

Energy Management Plan

Township of Dawson

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. We will review our present building stock with any excess buildings either be disposed of or energy consumption is reduced.
- **Vision:** The Township of Dawson 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:** The Township of Dawson 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:** At the Township of Dawson we will endeavour 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 maximize fiscal resources through direct and indirect energy savings.
- **Overall Target:** The Township of Dawson will aggressively target the excess building stock in order to reduce our overall energy usage. The Pinewood Recreation Hall which is used very sparingly will be sold. The North Fire Hall continued usage will be reviewed and if deemed appropriate will be closed. We will reduce our consumption of fuels and electricity in all municipal operations by an average of .5% per year between now and 2020.
- **Objectives:** We will consider implementation of energy audits on all municipal facilities over the period of this plan. We will dispose of the Pinewood Recreation Hall which accounted for 19.6% of our overall 2011 energy usage. The North Fire Hall will be reviewed for possible closure and it accounted for 12% our 2011 energy usage. The replacement of Dawson South Fire Hall T12-T8 Lighting will save 10961Wh/yr, Dawson North Fire Hall will save 691 kWh/yr. The Public Works Garage interior lighting upgrade will save 3014 kWh/yr along with exterior Photocell control can save 1200 kWh/yr. The electric heat nightly temperature set-backs could achieve savings of 1200 kWh/yr. An upgrade of street lights could save another 8173 kWh/yr.

Organizational Understanding

- **Our Municipal Energy Needs:** At the Township of Dawson we need reliable, low-cost, sustainable energy sources delivering energy to the most efficient facilities and energy-consuming technology feasible. Over the term of this plan we will 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 the Clerk-Treasurer's office (cost management), Public Works Department and the Fire Department (maintenance) and the Road Superintendent and Fire Chief (operations).

- **Summary of Current Energy Consumption, Cost and GHGs:** The 2011 total annual energy consumption in municipal operations is 260467 eMWh, at a cost of \$21,750 per year and GHG emission of 52650 tonnes/year eCO₂.

- **Renewable Energy Utilized or Planned:** The Township of Dawson 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 and other alternate energy sources.

Structure Planning

- **Consideration of energy efficiency for all projects:**

Resources Planning

- **Energy Leader:** We will ensure there is leadership and overall responsibility for corporate energy management.

Procurement Planning

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

Implementation Planning

- **Business Procedures:** We will carry out a review of our business processes and modify them as necessary in order to incorporate energy efficiency considerations.

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 we 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 Dawson will continue to explore alternatives to reduce our energy consumption. In 2012 we closed and disposed of the Pinewood Recreation Hall. This has allowed us to reduce our energy consumption by 20% of the 2011 energy consumption. We will continue to review the operation of the Dawson North Fire Hall. This review could further reduce our energy consumption.

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										
Dawson North	49 Wilson Creek Rd	208	1	oil 1&2	2758.00 L	3014.65	29725.11	7543.56	36.27	142.91 (ekWh/m2)
Fire Hall				Elect.	1771.00 kWh	819.17	1771	170.09	0.82	8.51 (ekWh/m2)
Dawson South	73 Donald St	118	1	NG	4411.00 m3	1405.71	46879.12	8339.56	70.67	397.28 (ekWh/m2)
Fire Hall				Elect.	3598.00 kWh	840.64	3598	345.55	2.93	30.49 (ekWh/m2)
Facility Type Total						6080.17	81973.23	16398.75		
Facility Primary Type: Community Centre										
Pinewood	877 Baseline Rd	401	0.71	NG	4606.00 m3	1457.79	48951.54	8708.23	21.72	122.07 (ekWh/m2)
Community Hall				Elect.	2101.00 kWh	682.27	2101	201.78	0.5	5.24 (ekWh/m2)
Facility Type Total						2140.06	51052.54	8910.01		
Facility Primary Type: Public Works										
Blue Garage	552 Blue Rd 3	494	5.71	oil 1&2	8883.00 L	9331.99	95738.99	24296.39	49.18	193.80 (ekWh/m2)
				Elect.	31702.00 kWh	4198.19	31702	3044.66	6.16	64.17 (ekWh/m2)
Facility Type Total						13530.18	127440.99	27341.05		
Grand Total						21750.41	260466.77	52649.81		