

2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets





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Core Items

				2007					2010		
On-Road Transportation		Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Gasoline	47	84,172 L	19,500	2,946	198	50	96,052 L	20,900	3,361	214
	Diesel Fuel			17,400	93	8			21,500	55	4
Large Passenger Cars	Gasoline	34	81,014 L	21,100	2,836	190	25	67,743 L	24,200	2,371	150
Light Trucks, Vans, SUVs	Gasoline	108	259,970 L	16,200	9,100	622	107	282,097 L	17,900	9,874	640
	Diesel Fuel			13,200	452	32			14,200	386	26
Commercial Vehicles	Gasoline	12	32,028 L	15,500	1,120	75	10	32,570 L	19,000	1,140	73
	Diesel Fuel	28	112,582 L	22,800	4,311	304	30	145,398 L	27,700	5,569	379
Tractor Trailer Trucks	Diesel Fuel			65,600	7,139	501			67,700	7,290	496
Motorcycles, Mopeds	Gasoline								3,200	4	0
Totals		229	569,766 L	18,375	27,997	1,930	222	569,766 L	20,659	30,050	1,982

			20	007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	11,872 GJ	11,872	241	N/A	11,067 GJ	11,067	224
	Heating Oil	N/A	2,502 GJ	2,502	176	N/A	2,332 GJ	2,332	159
	Propane	N/A	6,817 GJ	6,817	416	N/A	6,355 GJ	6,355	388
	Electricity	290	4,250,477 kWh	15,302	106	287	4,340,979 kWh	15,628	109
Commercial/Small-Medium Industrial	Electricity	98	3,643,134 kWh	13,115	91	95	3,404,308 kWh	12,255	85
Totals		388		49,608	1,030	382		47,637	965

				2007				2010	
Solid Waste		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	282 t	N/A	430	0	324 t	N/A	61
Totals		0			430	0			61



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Totals for Transportation, Buildings and Solid Waste

	2007 (Po	opulation: 610)		2010 (Population: 603)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)	
Gasoline	457,184 L	16,002	1,085	478,462 L	16,750	1,077	
Diesel Fuel	112,582 L	11,995	845	145,398 L	13,300	905	
Wood	11,872 GJ	11,872	241	11,067 GJ	11,067	224	
Heating Oil	2,502 GJ	2,502	176	2,332 GJ	2,332	159	
Propane	6,817 GJ	6,817	416	6,355 GJ	6,355	388	
Electricity	7,893,611 kWh	28,417	197	7,745,287 kWh	27,883	194	
Solid Waste	282 t	0	430	324 t	0	61	
Grand Totals		77,605	3,390		77,687	3,008	



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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		200)1	2006		
	Units	%	Units	%	Units	%	
Single Detached House	160	36	185	64	180	68	
Semi-Detached House	0	0	15	5	15	6	
Row House	10	2	10	3	10	4	
Apartment, Duplex	0	0	0	0	0	0	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	20	4	15	5	15	6	
Other Single Attached House	10	2	5	2	10	4	
Movable Dwelling	90	20	60	21	35	13	

Parks and Protected Greenspace

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

	200	9
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	13	1
Agricultural Land Reserve	1,022	43
Other land use	1,361	57
Total Parks and Protected Area	13	1
Total Land Area	2,396	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	13	1
Agricultural Land Reserve	1,022	43
Other land use	1,361	57
Total Parks and Protected Area	13	1
Total Land Area	2,396	100
* Net of Crown land, parks, Indian Reserves, water featu	ures, airports, ALR, waste dis	posal site

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		200:	L	2006		
	Units	%	Units	%	Units	%	
Car, Truck, Van as Driver	195	60	175	66	195	78	
Car, Truck, Van as Passenger	15	5	10	4	0	0	
Public Transit	0	0	0	0	0	0	
Walked	95	29	70	26	35	14	
Bicycle	10	3	10	4	20	8	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	10	3	0	0	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) <u>http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm</u>, and on the <u>http://toolkit.bc.ca</u> 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.



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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 (<u>http://www.toolkit.bc.ca</u>), 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

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,