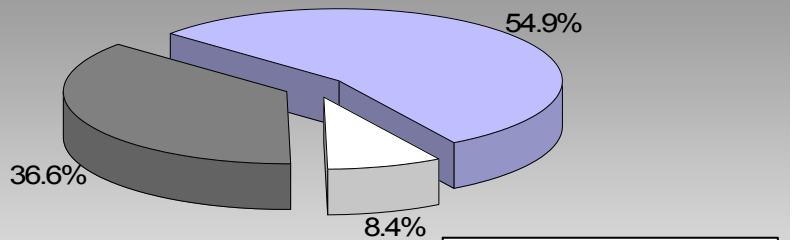
Kent District Municipality
Updated 2007 Community Energy and Emissions Inventory

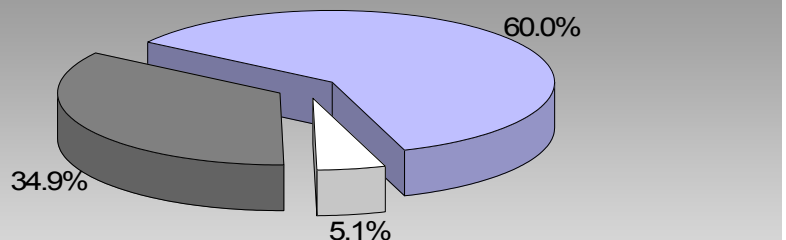
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Kent District Municipality
2007 GHG Emissions Sources

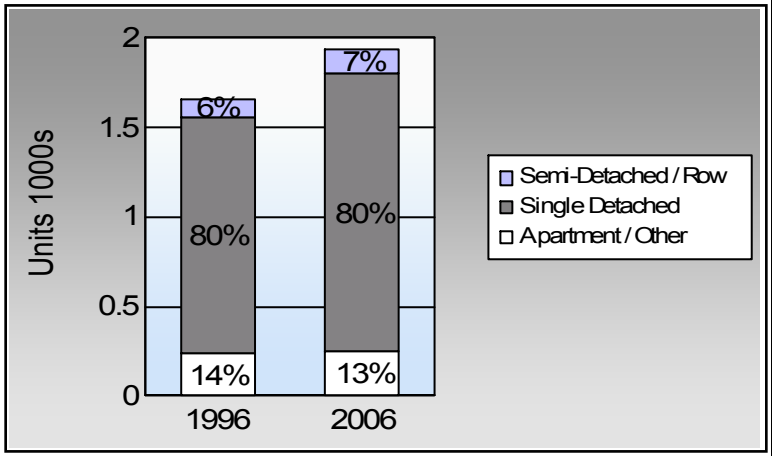


Total for BC Communities



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
	76.6%	82.3%
	6.8%	6.3%
	0.0%	1.0%
	10.5%	8.6%
	5.4%	0.8%

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

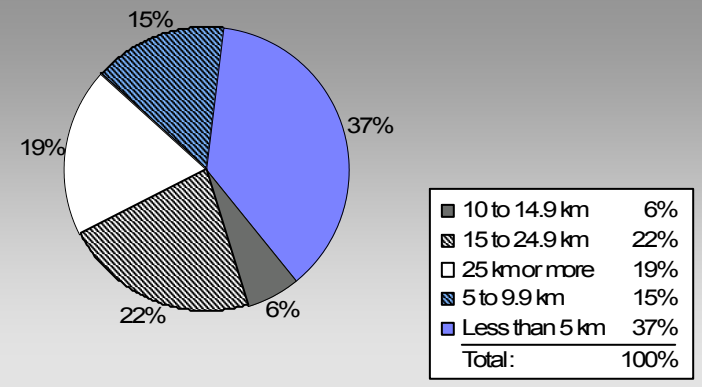
Residential Density

Kent District Municipality: 1.7 people per net ha

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 Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	866	1,333,811	Litres	15,213	46,683	3,168
	Diesel Fuel	46	53,952	Litres	15,314	2,066	147
				Small Passenger Cars		**48,749**	**3,315**
Large Passenger Cars	Gasoline	501	1,126,363	Litres	17,987	39,423	2,669
	Diesel Fuel	< 10	18,076	Litres	16,889	692	49
	Other Fuel	< 10	3,309	Litres		127	5
				Large Passenger Cars		**40,242**	**2,723**
Light Trucks, Vans, SUVs	Gasoline	1,298	4,116,853	Litres	21,180	144,090	9,824
	Diesel Fuel	165	418,741	Litres	20,385	16,038	1,144
	Other Fuel	16	37,263	Litres	13,675	1,427	57
				Light Trucks, Vans, SUVs		**161,555**	**11,025**
Commercial Vehicles	Gasoline	17	61,167	Litres	12,727	2,141	143
	Diesel Fuel	42	189,422	Litres	20,979	7,255	510
	Other Fuel	< 10	15,802	Litres	11,356	605	24
				Commercial Vehicles		**10,001**	**677**
Tractor Trailer Trucks	Gasoline	< 10	7,737	Litres	7,085	271	18
	Diesel Fuel	48	953,834	Litres	49,062	36,532	2,567
				Tractor Trailer Trucks		**36,803**	**2,585**
Motorhomes	Gasoline	49	57,584	Litres	3,277	2,015	135
	Diesel Fuel	10	9,703	Litres	4,906	372	26
	Other Fuel	< 10	1,384	Litres	2,189	53	2
				Motorhomes		**2,440**	**163**
Motorcycles, Mopeds	Gasoline	60	26,332	Litres	5,965	922	61
				Motorcycles, Mopeds		**922**	**61**
Bus	Gasoline	< 10	40,880	Litres	25,808	1,431	96
	Diesel Fuel	< 10	78,800	Litres	28,457	3,018	212
	Other Fuel	< 10	4,389	Litres		168	7
				Bus		**4,617**	**315**

	Gasoline:	236,976	16,114
	Diesel:	65,973	4,655
	Other Fuel:	2,380	95
On Road Transportation Totals	**All Fuels:**	**305,329**	**20,864**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	2,297	30,414,096	Kilowatt Hours	109,491	750
	Natural Gas	1,629	120,487	GigaJoules	120,487	6,144
	Heating Oil		16,967	GigaJoules	16,967	1,196
	Propane		25,093	GigaJoules	25,093	1,531
	Wood		13,503	GigaJoules	13,503	5
			Residential		**285,541**	**9,626**
Commercial/Small-Medium Industrial	Electricity	306	23,549,544	Kilowatt Hours	84,778	581
	Natural Gas	164	72,595	GigaJoules	72,595	3,702
			Commercial/Small-Medium Industrial		**157,373**	**4,283**

	Electricity:	194,269	1,331
	Natural Gas:	193,082	9,846
	Propane:	25,093	1,531
	Wood:	13,503	5
	Heating Oil:	16,967	1,196
Buildings Totals	**Buildings:**	**442,914**	**13,909**

Solid Waste

		Mass (t)	CO2e (t)
	Community Solid Waste	2,308	3,203

Kent District Municipality
Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	1,722,528	L	65,973	4,655
Electricity	53,963,640	kWh	194,269	1,331
Gasoline	6,770,727	L	236,976	16,114
Heating Oil	16,967	GJ	16,967	1,196
Natural Gas	193,082	GJ	193,082	9,846
Other Fuel	62,147	L	2,380	95
Propane	25,093	GJ	25,093	1,531
Solid Waste	2,308	T	0	3,203
Wood	13,503	GJ	13,503	5
Total of Transportation / Buildings / Solid Waste:			**748,243** GJ	**37,976** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
	Natural Gas	3	withheld	GigaJoules	-	-
				Large 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 http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at CEEIRPT@gov.bc.ca

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	1,320	44	1,365	78	1,540	80
Semi-Detached House	20	1	25	1	45	2
Row House	85	3	75	4	95	5
Apartment, Duplex	0	0	5	0	20	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	165	6	155	9	215	11
Other Single Attached House	10	0	15	1	15	1
Movable Dwelling	60	2	120	7	5	0

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	5,515.0
Net Land Area (ha) *	3,324.1
Residential Density (people per net ha)	1.7

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	
	People	%	People	%	People	%
Car, Truck, Van as Driver	1,130	77	1,360	82	1,575	82
Car, Truck,Van as Passenge	100	7	90	5	120	6
Public Transit	0	0	20	1	20	1
Walked	155	11	140	8	165	9
Bicycle	80	5	35	2	15	1
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	1	20	1	20	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.

	2006	
	People	%
Less than 5 km	605	37
5 to 9.9 km	250	15
10 to 14.9 km	100	6
15 to 24.9 km	360	22
25 km or more	315	19

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	809.3	4.0
Local Parks	24.6	0.1
Agricultural Land Reserve	6,518.6	32.2
Other land use	12,915.6	63.7
Total Land Area	20,268.1	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	Average energy use per person per square metre of floor space
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 (<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, 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.

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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: <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, particularly now with the new Indicators. Please take the time to complete the short CEEI Survey at <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or contact us directly at CEEIRPT@gov.bc.ca