

June 17, 2015

Report To: Operations and Facilities Executive Committee

From: Travis Rob, Chief Building Official, Facilities/Special Projects Coordinator

RE: Annual Energy Consumption Submission and Corporate Energy Consumption Review As Outlined in the Town of Fort Frances Energy Consumption and Demand Management Plan.

Background

In 2011 the Ontario Government passed O. Reg. 397/11 Energy Conservation and Demand Management Plans outlining annual energy reporting and planning for Municipalities, municipal Service Boards, Universities and Colleges, Schools and Hospitals. This regulation outlined what facilities were to be reported on and the data that was to be reported. The first reporting year for energy consumption and greenhouse gas emission data was 2013 with data from 2011. The Town of Fort Frances has been submitting energy reports in accordance with the regulation since the initial submission deadline of July 1, 2013. On June 18, 2014 the Town of Fort Frances 5 Year Energy Conservation and Demand Management Plan was taken to the Operations and Facilities Executive Committee and then to Council on June 23 for approval and was submitted to the Ministry of Energy prior to the July 1, 2014 Deadline. In accordance with Chapter 3 of the Energy Conservation and Demand Management Plan, the following is an annual report of the energy consumption of the Town of Fort Frances

Amendments to the Regulation

For the 2015 reporting year there has been some amendments to the reporting requirements for municipalities. New for this year is for multi-use buildings (Multiple uses within the same building, for example the Memorial Sports Centre and Civic Centre), the old standard was to separate the consumption based on floor area used and report on each of the uses individually. Now the reporting will be under the primary use reported over the entire floor area. Further to this the required reporting on the consumption of waste water pumping stations has been removed. The reporting on treatment facilities are still required.

Information

Due to the wealth of data, analysis available and required for the review of energy data, the following information contained in this report is a summary of the energy consumption and solar generation from the Town of Fort Frances Facilities. A further review of the detailed data and analysis of the Town of Fort Frances energy consumption will be completed at the O&F Executive Committee meeting. The data for the 2015 energy submission to the Ministry of Energy contains information for the 2013 year consumption. This report will encompass all data to the end of 2014.

Electrical

Attached to this report is an overview of the 2011 base year for electrical consumption as well as 2012, 2013, and 2014 years. The items marked with an asterisk are all of the facilities that are heated solely or partially with electrical energy. There is a column showing the difference between the current year and base year consumption.

Natural Gas

The following is an overview of the 2011 base year for natural gas consumption as well as 2012, 2013, and 2014 years. There is a column showing the heating degree days, as natural gas usage is largely driven by the outdoor air temperature. There are also columns showing the difference from the base year of 2011.

Solar

The 4 – 10kW solar installations have been online and generating power since late in 2011 under the Ontario Power Authority MicroFIT program. At the time of the Town's enrolment in the program, a 20 year contract to supply power via a rooftop solar generation system was signed for \$0.80 per kWh. There is no requirement to annually report on the solar generation to the Ministry of Energy, however traditionally an annual report to Council has been completed outlining the solar generation. This past year we did see an issue with the Memorial Sports Centre where a disconnect switch on an inverter failed causing a reduction in generated power through the winter months. A replacement inverter was received under warranty and the faulty unit was replaced.

Conclusions and Recommendations

Although not every facility is seeing a reduction in consumption every year, due primarily to changes in weather patterns from year to year and the above data not being normalized to heating degree days, the overall trend in normalized consumption is downward showing that our energy initiatives are working. Throughout the year ideas and initiatives come up and this committee is an excellent venue to discuss these and bring them forward as energy initiatives. Recently the idea of adding motion sensors to the lights at the outdoor rinks was brought up as a way to save energy when the weather is either too cold, snowy, etc. and the outdoor rinks are not being used. This could save unnecessary power usage when the rinks are not being utilized.

Respectfully Submitted,

A handwritten signature in dark ink, appearing to read 'Travis Rob', with a stylized flourish at the end.

Travis Rob, EIT

Chief Building Official, Facilities/Special Projects Coordinator