



Energy Management Plan

where **lifestyle**
grows good **business**

The United Counties of Leeds and Grenville

Energy Management Plan Framework

Commit

- Declaration of Commitment
- Vision Statement
- Energy Management Champion & Team

Understand

- Stakeholder Needs
- Current Energy Situation: Consumption, Supply, Management
- Past & Present Energy Initiatives

Plan

- Goals
- Objectives
- Focus Areas & Policies/Strategies

Execute

- Actions: Programs, Processes, Projects

Evaluate

- Monitor
- Report

INTRODUCTION & BACKGROUND

Successful energy management depends on the integration of energy efficient practices into the “business as usual” conduct of the organization, is based on a regular assessment of energy performance, and requires the implementation of procedures and measures to reduce energy waste and increase efficiency. Regardless of the size of the municipality, the common element of successful energy management is the allocation of staff and resources to continually improve energy performance.

COMMITMENT

The United Counties of Leeds and Grenville will use existing resources and leverage outside agencies where appropriate to develop and implement an energy management plan aimed at reducing our energy consumption and limiting the production of greenhouse gases.

VISION

We are continually approaching energy management in a strategic manner allowing for the proactive pursuit of optimal energy solutions that lead environmental, societal and economic benefits.

OUR UNDERSTANDING (CURRENT STATE)

The Energy Management Plan requires a thorough understanding of the current corporate energy situation, including policies, programs, practices, and processes. Key areas of examination include energy data management, energy supply, energy demand, and energy use management. The strategic energy management plan includes these information outputs.

Stakeholder Needs:

Internal stakeholders (Council, committees of council, CAO, staff) need:

- 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.

External stakeholders (residents, community organizations, businesses, Province) need:

- a) The Counties to be accountable for energy performance and to minimize the energy component of the costs of municipal services; and,
- b) The Counties to reduce the carbon footprint associated with its corporate energy use.

CURRENT MUNICIPAL ENERGY SITUATION:

Energy Consumption and Demand:

A summary of energy usage by building for 2011 and 2012 is provided in the attached spreadsheets (appendix A & B).

Energy Supply:

The types of energy used in the operation of the Counties facilities and delivery of services include:

- Electricity - provided by Hydro One, Rideau St. Lawrence and Eastern Ontario Power
- Natural gas – provided by Enbridge and Union Gas
- Propane – provided by Levac Propane
- Heating oil – provided by W. O. Stinson

Electricity, natural gas, propane and heating fuel are supplied on an as needed basis by the providers and are priced at standard rates.

How Energy Is Currently Managed:

Day to day management of energy has been primarily the responsibility of the Public Works Department and the Facilities Supervisor. Energy data is received via supplier invoices and is tracked and monitored using an energy management tool which enables consumption and trends to be analyzed and reports generated.

Our Plan

Goals

- To improve the energy efficiency of our facilities by utilizing best practices to reduce our operating costs, energy consumption and greenhouse gas emissions.
- To maximize fiscal resources through direct and indirect energy savings.
- To reduce the environmental impact of Counties operations.
- To improve the reliability of Counties equipment and reduce maintenance.
- To increase the comfort and safety of staff and patrons of Counties facilities.

Objectives

- Improve the Counties understanding of energy consumption
- Increase staff awareness and motivate staff to use energy more efficiently.
- Improve awareness of climate change and greenhouse gas emissions.
- Report energy performance changes and improvements annually.
- To improve the efficiency of energy use through low-cost opportunities by implementing the following:
 - Sound operating and maintenance practices.
 - Employee training, and staff awareness.
 - Monitoring and tracking system.
 - Re-commissioning of buildings.
 - Energy Demand Management program.
 - A review and potential reduction in the energy intensity (energy per square foot/metre) of municipally owned buildings and operations.
 - A reduction in GHG emission of generated from our building operations.

Focus Areas and Policies

The following section represents potential areas of focus and their associated strategies/policies.

Strategic:

We will develop and implement energy policies, organize for energy management, develop the required skills and knowledge, manage energy information, communicate with our stakeholders, and invest in energy management measures.

As an integral component of the management structure, the energy management plan is to be coordinated with the municipality's budget planning, strategic plan, purchasing policy, preventative maintenance plans, environmental management plan, asset management plan, and the policy

development process.

Resources:

Key individuals: We will identify staff members and personnel from our critical service providers who carry significant responsibility for energy performance or who can make essential input to energy management processes.

Staffing Requirements and duties: We will incorporate energy efficiency into standard operating procedures and the knowledge requirement for operational jobs.

External consultants and energy suppliers: We will establish criteria based on our energy goals and objectives for the selection of external consultants and energy suppliers.

Staff Training and Communication:

Communication programs: We will develop a communication strategy that creates and sustains awareness of energy efficiency as a corporate priority among all employees and conveys our commitment and progress to our stakeholders.

Energy Awareness Training: We will develop and deliver training focused on the energy implications of employees' job functions and the day-to-day opportunities for conserving energy found in the workplace and at home.

Development of Energy Projects

Internal assessments: We will develop a methodology for the internal assessment of energy performance of municipal facilities and their energy loads. In addition, a process will be developed for identifying and cataloguing energy efficiency improvements.

Staff suggestions: We will implement a process for submitting and processing staff suggestions for energy efficiency improvements.

Energy audits: We will establish the criteria for energy audits for the requirement and frequency of municipal facility energy audits. The energy audits will be carried out based on the developed policy.

Investment in Energy Projects

Investment criteria: We will develop and/or clarify as necessary the financial indicators that are applied to investment analysis and prioritization of proposed energy projects, taking due

consideration of the priority given to energy efficiency projects versus other investment needs (life cycle versus simple payback).

Other sources of funds for energy projects: We will investigate, document, and communicate funding sources for energy projects, including government and utility grants and incentives.

Procurement

Energy purchasing: We will develop a procedure for the negotiation of energy purchase contracts that appropriately addresses our cost considerations, available energy services, energy quality and reliability, and other performance factors. Opportunities to jointly procure other energy commodities will be investigated.

Consideration of energy efficiency of acquired equipment: Our purchasing procedures will be modified as required to incorporate energy efficiency into the criteria for selection and evaluation 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.

SECTION 5 - OUR EXECUTION

Type	Objective	Action	Cost / Savings Estimate (if applicable)	Owner	Target Date
Program	Awareness	Add energy awareness to management meetings		CAO	Q1-2015
Program	Energy Efficiency	Replace lights with LED fixtures where applicable		Facilities Operations	Q2-2015
Program	Energy Efficiency	Ensure all lighting is updated and motion sensor operated where applicable		Facilities Operations	Q1-2016
Process	Awareness	Energy reports to be distributed to managers annually		Facilities Operations	Q1-2015
Process	Energy Efficiency	Use Energy Star rated appliances in Counties facilities and maintain for optimal use		Facilities Operations	Q3-2014

Process	Procurement	Incorporate life-cycle costing into procurement process		Purchasing	Q1-2015
Project	Energy Efficiency	Implement use of programs to automatically shut down PCs at night		IT Department	Q3-2015
Project	Energy Efficiency	Enhance Building Envelope — caulking, weather-stripping, and insulation in Public Works buildings with high energy use		Facilities Operations	Q4-2015
Project	Energy Efficiency	Turn off electronic devices at night and weekends		Staff	Q2-2017
Project	Energy Efficiency	Identify unnecessary plug loads		Facilities Operations	Q4-2015
Project	Energy Efficiency	Upgrade aging HVAC equipment		Facilities Operations	Q4-2019

SECTION 6 - OUR EVALUATION

The results of our energy management plan will be evaluated by monitoring our progress towards our targeted performance, and by reporting the findings to our various stakeholders. In addition, our evaluation will include a review and update of the energy plan as necessary. The evaluation process is ongoing and provides the critical feedback that leads to continuous improvement.

MONITORING PROGRESS

Ongoing monitoring of consumption: An energy monitoring and targeting system will be implemented and maintained as an integral component of our management information system.

Measurement and verification of energy projects: Standard methods for savings verification will be adopted and a measurement and verification plan will be incorporated into all energy projects.

REVIEW & REPORTING

Reporting for the GEA: Reporting requirements for the Green Energy Act and other pertinent provincial legislation will be factored into our reporting procedures.

Reports to Council: Annual energy performance summary reports will be generated to apprise Council of the progress made towards our corporate energy goals and objectives.

Reports to stakeholders (community): The general public will be apprised of energy performance

of municipal facilities and the impact of implemented energy management measures where appropriate.

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

DRAFT