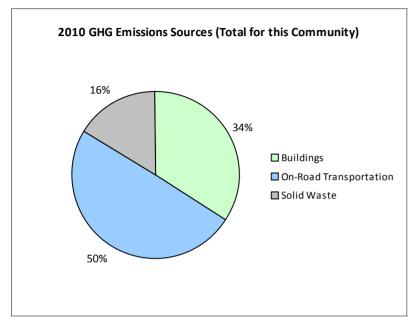
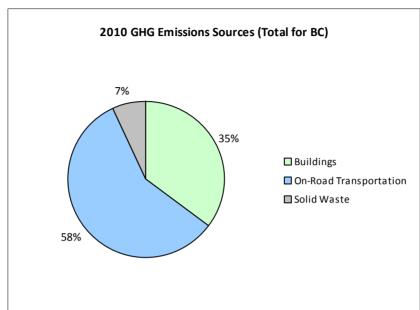
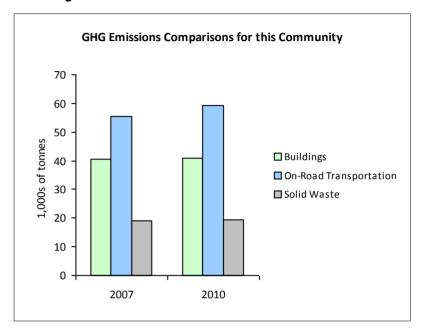
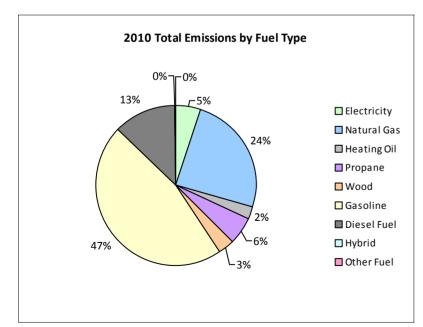


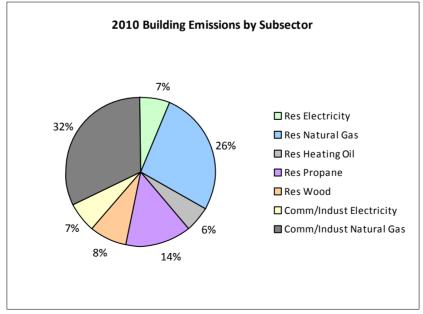
#### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

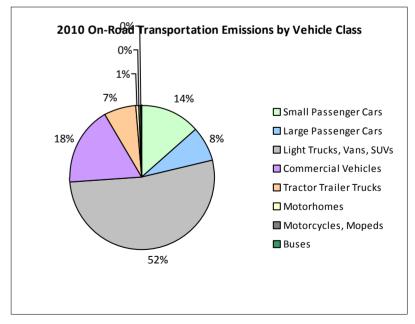














Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

#### **Core Items**

				2007					2010		
On-Road Transportation		Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Hybrid			20,800	34	1			25,100	190	12
	Gasoline	1,995	3,275,652 L	17,500	114,647	7,774	1,998	3,472,084 L	18,700	121,523	7,790
	Diesel Fuel	65	112,842 L	26,100	4,322	309	59	96,398 L	24,400	3,692	256
	Other Fuel								30,100	80	4
Large Passenger Cars	Hybrid			30,500	103	7	18	31,150 L	31,700	1,089	70
	Gasoline	977	2,156,986 L	19,400	75,495	5,129	876	1,995,336 L	19,900	69,836	4,483
	Diesel Fuel	12	13,447 L	11,800	515	37	23	18,014 L	8,100	690	48
	Other Fuel	20	50,791 L	17,000	1,284	77			16,200	371	23
Light Trucks, Vans, SUVs	Hybrid			28,500	154	10			24,700	430	29
	Gasoline	4,376	11,779,105 L	18,400	412,268	28,165	4,617	13,196,228 L	19,800	461,868	29,917
	Diesel Fuel	163	407,522 L	14,600	15,609	1,110	123	350,520 L	17,200	13,424	927
	Other Fuel	30	59,507 L	11,600	1,506	90			10,300	373	23
Commercial Vehicles	Gasoline	459	1,376,385 L	17,600	48,173	3,234	525	1,675,869 L	18,900	58,656	3,749
	Diesel Fuel	468	1,834,453 L	22,000	70,259	4,936	553	2,622,236 L	26,700	100,432	6,847
	Other Fuel			10,000	234	14			9,300	264	16
Tractor Trailer Trucks	Gasoline			11,200	125	8			10,400	124	8
	Diesel Fuel	117	1,396,534 L	31,100	53,486	3,759	126	1,582,419 L	32,600	60,606	4,132
Motorhomes	Gasoline	41	108,724 L	18,700	3,806	253	37	98,435 L	18,800	3,445	218
	Diesel Fuel	28	99,070 L	19,300	3,794	267	26	88,867 L	19,300	3,405	231
	Other Fuel			24,300	98	6			17,700	74	4
Motorcycles, Mopeds	Gasoline	144	32,410 L	5,600	1,134	75	161	41,347 L	6,300	1,447	91
Buses	Gasoline	11	29,552 L	15,500	1,035	69	20	61,144 L	18,900	2,141	137
	Diesel Fuel			15,500	1,256	88			15,000	1,181	80
Totals		8,906	22,732,980 L	18,368	809,337	55,418	9,162	22,732,980 L	19,855	905,341	59,095



### Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

				2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	173,073 GJ	173,073	3,506	N/A	161,343 GJ	161,343	3,269
	Heating Oil	N/A	36,529 GJ	36,529	2,575	N/A	34,053 GJ	34,053	2,329
	Propane	N/A	99,671 GJ	99,671	6,081	N/A	92,916 GJ	92,916	5,669
	Natural Gas	2,777	271,116 GJ	271,116	13,599	2,777	216,360 GJ	216,360	10,853
	Electricity	8,622	113,912,154 kWh	410,083	2,848	8,545	107,610,949 kWh	387,399	2,690
Commercial/Small-Medium Industrial	Natural Gas	392	166,593 GJ	166,593	8,356	392	264,326 GJ	264,326	13,259
	Electricity	1,637	138,413,202 kWh	498,287	3,460	1,621	107,806,978 kWh	388,105	2,695
Totals		13,428		1,655,352	40,425	13,335		1,544,502	40,764

				2007				2010	
Solid Waste		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	14,800 t	N/A	19,203	0	15,709 t	N/A	19,539
Totals		0			19,203	0			19,539

#### **Memo Items**

			2	2007				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Natural Gas	9	263,295 GJ	263,295	13,207	9	128,168 GJ	128,168	6,429
	Electricity	1		0	0	2		0	0
Totals		10		263,295	13,207	11		128,168	6,429

			2007			2010			
Land-use Change - De	eforestation	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Settlement	Deforestation	6	0 ha	0	5,529				
Totals		6			5,529	0			



## **Skeena-Queen Charlotte Regional District**

#### **2010 Community Energy and Emissions Inventory**

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

## **Totals for Transportation, Buildings and Solid Waste**

	2007 (Pop	oulation: 19,755)		2010 (Population: 19,497)				
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)		
Hybrid	0 L	291	18	31,150 L	1,709	111		
Gasoline	18,758,814 L	656,683	44,707	20,540,443 L	719,040	46,393		
Diesel Fuel	3,863,868 L	149,241	10,506	4,758,454 L	183,430	12,521		
Other Fuel	110,298 L	3,122	187	0 L	1,162	70		
Wood	173,073 GJ	173,073	3,506	161,343 GJ	161,343	3,269		
Heating Oil	36,529 GJ	36,529	2,575	34,053 GJ	34,053	2,329		
Propane	99,671 GJ	99,671	6,081	92,916 GJ	92,916	5,669		
Natural Gas	437,709 GJ	437,709	21,955	480,686 GJ	480,686	24,112		
Electricity	252,325,356 kWh	908,370	6,308	215,417,927 kWh	775,504	5,385		
Solid Waste	14,800 t	0	19,203	15,709 t	0	19,539		
<b>Grand Totals</b>	·	2,464,689	115,046		2,449,843	119,398		



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	5,490	39	5,360	65	5,255	67
Semi-Detached House	395	3	435	5	355	5
Row House	495	3	375	5	320	4
Apartment, Duplex	730	5	675	8	795	10
Apartment, 5 storeys or higher	130	1	80	1	30	0
Apartment, under 5 storeys	1,120	8	930	11	910	12
Other Single Attached House	50	0	45	1	15	0
Movable Dwelling	310	2	330	4	135	2

#### **Parks and Protected Greenspace**

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

	2009			
	Units	%		
National Parks	125,851	6		
Provincial Parks / Protected Areas	637,757	32		
Local Parks	35	0		
Agricultural Land Reserve	43,039	2		
Other land use	1,202,630	60		
Total Parks and Protected Area	763,642	38		
Total Land Area	2,009,312	100		

<sup>\*</sup> Total is net of Indian Reserves

### 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	6,500	61	6,050	65	5,035	60	
Car, Truck, Van as Passenger	1,340	13	1,130	12	1,095	13	
Public Transit	210	2	210	2	235	3	
Walked	1,965	18	1,475	16	1,500	18	
Bicycle	225	2	90	1	145	2	
Motorcycle	10	0	20	0	15	0	
Taxicab	100	1	90	1	90	1	
Other Method	370	3	270	3	290	3	

#### **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	125,851	6
Provincial Parks / Protected Areas	637,757	32
Local Parks	35	0
Agricultural Land Reserve	43,039	2
Other land use	1,202,630	60
Total Parks and Protected Area	763,642	38
Total Land Area	2,009,312	100

<sup>\*</sup> Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

<sup>\*\*</sup> Quantity of parkland may be underestimated



Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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### **Skeena-Queen Charlotte Regional District**

#### 2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

#### **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) <a href="http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm">http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm</a>, and on the <a href="http://toolkit.bc.ca">http://toolkit.bc.ca</a> 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.

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Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

#### 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 (<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, 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: <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.toolkit.bc.ca</a> and <a href="http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm">http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm</a>

#### We Need Your Feedback

To continue to guide us on CEEI, please take the time to 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,