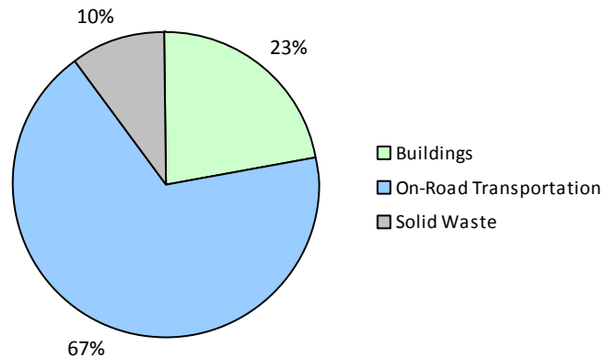
Sechelt District Municipality

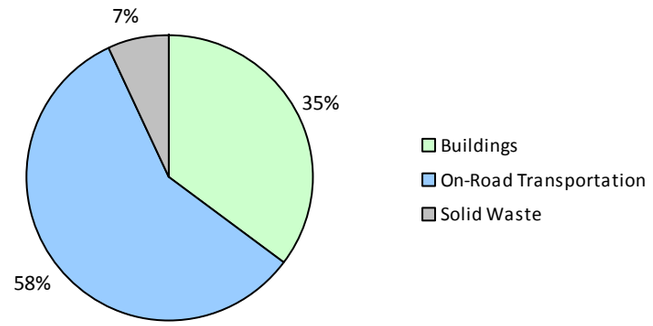
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

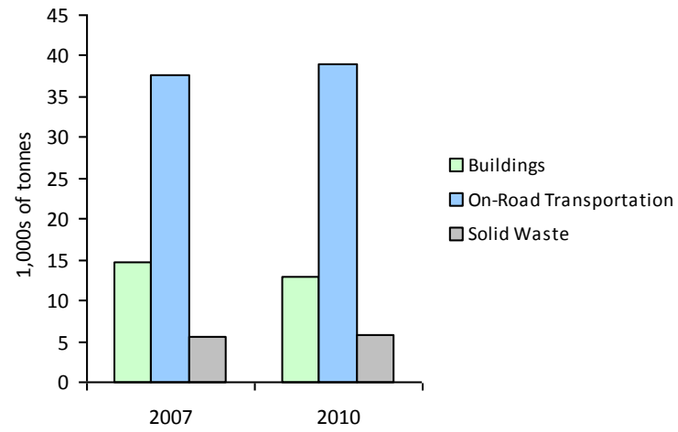
2010 GHG Emissions Sources (Total for this Community)



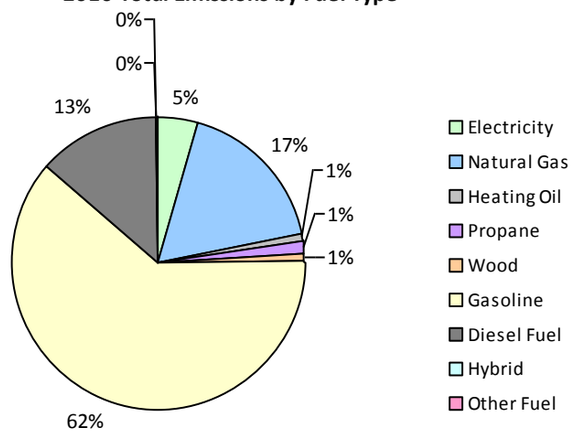
2010 GHG Emissions Sources (Total for BC)



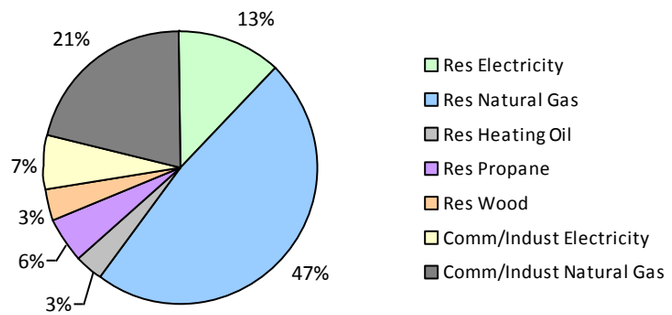
GHG Emissions Comparisons for this Community



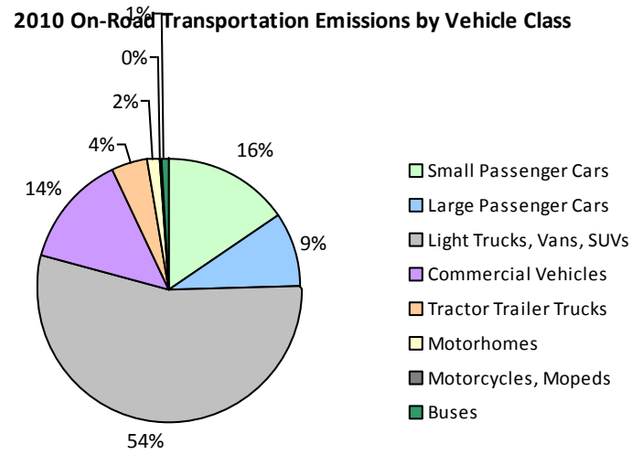
2010 Total Emissions by Fuel Type



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	Hybrid			20,000	94	6			18,600	154	10
	Gasoline	1,770	2,564,538 L	15,300	89,758	6,092	1,852	2,613,984 L	14,900	91,490	5,871
	Diesel Fuel	50	81,018 L	25,000	3,103	220	54	78,409 L	21,700	3,004	208
Large Passenger Cars	Hybrid			25,700	154	11	19	20,447 L	21,100	716	45
	Gasoline	1,001	1,633,861 L	14,400	57,184	3,887	971	1,518,194 L	13,800	53,137	3,416
	Diesel Fuel	14	19,291 L	14,300	738	52	16	19,414 L	12,800	743	52
	Other Fuel			9,600	66	4					
Light Trucks, Vans, SUVs	Hybrid			28,500	436	30			23,400	616	40
	Gasoline	2,928	8,142,286 L	19,500	284,979	19,474	3,285	9,023,214 L	19,200	315,812	20,454
	Diesel Fuel	110	262,479 L	13,700	10,054	715	98	275,856 L	17,300	10,565	729
	Other Fuel	16	35,121 L	13,100	888	54	15	34,063 L	14,600	861	53
Commercial Vehicles	Gasoline	209	711,524 L	20,200	24,903	1,671	233	760,022 L	19,400	26,601	1,699
	Diesel Fuel	259	1,042,188 L	22,100	39,916	2,804	315	1,403,237 L	24,700	53,744	3,663
	Other Fuel	13	35,104 L	15,000	888	53			13,100	481	29
Tractor Trailer Trucks	Diesel Fuel	75	595,151 L	19,800	22,795	1,602	84	643,930 L	18,700	24,662	1,681
Motorhomes	Gasoline	54	151,821 L	20,200	5,314	354	54	149,511 L	19,900	5,233	333
	Diesel Fuel	41	145,156 L	18,400	5,560	389	31	108,851 L	18,300	4,169	285
	Other Fuel			17,800	276	16			15,100	118	8
Motorcycles, Mopeds	Gasoline	123	27,914 L	5,000	977	65	143	37,992 L	5,900	1,329	84
Buses	Gasoline			19,600	435	28			21,200	349	21
	Diesel Fuel	13	61,244 L	21,600	2,346	166	24	105,320 L	28,200	4,034	275
	Other Fuel			14,500	487	29			12,900	221	14
Totals		**6,676**	**15,508,696 L**	**17,394**	**551,351**	**37,722**	**7,194**	**15,508,696 L**	**17,347**	**598,039**	**38,970**

Sechelt District Municipality

2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	22,963 GJ	22,963	465	N/A	22,229 GJ	22,229	450
	Heating Oil	N/A	5,907 GJ	5,907	416	N/A	5,718 GJ	5,718	391
	Propane	N/A	12,464 GJ	12,464	760	N/A	12,066 GJ	12,066	736
	Natural Gas	2,258	128,666 GJ	128,666	6,454	2,451	122,584 GJ	122,584	6,149
	Electricity	4,832	66,689,124 kWh	240,081	1,667	5,120	65,755,587 kWh	236,720	1,644
Commercial/Small-Medium Industrial	Natural Gas	255	81,670 GJ	81,670	4,097	183	55,508 GJ	55,508	2,784
	Electricity	661	35,352,350 kWh	127,268	884	671	34,995,784 kWh	125,985	875
Totals		**8,006**		**619,019**	**14,743**	**8,425**		**580,810**	**13,029**

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	4,320 t	N/A	5,498	0	4,116 t	N/A	5,799
Totals		**0**			**5,498**	**0**			**5,799**

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 8,766)			2010 (Population: 9,496)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	684	47	20,447 L	1,486	95
Gasoline	13,231,944 L	463,550	31,571	14,102,917 L	493,951	31,878
Diesel Fuel	2,206,527 L	84,512	5,948	2,635,017 L	100,921	6,893
Other Fuel	70,225 L	2,605	156	34,063 L	1,681	104
Wood	22,963 GJ	22,963	465	22,229 GJ	22,229	450
Heating Oil	5,907 GJ	5,907	416	5,718 GJ	5,718	391
Propane	12,464 GJ	12,464	760	12,066 GJ	12,066	736
Natural Gas	210,336 GJ	210,336	10,551	178,092 GJ	178,092	8,933
Electricity	102,041,474 kWh	367,349	2,551	100,751,371 kWh	362,705	2,519
Solid Waste	4,320 t	0	5,498	4,116 t	0	5,799
Grand Totals		**1,170,370**	**57,963**		**1,178,849**	**57,798**

Sechelt District Municipality

2010 Community Energy and Emissions Inventory

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	2,525	45	2,685	78	2,915	76
Semi-Detached House	25	0	35	1	35	1
Row House	135	2	190	6	195	5
Apartment, Duplex	145	3	100	3	125	3
Apartment, 5 storeys or higher	0	0	0	0	5	0
Apartment, under 5 storeys	210	4	245	7	335	9
Other Single Attached House	10	0	10	0	5	0
Movable Dwelling	85	2	180	5	240	6

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	2,115	74	2,170	76	2,620	79
Car, Truck,Van as Passenger	320	11	190	7	225	7
Public Transit	120	4	105	4	115	3
Walked	170	6	310	11	260	8
Bicycle	45	2	20	1	15	0
Motorcycle	0	0	15	1	0	0
Taxicab	0	0	0	0	0	0
Other Method	85	3	30	1	65	2

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	59	1
Local Parks	223	5
Agricultural Land Reserve	985	24
Other land use	2,813	69
Total Parks and Protected Area	282	7
Total Land Area	4,080	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	59	1
Local Parks	223	5
Agricultural Land Reserve	985	24
Other land use	2,813	69
Total Parks and Protected Area	282	7
Total Land Area	4,080	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,