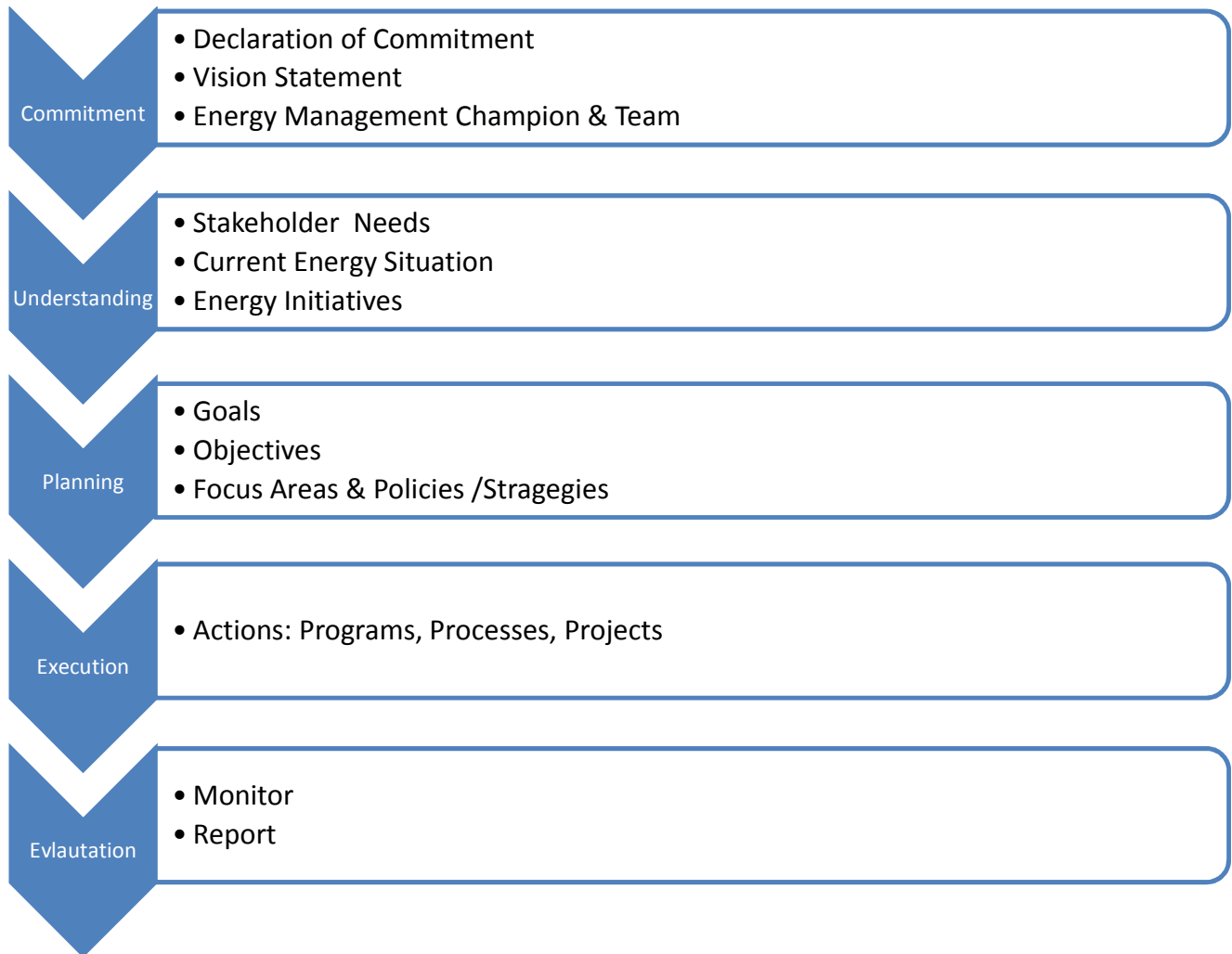


County of Hastings
Energy Management Plan
July 1, 2014- June 30, 2019

Energy Management Plan Framework



COMMITMENT

Declaration of Commitment & Council Resolution

The County of Hastings is committed to the promotion of responsible energy management, through the implementation of economically viable energy efficiencies and environmental care throughout all facilities, plant and equipment.

Vision Statement

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

Energy Management Champion & Team

The Director of Finance has been designated as our energy leader with overall responsibility for corporate energy management.

We will appoint employees to act as department energy efficiency team members.

UNDERSTANDING

Stakeholder Needs

The County of Hastings understands that its' internal stakeholders (Council, Committees, COA and staff) need:

- An up-to date relevant energy management plan with clear vision, goals and targets in order to clearly communicate the corporate commitment to energy efficiency
- Timely, regular reports and information to maintain awareness of energy use
- Training and support to develop the skills and knowledge required to implement energy management practices and measures

The County of Hastings understands that its' external stakeholders (residents, community organizations, businesses, Province) need:

- The County to be accountable for energy performance and to minimize the energy component of the costs of municipal services
- The municipality to reduce the carbon footprint associated with corporate energy use

Current Energy Situation

Energy Consumption and Demand

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

How We Manage Energy Today

The management of energy is a combination of energy data management, energy supply management and energy use management.

Energy Data Management: Our municipal energy data is managed through the Finance Department. The data is received via supplier invoices and will be tracked and/or monitored using the Energy Planning Tool (EPT):

- Invoices will entered into the EPT
- Consumption/trends will be analyzed
- Reports will be generated

Energy Supply Management: Our municipal energy is supplied via a number of providers as outlined below:

- Electricity is provided by Veridian and Hydro One on an as needed basis and is priced at the standard rates offered by the provider
- Natural gas is purchased through programs offered through Local Authority Services (LAS) and Housing Services Corporation bulk purchasing programs
- Propane is provided at a contracted rate by Casey's Propane for Centennial Manor and Bancroft EMS on an as needed basis

Energy Use Management: Day to day management of energy has been primarily the responsibility of the operating departments. To aid in our efforts to track and reduce energy use, the Count of Hastings will utilize the LAS/Energy Management Tool (EMT) and Energy Planning Tool (EPT)

Energy Initiatives

Projects undertaken to date include:

- Computer replacement using VDI
- Acetech System to reduce unnecessary idling of EMS fleet
- Social housing projects
 - Replace Air Make-up units at various properties
 - Furnace replacement at various properties
 - Install Demtrov heat monitoring system at various properties
 - Replace exterior doors at various properties

Renewable Energy

The County of Hastings has installed solar panels on 5 Social housing facility rooftops under the microfit program. These solar installations produce 58,500 KWh annually and generate revenue of approximately \$47,000 per annum.

PLANNING

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 implement a comprehensive corporate energy management program to reduce consumption, achieve cost savings and meet greenhouse gas emission targets
- To create a culture of conservation
- To improve the efficiency of County of Hastings equipment and reduce maintenance costs

Objectives

- Increase the County of Hastings understanding of energy consumption
- 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 procurement through fixed rate contracts
 - Energy Demand Management program
- A reduction in the consumption of fuels and electricity in all municipal operations by an average of 1% per year between now and 2020

Focus Areas & Policies/Strategies

Strategic

- Long-term strategic issues: 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.
- Links with Other municipal plans and management processes: 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, asset management plan and the policy development process

- Departmental Responsibilities: We will incorporate energy budget accountability into our corporate responsibilities

Staff Training and Communication

- Communication: 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 skills training focused on the energy implications of employees' job functions and the day-to-day opportunities for conserving energy found in the workplace
- Energy Skills Training: We will develop and deliver skills training for operators, maintainers and other employees that have "hands-on" involvement with energy consuming systems in order to improve the team's ability to achieve energy efficiency improvements.
- Business Procedures: We will carry out a comprehensive review of all business processes and modify them as necessary in order to incorporate any energy efficiency considerations

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 dynamic 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)
- Consideration of energy efficiency for all projects: Life cycle cost analysis will be incorporated into the design procedures for all energy audits.
- Budget resources for energy projects: Energy projects will be integrated into our capital planning and budget development procedures
- Funding Sources for Energy Projects: The Energy Team will be mandated to investigate, document and communicate funding sources for energy projects, including government and utility grants and incentives

Procurement

- Energy Purchasing: We will continue to investigate and review opportunities to participate in various LAS energy programs.
- 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.

EXECUTION

Action List

Programs:

- Energy Saving Training for key staff
- Reintroduction of the "Turn it Off" campaign for all staff
- Communication regarding the Energy Management Team and the Energy Management Plan
- Implement the LAS Energy Management Tool

Processes:

- Distribute Energy Reports to Relevant Managers on a regular bases
- Staff team to perform walk through of different facilities
- Vacuum back of all vending machines in municipal facilities
- Incorporate life-cycle costing into procurement process
- Ensure energy is a regular item on the Department Head agenda
- Encourage the sharing of best practices among departments

Projects:

- Investigate the installation of Occupancy sensors throughout various facilities
- Investigate the use of heaters and fans at work stations and review alternatives
- County Admin building light upgrades
- Social Housing:
 - Window replacement at various properties
 - Replace boilers at various properties
 - Replace Make-Up Air units at various properties
- Building Automation System at Centennial Manor

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:

- 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 verification plan will be incorporated into all energy projects.

Reviewing and Reporting:

- Reporting for the Green Energy Act: We will incorporate the reporting requirements of the GEA and other pertinent provincial legislation into our reporting procedures
- We will review and evaluate our energy plan, revising and updating it as necessary on an annual basis within our corporate planning process.

References & Resources:

County of Peterborough Energy Management Plan Template (November 2012)

County of Peterborough Energy Management Plan (June 2014)

Local Authority Services Energy Planning Tool

Natural Resources Canada Dollars to Sense Municipal Energy Management Planning Workshop (Fall 2013)