



Township of Whitewater Region
Energy Conservation & Demand Management Plan

2019 - 2023

Prepared By:

Township of Whitewater Region
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Commitment

Declaration of Commitment

The Corporation of the Township of Whitewater Region will use existing resources and additional resources, if available, to develop and implement an energy management plan that will reduce energy consumption and its related environmental impact.

Vision

Through the wise and efficient use of energy and resources, the Township of Whitewater Region strives to reduce our total energy consumption and associated carbon footprint while still maintaining an efficient and effective level of service for our residents and the general public.

Goals

To improve the energy efficiency of our facilities by utilizing best practices to reduce our operating costs and energy consumption where feasible and practical.

Overall Target

The Township will endeavor to reduce consumption of fuels and electricity in all municipal operations by an average of 3% per year over the next five years.

Objectives

To increase staff awareness to use energy more efficiently and to create a culture of conservation. Complete energy audits on the three top energy consuming buildings during the next five years. Introduce operating and maintenance practices that improve the efficiency of energy use.

Organizational Understanding

Municipal Energy Situation

The Township of Whitewater Region currently utilizes electricity, natural gas, furnace oil and propane in its facilities.

Electricity is provided by two suppliers. The Ottawa River Power Corporation (ORPC) is the provider for facilities within the Village of Beachburg while Hydro One is the provider for all other owned facilities.

With natural gas unavailable in certain area of the Township, the Ross Mineview Works Garage continues to heat with propane, the Westmeath Firehall, Westmeath Garage and Foresters Fall Firehall continue to heat with furnace oil and both the Ross Landfill and Foresters Falls Library continue to heat with electricity. All other Township facilities have access to natural gas.

How We Manage Energy Today

The Township of Whitewater Region has been gradually implementing energy conservation initiatives within its facilities. Some of the more recent (2017–2019) projects completed or underway include:

1. Administration Municipal Office – Regular/routine maintenance of furnace & HVAC unit(s) ensuring reliability & efficiency. Costing underway to conduct retrofit to LED of all interior lighting (2019).
2. Ross Mineview Works Garage – Garage lighting retrofit with the installation of new LED throughout (2017).

3. Cobden Wastewater Treatment Plant – Upgrades to the 40-year-old extended aeration sewage plant are underway (December, 2019). New efficient pumps & blowers, all with variable frequency drives, to be installed. New plant structure will also demonstrate improved insulation, HVAC, windows, electrical, etc.. Project completion scheduled for 2021.
4. Cobden Arena Hall – Complete lighting retrofit to LED within the large upstairs Hall (2018).
5. Village of Beachburg Streetlights – Complete streetlight retrofit to LED (2018)
6. Streetlights throughout the Township (Hamlets, Village of Cobden, etc.) – Complete streetlight retrofit to LED planned into the next few years.
7. Westmeath Arena & Hall - Complete lighting retrofit to LED within the large upstairs Hall and the Arena (2018).

Summary of Recent Energy Consumption

The Township's recent [electricity consumption](#) is as follows:

Year	Consumption (kWh)	Variance
2015	1,231,170.323	
2016	1,168,703.101	5.1% Decrease
2017	1,698,048.571	45.3% Increase
2018	1,409,769.850	16.9% Decrease

The Township's recent [natural gas consumption](#) is as follows:

Year	Consumption (m3)	Variance
2015	84,666	
2016	98,881	16.8% Increase
2017	94,746	4.2% Decrease
2018	76,961	19% Decrease

The Township's recent [furnace oil consumption](#) is as follows:

Year	Consumption (Litres)	Variance
2015	14,280	
2016	13,265	7% Decrease
2017	11,613	12% Decrease
2018	12,142	4.5% Increase

The Township's recent [propane consumption](#) is as follows:

Year	Consumption (Litres)	Variance
2015	16,102	
2016	6,367	60.5% Decrease
2017	11,289	77.3% Increase
2018	14,329	27% Increase

Note: 2016 Propane Consumption amount of 6,367 Litres is deemed inaccurate and thus results in a 60.5% decrease from 2015 as well as a 77.3% increase into 2017.

Planning

Renewable Energy Utilized or Planned

The Township of Whitewater Region has no current or future plans to incorporate renewable energy sources further to the already existing nine (9) microFit's installed on Township facilities.

Strategic Planning

Links with Other Municipal Plans

As an integral component of the decision-making process, the energy conservation and demand management plan will be coordinated with the Township's budget process, preventative maintenance plans and the overall asset management plan.

Resources Planning

Energy Leader

The Township may designate a staff member to oversee overall responsibility for the implementation, maintenance and follow through of the plan and energy management.

Energy Training

The Township may deliver energy training focused on the energy use and conservation opportunities associated with employee job functions where ever possible.

Procurement Planning

Consideration of energy efficiency for all projects

Whenever possible, energy efficiency may be considered as part of the criteria for selection of materials and equipment respective to retrofit, replacement or build projects. Items such as lighting, HVAC, pumps, blowers, potential water usage & demand, etc., must be identified and considered during project planning or prior to project commencement.

Consideration of energy efficiency of acquired equipment

Whenever possible, energy efficiency may be considered as part of the criteria for selection of materials and equipment.

Projects Execution

Municipal Level

The administration and implementation of this plan will be the responsibility of designated Energy Leader along with team members. It will also be the responsibility of all staff to ensure they are aware of their energy use on a daily basis and work towards energy efficiency and conservation.

Asset Level

We will use department heads and/or representatives to assist in the implementation of procedures and communication to ensure all staff are familiar with and utilizes energy efficiency measures where possible. Department staff will monitor energy usage and review current practices of their facilities.

Review

Energy Plan Review

The designated staff member whom will oversee overall responsibility for the implementation, maintenance and follow through of the plan and energy management, may coordinate the team of department heads and/or representatives who will review and evaluate the Township's energy plan, revising and updating it as necessary. Preferably, every two years.

Evaluation Progress

Energy Consumption

The Township's energy consumption decreased from 1.70 GWH in 2017 to 1.41 GWH in 2018. (1 GWh = 1,000,000 kWh).

