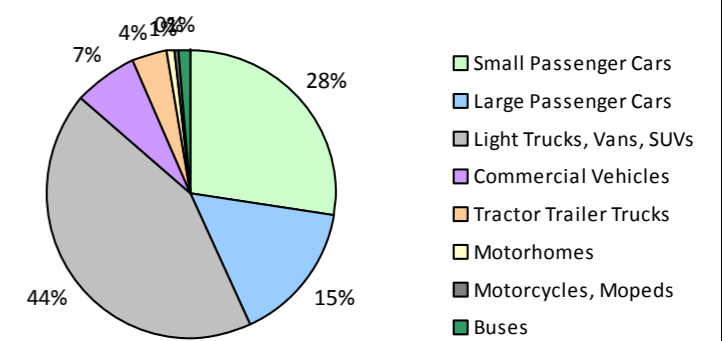
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Metro-Vancouver Regional District Unincorporated Areas 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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			15,600	107	7	14	9,085 L	15,600	318	21
	Gasoline	2,911	3,595,931 L	13,700	125,857	8,496	2,932	3,537,143 L	13,500	123,800	7,915
	Diesel Fuel	55	56,231 L	16,600	2,154	154	51	52,017 L	16,400	1,993	136
	Other Fuel			14,400	85	5					
Large Passenger Cars	Hybrid	25	24,578 L	25,000	860	57	56	46,127 L	27,100	1,615	103
	Gasoline	1,523	2,134,132 L	13,400	74,694	5,036	1,461	1,967,340 L	13,000	68,857	4,404
	Diesel Fuel	11	13,145 L	13,100	504	36		13,300	373	27	
Light Trucks, Vans, SUVs	Hybrid	12	14,938 L	16,800	523	34	35	47,113 L	16,800	1,650	105
	Gasoline	2,420	4,974,931 L	15,200	174,123	11,844	2,726	5,417,435 L	14,900	189,610	12,244
	Diesel Fuel	27	65,583 L	14,500	2,511	179	49	123,442 L	18,100	4,729	328
	Other Fuel			12,200	285	17		11,500	190	11	
Commercial Vehicles	Gasoline	152	408,217 L	16,300	14,288	960	156	416,307 L	16,300	14,570	932
	Diesel Fuel	112	397,604 L	18,800	15,229	1,069	129	456,367 L	18,900	17,480	1,191
	Other Fuel			11,900	231	16		11,200	217	12	
Tractor Trailer Trucks	Gasoline			22,500	120	8		23,300	97	7	
	Diesel Fuel	56	410,867 L	43,100	15,737	1,106	59	426,618 L	43,400	16,339	1,115
Motorhomes	Gasoline	24	54,238 L	17,000	1,899	127	27	60,939 L	17,000	2,133	135
	Diesel Fuel	13	38,329 L	16,800	1,467	104	12	39,718 L	16,800	1,520	104
Motorcycles, Mopeds	Gasoline	96	23,737 L	5,400	831	55	101	28,651 L	6,300	1,003	63
Buses	Gasoline	24	120,731 L	28,500	4,226	284	32	140,387 L	38,400	4,913	313
	Diesel Fuel			34,800	1,843	131		44,600	1,474	102	
	Other Fuel			36,600	89	5					
Totals		7,461	12,333,192 L	14,499	437,663	29,730	7,840	12,333,192 L	14,452	452,881	29,268

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Natural Gas	1,604	133,113 GJ	133,113	6,675	1,861	130,545 GJ	130,545	6,548
	Electricity	4,850	42,657,629 kWh	153,567	1,066	5,096	44,207,555 kWh	159,147	1,105
Commercial/Small-Medium Industrial	Natural Gas	64		0	0	91		0	0
	Electricity	693	355,567,532 kWh	1,280,042	8,889	711	88,769,542 kWh	319,570	2,222
Totals		7,211		1,566,722	16,630	7,759		609,262	9,875

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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	10,240 t	N/A	5,206	0	8,900 t	N/A	4,220
Totals	0			5,206	0			4,220

Memo Items

Buildings	2007				2010			
	Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial Natural Gas	3		0	0	9		0	0
Electricity					1		0	0
Totals	3			0	10			0

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 20,573)			2010 (Population: 24,837)		
	Consumption	Energy (GJ)	CO2e (t)	Consumption	Energy (GJ)	CO2e (t)
Hybrid	39,516 L	1,490	98	102,325 L	3,583	229
Gasoline	11,311,917 L	396,038	26,810	11,568,202 L	404,983	26,013
Diesel Fuel	981,759 L	39,445	2,779	1,098,162 L	43,908	3,003
Other Fuel	0 L	690	43	0 L	407	23
Natural Gas	133,113 GJ	133,113	6,675	130,545 GJ	130,545	6,548
Electricity	398,225,161 kWh	1,433,609	9,955	132,977,097 kWh	478,717	3,327
Solid Waste	10,240 t	0	5,206	8,900 t	0	4,220
Grand Totals		2,004,385	51,566		1,062,143	43,363

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	1,585	0	1,485	26	2,025	26
Semi-Detached House	35	0	25	0	105	1
Row House	845	0	860	15	735	9
Apartment, Duplex	40	0	25	0	100	1
Apartment, 5 storeys or higher	1,320	0	1,925	34	2,080	27
Apartment, under 5 storeys	1,245	0	900	16	2,390	31
Other Single Attached House	0	0	0	0	15	0
Movable Dwelling	355	0	400	7	345	4

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	2,935	56	3,035	54	3,575	48
Car, Truck, Van as Passenger	210	4	280	5	455	6
Public Transit	630	12	595	11	1,120	15
Walked	960	18	1,150	21	1,745	23
Bicycle	370	7	435	8	455	6
Motorcycle	30	1	20	0	20	0
Taxicab	15	0	0	0	0	0
Other Method	50	1	55	1	80	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	26,989	31
Local Parks	3,257	4
Agricultural Land Reserve	782	1
Other land use	55,160	64
Total Parks and Protected Area	30,246	35
Total Land Area	86,188	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	26,989	31
Local Parks	3,257	4
Agricultural Land Reserve	782	1
Other land use	55,160	64
Total Parks and Protected Area	30,246	35
Total Land Area	86,188	100

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

Metro-Vancouver Regional District Unincorporated Areas
2010 Community Energy and Emissions Inventory
Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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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,