



Energy Conservation and Demand Management Plan

1.0 Introduction

The following Energy Conservation and Demand Management (ECDM) Plan fulfils the reporting requirements of the Green Energy Act and provides Augusta Township with a framework to support continued energy and sustainability initiatives. This plan is in addition to Integrated Community Sustainability Plan that has been implemented at County Level by the United Counties of Leeds and Grenville, which was used to identify a list of initial 'renewable energy, carbon footprint and greenhouse gas emissions' priorities for the Township.

Ontario Regulation 397/11 made under the Green Energy Act, 2009, requires all public agencies to prepare and implement an 'Energy Conservation and Demand Management Plan'. The Plan is intended to improve service delivery efficiencies, create administrative cost savings to the benefit of all ratepayers and enhance the overall quality of life of all who live, work and play in Augusta Township.

The plan is comprised of two parts:

1. A summary of the Township's annual energy consumption and greenhouse gas emissions for its operations.
2. A description of previous, current and proposed measures for conserving and otherwise reducing the amount of energy consumed by the Township's operations and for managing the Township's demand for energy, including a forecast of the expected results of current and proposed measures.

2.0 Annual Consumption and Emissions

The Township is responsible for a number of different facilities ranging in size, intensity of use and types of energy consumed.

2.1 Facilities

The Municipality is responsible for energy consumption at the following list of facilities within the Township:

Name of Facility	Primary uses of facility	Address	Floor area (square feet)	Energy Types Used
Augusta Township Office	Administrative offices and related facilities, including municipal council chambers	3560 County Rd 26	3750	Hydro + natural gas
Maitland Fire Department	Fire stations and associated offices and facilities	19 Church Street	4370	Hydro + natural gas
North Augusta Fire Department	Fire stations and associated offices and facilities	8112 Mill Street	4125	Hydro + fuel oil
Ellis House	Administrative offices and related facilities, including municipal council chambers	3624 County Rd 26	1400	Hydro + fuel oil
Public Works Garage	Garage facilities where equipment or vehicles are maintained, repaired or stored	5328 Algonquin Rd	4800	Hydro + fuel oil
Maynard Recreation Hall	Indoor recreational facilities	Concession Rd 3, Lot 13	250	Hydro + propane
Domville Recreation Dept	Indoor recreational facilities	4733 Concession Rd 4	250	Hydro
North Augusta Waste Disposal Site	Waste transfer station	8212 Coville Rd	100	Hydro
North Augusta Recreation Hall	Indoor recreational facilities	8115 Mill Street	5000	Hydro + propane
North Augusta Recreation Hall (Soccer)	Indoor recreational facilities	9150 County Rd 15	100	Hydro
North Augusta Recreation hall (Ball) Canteen	Indoor recreational facilities	8112 Mill Street	250	Hydro
Maynard Waste Disposal Site	Waste transfer station	3618 County Rd 26	100	Hydro

2.2 Summary of the Township's Annual Energy Consumption

Augusta Township 2011 energy consumption information can be summarized as follows:

Name of Facility	Hydro (kWh)	Natural gas (cubic metres)	Fuel Oil (litres)	Propane (litres)
Augusta Township Office	28708.43	4575.046		
Maitland Fire Department	13218.87	5585.714		
North Augusta Fire Department	18447.48		3147.4	
Ellis House	4217.11		3899.95	
Public Works Garage	32477.27		7951.12	
Maynard Recreation Hall	8396.29			2608.21
Domville Recreation Dept	2424.67			
North Augusta Waste Disposal Site	2833.21			
North Augusta Recreation Hall	2124.11			
North Augusta Recreation Hall (Soccer)	138			
North Augusta Recreation hall (Ball) Canteen	1979			
Maynard Waste Disposal Site	14462.32			

2.3 Summary of the Township's Annual Greenhouse Gas Emissions

Augusta Township 2011 greenhouse gas emissions data can be summarized as follows:

Name of Facility	Greenhouse Gas Emissions (kg)	Energy Intensity (ekWh/sqft)
Augusta Township Office	8650	13
Maitland Fire Department	10561	16
North Augusta Fire Department	8584	9
Ellis House	10637	11
Public Works Garage	21686	23
Maynard Recreation Hall	4027	5
Domville Recreation Dept	3950	6
North Augusta Waste Disposal Site	400	1
North Augusta Recreation Hall	400	1
North Augusta Recreation Hall (Soccer)	400	1
North Augusta Recreation hall (Ball) Canteen	400	1

2.4 Previous Conservation Measures

The following energy conservation works have been implemented by the Township

- Insulation of Public Works Garage in 2011 resulting in reduced heating fuel costs by approximately 47% in 2012, insulated overhead doors, added remote doors, new windows, and high efficiency lighting.
- Insulation of the Maynard Recreation Hall in 2013 (floor, walls and ceiling, windows).

- North Augusta Community Hall –energy efficient heating and lighting systems were installed in 2013 as part of building renovations.

2.5 Current Conservation Measures

The Township has initiated the process of assessing the cost benefits of converting streetlights to LED.

2.6 Proposed Conservation Measures

Objectives

1. To reduce annual energy consumption.
2. To reduce total annual carbon emissions.
3. To promote sustainable energy use.
4. To reduce total annual operating costs.

In order to achieve these objectives the following tasks are proposed:

- Conduct energy consumption audits at each facility location.
- Review findings and identify most cost effective measures to implement.
- Implement appropriate measures.

2.7 Resources Planning

The Manager of Public Works has been designated as the energy leader for corporate energy management. Senior management will assign staff members who carry significant responsibility for energy performance who can make crucial input in the energy management processes. Critical service providers will also be included.

3.0 Energy Conservation and Demand Management Plan Summary

Augusta Council and Staff will continue and clearly communicate the corporate commitment to energy efficiency. Township staff will also strive to develop the skills and knowledge required to implement energy management practices and measures.

External stakeholders (the Province, community citizens and groups) need the municipality to be accountable for energy performance and to minimize the energy component of the costs of municipal services.