



# The County

PRINCE EDWARD COUNTY ♦ ONTARIO

## **The Corporation of the County of Prince Edward Energy Conservation and Demand Management Plan**

### **Declaration of Commitment**

Council Resolution: The Corporation of the County of Prince Edward will allocate the necessary resources to develop and implement an Energy Conservation and Demand Management (ECDM) Plan as required under Ontario Regulation 507/18 (formerly 397/11) of the Green Energy Act. Council supports this energy conservation initiative for a number of reasons. Energy planning will help avoid cost increases, improve service delivery and support local development while protecting human health and the environment.

### **Vision**

The Corporation of the County of Prince Edward will strive to continually reduce our total energy consumption and associated greenhouse gases (GHGs) through wise and efficient use of energy and resources, while still maintaining an efficient and effective level of service for our clients and the general public. This will involve a collaborative effort to increase the education, awareness and understanding of energy management within the municipality.

Total energy consumption includes electricity, natural gas, diesel, gasoline and oil. This vision can be achieved through the integration of energy efficient facility infrastructure, operational efficiencies and building the foundation for a culture of energy awareness and knowledge within the municipality. While commitment from Council and Senior Management is crucial, everyone has a role in the wise use of energy and demonstrate leadership within corporate facilities and operations.

### **Policy**

The Corporation of the County of Prince Edward will incorporate energy efficiency into all areas of our activity including organizational and human resources management procedures, procurement practices, financial management and facility operations and maintenance. As a major component of the operating costs of municipal facilities and equipment, energy costs will factor into policies of the municipality. The goals and objectives of the Energy Conservation and Demand Management Plan will be shared with all municipal departments.

### **Goals**

The Corporation of the County of Prince Edward's Energy Conservation and Demand Management Plan was completed to achieve the following goals:

1. Maximize fiscal resources and avoid cost increases through direct and indirect energy savings
2. Reduce the environmental impact of the municipality's operations
3. Increase the comfort and safety of staff and patrons of the municipality's facilities
4. To create a culture of conservation within the municipality
5. To improve the reliability of the municipality's equipment and reduce maintenance

## **Overall Target**

The key to a successful long term Energy Conservation and Demand Management Plan vision is a strong energy policy with measurable and achievable targets.

Our energy target will be to reduce our municipal energy consumption (from all facilities, operations and streetlights) by 5% by the end of 2020. Thereafter, the annual target until the end of 2024 will be to reduce energy consumption by an amount which offsets electrical supplier cost increases.

## **Objectives**

The prime objective of the energy plan is to improve the management of the Corporation's energy consumption. With the development of the plan all corporate Departments will have a roadmap and a forum to ensure energy management is a consideration in all operations and facility based decisions. Staff awareness is critical to move the Corporation towards a goal of reducing energy consumption and GHG emissions.

In order to meet the strategic goals of the ECDM Plan there are a number of actions that can be taken including:

1. Ensure energy efficiency is consistent across municipal facilities. Energy audits will be completed on all facilities.
2. Monitor energy consumption on a regular basis. Staff will monitor and verify Return on Investment (ROI) to enable reinvestment in energy projects.
3. Better analyze energy costs and look for savings opportunities. This will include taking advantage of all available resources and funding incentives or energy projects.
4. Raise staff and Council awareness with respect to energy efficiency. This will include communicating successes to both internal and external stakeholders.
5. Investigate partnerships with external stakeholders such as electric and gas utilities.

## **Organizational Understanding**

### **Our Municipal Needs**

The Corporation of the County of Prince Edward requires reliable, low cost, sustainable energy sources delivering energy to the most efficient facilities and energy consuming technology feasible. We are now

paying colossal prices compared to what they were at the turn of the century. In order to stay within municipal budgets we have no choice but to curb our energy usage.

## **Stakeholder Needs**

Internal stakeholders (Council, Committees of Council, CAO, staff) need to:

- a) Clearly communicate the corporate commitment to energy efficiency and to develop the skills and knowledge required to implement energy management practices and measures.
- b) Implement regular reports and information to maintain awareness of energy use.
- c) Ensure training and support is provided so as to implement energy management best practices and measures. External stakeholders (the Province, Prince Edward County citizens, and community groups) expect the municipality to be accountable for energy performance and to minimize the energy component of the costs of municipal services.

## **Municipal Energy Situation**

An assessment of the organizational structure and current practices suggests the following:

- Energy use and costs continue to rise and are forecast to increase further
- Data relating to energy consumption and costs need to be more prominent to municipal decision makers such as Council and senior management. This is imperative to identify opportunities for efficiency
- Increased efforts must be made to raise general staff awareness about energy

The requirement for an Energy Conservation and Demand Management Plan provides an opportunity to build upon current initiatives such as the Official Plan, Fleet Management and Asset Management.

## **How we manage energy today**

Cost management is a responsibility of the management team by way of budgeting. Data is received via supplier invoices and reviewed prior to authorization for payment.

The Finance Department maintains an Excel spreadsheet which tracks both energy consumption and energy costs for each municipal facility. This data forms the basis of our Energy Consumption and GHG annual report to the Ministry of Energy, pursuant to Ontario Regulation 507/18. Consumption trends can now be analyzed and deviations are immediately noted.

Our municipal energy is supplied by a number of providers outlined below:

- Electricity supplied by Hydro One
- Natural Gas is supplied by Union Gas
- Furnace oil, diesel, gasoline and propane are provided by local suppliers

## **Summary of Current Energy Consumption, Cost and Green House Gas Emissions**

The Energy Consumption and Greenhouse Gas Emissions Report for the 2017 operational year is attached as "Schedule A." This document was submitted to the Ministry of Energy prior to July 1, 2019, as mandated. The report is available on the County of Prince Edward website and by hard copy at Shire Hall.

## **Renewable Energy Utilized or Planned**

Renewable energy is energy which comes from natural sources such as sunlight, wind and geothermal heat. Utilizing renewable energy can generate a revenue source through the Provincial Feed-in Tariff (FIT) Program or significantly reduce the energy requirements of a building along with the associated greenhouse gases.

The County of Prince Edward will investigate the potential to develop solar photovoltaic systems on the rooftops of existing corporate facilities and consider “solar ready” design with new buildings.

## **Strategic Planning**

### **Links with other municipal plans**

The County of Prince Edward 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 Conservation and Demand (ECDM) Plan is to be coordinated with the municipality’s budget planning, Fleet Management, purchasing policy and the policy development process.

## **Structure Planning**

Staffing requirements and duties: The County of Prince Edward will incorporate energy budget accountability into our corporate responsibilities. We will also include energy efficiency into standard operating procedures and the knowledge requirement for operational jobs. All staff members will be made aware of our energy conservation efforts and why they are important. Staff will be updated on the results of energy audits and suggestions on how to improve are encourage and will be considered.

Consideration of energy efficiency for all projects: The County of Prince Edward will have regard to life cycle cost analysis with design procedures for all capital projects. Typically equipment to be considered for this includes:

- Back-up generators
- Any other energy consuming device

## **Resources Planning**

Energy Leader: The Engineering, Development and Works Commission has been designated as the energy leader with overall responsibility for corporate energy management.

Energy Team: The creation of an energy management team will improve energy monitoring and feedback, interactive energy training and awareness and enhancing current practices. We will identify key staff members from various departments, who carry responsibility for energy performance or who can provide essential input into energy management processes

## **Energy Management Training**

The Corporation of the County of Prince Edward will help support energy management training for relevant staff and members of Council. Training focused on the energy use and conservation opportunities associated with employees’ job functions will be utilized whenever possible. Training will be incorporated into employee orientation and integrated into ongoing staff training.

## **Procurement Planning**

Energy purchasing: In addition to energy conservation, the procurement of energy is equally important. Proper energy procurement includes: rate optimization, supplier choice and evaluation, supply reliability and quality. The Corporation of the County of Prince Edward will be mindful of these considerations when purchasing energy.

Consideration of energy efficiency of acquired equipment: Our purchasing procedures will incorporate energy efficiency into the criteria for selection of materials and equipment.

## **Implementation Planning**

Building Standards: The Corporation of the County of Prince Edward will have regard to energy efficiency with the design and/or acquisition of new buildings and when undertaking major renovations of County owned facilities.

Communication Program: County of Prince Edward staff 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. Activities could include circulating reminders to turn off the lights, putting up energy conservation displays, hosting lunch and learns and including articles within the staff newsletters.

## **Investment Planning**

We will develop and/or clarify as necessary the financial indicators that are applied to investment analysis and prioritization of proposed energy projects. Energy and operating costs savings, physical asset renewal, improving employee comfort and service delivery are all quantifiable benefits of energy conservation and demand management and will be factored accordingly. Municipal staff will investigate, document and communicate funding sources for energy projects, including government and utility grants and incentives.

## **Project Execution**

Municipal Level: The administration and implementation of this Energy Conservation and Demand Management Plan will be the responsibility of the Engineering, Development and Works Commission. Since all facilities and municipal operations use energy in our daily activities, it will be the responsibility of all municipal staff to be aware of their energy use and work towards a culture of conservation. Through training and the sharing of information, staff will be able to see the results of their efforts.

Asset Level: In order to sustain a corporate culture of conservation, staff must be engaged in an effective awareness of what measures they can take to help out. Although facilities staff have the lead responsibility in ensuring facilities operate efficiently, all staff should be familiar with and utilize energy efficiency measures where possible.

The first step in implementing an energy management program is the completion of energy audits of corporate facilities. Audits involve a technical review of a facility and its operations, the development and analysis of a baseline energy profile for the facility and identification of energy management opportunities and savings. As part of this program audits will be conducted on all facilities to establish a baseline.

The Energy Consumption and GHG report that was submitted to the Ministry of Energy in 2015, detailed the 2014 operational year. These annual reports provide the baseline data for energy consumption for each municipal facility.

The Corporation of the County of Prince Edward staff should be made aware of the energy audits and their results. All staff members will then have the opportunity to submit recommendations in terms of improving our efficiencies. Therefore, it is imperative to ensure everyone understands the benefits of energy conservation. We must remind ourselves that every little bit helps and can make a difference.

## **Review**

Energy Plan Review: As part of our energy management strategy continuous monitoring, verification and reporting is an essential tool to track consumption and dollar savings and/or avoidance as a result of implemented initiatives. The Corporation of the County of Prince Edward Staff will develop an annual progress report with energy consumption data and initiatives undertaken within the calendar year. Staff will ensure Council is kept informed on progress.

By regularly monitoring and reporting consumption and dollar savings and/or avoidance to Departments, the outcomes of their participation in energy management initiatives can be demonstrated and feedback can be obtained for any new ideas. The monitoring and reporting will also align with the requirements of Ontario Regulation 507/18 under the Green Energy Act.

Energy Performance summary reports will be generated to apprise Council of the progress made towards our corporate energy goals and objectives.

## **Evaluation Progress**

Energy Consumption: We will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis as required on the Energy Consumption Reports that are submitted to the Ministry of Energy pursuant to Ontario Regulation 507/18.

Green House Gas Emissions: By improving the energy efficiency of our buildings, fleet and operations through the development of an ECDM Plan, we are targeting a reduction of GHG emissions.