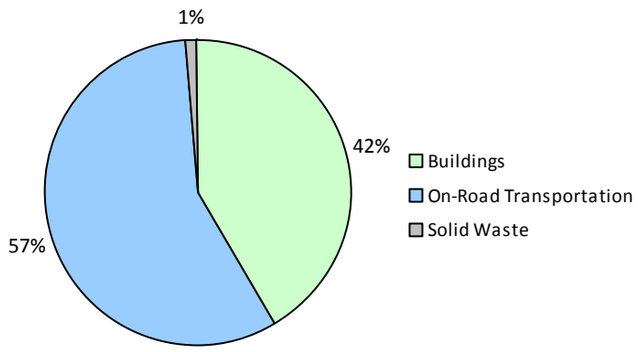
Elkford District Municipality

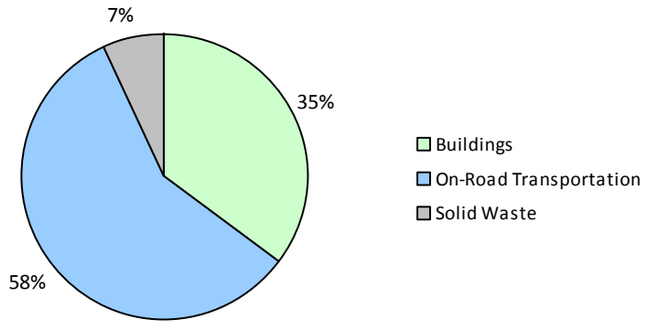
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

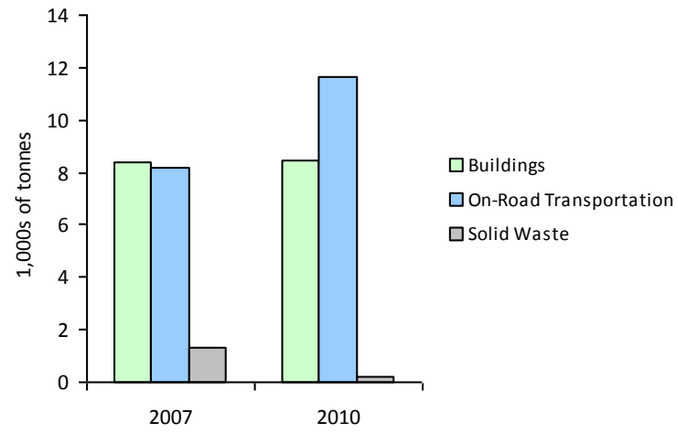
2010 GHG Emissions Sources (Total for this Community)



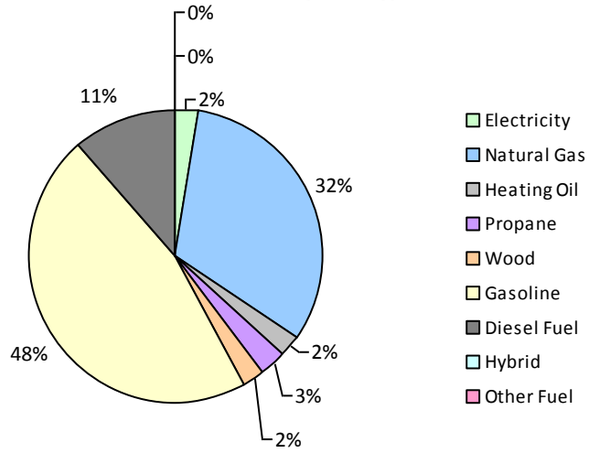
2010 GHG Emissions Sources (Total for BC)



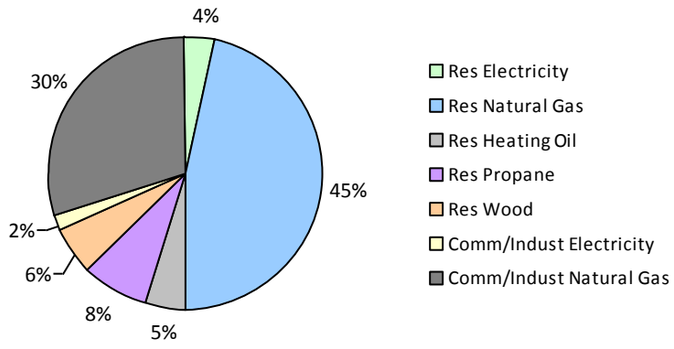
GHG Emissions Comparisons for this Community



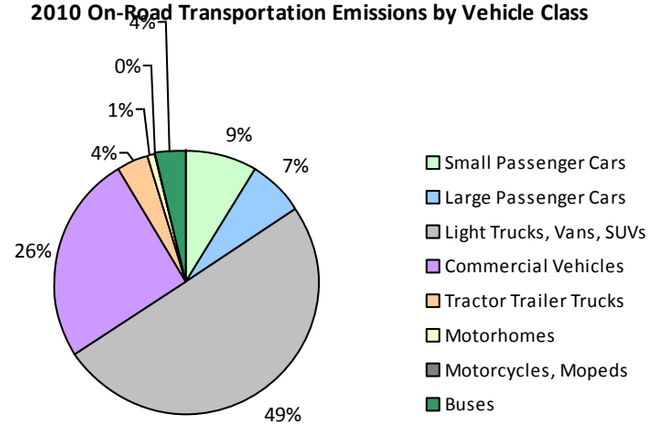
2010 Total Emissions by Fuel Type



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			20,300	30	1			16,900	51	4
	Gasoline	300	426,055 L	14,800	14,912	1,010	297	435,046 L	15,300	15,226	976
	Diesel Fuel	13	26,930 L	29,800	1,032	74	13	22,577 L	25,100	865	60
Large Passenger Cars	Hybrid			27,600	59	4			29,200	64	4
	Gasoline	225	381,591 L	14,900	13,356	902	222	362,462 L	14,300	12,686	814
	Diesel Fuel			9,700	78	6					
Light Trucks, Vans, SUVs	Gasoline	740	1,812,302 L	16,500	63,431	4,327	938	2,439,693 L	17,700	85,389	5,524
	Diesel Fuel	44	82,798 L	10,500	3,170	226	44	99,048 L	13,100	3,793	261
	Other Fuel			10,800	95	6			8,000	70	4
Commercial Vehicles	Gasoline	78	233,733 L	17,600	8,181	549	207	821,794 L	23,400	28,763	1,840
	Diesel Fuel	84	253,248 L	17,300	9,698	681	142	445,873 L	18,100	17,077	1,166
Tractor Trailer Trucks	Diesel Fuel			31,100	4,510	318	14	176,816 L	30,100	6,773	462
Motorhomes	Gasoline			19,400	489	33			20,300	829	53
	Diesel Fuel								19,200	561	38
Motorcycles, Mopeds	Gasoline	20	4,605 L	5,000	161	11	35	9,341 L	5,800	327	22
Buses	Gasoline						16	69,295 L	26,500	2,426	156
	Diesel Fuel			15,700	175	12	18	103,705 L	21,200	3,973	270
Totals		**1,504**	**3,221,262 L**	**15,810**	**119,377**	**8,160**	**1,946**	**3,221,262 L**	**17,507**	**178,873**	**11,654**

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	24,106 GJ	24,106	488	N/A	23,203 GJ	23,203	470
	Heating Oil	N/A	6,196 GJ	6,196	437	N/A	5,964 GJ	5,964	408
	Propane	N/A	10,894 GJ	10,894	665	N/A	10,486 GJ	10,486	640
	Natural Gas	924	77,338 GJ	77,338	3,880	936	78,051 GJ	78,051	3,915
	Electricity	1,233	10,831,454 kWh	38,993	271	1,367	11,872,089 kWh	42,739	297
Commercial/Small-Medium Industrial	Natural Gas	79	48,672 GJ	48,672	2,441	81	50,965 GJ	50,965	2,556
	Electricity	113	7,150,982 kWh	25,744	179	122	7,351,885 kWh	26,467	184
Totals		**2,349**		**231,943**	**8,361**	**2,506**		**237,875**	**8,470**

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	2,454 t	N/A	1,289	0	2,658 t	N/A	219
Totals		**0**			**1,289**	**0**			**219**

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Natural Gas	4		0	0	1		0	0
	Electricity	2		0	0	2		0	0
Totals		**6**			**0**	**3**			**0**

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 2,509)			2010 (Population: 2,705)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	89	5	0 L	115	8
Gasoline	2,858,286 L	100,530	6,832	4,137,631 L	145,646	9,385
Diesel Fuel	362,976 L	18,663	1,317	848,019 L	33,042	2,257
Other Fuel	0 L	95	6	0 L	70	4
Wood	24,106 GJ	24,106	488	23,203 GJ	23,203	470
Heating Oil	6,196 GJ	6,196	437	5,964 GJ	5,964	408
Propane	10,894 GJ	10,894	665	10,486 GJ	10,486	640
Natural Gas	126,010 GJ	126,010	6,321	129,016 GJ	129,016	6,471
Electricity	17,982,436 kWh	64,737	450	19,223,974 kWh	69,206	481
Solid Waste	2,454 t	0	1,289	2,658 t	0	219
Grand Totals		**351,320**	**17,810**		**416,748**	**20,343**

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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		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House	575	38	625	64	585	59
Semi-Detached House	80	5	65	7	55	6
Row House	10	1	10	1	15	2
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	145	10	135	14	200	20
Other Single Attached House	0	0	5	1	0	0
Movable Dwelling	135	9	135	14	145	15

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	630	45	535	44	625	50
Car, Truck,Van as Passenger	350	25	220	18	315	25
Public Transit	130	9	120	10	55	4
Walked	90	7	55	4	60	5
Bicycle	20	1	0	0	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	165	12	300	24	205	16

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	13	0
Agricultural Land Reserve	58	0
Other land use	12,538	99
Total Parks and Protected Area	13	0
Total Land Area	12,608	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	0
Agricultural Land Reserve	58	0
Other land use	12,538	99
Total Parks and Protected Area	13	0
Total Land Area	12,608	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