



Township of McNab/Braeside **2014 – 2018 Energy Management Plan**

Commitment

Declaration of Commitment: The Mayor, Council, and Senior Management, will demonstrate both the Leadership and Commitment required, ensuring complete fulfillment of the Energy Plan by all Township Energy Consumers.

Everyone has a role in the wise use of Energy and to showcase the appropriate leadership within Corporation Facilities and Operations.

Vision: The Township of McNab/Braeside is committed to reduce total energy consumption and transition to a Carbon Neutral Future through the wise and efficient use of Energy and Resources, while still maintaining an efficient and effective level of services to both its Customers and the General Public.

Goals:

1. To improve the Management of the Township's Energy Consumption.
2. To improve overall awareness of Energy Resource use.
3. To Manage Corporate Assets to Promote Energy Efficiency.

Overall Target: *5 in 5*. The Township will reduce energy consumption by 5% over the next 5 years.

Objectives:

1. To improve the Management of the Township's Energy Consumption.
 - I. Setting conservation targets beginning in 2014 for a 5 year duration.
 - II. Tracking consumption on an annual basis.
 - III. Reporting on consumption and savings on an annual basis.
2. To improve overall awareness of Energy Resource use.
 - I. Publish the Energy Plan on the Township website.
 - II. Train and familiarize Council and Staff on initiatives and consumption.

- III. Report on Energy Planning and Results annually to Council.
- IV. Post energy usage reminders in conspicuous locations within each facility.
- V. Include Energy Awareness and Planning in the performance management appraisal system for all employees.

3. To Manage Corporate Assets to Promote Energy Efficiency.

- I. Improve facility assets by reducing maintenance backlogs.
- II. Embed Energy review in all new purchases and acquisitions. (i.e. LEED certified buildings)
- III. Plan and Implement facility improvements to reduce consumption.
- IV. Encourage staff participation in promoting energy savings.
- V. Consider Renewable Energy Initiatives in all planning and facility operations.
 - i. Ground Source Energy Harvested
 - ii. Solar Energy Harvested

Organizational Understanding

Summary of Current Energy Consumption, Cost and GHGs: The total annual energy consumption for municipal operations in 2013 is 911,555 eKWh with a GHG emission of 159,442 kg CO₂e per year.

Renewable Energy Utilized or Planned: The Township of McNab/Braeside aspires to show leadership in the promotion and development of renewable energy systems that are compatible with our asset management and land use planning objectives. As a result, upon completion of our Building Asset Management Plan, we will investigate the potential to use either ground source or solar energy harvested systems on future municipal buildings as well as any required lifecycle replacements on existing municipal buildings.

Resources Planning

Energy Leader: We will clearly designate leadership and overall responsibility for corporate energy management through the incorporation of energy awareness and planning in the performance management appraisal system of all municipal employees.

Procurement Planning

Consideration of energy efficiency of acquired equipment: Our purchasing procedures will be modified as required to incorporate energy efficiency into the criteria for selection of materials and equipment.

Implementation Planning

Building Standards: We will develop criteria for the design and/or acquisition of new buildings that include energy performance factors and that use as appropriate the principles embedded in performance standards such as LEED and the Model National Energy Code for Buildings.

Projects Execution

Municipal Level: We will carry out the required development of business processes and projects according to the planned time lines within the resource constraints that apply.

Specific action items to be undertaken within the 5 year period of this report are noted below. Approximate costs have been provided. These costs will require verification prior to implementation.

Budgeted savings have not been provided as it has been assumed that energy cost savings will be offset by future energy price increases.

The return on investment for these items is anticipated to be between, on average, one to five years.

ACTION ITEMS:**Approx. Cost**

- 1) Upgrade to programmable thermostats. \$3,200
- 2) Repair weather stripping
- 3) Upgrade lighting from T12 to T8 or T5 \$37-48,000
 - > *Partial funding may be available through Save on Energy Retrofit program.*
 - > *Required as T12 lighting no longer manufactured*
- 4) Upgrade other lighting types (incandescent and exit signs) \$4-5,000
- 5) Perform key maintenance and repair activities to buildings. N/A
- 6) Perform additional upgrades to buildings N/A
 - > *Limited to White Lake Fire Hall pending the results of action item #7*
- 7) Review and update action item list once Building Asset Management Plan developed
 - > *RE: hot water tanks, furnaces, exterior doors*

Table 1: Action Item List by Building

Location	Thermo-stat	Weather Stripping	T8 or T5 Lighting	Other Lighting	Mtce & Repair	Other upgrades
Fire Station 1		X	X			
Roads Garage	X	X	X		Leaking roof, broken windows, old venting stacks	
Roads Sand/Salt Shed Russett		X				
Perneel Building	X	X	X	X		
Landfill Scale House	X					
Landfill Shed		X		X	Overhead door does not close	
Fire Station 2 Garage	X		X		Leaking roof and aux. pump. Upgrade furnaces	Furnace
Fire Station 3 Office	X	X	X	X	Foundation holes, broken windows	
Fire Station 3 Garage	X	X	X		Open exhaust fan	
Braeside RA	X	X	X	X		
Municipal Office	X	X	X	X		

Asset Level: We will use Department Heads to facilitate the implementation of facility level business processes and projects. To support this implementation, the Treasurer will prepare annual energy performance reports to Council.

Review

Energy Plan Review: We will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis as part of our Township budgeting process.

Evaluation of Progress

Energy Consumption: The Township's energy consumption in 2013 was increased from 691,465 ekWh/yr (2012) to 911,555 ekWh/yr (2013). The 2013 consumption will serve as the baseline for future reporting of municipal energy savings.

Assuming a stable base of operations with an equivalent level of service over the 5 year period, the Township's goal will be to decrease overall energy consumption by 45,578 ekWh/yr by the year 2018.

Note: This report has been primarily generated using LAS' Energy Planning Tool.