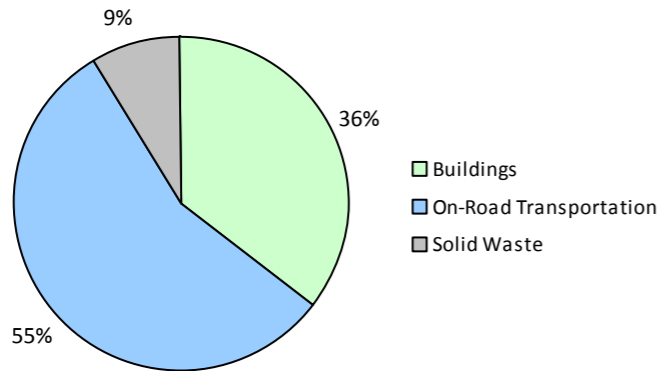


Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

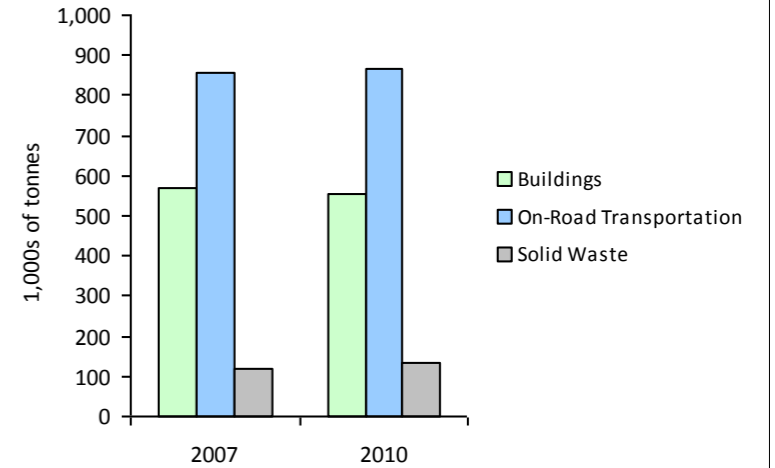
2010 GHG Emissions Sources (Total for this Community)



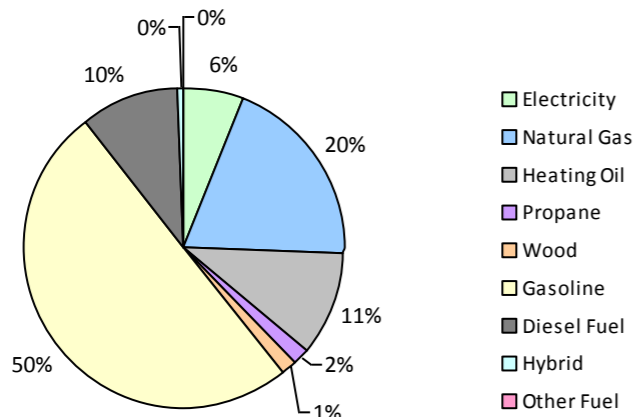
2010 GHG Emissions Sources (Total for BC)



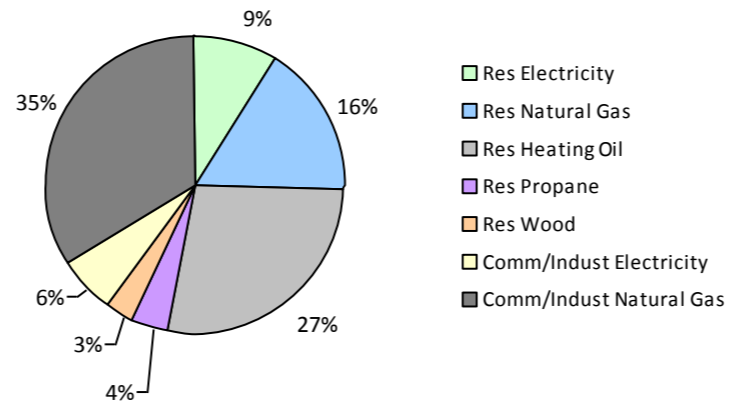
GHG Emissions Comparisons for this Community



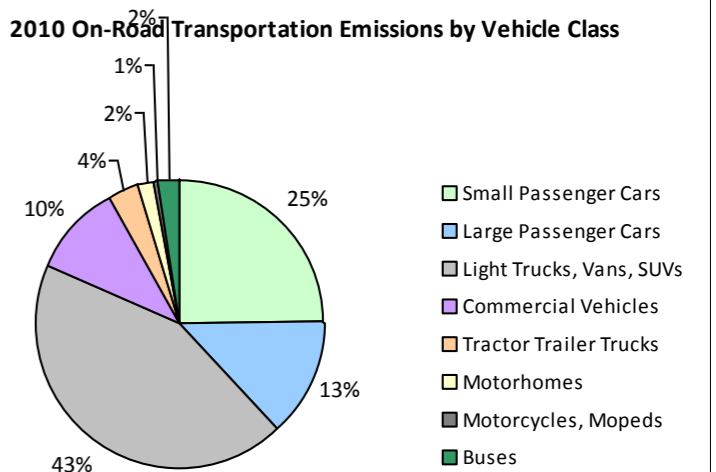
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Capital Regional District 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	165	104,270 L	13,500	3,650	244	311	205,921 L	13,000	7,208	459
	Gasoline	83,862	90,974,655 L	11,400	3,184,113	217,138	86,544	93,353,869 L	11,400	3,267,385	210,315
	Diesel Fuel	2,445	2,255,409 L	14,100	86,382	6,156	2,502	2,267,530 L	13,900	86,847	6,011
	Other Fuel	12	10,421 L	10,000	264	16	20	22,113 L	11,100	560	33
Large Passenger Cars	Hybrid	437	748,529 L	32,400	26,198	1,753	1,155	1,869,158 L	28,100	65,421	4,163
	Gasoline	36,149	50,448,084 L	12,100	1,765,683	120,170	34,501	46,822,267 L	11,900	1,638,780	105,437
	Diesel Fuel	628	601,242 L	9,900	23,027	1,636	649	590,121 L	9,600	22,602	1,561
	Other Fuel	111	535,346 L	31,300	13,545	820	41	100,916 L	16,900	2,553	155
Light Trucks, Vans, SUVs	Hybrid	145	178,695 L	15,700	6,254	423	404	518,452 L	15,400	18,146	1,169
	Gasoline	76,681	144,168,602 L	13,400	5,045,901	345,374	85,877	157,940,882 L	13,200	5,527,930	358,659
	Diesel Fuel	3,715	7,622,251 L	11,800	291,933	20,738	2,893	6,627,383 L	13,800	253,829	17,521
	Other Fuel	569	961,181 L	10,100	24,318	1,473	408	656,952 L	9,600	16,621	1,006
Commercial Vehicles	Hybrid						18	32,444 L	15,300	1,135	72
	Gasoline	4,364	9,859,276 L	13,500	345,075	23,164	5,312	11,963,360 L	13,500	418,718	26,759
	Diesel Fuel	4,816	16,712,163 L	18,200	640,076	44,971	5,992	22,922,275 L	20,200	877,923	59,849
	Other Fuel	267	518,552 L	10,500	13,120	794	190	354,049 L	10,200	8,957	542
Tractor Trailer Trucks	Gasoline	19	74,264 L	12,400	2,599	174	14	52,528 L	12,300	1,839	117
	Diesel Fuel	1,271	12,828,414 L	24,500	491,328	34,520	1,169	11,947,878 L	25,200	457,604	31,196
	Other Fuel			15,400	94	5			10,400	60	4
Motorhomes	Gasoline	1,828	4,081,541 L	16,200	142,854	9,527	1,845	4,121,493 L	16,300	144,253	9,160
	Diesel Fuel	1,064	3,057,816 L	16,400	117,114	8,226	938	2,741,948 L	16,300	105,016	7,157
	Other Fuel	34	82,195 L	16,600	2,079	126	30	72,792 L	16,400	1,842	111
Motorcycles, Mopeds	Gasoline	6,266	1,440,498 L	5,400	50,418	3,364	7,503	1,964,718 L	6,200	68,765	4,361
Buses	Gasoline	257	615,479 L	15,900	21,541	1,446	288	670,036 L	15,000	23,452	1,499
	Diesel Fuel	533	4,725,079 L	83,700	180,972	12,715	611	6,472,855 L	91,200	247,910	16,901
	Other Fuel	36	80,632 L	11,300	2,040	125	22	48,482 L	11,000	1,227	75
Totals		225,674	352,684,594 L	12,606	12,480,578	855,098	239,237	352,684,594 L	12,692	13,266,583	864,292

Capital Regional District 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Residential	Wood	N/A	863,204 GJ	863,204	17,489	N/A	835,613 GJ	835,613	16,930
	Heating Oil	N/A	2,257,686 GJ	2,257,686	159,144	N/A	2,185,523 GJ	2,185,523	149,468
	Propane	N/A	390,910 GJ	390,910	23,849	N/A	378,415 GJ	378,415	23,087
	Natural Gas	31,246	1,769,437 GJ	1,769,437	88,759	34,484	1,774,661 GJ	1,774,661	89,015
	Electricity	158,156	2,109,422,564 kWh	7,593,915	52,737	164,347	2,079,044,100 kWh	7,484,553	51,978
Commercial/Small-Medium Industrial	Natural Gas	4,470	3,835,912 GJ	3,835,912	192,410	4,317	3,775,560 GJ	3,775,560	189,382
	Electricity	16,503	1,359,296,043 kWh	4,893,462	33,984	17,141	1,338,699,386 kWh	4,819,314	33,469
Totals		210,375		21,604,526	568,372	220,289		21,253,639	553,329

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Community Solid Waste	Solid Waste	0	174,537 t	N/A	116,767	0	152,062 t	N/A	134,613
Totals		0			116,767	0			134,613

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2		0	0	1		0	0
Totals		2			0	1			0

Agriculture		2007				2010			
		Connections	Consumption	Energy (GJ)	CO2e (t)	Connections	Consumption	Energy (GJ)	CO2e (t)
Enteric Fermentation	Methane	13,364	334 t	0	7,014				
Totals		13,364			7,014	0			

Capital Regional District 2010 Community Energy and Emissions Inventory

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Land-use Change - Deforestation	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Settlement Deforestation	17	0 ha	0	15,542				
Totals	17			15,542	0			

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 359,272)			2010 (Population: 372,339)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	1,031,494 L	36,102	2,420	2,625,975 L	91,910	5,863
Gasoline	301,662,399 L	10,558,184	720,357	316,889,153 L	11,091,122	716,307
Diesel Fuel	47,802,374 L	1,830,832	128,962	53,569,990 L	2,051,731	140,196
Other Fuel	2,188,327 L	55,460	3,359	1,255,304 L	31,820	1,926
Wood	863,204 GJ	863,204	17,489	835,613 GJ	835,613	16,930
Heating Oil	2,257,686 GJ	2,257,686	159,144	2,185,523 GJ	2,185,523	149,468
Propane	390,910 GJ	390,910	23,849	378,415 GJ	378,415	23,087
Natural Gas	5,605,349 GJ	5,605,349	281,169	5,550,221 GJ	5,550,221	278,397
Electricity	3,468,718,607 kWh	12,487,377	86,721	3,417,743,486 kWh	12,303,867	85,447
Solid Waste	174,537 t	0	116,767	152,062 t	0	134,613
Grand Totals		34,085,104	1,540,237		34,520,222	1,552,234

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	71,340	34	74,715	53	68,055	45
Semi-Detached House	5,045	2	5,510	4	5,600	4
Row House	7,870	4	8,475	6	8,810	6
Apartment, Duplex	8,430	4	9,660	7	20,405	13
Apartment, 5 storeys or higher	6,640	3	6,820	5	7,645	5
Apartment, under 5 storeys	33,655	16	34,785	24	39,755	26
Other Single Attached House	305	0	325	0	315	0
Movable Dwelling	2,215	1	1,860	1	1,900	1

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	94,250	67	98,380	68	106,960	65
Car, Truck, Van as Passenger	9,635	7	8,690	6	11,285	7
Public Transit	13,545	10	13,795	10	16,325	10
Walked	13,540	10	14,970	10	16,960	10
Bicycle	6,745	5	6,810	5	9,055	6
Motorcycle	585	0	840	1	1,260	1
Taxicab	160	0	210	0	240	0
Other Method	1,470	1	1,305	1	1,880	1

Parks and Protected Greenspace

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	3,910	2
Provincial Parks / Protected Areas	6,467	3
Local Parks	12,455	5
Agricultural Land Reserve	16,405	7
Other land use	193,945	83
Total Parks and Protected Area	22,829	10
Total Land Area	233,182	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	3,910	2
Provincial Parks / Protected Areas	6,467	3
Local Parks	12,455	5
Agricultural Land Reserve	16,405	7
Other land use	193,945	83
Total Parks and Protected Area	22,829	10
Total Land Area	233,182	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 CCEIRPT@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,