



PROPOSAL FOR THE TOWN OF _____

CLIMATE CHANGE LOCAL ACTION PLAN (CCLAP)

INVENTORY – LOCAL ACTION PLAN

An Eco-West/CDEM initiative

April 14, 2015



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Addressing Climate Change in Manitoba

THE CONSEQUENCES OF CLIMATE CHANGE

Communities from the different regions of Canada are already confronted with the effects of climate change. Some must face more severe droughts, while others face more violent storms. The longer, colder winters and hotter summers increase damage to municipal infrastructure. All of these impacts cost cities and municipalities millions of dollars, and communities will expect that adaptation measures be implemented.

Canada's infrastructure deficit is significant, and the continued effects of climate change will no doubt increase this deficit by shortening asset-replacement cycles. In its report *"Paying the Price": the Economic Impacts of Climate Change for Canada*, published in 2011, the National Round Table on the Environment and the Economy suggested that the economic impact on Canada could reach \$5 billion per year by 2020, and between \$21 and \$43 billion per year by 2050.

These issues present important challenges in the improvement of municipal buildings and infrastructure, as well as local communities.

WHY ACT LOCALLY TO ADDRESS CLIMATE CHANGE?

Municipal governments have an important role to play in the use of a new corporate planning method that is consistent with the trend toward sustainability when faced with climate change. Through planning and the implementation of a green economy infrastructure, small municipalities can guarantee sustainable economic development, which will also lead to the growth and prosperity of their communities.

- ✓ Ensures environmental sustainability
- ✓ Ensures economic sustainability

In this way, municipalities that participate in greening their local economies by inventorying greenhouse gas (GHG) emissions and creating local action plans to address climate change will create opportunities to commercialize clean technologies, attract foreign direct investments and train a qualified workforce.

HELPING MUNICIPALITIES FACE CHALLENGES

Faced with the challenges posed by climate change and economic development, municipal populations and governments must tackle many threats and challenges:

- ✓ *Revising infrastructure and equipment needs*
- ✓ *Revising sustainability and adaptation strategies to take into account the environmental and economic vulnerability of lands under municipal authority*

✓ *Municipalities' limited resources and financial capabilities*

To combat climate change and ensure the economic viability of municipalities, or in other words, to reduce the causes of climate change and protect against its impacts, it is suggested that local governments employ the following strategies:

- ✓ Identify the source of emissions and evaluate the quantity of GHG emissions produced by municipalities (Inventory)
- ✓ Select measures and take actions to reduce GHG emissions produced by municipalities, both directly and indirectly (Local Action Plan)
- ✓ Become better established and better developed by planning for serious events linked to climate change (flooding, drought, erosion, etc.) and selecting methods to protect against these impacts

Because of their roles and responsibilities, municipalities must act as leaders to chart the way forward and make a difference so that these strategies can be integrated by all civil society stakeholders.

UNDERSTANDING THE VALUE AND THE ADVANTAGES OF A GHG EMISSIONS INVENTORY AND AN ACTION PLAN

A GHG emissions inventory brings together data on community and municipal energy use and solid waste generation in order to estimate GHG emissions in a given year. The local action plan (LAP) is a strategic document that outlines how the municipality will achieve its GHG emissions reduction objectives. The LAP covers municipal operations and the community.

An inventory serves as a management tool to:

- ✓ **Save money:** The inventory helps to track the dollars spent on energy. That which can be measured can be managed. An inventory highlights opportunities to invest in energy efficient upgrades.
- ✓ **Provide useful information:** An inventory of emissions is the first step in the creation of a LAP. Inventorying significant sources of GHG emissions helps municipalities to establish adequate measures to reduce emissions and create an efficient LAP.

The **INVENTORY** can identify emissions sources based on the types of energy used, the sectors involved (transportation, building, water treatment plants, residual materials management, etc.), and the equipment being utilized.

The **LOCAL ACTION PLAN (LAP)** provides a preliminary description of the proposed measures, actions and technologies (MATs) and, in its first phase, estimates the environmental and economic advantages expected to be derived from the application of the MATs. The proposed MATs will also take into account the potential environmental consequences of climatic damage. The LAP puts forward various tools (geomatics) considered useful in the selection and development of measures to be taken.

Project Description

CCLAP PROJECT GOALS AND MISSION

The CCLAP project aims to offer participants as much support as possible to assist in the completion of their GHG emission inventories and local action plans.

1. Project resources required for the development of an inventory and a climate change local action plan

Eco-West/CDEM will partner with specialists and experts and request the assistance of the Federation of Canadian Municipalities (FCM) in the various technical and specific projects to be carried out.

2. Development of knowledge and expertise to address environmental and climatic issues in Manitoba

Eco-West/CDEM would like to take these issues and transform them into opportunities for participants. The development of local action plans will allow municipalities to identify structuring projects enabling them to face environmental challenges and generate significant socio-economic impacts. For instance, these potential impacts could result from the introduction of high-performance and innovative equipment that is better suited to local or regional needs, thereby reducing energy consumption and its related expenses, or even locally producing renewable energy to be distributed or sold locally (i.e. geothermal, solar thermal, solar photovoltaic, biomass heating systems, etc.).

3. Projects funded by the FCM and in part by participating municipalities

To benefit from supplementary FCM assistance for the funding of inventories, participating municipalities must be or become members of the FCM's Partners for Climate Protection (PCP) program. Membership is free and requires only the adoption of a resolution by municipal council. (See Appendix 2.) Members will complete the first three (3) milestones of the PCP program in the context of the CCLAP project.

THE CCLAP APPROACH

The intent of the project is to duplicate the production of quality inventories and action plans at the lowest possible cost in order to enable the following actions:

- ✓ Identify innovative model projects for participating municipalities
- ✓ Establish the preliminary design of green projects that can more easily be adopted by the population and funded by different levels of government and the FCM's Green Municipal Fund (GMF)
- ✓ Improve and enrich local and regional knowledge and expertise with the help of specialised contractors and firms in order to create innovative infrastructures tailored to the needs of local and regional populations

Through the execution of the project, Eco-West/CDEM will establish partnerships and collaborate with institutional partners in Manitoba to improve and safeguard provincial knowledge and expertise.

The Partners for Climate Protection (PCP) Program

The Partners for Climate Protection (PCP) program is a network of Canadian municipal governments that have committed to reducing greenhouse gases (GHG) and to acting on climate change. Since the program's inception in 1994, over 250 municipalities have joined PCP, making a public commitment to reducing emissions.

PCP membership covers all provinces and territories and accounts for more than 80% of the Canadian population.

PCP is the Canadian component of the ICLEI's Cities for Climate Protection network, which involves more than 1,100 communities worldwide. PCP is a partnership between the Federation of Canadian Municipalities (FCM) and ICLEI — Local Governments for Sustainability.

The program empowers municipalities to take action against climate change through a five-milestone process that guides members in creating GHG inventories, setting realistic and achievable GHG reduction targets, developing local action plans, and implementing plans using concrete actions to reduce emissions.

THE PCP METHOD

Together, milestones 1, 2, and 3 of the Partners for Climate Protection (PCP) program form an example of a GHG emissions reduction plan. This type of plan, which is also known as a climate change action plan or local action plan (LAP), must include certain elements required by the PCP program.

MILESTONE 1 CREATING A GREENHOUSE GAS EMISSIONS INVENTORY AND FORECAST

A GHG emissions inventory assembles data on communities' and municipalities' energy use and the production of solid waste in order to estimate GHG emissions for a given year.

MILESTONE 2 SETTING AN EMISSIONS REDUCTION TARGET

The greenhouse gas reduction target forms the basis of a municipality's program objectives and provides a starting point from which to track progress. The target is normally set following the development of an emissions inventory and forecast or after the quantification of existing emissions reduction measures. (See Appendix 5.)

MILESTONE 3 DEVELOPING A LOCAL ACTION PLAN

A local action plan (LAP) is a strategic document explaining how the municipality will achieve its GHG emissions reduction target. The LAP covers municipal operations and the community. Municipal governments are encouraged to first develop and implement a plan for municipal operations. In doing so, they demonstrate leadership and provide a positive example for the community.

BECOMING A MEMBER OF PARTNERS FOR CLIMATE PROTECTION

PCP membership is free for municipalities. Since cost is not an obstacle, municipalities of all sizes can empower themselves to take action against climate change. The adoption of a resolution by council can serve as a notice of intent to become a member. (See Appendix 2.)

BENEFITS OF PCP MEMBERSHIP

Since the program's inception in 1994, over 250 municipalities have joined PCP, making a public commitment to reducing emissions. PCP membership covers all provinces and territories and accounts for more than 80% of the Canadian population. As a member you can benefit from the following:

- ✓ Obtaining the means to fight against climate change
- ✓ Asserting the need for joint authority and global action on climate change
- ✓ Becoming a positive example for your community and other Canadian municipalities
- ✓ Sharing your knowledge and experience on how to reduce GHG emissions
- ✓ Benefitting from Green Municipal Fund (GMF) program services offered to municipalities such as grants and loans

Agreement and Resolution between the Town of _____ and Eco-West/CDEM

Commitment of Eco-West/CDEM

Eco-West/CDEM commits to providing the deliverables and services required to reach the three milestones of the Partners for Climate Protection (PCP) program of the Federation of Canadian Municipalities (FCM):

MILESTONE 1: Creating a GHG emissions inventory and forecast

MILESTONE 2: Setting an emissions reduction target

MILESTONE 3: Developing a local action plan (LAP)

Commitment of the participating municipality

- i. The municipality commits to providing the assistance and resources in support of the achievement of the three PCP program milestones.
- ii. The municipality commits to adopting by resolution* an emissions reduction target and to adopting its LAP at the end of the project. (See Appendices 5 & 6.)

**To receive the GMF grant, Eco-West/CDEM must submit these resolutions to the FCM.*

Contribution of the participating municipality

As per the Eco-West/CDEM fee schedule, the municipalities' required cash contribution will be: \$10,000.

No payment of the municipality's financial contribution will be required before the confirmation of the project by the FCM's Green Municipal Fund (GMF).

*IMPORTANT: Please note that Eco-West/CDEM may receive additional grants above and beyond that of the FCM's Green Municipal Fund (GMF). Should Eco-West/CDEM receive additional funding, the requested base contribution may be reduced.***

***However, in accordance with GMF eligibility criteria, the participating municipality must fund, in cash, a minimum of 10% of the costs associated with services and deliverables provided.*

Partnership agreement conditional upon funding

This partnership agreement is conditional upon obtaining funding and, in the event that the CCLAP project does not receive a grant from the Federation of Canadian Municipalities (FCM) via the Green Municipal Fund (GMF), this agreement is nullified.

Resolution on participation in the CCLAP project

WHEREAS the CCLAP project aims to provide participants with as much support as possible to assist in the completion of their GHG inventories and action plans;

WHEREAS it is in the best interests of The **Town of _____** to address economic issues and take action on climate change;

BE IT RESOLVED that The **Town of _____** commits to becoming a member of the Partners for Climate Protection (PCP) program of the Federation of Canadian Municipalities (FCM);

BE IT FURTHER RESOLVED that The **Town of _____** commits to creating a greenhouse gas emissions reduction plan that includes a sustainability vision and sustainability goals, specific targets, actions and an implementation and monitoring strategy;

BE IT FURTHER RESOLVED that The **Town of _____** commits to providing financial support up to a maximum amount of \$ 10,000.

SIGNED IN DUPLICATE,

IN THE **TOWN OF _____**, PROVINCE OF MANITOBA,
ON _____.

[Name and Title of Signatory]

Dany Robidoux, Director, Eco-West

Appendix 1 – Schedule

Action	Time Frame
Sign agreement and resolution on participation (page 7)	
Submit documentation to Eco-West/CDEM: <ul style="list-style-type: none"> a. Adopted PCP resolution (Appendix 2) b. Signed letter to energy provider on letterhead (Appendix 3) c. Information required for GHG emissions inventory (Appendix 4) 	
Organize municipal consultation	
Organize community consultation	
Adopt resolution on the adoption of a GHG emissions reduction target – Milestone 2 of PCP (Appendix 5)	
Adopt resolution on the adoption of the CCLAP – Milestone 3 of PCP (Appendix 6)	

Appendix 2 – Resolution on Partners for Climate Protection (PCP) Membership

Council Resolution to Join the FCM-ICLEI (Local Governments for Sustainability) Climate Projection Program

WHEREAS the International Panel on Climate Change (IPCC) concludes in its 2007 *Fourth Assessment Report* that “there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities”;

WHEREAS the IPCC concludes that human influences on the climate have likely contributed to a rise in the sea level during the latter half of the 20th century, changed wind and temperature patterns, and likely increased the risk of heat waves, the area of land affected by drought since the 1970s, and the frequency of heavy precipitation;

WHEREAS the *IPCC Special Report on Emission Scenarios* (SRES, 2000) projects an increase in global green house gas (GHG) emissions of 25 to 90% between 2000 and 2030;

WHEREAS the IPCC observes that warming resulting from human influences could lead to some abrupt or irreversible impacts, depending on the rate and magnitude of climate change;

WHEREAS the IPCC anticipates the following impacts from climate change over the next century for North America:

- Decreased snow pack, more winter flooding, and reduced summer flows resulting from warming in western mountains, exacerbating competition for over-allocated water resources;
- Increased aggregate yields of rain-fed agriculture by five to 20%, but with important variability among regions; and major challenges for crops that are grown close to their highest suitable temperature or that depend on highly used water resources;
- Increased number, intensity and duration of heat waves for cities that currently experience them, creating potential for adverse health impacts; and
- Increased stress on coastal communities and habitats as a result of the interaction of climate change impacts and development and pollution;

WHEREAS GHGs (e.g. carbon dioxide, methane, nitrous oxide), released from burning coal, oil and natural gas and from cutting trees and clearing land for agriculture and development, are the primary cause of climate change;

WHEREAS the *World Mayors and Municipal Leaders Declaration on Climate Change 2005* asserts the need for joint authority and global action on climate change;

WHEREAS municipal investments in building retrofits, community energy systems, water conservation, renewable energy technologies, waste reduction, landfill gas capture, fleet management, public transit and other sustainable measures reduce operating costs, help maintain community services, protect public health and contribute to sustainable community development while cutting GHG emissions contributing to climate change;

Appendix 3 – Letter to Energy Provider

Attention:

Name of Company

Address

Dear Sir or Madam,

The **Town of _____** has partnered with the Federation of Canadian Municipalities and the Conseil de développement économique des municipalités bilingues du Manitoba (CDEM/Eco-West) to develop baseline greenhouse gas inventories for our municipality.

By way of this letter the **Town of _____** is giving authorization to Manitoba Hydro to provide **natural gas** and **electricity** billing data for all municipal accounts to the CDEM/Eco-West. In order to establish our baseline, we authorize Manitoba Hydro to release all accounts that fall under responsibility of the **Town of _____** such as:

Municipal operations including (List of account numbers attached)

- all mechanical buildings,
- wastewater treatment facilities,
- municipal office buildings and/or maintenance garages,
- community centres,
- curling club,
- library,
- fire hall,
- other municipal buildings, as indicated.

Street lighting and traffic lights (if applicable):

Those that are directly billed to the municipality

Additionally, we require aggregate community data to meet the requirements of our baseline inventory. We request that the following data be aggregated and released to CDEM/Eco-West as well.

Commercial:

- Schools and hospitals, personal care homes, daycares, etc. all fall under the commercial category for the purpose of this inventory and should be aggregated/summarized with all commercial data

- Summary of all other commercial accounts

Industrial accounts:

- Summarized

Residential accounts:

- Summarized

Dan Powell from CDEM/Eco-West will be contacting you shortly to work with you in acquiring the requested data.

The account codes for all municipal operations are as follows:

(List of all energy account numbers paid for by the municipality in 2011 and 2006)

We appreciate the support that Manitoba Hydro is providing in order to assist the **Town of _____** to develop our baseline GHG inventory as we work towards reducing our environmental footprint.

Eco-West/CDEM contact information:

Dan Powell

Chief Analyst – Green Projects

(204) 925-8388 (Office)

(204) 232-2724 (Mobile)

dpowell@cdem.com

Community contact information:

Regards,

(Name of municipality representative)

Appendix 4 – Information Required for GHG Emissions Inventory

Info Required for GHG Inventories (all data for both 2006 and 2011):

1. A full list of all vehicles and heavy equipment operated by the municipality in 2006 and 2011) (i.e. : “1996 Chevy ½ tonne”, “Volvo Grader”, “Generator”, etc.)
 - a. The fuel usage for each vehicle/piece of equipment (**preferred**) **OR**
 - b. The aggregated fuel purchases, separated into fuel type (gasoline and diesel) **OR**
 - c. If the previous two are unavailable, the fuel purchases by month
2. A list of all of the energy account numbers for the municipality for both years, as well as a short description of what the account number represents (i.e., “South Fire Hall”, “Lift Station 1”, etc.).
3. A record of the street lighting used in the community. If it is billed according to a flat rate or a proxy then a record of the wattage and number of lights is required.
4. The tonnage of all material waste currently shuttled to landfills or transfer stations.
 - a. If it is possible, a separate account of just the municipal corporations waste production

Also:

Please send a copy of the signed energy company letter on letterhead to CDEM/Eco-West.

C/o Dany Robidoux
Director, Eco-West
Eco-West/CDEM
200-614, Des Meurons Street
Winnipeg, MB
R2H 2P9
204.925.8390
204.797.7328 (mobile)
drobidoux@eco-ouest.com

Appendix 5 – Resolution on the Adoption of a GHG Emissions Reduction Target (PCP Milestone 2)

WHEREAS the Town of _____ commits to becoming a member of the Federation of Canadian Municipalities’ (FCM) Partners for Climate Protection (PCP) program;

WHEREAS the Town of _____ has already created a greenhouse gas emissions inventory;

BE IT RESOLVED that **The Town of _____** commits to reducing its greenhouse gas emissions to **20%** below **2011** levels **for municipal operations** within **10 years**, and to reduce its greenhouse gas emissions to **6%** below **2011** levels **in the community** within **10 years**.

Date: _____

Signature: _____

Name and Title of Signatory: _____

Appendix 6 – Resolution on the Adoption of the CCLAP (PCP Milestone 3)

WHEREAS the **Town of _____** has committed to becoming a member of the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection (PCP) program;

WHEREAS the **Town of _____** has already created a greenhouse gas emissions inventory and a greenhouse gas reduction plan including a sustainability vision and sustainability goals, specific targets, actions, and an implementation and monitoring strategy;

BE IT RESOLVED that the **Town of _____** adopt the Climate Change Local Action Plan (CCLAP) as presented and that it be submitted to the Federation of Canadian Municipalities (FCM).

Date: _____

Signature: _____

Name and Title of Signatory: _____