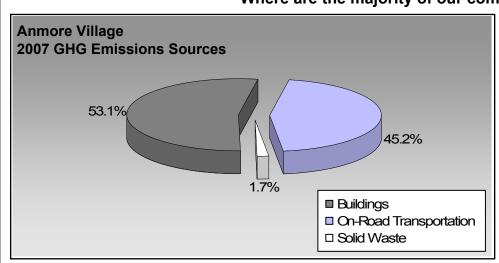
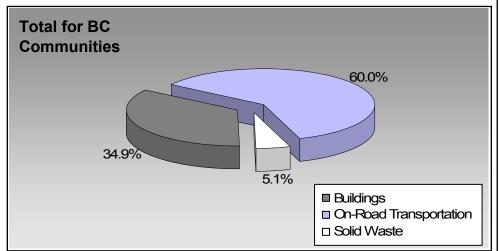


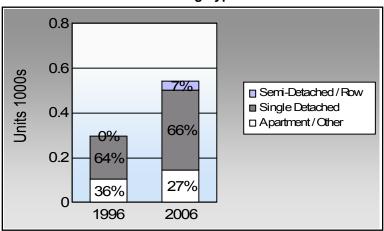
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

#### 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
	91.8%	83.5%
	2.0%	4.4%
	4.1%	10.4%
<b>ķ</b>	2.0%	1.7%
<b>%</b>	0.0%	0.0%

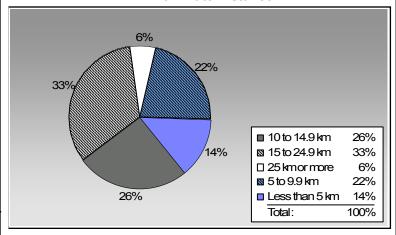
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

#### **Residential Density**

Anmore Village: 1.6 people per net

BC municipal average: 7.4 people per net ha

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



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	ation	Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	249	333,670	Litres	13,640	11,678	790
	Diesel Fuel	11	11,012	Litres	14,080	422	30
				Small Pa	assenger Cars	12,100	820
Large Passenger Cars	Gasoline	120	215,061	Litres	14,582	7,527	508
	Diesel Fuel	< 10	9,183	Litres	13,898	352	25
				Large Pa	assenger Cars	7,879	533
Light Trucks, Vans, SUVs	Gasoline	360	695,904	Litres	13,670	24,357	1,657
	Diesel Fuel	20	35,840	Litres	13,663	1,373	98
	Other Fuel	< 10	2,074	Litres	10,708	79	3
				Light Tr	ucks, Vans, SUVs	25,809	1,758
Commercial Vehicles	Gasoline	< 10	6,855	Litres	18,555	240	16
	Diesel Fuel	10	50,498	Litres	22,535	1,934	136
				Comme	cial Vehicles	2,174	152
Tractor Trailer Trucks	Diesel Fuel	< 10	194,147	Litres	127,789	7,436	522
				Tractor <sup>*</sup>	Trailer Trucks	7,436	522
Motorhomes	Gasoline	< 10	5,147	Litres	2,847	180	12
	Diesel Fuel	< 10	223	Litres		9	1
				Motorho	mes	189	13
Motorcycles, Mopeds	Gasoline	20	8,302	Litres	5,885	291	19
				Motorcy	cles, Mopeds	291	19
Bus	Diesel Fuel	< 10	6,114	Litres	15,922	234	16
	Other Fuel	< 10	8,778	Litres		336	13
				Bus		570	29
						44.070	2,000
				Gasoline		44,273	3,002
				Diesel:		11,760	828
				Other Fu	el:	415	16
On Road Transportation To	otals			All Fuel	s:	56,448	3,846



Buildings	<u>Type</u>	Connections	Consumption	<u>Measurement</u>	Energy (GJ)	<u>CO2e (t)</u>
Residential	Electricity	589	10,056,529	Kilowatt Hours	36,203	248
	Natural Gas	544	78,015	GigaJoules	78,015	3,978
	Heating Oil		1,696	GigaJoules	1,696	120
	Propane		2,509	GigaJoules	2,509	153
			Residential		118,423	4,499
Commercial/Small-Medium Industrial	Electricity	46	800,486	Kilowatt Hours	2,882	20
	Natural Gas	7		GigaJoules	-	-
			Commercial/Sma	III-Medium Industrial	2,882	20
			Electri	city:	39,085	268
			Natura	al Gas:	78,015	3,978
			Propa	ne:	2,509	153
			Wood	:		
			Heatir	g Oil:	1,696	120
Buildings Totals			Buildi	ngs:	121,305	4,519

Solid Waste		Mass (t)	CO2e (t)
	Community Solid Waste	404	147

Grand Total		CONSUMPTION		ENERGY (GJ)	<u>CO2e (t)</u>
	Diesel Fuel	307,017	L	11,760	828
	Electricity	10,857,015	kWh	39,085	268
	Gasoline	1,264,939	L	44,273	3,002
	Heating Oil	1,696	GJ	1,696	120
	Natural Gas	78,015	GJ	78,015	3,978
	Other Fuel	10,852	L	415	16
	Propane	2,509	GJ	2,509	153
	Solid Waste	404	T	0	147
Total of Transportation / Buil	ldings / Solid Waste:			<b>177,753</b> GJ	8,512 tonnes



### **Memo Items**

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
			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.

	199	6	200	1	2006	3	
	Units	%	Units	%	Units	%	
Single Detached House	190	39	290	67	355	66	
Semi-Detached House	0	0	5	1	40	7	
Row House	0	0	5	1	0	0	
Apartment, Duplex	25	5	45	10	55	10	
Apartment, 5 storeys or higher	0	0	0	0	0	0	
Apartment, under 5 storeys	0	0	0	0	0	0	
Other Single Attached House	0	0	0	0	5	1	
Movable Dwelling	80	16	85	20	85	16	

#### 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
2,160.0
1,342.4
na) 1.6

#### 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.

	199	6	20	001	200	06	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	450	92	540	89	760	84	
Car, Truck, Van as Passenge	10	2	50	8	40	4	
Public Transit	20	4	10	2	95	10	
Walked	10	2	10	2	15	2	
Bicycle	0	0	0	0	0	0	
Motorcycle	0	0	0	0	0	0	
Taxicab	0	0	0	0	0	0	
Other Method	0	0	0	0	0	0	

#### 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	%	
Less than 5 km	110	14	
5 to 9.9 km	175	22	
10 to 14.9 km	205	26	
15 to 24.9 km	265	33	
25 km or more	45	6	



#### 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	1,251.9	42.9			
Local Parks	135.6	4.6			
Agricultural Land Reserve	0.0	0.0			
Agricultural Land Reserve Other land use	1,531.6	52.5			
Total Land Area	2,919.0	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="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">CEEIRPT@gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="https://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">CEEIRPT@gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="http

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.