

# Energy Management Plan

## Township of Lake of the Woods

**From: 2011-01-01 to: 2015-12-31**

### Commitment

- **Declaration of Commitment:** Council Resolution: We will allocate the necessary resources to develop and implement a strategic energy management plan that will reduce our energy consumption and its related environmental impact.
- **Vision:** The Township of Lake of the Woods will exercise stewardship in our use of finite energy resources to demonstrate leadership, optimize our delivery of services, and enhance the overall quality of life in our community.
- **Policy:** At the Township of Lake of the Woods we will incorporate energy efficiency into all areas of our activity including our organizational and human resources management procedures, procurement practices, financial management and investment decisions, and facility operations and maintenance.
- **Goals:** We will seek to continuously improve the energy efficiency of our facilities and processes in order to reduce our operating costs, our energy consumption and the concomitant greenhouse gas emissions. We will explore alternate energy sources including a geothermal system for the Bergland Community Hall and the Public Works Garage.
- **Overall Target:** We will reduce our consumption of fuels and electricity in all municipal operations by an average of .5% per year between now and 2020. We will consider reducing our energy requirements in the Morson Fire Hall which could be reduced to cold storage rather than heated.
- **Objectives:** We will consider implementation of energy audits on all municipal facilities during the next five years. We will consider changing the Morson Fire Hall from a heated garage to cold storage which could reduce our energy usage by up to 14.5%.

### Organizational Understanding

- **Our Municipal Energy Needs:** At the Township of Lake of the Woods we need reliable, low-cost, sustainable energy sources delivering energy to the most efficient facilities and energy-consuming technology feasible. We will over the term of the plan seek ways to further reduce our energy consumption.
- **Stakeholder Needs:** Internal stakeholders (Council, Clerk-Treasurer, staff) need to be able to clearly communicate the corporate commitment to energy efficiency, and 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.
- **How We Manage Energy Today:** The management of energy consumption and the energy performance of our facilities and equipment are the responsibilities of Clerk-Treasurer (cost management), Public Works Department and the Fire Department (maintenance), and Road Superintendent and the Fire Chief (operations).

- **Summary of Current Energy Consumption, Cost and GHGs:** The 2011 total annual energy consumption in municipal operations is 199499 eMWh, at a cost of \$25,309 per year and GHG emission of 32854 kg/year eCO<sub>2</sub>/m<sup>2</sup>.

- **Renewable Energy Utilized or Planned:** The Township of Lake of the Woods 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, we will investigate the potential to develop solar photovoltaic systems on the rooftops of all corporate facilities with sound, south-facing roofs.

### Resources Planning

- **Energy Leader:** We will clearly designate leadership and overall responsibility for corporate energy management.

### 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.

### Projects Execution

- **Municipal Level:** We will carry out the required development of business procedures and communication programs and implement them methodically according to the planned time lines within the resources constraints that apply.

- **Asset Level:** Our Clerk-Treasurer, Road Superintendent and Fire Chief along with other staff will work to facilitate the implementation of facility level business procedures and communication initiatives, including energy performance reporting.

### Review

- **Energy Plan Review:** We will review and evaluate our energy plan, revising and updating it as necessary, on an annual basis within our corporate planning process.

### Evaluation Progress

- **Energy Consumption:** The Township of Lake of the Woods will continue to explore alternatives to reduce our energy consumption. We will in 2013 evaluate the costs to keep the Morson Fire Hall as a heated garage rather than changing it to a cold storage facility.

Energy Consumption and GHG Emissions

From: 2011-01-01 To: 2011-12-31

Facility Name	Address	Total Area (m2)	Average Hours/Day	Fuel Types	Consumption	Cost (\$)	Energy (ekWh/yr)	GHG Emissions (kg CO2e/yr)	GHG Intensity (kg CO2e/m2)	Energy Intensity
Facility Primary Type: Fire										
<b>Morson Fire Hall</b>	9101 Hwy 621	200	0.71	Propane Elect.	3615.00 L 2085.00 kWh	2892.23 916.07	25415.46 2085	5570.66 200.24	27.85 1	127.08 (ekWh/m2) 10.43 (ekWh/m2)
Facility Type Total						3808.3	27500.46	5770.9		
Facility Primary Type: Community Centre										
<b>Morson Community Hall</b>	21 Dalseg Dr	185	0.71	oil 1&2 Elect.	1859.00 L 14488.00 kWh	2030.69 2783.52	20035.89 14488	5084.66 1391.43	27.48 7.52	108.30 (ekWh/m2) 78.31 (ekWh/m2)
<b>Bergland Community Hall</b>	7705A Hwy 600	662	0.71	Elect.	78536.00 kWh	10099.9	78536	7542.6	11.39	118.63 (ekWh/m2)
Facility Type Total						14914.1	113059.89	14018.68		
Facility Primary Type: Public Works										
<b>Bergland PW Garage</b>	7705B Hwy 600	297	0.71	oil 1&2 Elect.	4355.00 L 12001.00 kWh	4805.02 1781.85	46937.22 12001	11911.6 1152.58	40.11 3.88	158.04 (ekWh/m2) 40.41 (ekWh/m2)
Facility Type Total						6586.87	58938.22	13064.18		
<b>Grand Total</b>						<b>25309.2</b>	<b>199498.56</b>	<b>32853.76</b>		