

Instructions - Inventory Quantification Support Spreadsheet

The Inventory Quantification Support Spreadsheet is a tool created to assist municipal governments in the calculation of their greenhouse gas (eCO₂) emissions. It is based upon the Partners for Climate Protection (PCP) GHG Software. This tool will help you calculate your municipal government's corporate and community eCO₂ (equivalent CO₂) emissions based on energy consumption and waste to landfill.

This tool was created for those PCP participants who have yet to acquire or do not wish to purchase the PCP software at this time. It does not have the full capacity of the PCP Software as it does not include a forecasting function or the capacity to quantify eCO₂ reductions from measures. However, it does allow PCP communities to successfully complete the inventory component of Milestone One. The data collected and analyzed with this spreadsheet tool will be transferable to additional Milestone support tools currently under development by PCP.

Separate worksheets have been developed to track the data within each community and corporate sector. The corporate sectors include buildings, vehicle fleet, streetlights, water and sewage, and waste. The community sectors include residential, commercial, industrial, transportation and waste. A summary of the corporate and community inventories is provided in a separate worksheet and will be automatically filled in as you input the data into each sector's worksheet.

Cells highlighted in light yellow *must* be filled in in order to calculate eCO₂ emissions.

Cells highlighted in light pink *can* be filled in, but are not necessary to calculate eCO₂ emissions.

Cells highlighted in light green *can* be altered with empirical data if available.

Cells highlighted with light blue contain the eCO₂ emissions which are automatically calculated based on the information you provide.

The electricity emission coefficients used in the calculation of the eCO₂ emissions were developed for the PCP software. They represent the average amount of eCO₂ emissions per unit of electricity within each province/territory. If your municipal government's electricity source differs from that of the rest of the province/territory, you should update the electricity emission coefficients. You can do this manually by altering the electricity emission coefficient sheets under >Format >Sheets >Unhide. Please contact PCP's technical support providers to discuss this option: International Council for Local Environmental Initiatives, Megan Jamieson, (416) 392-1480, mjamieson@iclei.org.

If you require background information on greenhouse gas (GHG) emission inventories and the protocol, please refer to the document entitled "Frequently asked questions on inventories" available on FCM's Sustainable Communities Knowledge Network.

General Information

Name of municipal government:	The Corporation of the Town of Hearst
Province/Territory:	Ontario
Corporate Inventory Year (btw 1994 & 2000):	2000
Community Inventory Year (btw 1994 and 2000):	2000

Waste

Corporate Inventory

Description: Approximating 0.5% of total waste produced by town

Waste to landfill (t): 21.63

eCO2 Emissions (t): 10

<i>Indicator</i>	<i>Indicator Value</i>	<i>Total eCO2/Indicator</i>
<i>Number of employees</i>	<i>0.00</i>	<i>#DIV/0!</i>

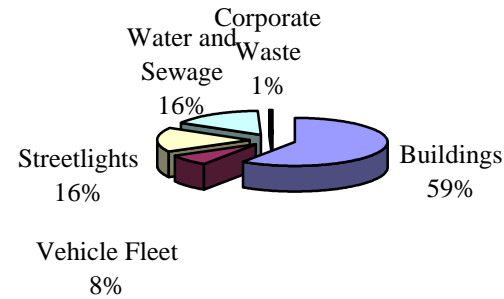
Corporate Inventory Summary

*Municipal government: The Corporation of the Town
Inventory Year: 2000*

Energy Costs and eCO2 Emissions by Sector

Sector	Total Cost	Total eCO2 (t)
Buildings	188,381	1,155
Vehicle Fleet	0	146
Streetlights	0	319
Water and Sewage	68,717	316
Corporate Waste	-	10
Total	257,098	1,947

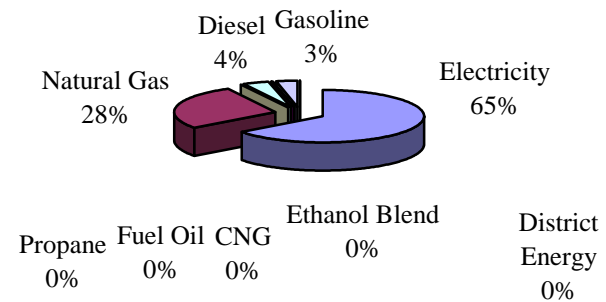
Corporate eCO2 Emissions Breakdown by Sector



Energy Costs and eCO2 Emission by Source

Energy Type	Total Use	Total Cost	Total eCO2
Electricity	3,980,913	184,830	1,252
Natural Gas	285,534	71,944	537
CNG	0	0	0
Diesel	29,587	0	81
District Energy	0	0	0
Ethanol Blend	0	0	0
Fuel Oil	739	324	2
Gasoline	27,678	0	65
Propane	0	0	0
Waste	-	-	10
Total	-	257,098	1,947

Corporate eCO2 Emissions by Source



n of Hearst

Residential

Community Inventory

Description: Insert comments here. (ie. Includes single and semi-detached homes)

Fuel Type	Units	Total Use	Total eCO2 (t)
Electricity	kWh	26,145,057	8,221
Natural Gas	cum		0
District Energy	GJ		0
Fuel Oil	L		0
Diesel	L		0
Propane	L		0
Total		-	8,221

Indicators	Indicator Values	Total eCO2/Indicator
Population:		#DIV/0!
Households:		0

Commerical

Community Inventory

Description: *Insert comments here. (ie. Includes all non-industrial businesses)*

Fuel Type	Units	Total Use	Total eCO2 (\$)
Electricity	kWh	33,277,376	10,464
Natural Gas	cum		0
District Energy	GJ		0
Fuel Oil	L		0
Diesel	L		0
Propane	L		0
Total		-	10,464

Indicators	Indicator Values	Total eCO2/Indicator
Floor Area (1000 m ²):		#DIV/0!
Employees:		0.00
Establishments:		0.00

Industrial

Community Inventory

Description: *Insert comments here. (ie. Includes small industrial sector)*

Fuel Type	Units	Total Use	Total eCO2 (\$)
Electricity	kWh	44,419,227	13,968
Natural Gas	cum		0
District Energy	GJ		0
Fuel Oil	L		0
Diesel	L		0
Propane	L		0
Total			13,968

Indicators	Indicator Values	Total eCO2/Indicator
Floor Area (1000 m ²):		#DIV/0!
Employees:		0.00
Establishments:		0.00

Transportation

Community Inventory

Description: *Insert comment here. (ie. Based on study performed by transportation dept.)*

Total Annual Vehicle Kilometres Travelled (VKT):

eCO2 Emissions (t)

	Autos	Light Truck	Heavy Truck	Bus	Total
Gasoline	0	0	0	0	0
Diesel	0	0	0	0	0
Propane	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
Ethanol Blend	0	0	0	0	0
Total	0	0	0	0	0

Percentage Breakdown of VKT by Vehicle Type and Fuel (%)

	Cars	Light Truck	Heavy Truck	Bus	Total
Gasoline	53.17%	32.67%	1.20%	0.00%	87.04%
Diesel	0.15%	0.93%	10.59%	0.01%	11.68%
Propane	1.28%	0.00%	0.00%	0.00%	1.28%
Compressed Natural Gas	0.00%	0.00%	0.00%	0.00%	0.00%
Ethanol Blend	0.00%	0.00%	0.00%	0.00%	0.00%
Total	0.546	0.336	0.1179	0.0001	100.00%

Vehicle Efficiency for Different Fuels (L/100km)

	Cars	Light Truck	Heavy Truck	Bus
Gasoline	10.6	14.3	43.5	35.7
Diesel	9.5	12.8	39	32
Propane	14.4	15.3	0	0
Compressed Natural Gas	48.3	65	0	0
Ethanol Blend	11.3	19.4	0	0

Waste

Community Inventory

Description: *Approximating 99,5% of total waste produced by town*

Waste to landfill (tonnes): 4,304

eCO2 Emissions (t): 2,073

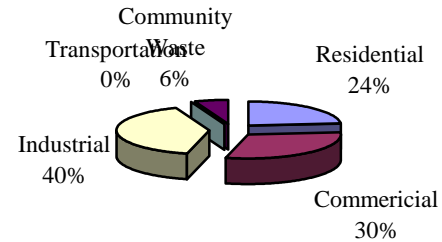
Community Inventory Summary

*Municipality: The Corporation of the Town
Inventory Year: 2000*

Energy Costs and eCO2 Emissions by Sector

Sector	Total eCO2 (t)
Residential	8,221
Commercial	10,464
Industrial	13,968
Transportation	0
Community Waste	2,073
Total	34,727

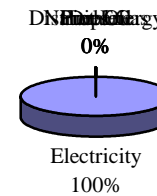
Community eCO2 Emissions Breakdown by Sector



Energy Costs and eCO2 Emission by Source

Energy Type	Total Use	Total eCO2
Electricity	103,841,660	32,653
Natural Gas	0	0
District Energy	0	0
Fuel Oil	0	0
Diesel	0	0
Propane	0	0
Waste		2,073
Total	-	34,727

Community eCO2 Emissions by Source



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