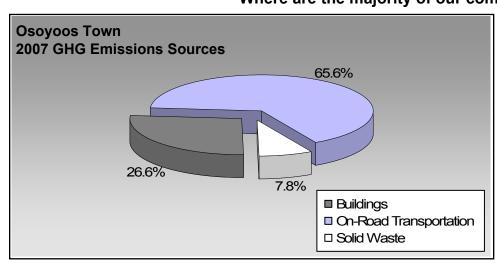
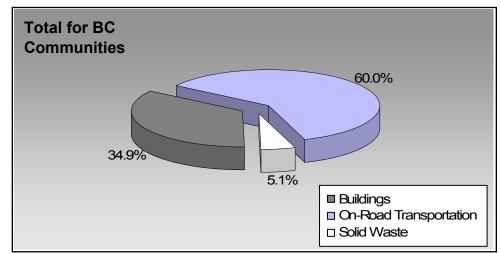


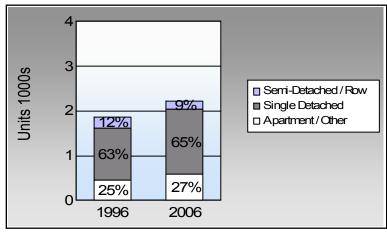
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

#### Where are the majority of our community's emissions coming from?





## Are we living more compactly? Housing Type



In BC, single family detached housing made up 49% of housing in 2006.

## Are we driving less? Commute To Work

1996	2006
71.9%	79.7%
6.6%	5.9%
0.9%	0.7%
16.7%	12.5%
0.9%	0.0%
	71.9% 6.6% 0.9% 16.7%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

#### **Residential Density**

Osoyoos Town: 9.1 people per net ha

BC municipal average: 7.4 people per net ha

## Are we living closer to where we work? Commute Distance

This data is currently unavailable in the CEEI 2007 Reports

In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.



## Sectors

On Road Transport	tation	Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	1,005	1,250,991	Litres	11,903	43,785	2,983
	Diesel Fuel	48	39,389	Litres	11,655	1,509	108
	Other Fuel	< 10	475	Litres		18	1
				Small Pa	assenger Cars	45,312	3,092
Large Passenger Cars	Gasoline	812	1,745,487	Litres	17,309	61,092	4,147
	Diesel Fuel	< 10	23,687	Litres	19,219	907	65
	Other Fuel	< 10	4,153	Litres	14,969	159	6
				Large Pa	assenger Cars	62,158	4,218
Light Trucks, Vans, SUVs	Gasoline	1,709	4,946,783	Litres	19,301	173,137	11,846
	Diesel Fuel	164	412,740	Litres	19,990	15,808	1,128
	Other Fuel	19	44,882	Litres	12,887	1,719	69
				Light Tr	ucks, Vans, SUVs	190,664	13,043
Commercial Vehicles	Gasoline	16	67,904	Litres	12,540	2,377	158
	Diesel Fuel	31	153,129	Litres	21,158	5,865	412
	Other Fuel	< 10	24,461	Litres	12,509	937	37
				Comme	rcial Vehicles	9,179	607
Tractor Trailer Trucks	Gasoline	< 10	1,785	Litres		62	4
	Diesel Fuel	74	2,819,069	Litres	94,025	107,970	7,586
				Tractor	Trailer Trucks	108,032	7,590
Motorhomes	Gasoline	90	111,253	Litres	3,478	3,894	261
	Diesel Fuel	17	20,491	Litres	5,040	785	55
	Other Fuel	< 10	2,077	Litres	2,189	80	3
				Motorho	mes	4,759	319
Motorcycles, Mopeds	Gasoline	81	38,760	Litres	6,052	1,357	90
				Motorcy	cles, Mopeds	1,357	90
Bus	Gasoline	< 10	35,655	Litres	30,839	1,248	84
	Diesel Fuel	< 10	44,932	Litres	27,431	1,721	121
				Bus		2,969	205



	Gasoline:	286,952	19,573
	Diesel:	134,565	9,475
	Other Fuel:	2,913	116
On Road Transportation Totals	All Fuels:	424,430	29,164

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Residential	Electricity	2,999	29,957,965	Kilowatt Hours	107,849	180
	Natural Gas	2,103	118,224	GigaJoules	118,224	6,030
	Heating Oil		4,739	GigaJoules	4,739	334
	Propane		8,369	GigaJoules	8,369	511
	Wood		41,663	GigaJoules	41,663	15
			Residential		280,844	7,070
Commercial/Small-Medium Industrial	Electricity	739	37,393,948	Kilowatt Hours	134,618	224
	Natural Gas	298	88,845	GigaJoules	88,845	4,531
			Commercial/Sma	ıll-Medium Industrial	223,463	4,755
			Electr	icity:	242,467	404
			Natura	al Gas:	207,069	10,561
			Propa	ne:	8,369	511
			Wood:		41,663	15
			Heating Oil:		4,739	334
Buildings Totals			Buildi	ings:	504,307	11,825

Solid Waste		Mass (t)	CO2e (t)
	Community Solid Waste	4,102	3,451



	Diesel Fuel Electricity	3,513,437 67,351,913	_	134,565 242,467	9,475 404
	Gasoline	8,198,618		286,952	19,573
	Heating Oil	4,739	GJ	4,739	334
	Natural Gas	207,069	GJ	207,069	10,561
	Other Fuel	76,048	L	2,913	116
	Propane	8,369	GJ	8,369	511
	Solid Waste	4,102	T	0	3,451
	Wood	41,663	GJ	41,663	15
Total of Transportation / Buildi	ings / Solid Waste:			<b>928,737</b> GJ	<b>44,440</b> tonnes

## **Memo Items**

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Natural Gas	1	withheld	GigaJoules	-	-
			Lar	ge Industrial	-	-



### **Supporting Indicators**

Below you will find supporting indicators for which data is provided. These are the first five supporting indicators for which data is provided as a part of the updated 2007 CEEI. Columns with all zeros indicate data unavailable in these CEEI reports. Thirteen additional supporting indicators are under consideration for future reports (see next page). Local government feedback is requested on all supporting indicators. Please take the time to complete the short CEEI Survey at <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="https://ceei/index.html">CEEIRPT@gov.bc.ca</a>

#### 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	2001		2006	
	Units	%	Units	%	Units	%	
Single Detached House	1,165	39	1,335	65	1,440	65	
Semi-Detached House	45	1	40	2	70	3	
Row House	185	6	100	5	125	6	
Apartment, Duplex	60	2	60	3	65	3	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	300	10	365	18	470	21	
Other Single Attached House	25	1	55	3	10	0	
Movable Dwelling	75	2	100	5	45	2	

#### 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		20	01	2006		
	People	%	People	%	People	%	
Car, Truck, Van as Driver	820	72	945	76	1,215	80	
Car, Truck,Van as Passenge	75	7	85	7	90	6	
Public Transit	10	1	0	0	10	1	
Walked	190	17	175	14	190	12	
Bicycle	10	1	20	2	0	0	
Motorcycle	0	0	10	1	10	1	
Taxicab	0	0	0	0	0	0	
Other Method	35	3	10	1	10	1	

#### **Residential Density**

\* Net of Crown land, parks, Indian Reserves, water features, airports, ALR,waste disposal sites.

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
Population 5	,189.0
Net Land Area (ha) *	569.4
Residential Density (people per net ha)	9.1

#### Commute Distance

Shorter commute distances generally reduce GHG emissions by increasing the likelihood of people walking, cycling or using transit. Commute distance is also indicative of the 'completeness' of a community from an employment perspective.

200	)6
People	%

This data is currently unavailable in the CEEI 2007 Reports.



#### Parks and Protected Greenspace

- \* Total is net of Indian Reserves
- \*\* The quantity of parkland may be underestimated

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

	2009				
	Area (ha)	%			
National Parks	0.0	0.0			
Provincial Parks / Protected Areas	0.0	0.0			
Local Parks	25.8	2.6			
Agricultural Land Reserve	315.9	31.7			
Other land use	654.3	65.7			
Total Land Area	996.0	100.0			





### **Supporting Indicators Under Consideration**

The following supporting indicators are under consideration for inclusion in future CEEI reports. The 2007 CEEI reports provide these 'placeholder' indicators to give indication of data that may be provided in the future by the Province on an ongoing basis to assist in monitoring actions to reduce GHG emissions and energy consumption. Please submit feedback to CEEIRPT@gov.bc.ca (see survey on CEEI website).

#### **On-Road Transportation (and Land Use)**

Proximity to Transit Persons, dwelling units (du) and employment within 400m of a quality transit stop/line

Proximity to Services Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.)

Transit Ridership Annual per capita transit ridership

**Buildings** 

Residential; Public Building

**Energy Intensity** 

Floor Space

Average energy use per person per square metre of floor space

Average residential dwelling unit size

**Solid Waste (and Water)** 

Waste Diversion Tonnes of waste diverted

Avoided Waste Emissions Tonnes of CO2e of avoided future emissions due to reduced waste since 2007

Water Use Per capita residential water use

**Land-Use Change** 

Impervious Surface Cover % change in impervious surface cover

Tree Canopy Cover % change in tree canopy cover

**Community and Renewable Energy Supply** 

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)



# This is your local government's Updated 2007 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 every two years. CEEI Reports are one of the many resources available through the Climate Action Toolkit (<a href="http://www.toolkit.bc.ca">http://www.toolkit.bc.ca</a>), 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, and fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program.

#### A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2007 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 and medium from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items', and the first of a suite of 'supporting indicators'. 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 Updated 2007 CEEI Reports, CEEI Data Summary Report, Technical Methods and Guidance Document, and additional information on the Secondary Indicators are available at: <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a>.
- For guidance on target setting and community actions, go to <a href="http://www.toolkit.bc.ca">http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm</a>.

#### We Need Your Feedback:

- To continue to guide us on CEEI, particularly now with the new Indicators. Please take the time to complete the short CEEI Survey at <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="mailto:CEEIRPT@gov.bc.ca">CEEIRPT@gov.bc.ca</a>

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, where you do note inaccuracies, please contact us.