

Energy Conservation & Demand Management Plan



Town of Rainy River

201 ATWOOD AVENUE,
P.O. BOX 488
RAINY RIVER, ONTARIO P0W 1L0

June 30, 2014

1.0 Introduction

The Town of Rainy River has undertaken the development and implementation of an Energy Conservation and Demand Management Plan (the Plan) in accordance with Ontario Regulation 397/11. This five year Plan encompasses 2013 through 2019, and a revised and updated Plan will be required by July 1, 2019.

1.1 Plan Structure

The Plan is structured based on the information required by Ontario Regulation 397/11 and involves five main steps: Commitment, Planning, Execution, and Evaluation. Each step is discussed within the Plan.

2.0 Commitment

2.1 Declaration

The Town of Rainy River will use existing resources and leverage outside agencies, where appropriate, to reduce our energy consumption and its related environmental impact.

2.2 Vision

The Town of Rainy River is continually reducing our local energy consumption and associated carbon footprint 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.

2.3 Goals

The goal of the Plan is maximize the efficient use of the Town's fiscal resources and to minimize any negative environmental impact of the Town's operations.

2.4 Overall Target

By 2019 the Town will reduce the energy consumption by 3%, versus our 2012 figures.

2.5 Objectives

To improve the energy efficiency of our facilities by utilizing best practices to reduce our energy consumption and mitigate the impact of energy cost increases.

To create a culture of energy conservation among Town staff.

To reduce greenhouse gas emissions associated with our energy use.

3.0 Understanding

3.1 Municipal Energy Situation

The Town of Rainy River uses two types of energy in its facilities: electricity and natural gas. Electricity is currently purchased through Local Authority Services' (LAS) bulk purchase program. LAS, is a subsidiary of the Association of Municipalities of Ontario (AMO). The LAS program is intended to provide municipalities with a hedge against price fluctuations, and therefore save them money on electricity.

Natural gas is currently supplied by Union Gas Limited.

3.2 How We Manage Energy Today

The Town of Rainy River has a solid history in energy conservation initiatives. In 2010 the Town installed a geothermal heating system and reconstructed the building envelope of its public works garage. The installation of programmable thermostats within many of its buildings has taken place.

In addition, the Town is in the process of upgrading its street lights from a high pressure sodium technology to the much more efficient LED technology.

3.3 The Town of Rainy River aspires to show leadership in the promotion and development of renewable energy systems that are compatible with the corporate asset management and land use planning objectives.

4. Energy Consumption and GHG Emissions

Facility Name	Address	Total Area (sq feet)	Hours/Day	Fuel Types	Consumption	GHG Emissions (kg)	Energy Intensity (ekWh/sqft)
Municipal Garage and Firehall	20 L Atwood Drive	14400	40	Electricity	53115 kwh	5101.1646	3.688541667
Community Centre	303 Broadway Ave	8204	40	Electricity	61539 kWh	23954.98679	19.8651981
				Natural Gas	9544.337 m ³		
Recreation Centre Ice Plant	303 Broadway Ave	14062	40	Electricity	60264 kWh	12819.48415	7.096532828
				Natural Gas	3719.258 m ³		
Town Hall	200 Atwood Ave	5892	40	Electricity	19198 kWh	28640.74786	28.82412658
				Natural Gas	14173.59 m ³		
Health Centre	119 Fourth Street	5200	40	Electricity	37207 kWh	11283.54326	15.49004481
				Natural Gas	4078.109 m ³		
Waterfront Service Building	00 River Ave	385	14	Electricity	8760 kWh	841.3104	22.75324675
Street Lights			84	Electricity	207132 kWh	19892.95728	
Facility Name	Address	Annual Flow (Mega Litres)	Hours/Day	Fuel Types	Consumption	GHG Emissions (kg)	Energy Intensity (ekWh/Mega Litre)
Water Treatment Plant	317 River Avenue	203723	168	Electricity	190229 kWh	239284.4071	11.0525148
				Natural Gas	26479.9 m ³		
Lift Station	101 Sixth Street	213.786	168	Electricity	31419 kWh	3017.48076	146.9647217
Grand Totals						344836.0822	255.734886906