CDEM
Économie verte
Green economy

RM OF ST. CLEMENTS

Greenhouse Gas (GHG) Emissions Inventory

Since spring, CDEM has worked with your municipality in order to provide the following GHG emissions information for your jurisdiction.

The tables below indicate the source of GHG emissions and the amount that is generated within your territory in 2006 and 2011, both at the Community and the Corporate levels.

- **Community Inventory**: This inventory includes residential, institutional, commercial and industrial, as well as transportation and solid waste data.
- **Corporate Inventory**: This inventory includes data on all municipal government installations, including the buildings, the street lighting, water and sewage, the municipal fleet and solid waste within the community and / or the municipal government.

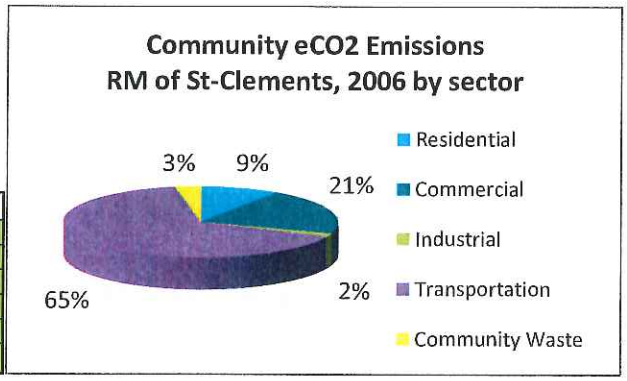
drobidoux@eco-west.com

1. St. Clements Community Emissions Inventory for 2006 and 2011

eCO2 Emissions, by Sector, in 2006:[1]

Energy Usage and eCO_2 Emissions by Sector

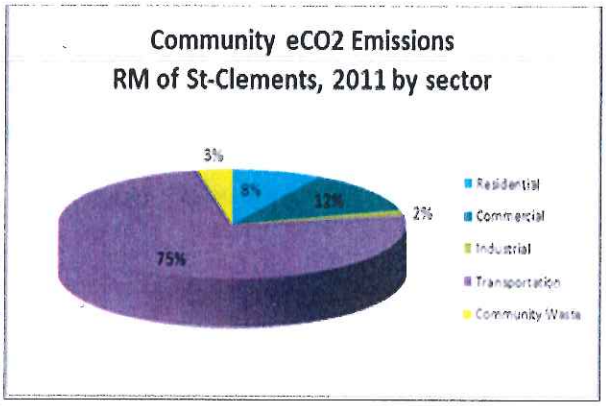
Sector	Energy (GJ)	Total eCO_2 (t)
Residential	493 822,30	9 252,19
Commercial	468 026,96	20 640,32
Industrial	49 180,59	1 561,03
Transportation	931 371,88	64 939,83
Community Waste	-	3 086
Total	**1 942 401,74**	**99 479,12**



eCO2 Emissions, by Sector, in 2011:[2]

Energy Usage and eCO_2 Emissions by Sector

Sector	Energy (GJ)	Total eCO_2 (t)
Residential	534 446,14	8 314,79
Commercial	329 719,08	12 487,73
Industrial	60 203,61	1 848,93
Transportation	1 078 171,19	75 175,40
Community Waste	-	3 270
Total	**2 002 540,02**	**101 097,11**



[1] Energy Sources for 2006, in eCO2 (t): Electricity 1,341; Natural Gas 30,113; Diesel 18,977; Gasoline 45,431; Propane 532; Waste 3,086.

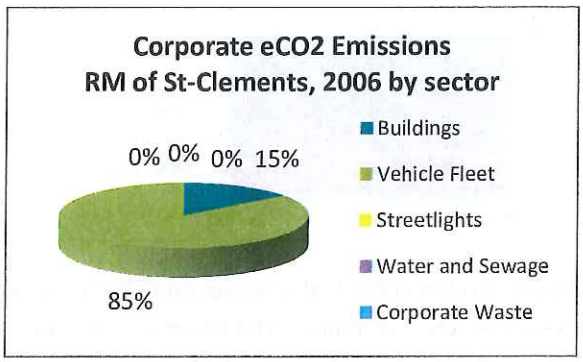
[2] Energy Sources for 2011, in eCO2 (t): Electricity 260; Natural Gas 22,391; Diesel 21,969; Gasoline 52,591; Propane 616; Waste 3,270.

2. St. Clements Corporate Emissions Inventory for 2006 and 2011

eCO2 Emissions, by Sector, in 2006:[3]

Energy Costs and eCO_2 Emissions by Sector

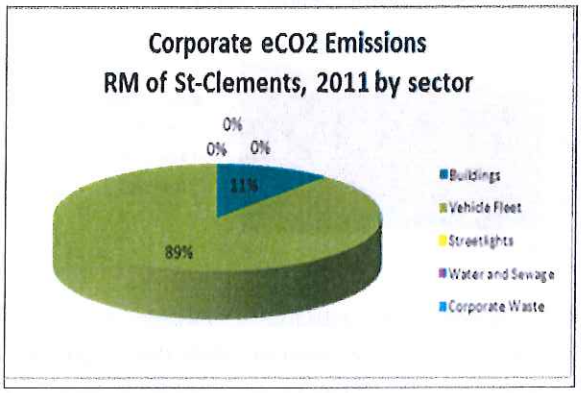
Sector	Total Cost ($)	Energy (GJ)	Total eCO_2 (t)
Buildings	0	2 582,44	72,39
Vehicle Fleet	111 606	156 452,10	419,83
Streetlights	0	0,00	0,00
Water and Sewage	0	15,19	0,05
Corporate Waste	-	-	0,00
Total	**111 606**	**159 050**	**492**



eCO2 Emissions, by Sector, in 2011:[4]

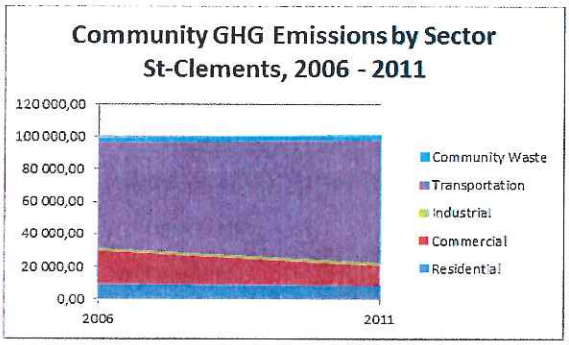
Energy Costs and eCO_2 Emissions by Sector

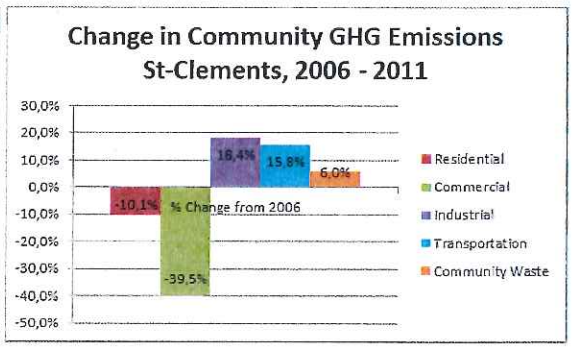
Sector	Total Cost ($)	Energy (GJ)	Total eCO_2 (t)
Buildings	0	3 286,57	68,03
Vehicle Fleet	182 074	7 574,88	530,72
Streetlights	0	0,00	0,00
Water and Sewage	0	34,88	0,02
Corporate Waste	-	-	0,00
Total	**182 074**	**10 896**	**599**



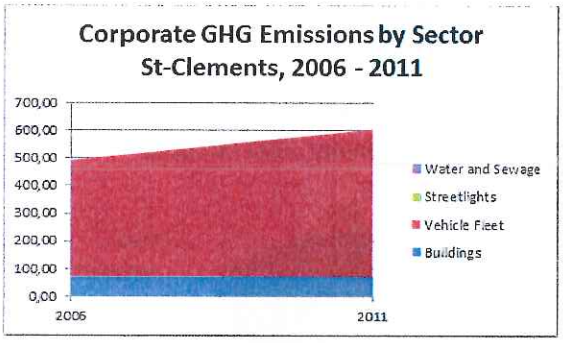
[3] Energy Sources for 2006, in eCO2 (t): Electricity 4; Natural Gas 38; Diesel 420.
[4] Energy Sources for 2011, in eCO2 (t): Electricity 1; Natural Gas 67; Diesel 531.

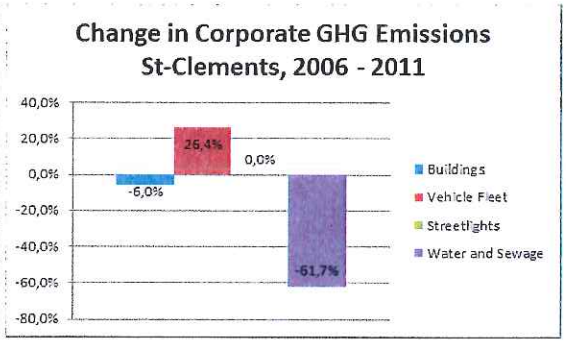
3. Preliminary Observations: 2006 and 2011



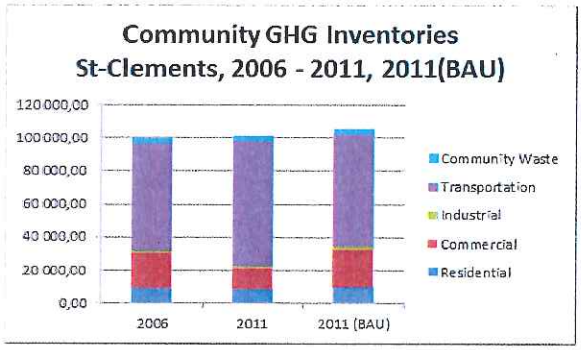


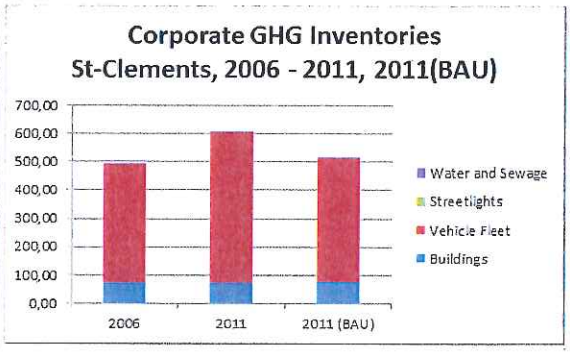
As demonstrated in the tables above, there hasn't been a significant change in actual GHG emissions as a whole within the community. The observed reduction of emissions indicates a significant decrease in the Commercial and Residential sectors and an increase of emissions in Industrial, Transportation and Community Waste sectors. The Transportation sector in particular accounts for nearly 75% of total emissions.



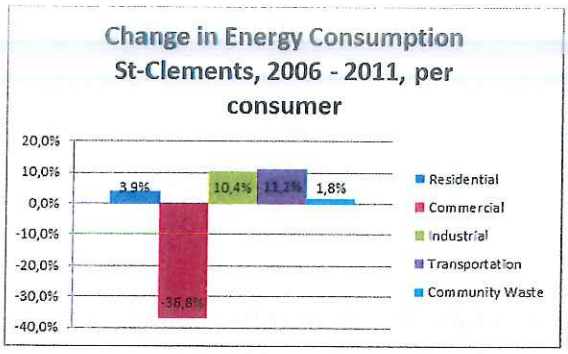


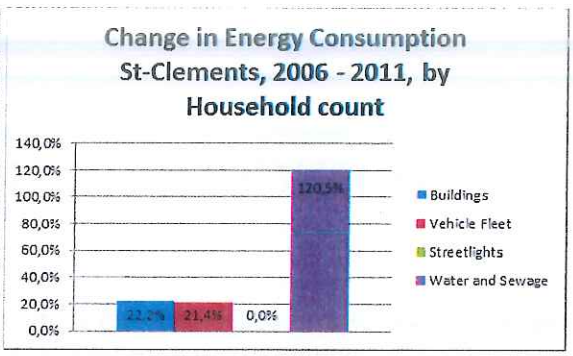
At the Corporate level, actual GHG emissions amount have increased by over 20% largely due to increases in vehicle fleet fuel consumption. While the Water and Sewage sector has decreased in GHG emissions, the overall emissions is less than 1% of total Corporate emissions.





The table on the left indicates that actual Community GHG emissions levels have remained relatively stable through a time of strong population growth. With the table on the right, it is noted that actual 2011 Corporate GHG emissions are higher that the projected "Business as usual" emissions predictions.





The graph on the left demonstrates that energy consumption per consumer has dropped for the Commercial sector but there has been an increase in all other sectors. The graph on the right shows that the per household energy consumption of the RM has increased across all sectors (streetlights have been omitted).

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REDUCING GREENHOUSE GASES

CDEM encourages, stimulates and organizes economic development in Manitoba's bilingual municipalities. We are actively involved in tourism, rural development and small business support, ***the green economy***, and engaging young people in economic development.

CDEM successfully coordinates major sustainable economic development projects such as the reduction of greenhouses gas (GHG) emissions in our communities.

REDUCE YOUR EMISSIONS AND COSTS

CDEM can help you:

- Identify sources of energy waste and inefficiencies in your cost-cutting measures.
- Measure the results of your GHG reduction initiatives more accurately.
- Be recognized as an environmental protection leader.
- Increase stakeholder awareness of their commitment.
- Access financial support for your green projects from the various levels of governments and independent funders.
- Develop your local economy to be ecological and sustainable.

PROCESS

CDEM will work with your staff to identify the best methods for collecting GHG emission sources in your municipality.

CDEM will help your staff with this collection and ensuring reliable results.

CDEM will quantify your GHG emissions using the data obtained.

CDEM will prepare a report on your GHG emissions inventory. This will help you identify GHG reduction projects that are easy to implement and which you can confidently share with residents, funders and other community stakeholders.

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CDEM: GREEN ECONOMY

The term 'Green Economy' refers to all of the economic activities that contribute to environmental protection and sustainable economic development.

The new green economy advocated by CDEM is aimed at promoting an enhanced quality of life for Manitoba's bilingual municipalities.

CDEM AND PCP – PARTNERS FOR CLIMATE PROTECTION

CDEM is actively involved in the Partners for Climate Protection (PCP) program, a network of municipal governments that have committed to reducing greenhouse gases (GHG) and acting on climate change.

PCP uses a ***five-milestone framework*** to help municipalities reduce greenhouse gas emissions.

Milestone 1: Create a GHG emissions inventory
Milestone 2: Set a GHG emissions reduction target
Milestone 3: Develop an emissions reduction action plan
Milestone 4: Implement an Integrated Community Sustainability Plan (ICSP)
Milestone 5: Monitor progress and report results

The CDEM team has expertise in 'green project' implementation in areas such as the collection and analysis of GHG emissions data. CDEM's GHG inventories and development plans are recognized by governments and major funders alike.

CDEM can help you with your inventory and development plan. Here is what you need to do to get the process started:

- Pass a resolution to enrol your municipality in PCP.
- Pass a resolution confirming your financial contribution.
- Sign an MOU with CDEM to undertake the first three PCP milestones.