



Township of McMurrich/Monteith

2014 Conservation and Demand Management Plan

1. Commitment

Declaration of Commitment

The Township of McMurrich/Monteith will allocate the necessary resources to develop and implement an Energy Conservation and Demand Management Plan as required under Regulation 397/11 of the Green Energy Act. Staff and Council will ensure that the objectives presented in this plan are achieved and that progress towards those objectives is monitored on an ongoing basis. Staff and Council will update the plan as required under Regulation 397/11 of the Green Energy Act or any subsequent legislation.

Vision

The Township of McMurrich/Monteith 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 the general public. This will involve a collaborative effort to increase the education, awareness, and understanding of energy management within the Township of McMurrich/Monteith. Total energy consumption includes electricity, propane and oil. Everyone has a role in the wise use of energy and to showcase appropriate leadership within municipal facilities and operation.

Goals

The Township of McMurrich/Monteith Energy Conservation and Demand Management Plan has been completed to help achieve the following goals:

- § Maximize fiscal resources and avoid cost increases through direct and indirect energy savings
- § Reduce the environmental impact of the Township's operations
- § To create a culture of conservation within the Township

Overall Target

The Corporation of the Township of McMurrich/Monteith will reduce overall municipal energy consumption by 5% from 2014 to 2019.

Objectives

In order to meet the strategic goals of the Energy Conservation and Demand Management Plan, there are a number of goals and objectives that align with its development and implementation:

- § Ensure energy efficiency consistency across municipal facilities
- § Monitor and report on energy consumption in annual intervals
- § Better analyze energy costs and look for savings opportunities. This will include looking at energy commodity procurement options and taking advantage of all available resources and funding for energy projects.
- § Raise staff and Council awareness around energy efficiency
- § Identify and investigate renewable energy generation opportunities

Timeline

The Township of McMurrich/Monteith's energy conservation and demand management measures will be in place for the next five years. Following that time, a renewed plan will be required in order to meet future needs.

Approval

This plan has been formulated with the input of the Township of McMurrich/Monteith management staff and has been approved by Township Administration as per Regulation 397/11.

Publication

This plan will be made available electronically to the public on the municipal website and in hardcopy at the Township of McMurrich/Monteith Municipal Office.

2. Organizational Understanding

Energy Needs

The Township of McMurrich/Monteith requires reliable, low-cost, sustainable energy delivering energy to the most efficient facilities and energy-consuming technology feasible.

Summary of Current Energy Consumption, Cost and Greenhouse Gases (2012)

Annual energy consumption: 82,848 kWh

Propane Gas consumption: 3,792.2 l

Oil consumption: 6,377.5 l

Cost: \$17,812.12 in electricity, \$2,501.60 in propane gas and \$7,695.89 in oil

Greenhouse Gas Emissions (CO2): 31,243.898833 kg

Renewable Energy Utilized or Planned

The Township of McMurrich/Monteith aspires to show leadership in the promotion and development of renewable energy systems that are compatible with the Township's Asset Management Plan and land use planning objectives. The Township of McMurrich/Monteith will investigate the potential of developing solar photovoltaic systems on the rooftops of municipal facilities that could benefit from such a retrofit.

Past Energy Initiatives

The Township of McMurrich/Monteith has implemented several energy reducing initiatives in the past including:

Lighting retrofit at the Administration/Fire Hall Building, Roads Garage, Storage Building and Bear Lake Fire Hall through Hydro One's Power Savings Blitz Program

Furnace replacement at the Administration/Fire Hall Building

3. Resources Planning

Energy Leader

The Clerk/Treasurer will be designated as leader of energy planning with overall responsibility for Township energy management.

4. Projects Execution

Municipal Level

The Township of McMurrich/Monteith will carry out the required development of business procedures, communication programs and implement them methodically according to the planned time lines within the resource constraints that apply. The administration and implementation of this plan will be the responsibility of the Clerk/Treasurer, however, since everyone uses energy in their daily activities, it will also be the responsibility of all Municipal staff to be aware of their energy use and work towards conservation. Through staff engagement and web based energy management tools, staff will be able to see the results of their efforts, and benchmark between corporate facilities and with industry standards.

Asset Level

The Township of McMurrich/Monteith will use department employees to facilitate the implementation of procedures and communication initiatives, including energy performance reporting. In order to sustain a corporate culture of conservation, staff must be engaged in an effective awareness and education program. Although management staff

have the lead responsibility in ensuring Township facilities operate efficiently, all Township of McMurrich/Monteith staff should be familiar with and utilize energy efficient measures where possible. In addition, any facilities requiring rehabilitation, renewal and/or replacement will incorporate energy saving strategies where possible.

5. Review

Energy Plan Review

Township Staff will review and evaluate our energy plan on an annual basis, revising and updating it as necessary, as based on the Energy Consumption Reports that are submitted to the Ministry of Energy on an annual basis as required under Regulation 397/11.

6. Evaluation Progress

Energy Consumption

The Township of McMurrich/Monteith will continue to track and report on energy consumption as part of our regular reporting on energy consumption. Annual data will be compared to that of previous years in order to determine the efficiency of the Energy Conservation and Demand Management Plan.

Green House Gas Emissions

The Township of McMurrich/Monteith will continue to track and report on GHGs as part of our regular reporting on energy consumption and will evaluate progress in this area against our overall reduction target.

7. Energy Consumption and GHG Emissions

Facility Name:	Address:	Total Area (sq ft)	Hours per week	Fuel Types	Consumption	Cost	GHG Emissions (kg)	Energy Intensity (ekWh/sq ft)
Municipal Office/Fire Hall	31 William Street	5930	40	Electricity	20,268 kWh	3,764.29	7,790.258245	7.913873638
				Propane	3792.2 l	2,501.60		
Public Works Garage	2455 Highway 518 West	3025	40	Electricity	32,536 kWh	4,908.86	16,418.70966	28.07282887
				Oil	4,860.4 l	6,011.41		
Sprucedale Community Centre	31B William Street	4000	15	Electricity	0 – error with meter	221.16	0.09604	0.00025
Bear Lake Fire Hall	4729 Highway 518 West	1296	3	Electricity	3100 kWh	874.31	4,447.229168	15.00846102
				Oil	1517.1 l	1,684.48		
McMurrich/Monteith Landfill Site	2161 Highway 518 West	140	40	Electricity	2,911 kWh	1,191.86	279.57244	20.79285714
Radio Tower Building	Dailey Road	64	0	Electricity	1,463 kWh	281.05	140.50652	22.859375
Public Works Storage Building	2455 Highway 518 West	640	1	Electricity	2990 kWh	2,821.11	287.1596	4.671875
School House	2465 Highway 518 West	6112	12	Electricity	19,579 kWh	3,749.48	1880.36716	3.203370419
Grand Totals:						28,009.61	31,243.898833	102.522891087

8. Programs

Description	Facility	Contact	Date	Status
Energy Awareness at Management Meetings	All Facilities	Cheryl Marshall	01-Jul-2014	Active
Details – Add energy awareness to management meetings. This will provide a platform to discuss topics like the current costs of energy consumption, future implications of current usage, areas for improvement and ways to reduce energy use.				
Employee Participation Program	All facilities	Louise Heintzman	01-Jul-2014	Active
Details- Invite employees from all departments of the Township to recommend ideas to reduce energy use in their departments.				
Energy Accounting	All facilities	Cheryl Marshall	01-Jul-2014	Active
Details – Quarterly utility usage and costs should be monitored to identify trends and emphasize anomalies to better predict future usage requirements.				
Efficiency Standards	All facilities	Jim Jenkins	01-Jul-2014	Active
Details – Standards of performance will be developed to identify and implement temperature regulations for each building for the following – indoor temperature for occupied space, indoor temperature for unoccupied space; desirable hot water tank temperature; maximum light levels for occupied space				
Energy Efficiency Purchases Standards	All facilities	Jim Jenkins	01-Jul-2014	Active
Details – All potential asset purchases will be subject to energy use evaluations to determine the energy consumption of the potential purchase. In the decision making process, preference will be given to assets that use less kWh or are Energy Star rated.				

After hours Lights Out	All facilities	Louise Heintzman	01-Jul-2014	Active
Details – The Township will adopt a strategy to ensure that lighting is turned off during periods where facilities are not in use after hours. Staff members who use the facilities after hours will be advised to keep only the areas of occupation lit after hours.				