

TOWN OF NEW TECUMSETH

**ENERGY CONSERVATION
AND DEMAND MANAGEMENT PLAN**



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TOWN OF NEW TECUMSETH

Energy Conservation and Demand Management Plan

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Town of New Tecumseth Energy Conservation and Demand Management Plan

1. COMMITMENT

- **Declaration of Commitment**

The Town of New Tecumseth is committed to responsible energy conservation and management. 2013 was the inaugural year for reporting the Town's energy consumption and greenhouse emissions for each of the Town's facilities as required by the Provincial Green Energy Act. Consumption and usage for the 2011 calendar year was due by July 1, 2013 and 2012 activity is due by July 1, 2014. In addition to recording energy consumption, the report also sets out the Town's emissions generated by the energy it consumes. The Corporate Conservation and Energy Management Plan (CCEMP) is a living document that structures resources and methodologies designed to improve energy efficiency, effectiveness and performance.

- **Vision**

The Town of New Tecumseth will continue to reduce energy consumption and mitigate costs through the wise use of energy. This will involve a collaborative effort to increase conservation awareness and a better understanding of energy management within the Corporation.

- **Goals**

Ontario Regulation 397/11 requires public agencies to develop goals and objectives for conserving and otherwise reducing energy consumption and managing demand for energy as part of the CCEMP. These goals are intended to act as a guide and to provide focus and direction to the Plan while remaining realistic and achievable.

- **Overall Target**

The overall objective of the Plan is to achieve savings in the amount of \$176,000 per year.

2. ORGANIZATIONAL UNDERSTANDING

- **New Tecumseth Municipal Energy needs**

The Town is often challenged to address the need to provide increased services while working within a constrained operating and capital expenditure budget. The financial challenges facing municipal governments today increase the need to increase efforts throughout the organization to reduce energy use and thereby the cost.

Conservation and system optimization are important steps in the management of energy costs. To this end, energy efficient lighting, variable speed drives and building automation systems have been introduced to assist in energy management.

- **Municipal Energy Situation**

In undertaking an opportunity assessment that related to only a limited number of certain Infrastructure Improvement projects for the Town of New Tecumseth in October 2013, Honeywell Limited identified the following:

In 2012 approximately \$1,395,000 (vehicle fuel excluded) was spent on energy for the various targeted Infrastructure projects which was comprised of 71% electricity and 29% natural gas. Energy use for these facilities and street lighting was identified as:

- 39% water and sewage treatment plants
- 50% Town buildings
- 11% street lighting

It was noted that the Town's buildings have an overall cost intensity of under \$2.50/sq ft/year and a Building Energy Performance Index (indicator of energy consumption per square foot) of under 35 ekWhr/sqft/year. Honeywell points out that this is already quite low when benchmarked against similar facilities and confirms the attention that has been paid to energy conservation and consumption to date.

Opportunities exist in a number of municipal buildings for further savings and cost avoidance and the goals and objectives will seek those opportunities and plan for future Infrastructure Improvements.

3. ENERGY CONSUMPTION AND GHG EMISSIONS

- **Consumption and Emissions Reporting**

The summaries for Energy Consumption and Greenhouse Gas Emissions reporting for each Town facility as prescribed by Ontario Regulation 397/11, for the calendar years 2011 and 2012 are included as Attachments #1 and #2 (respectively).

As part of the mandatory provincial reporting, these reports are posted on the Town's website.

The total financial 2012 costs of electricity and gas for the reported facilities are as follows:

	Gas	Electricity	Total
Municipal Buildings	4,222	71,414	75,636
Libraries	8,319	29,906	38,225
Fire Stations	10,659	11,736	22,395
Parks & Rec Facilities	74,485	396,279	470,764
Wastewater facilities	17,208	675,526	692,734
Water facilities	3,992	308,721	312,713
Public Works Depots	18,310	24,440	42,750
Total	137,195	1,518,022	1,655,217
Percentage	8.3	91.7	100

4. PRIORITY ACTIONS SUPPORTING ENERGY MANAGEMENT GOALS

GOAL#1

Reduce energy consumption and reduce GHG emissions

The Town has been actively engaged in seeking efficiencies in energy consumption for a number of years through participation in such initiatives as Fleet Challenge Ontario, water and waste water plant improvements, building automation and efficient lighting projects etc. An important goal of the CCEMP is to ensure that the ongoing effort to reduce energy consumption is a priority in departmental planning and operations and corporate programs are coordinated throughout the organization to support energy related actions.

GOAL #2

Identify energy saving opportunities

With the approval of Council to enter into a letter of Intent with Honeywell Limited, work will be undertaken to develop an energy management infrastructure improvement program. The first step will be the preparation of a report to detail the energy and operational cost reduction strategies to be implemented at various Town facilities together with the costs and savings opportunities. This report will demonstrate any proposed improvements will continue to meet the needs of the Town and at a minimum will maintain the same design criteria and functionality levels as current.

GOAL #3

Establish energy saving implementation plan

Once the Energy Infrastructure Improvement Report has been prepared, it will be filed with Council. Proposed measures identified in the report will be reviewed and recommendations brought forward based on financial merit. This will include active savings as well as cost avoidance. In addition, Town staff will continue to seek efficiencies and operation change to reduce energy consumption in all areas of the organization including ongoing process refinement, purchase of energy efficient equipment, continued fleet greenings, facility maintenance opportunities, street lighting etc.

GOAL #4

Maximize energy savings investment through development of communications and awareness program

The Town's Management Team is committed to ensuring that energy conservation and consumption are a priority for all staff throughout the organization through the development of ongoing communication and awareness programs. Reminders to ensure that lights in unused rooms, computers and copiers are turned off when remaining unused for periods of time and overnight are examples of ways that every member of the organization can contribute to the overall goals of the corporation.

The Town has actively and enthusiastically participated in the annual Earth Hour initiative and each year encourages all Town residents and businesses to come together to conserve energy and to increase awareness. Other similar activities and events can be considered to further ingrain the need for continuous daily conservation efforts by all citizens and staff.

GOAL #5

Development of measurement and verification plan

As implementation of the Energy Improvement Plan initiatives occur, it is important to measure and verify the savings and cost avoidances that are the target and goals of the CCEMP. Staff will work with Honeywell Limited through the implementation of their Letter of Intent initiatives as well as with other organizations to develop such a tool.

GOAL #6

Explore renewable energy opportunities

The Town has leased several Town facility rooftops to a proponent of renewable energy projects involving solar panel installations. While it is unfortunate that the approval of these FIT applications by the OPA has and continues to take considerable time, staff are hopeful that approval will ultimately be achieved. Staff are considering additional opportunities to achieve revenue and promote low cost energy through similar renewable energy opportunities.

5. RESOURCES PLANNING AND PROJECT EXECUTION

As indicated, through the execution of a Letter of Intent with Honeywell Limited initiatives will be identified in an Energy Improvement Plan to be prepared by Honeywell. Once initiatives have been approved by Council, Honeywell will undertake the execution of those projects under the review and oversight of municipal staff. Additional corporate projects will be undertaken by the appropriate departmental staff under the direction of their supervisors and managers as they relate to ongoing process refinements and fleet management energy conservation opportunities. Consideration of resource allocation will be a factor in the identification of additional building maintenance energy efficiency achievements.

6. EVALUATION PROGRESS AND REVIEW

Recognizing that the CCEMP is a living document, the Management Team will continue to review and report to Council on the progress of the initiative implementation and associated cost savings, cost containment and cost avoidances that are achieved including the identification of energy savings related thereto.