

Energy Conservation and Demand Management Plan

Township of Douro-Dummer

From: 2014-07-01 to: 2018-12-31

Commitment

1. Declaration of Commitment: The Township of Douro-Dummer will use existing resources and will leverage outside agencies where appropriate to reduce our energy consumption and its related environmental impact.

2. Vision: We will be community leaders in the efficient use of energy resources.

3. Goals:

- To strive to improve the energy efficiency of our facilities by utilizing best practices (management/policy, technical and organizational) to reduce our operating costs, energy consumption and greenhouse gas emissions.
- We will seek opportunities to reduce fossil fuel use by utilizing renewable energy sources where available.

4. Overall Target:

- Short Term Target - Reduce the consumption of energy by 8% by 2014 compared to the 2009 baseline year.
- Longer Term Goal - Reduce overall energy consumption by 16% by 2018 compared to the 2009 baseline year.

5. Objectives:

- a) Build strong participation and support of green programs through communication and training programs.
- b) Complete energy audits on two of the top five energy consuming buildings in the municipality.
- c) Continue to reduce the energy consumption of the Douro CC compared to the 2009 base line year
- d) Continue to reduce the energy consumption of the Warsaw CC compared to the 2009 base line year

Organizational Understanding

1. Stakeholder Needs:

- a) An up-to-date and relevant energy management plan with clear vision, goals, and targets in order to clearly communicate the corporate commitment to energy efficiency,

- b) Timely, regular reports and information to maintain awareness of energy use and,
- c) Training and support to develop the skills and knowledge required to implement energy management practices and measures.

2. Municipal Energy Situation:

- How We Manage Energy Today:

The management of our energy is a combination of energy data management and energy use management. Our data is managed through an appointed staff member and is recorded via supplier invoices and then is entered and tracked using AMO/LAS – Energy Planning Tool.

Our municipal energy is supplied via a number of providers as outlines below:

- Electricity is supplied by Hydro One on an as needed basis and is priced at the standard rates offered
- Our natural gas is supplied by Enbridge on an as needed basis and is priced at the standard rates offered.
- Propane is supplied by local propane providers on an as-needed basis and is priced at the standard rate offered by the provider at the time of delivery.
- The Township of Douro-Dummer participates in a cooperative bulk purchasing program.

- Summary of Current Energy Consumption, Cost and GHGs:

The current energy usage by building is detailed in the attached spreadsheet (Appendix B) 2012 energy consumption, cost and GHG emissions.

- Renewable Energy:

The Township has installed three solar panel systems to create a new revenue stream and to provide a source of renewable energy to the community. The two newest panels were installed just this year and have generated 10630.14Kwh and \$4916.44. Our panel at the Douro Community Centre generates 19125.97Kwh and \$12301.90 in 2013.

Strategic Planning

1. Links with other municipal plans:

As an integral component of the management structure, the energy management plan is coordinated with the municipality's budget planning, policy development, preventative maintenance plans, the environmental management plan, and overall asset management plan. Our energy plan is also in line with the Sustainable Peterborough regional sustainability plan for Peterborough City and County.

Structure Planning

1. Staffing requirements and duties:

Energy efficiency will be incorporated into the standard operating procedures and the knowledge requirements for operational jobs.

Resources Planning

1. Energy Leader:

We have a clearly designated a leader with overall responsibility for corporate energy management.

2. Energy Team:

We have appointed employees to act as departmental energy efficiency team members.

Key Individuals

1. External Consultants and Suppliers:

Township procurement policies have been updated to incorporate criteria and strategies for securing external services for the implementation of energy projects where possible.

2. Energy Training:

Training focused on the energy use and conservation opportunities associated with employee's job functions will be utilized whenever possible.

Procurement Planning

Energy Purchasing:

- Energy Purchasing: The local purchasing cooperative will continue to be used to procure fuel oil, diesel, gas and propane. Opportunities to jointly procure other energy commodities will be investigated. This investigation will include the analysis of cost considerations, available energy services, energy quality and reliability, and other performance factors.
- Consideration of Energy Efficiency of acquired Equipment: Our purchasing procedures have been modified as required to incorporate energy efficiency into the criteria for selection of materials and equipment. - Standards for new buildings: We will develop criteria for the design and/or acquisition of new buildings that include energy performance factors and that use as appropriate the principles embedded in performance standards such as LEED and the Model National Energy Code for Buildings.

Projects Execution

1. Municipal Level:

We will carry out the required development of business procedures and communication programs and implement them methodically according to the planned time lines within the resources constraints that apply.

2. Asset Level:

We use department and facility energy team representatives to facilitate the implementation of facility level business procedures and communication initiatives, including energy performance reporting.

Review

1. Energy Plan Review:

We will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis within our corporate planning process.

Evaluation Progress

- Green House Gas Emission:

In 2012 our greenhouse gas emission was 172498.78 kgCO₂e/kg. In 2009, our benchmark year, our greenhouse gas emission was 235333.31 kgCO₂e/kg. This represents a 27% reduction over our 2009 levels. While we will not be able to sustain such a rapid decrease in greenhouse gas emissions over the long term, this number shows us how departmental changes can have a dramatic effect on the amount of greenhouse gas we contribute to the atmosphere.

Appendix A

Programs

Description	Facility	Contact	Date	Status
Upgrading of Lights	Douro Community Centre	Brian Millett, Manager of Recreation Facilities	2014-01-01	Completed
Details	This project involves the upgrading of all lighting systems at the Douro Community Centre. This project will result in an increase in the efficiency of the lighting and a decrease in energy used at the Community Centre.			
Insulation Upgrade	Douro Community Centre	Brian Millett, Manager of Recreation Facilities	2014-03-27	Pending
Details	This project will involve the re-insulation of various areas of the Douro Community Center based on the thermal scans conducted during the energy audit. This is result in a better insulated building and a reduction in energy use.			
Upgrading Lights	Warsaw Community Centre	Brian Millett, Manager of Recreation Facilities	2014-03-03	Pending
Details	This project involves the upgrading of all lighting systems at the Warsaw Community Centre. This project will result in an increase in the efficiency of the lighting and a decrease in energy used at the Community Centre.			
Retrofit of Township Streetlights	Warsaw Street Lights	David Clifford, CAO	2014-06-06	Active
Details	In conjunction with RealTerm Energy will be retrofitting our Township streetlights with new L.E.D. lights. This will ensure safe and bright streets for our residents and cost and energy savings for the Township.			