

Township of Schreiber Energy Plan

To meet the Provincial Regulation 397/11 under the Green Energy Act, the Township of Schreiber has been inputting its energy consumption for use in the development of a document to guide Municipal efforts in improving energy efficiency. 2011 data was submitted in June 2013 and now 2012 data and a five year Energy Conservation & Demand Management (ECDM) Plan have been completed. Within the ECDM Plan will be a summary of Township's annual energy consumption and greenhouse gas emissions for its operations as required by O.Reg..397/11. Also required is a description of previous, current and proposed measures for conserving and otherwise reducing the amount of energy consumed by the public agency's operation and for managing the public agency's demand for energy, including a forecast of the expected results of current and proposed measures. As well, the Municipality has produced this plan to identify our goals for conserving and reducing energy, proposed energy conservation measures including estimated costs and savings, a description of a renewable energy generation facility and the amount of energy produced, as well as how long each proposed measure will be in place for.

History

The Township of Schreiber has a 130 year history of changing power needs. From heavy dependence on coal in the 1950's through many changes with hydro-electricity, oil, and propane over the past twenty years the Township has adapted as times have changed. In 1904 a dam was constructed on Cook's Lake and to this day the water treatment plant is fed and all of the sewage flow in town is strictly by gravity. In 2009 the Township had an extensive energy audit on its new municipal office, with energy efficient lighting as the prime saver. The Township has taken advantage of many Hydro One programs to update lighting in all of its buildings.

Intent of the Plan

It is the intent of the Municipality that this plan will provide a structured and well defined strategy to focus our efforts towards energy efficiency. It has been written to meet the requirements of regulation 397/11 and will be a working document that will annually be reviewed during the budgeting process to add new projects or make changes if necessary. The plan will be used in cooperation with other plans including Council's Strategic Plan and Schreiber's Asset Management Plan.

Schreiber has a population of 1170 as identified by the 2011 Census. This is down significantly from the 1990's when the population was nearer 1800 people. This population decline has made it difficult to maintain the level of service that was developed for a greatly higher population; however, the Municipality strives to provide as much service for the quality of life of its residents as possible.

Municipal Buildings

Schreiber Municipal Complex 18,500.00 Square feet
Recreation Complex & Arena 39,600.00 Square feet
Schreiber Public Library 3,800.00 Square feet
Public Works Garage 6,000.00 Square feet
J.E. Stokes Medical Centre 5,400.00 Square feet
Firehall 4,800.00 Square feet
Rail Array Museum 1,950.00 Square feet
Water Treatment Plant
Sewage Treatment Plant

Vision for Schreiber

Schreiber endeavours to continually reduce its non renewable energy consumption on an annual basis.

Goals

The goal of this plan is to achieve a 10% reduction in energy consumption, based on 2011 data, throughout the buildings and lighting of the township by 2020.

Objectives

- Organizational wide understanding of the importance of energy efficiency and a coordinated attack to reduce consumption
- Renovation of buildings to incorporate energy efficiency practices
- Striving for LEED certification in construction of new buildings
- Continuously seeking and evaluating energy efficiency and renewable energy projects for the Municipality

2012 Energy Use By Building See Schedule A

Renewable Energy

- 10kW of installed solar power through the 10kW MicroFIT installations at the Municipal Complex in 2011.

Previous Measures

Some of the measures completed towards energy efficiency from 2010-2014 include:

- Replacement of lights in municipal buildings with T8 fluorescent technology
- Light motion detectors in washrooms at the recreation centre and Municipal Office
- 10kW solar panel installations on Municipal Office
- Installation of variable frequency drives motors at the water treatment and sewage treatment plants

Studies Undertaken by the Municipality

- Energy audit by Hydro One for all municipal buildings.
- Energy efficient design of Municipal Office Complex

Future Measures

Together with LAS all new LED streetlights to be installed in 2014. As well the heating/hvac to be reviewed for Municipal Office, Arena/Recreation Complex, water and wastewater plants for better performance. In particular geothermal will be investigated.

Private Sector Cooperation

- A 500kW solar panel installations near our waste water plant with a private sector is being investigated.

Municipal Operations

- Energy efficiency training and awareness for all Municipal staff and signage to promote energy efficiency throughout Municipal Buildings
- Install variable drive motors where they have not already been replaced as they come to the end of their life cycle or funding opportunities present themselves.

Community Capacity Building

- Work with our business community to provide education on identifying energy savings for the business sector
- Education for our users groups of Municipal buildings on importance of energy efficiency
- Advertise energy efficiency ideas to the public through use of the Municipal Facebook page and website

Scheduling & Priority of Improvements

2014

- Energy efficiency training and awareness for all Municipal staff and user groups to promote energy efficiency

throughout Municipal Buildings

- Improved signage throughout Municipal buildings about importance of turning things off when not in use
- Develop an idea system for staff and community groups to bring forward suggestions for improving energy efficiency in Municipal operations.

2015

- Ensure payback period analysis on energy efficiency projects is integrated into the annual budgeting process
- Develop a list of projects for implementation as funding becomes available
- Evaluate the installation of electronic, real-time monitoring systems at Municipal buildings to better understand the use of electricity in zones and times

2016 - 2020

- This will be developed by Administration and the next Council elected in 2015.

Conclusion

The Township of Schreiber is placing a high importance on energy efficiency and utilizing renewable energy. By utilizing the ideas of our staff for evaluation by experts in various fields, the Township will work towards reducing its carbon footprint and decreasing what we pay to consume energy.

Schedule A

Building	Address	Size sq/ft	Electricity kwh	Fuel Oil litres	Propane litres	GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)	Energy Intensity (ekWh/Mega Litres)
Schreiber Municipal Complex	204 Alberta Street	18500	1340785	38289.5	0	233496.7471	94.78165905	0
Recreation Complex & Arena	100 Langworthy Street	39600	815499	36909.3	13553.3	200158.6358	33.04511176	0
Municipal Office (old)	608 Winnipeg Street	1750	116	0	0	11.14064	0.066285714	0
Schreiber Public Library	314 Scotia Street	3800	35394	0	14032.4	25022.94364	35.2762	0
Public Works Garage (new)	101 Stokes Street	6000	51193	0	10022.4	20360.93376	20.27600574	0
Public Works Garage (old)	127 Manitoba Street	2500	67497	0	7008	17281.62775	46.70685178	0
J.E. Stokes Medical Centre	501 Scotia Street	5400	50560	0	5336.1	13078.62712	16.31032306	0
Water Treatment Plant	700 Peary Street	0	315061	0	0	30258.45844	0	820.6850742
Sewage Treatment Plant	95 Winnipeg	0	318918	0	0	30628.88472	0	1226.607692
Old Hydro Garage	804 Peary Street	1600	1659	0	0	159.33036	1.036875	0
Pressure Reducing Valve Chamber	121 Winnipeg	0	4391	0	0	421.71164	0	359.9180328
Firehall	222 Subway Street	4800	57755	0	0	5546.7902	12.03229167	0
Former Ontario Works	304 Walker's Lake Road	1860	142	0	0	13.63768	0.076344086	0
Rail Array Museum	608 Winnipeg Street	1950	7667	0	0	736.33868	3.931794872	0
Old Fire Hall	CPR BLK LAND PT RP 55R5874 PART 2	1440	1712	0	0	164.42048	1.188888889	0