



Energy Management Plan

Municipality of Centre Hastings

From: 2019-01-01 to: 2023-12-31

Commitment

- **Declaration of Commitment:** All reasonable efforts will be made by the Corporation of the Municipality of Centre Hastings through the allocation of the necessary resources to implement the strategies in an energy management plan for the reduction of our energy consumption and its related environmental impact.

- **Vision:** The vision for the Corporation of the Municipality of Centre Hastings is to reduce total energy consumption through the wise and efficient use of energy and resources, while still maintaining an efficient and effective level of services to our customers and the general public.

- **Goals:**
1. To maximize fiscal resources through direct and indirect energy savings.
 2. To reduce the environmental impact of the Municipality's operations.
 3. To increase the comfort and safety of staff and patrons of Centre Hastings facilities.

- **Overall Target:** We will reduce our consumption of fuels and electricity in all municipal operations by an average of 2.5% per year between now and 2023.

- **Objectives:** In order to achieve the success of the strategic direction of the Energy Plan, there are a number of goals and objectives that align with its development and implementation. The following are the strategic objectives:

1. The creation of a culture of conservation within the Corporation will serve to reduce greenhouse gas emissions and ensure the wise use of resources.
2. Fiscal accountability through savings and cost avoidance will lead to both direct and indirect savings.
3. Demonstrate leadership within the Municipality and community as to the commitment to energy management and investigation of new and emerging technology.
4. Demonstrate sound operating and maintenance practices to complement the energy efficiencies implemented through capital asset renewal.
5. Provide a forum for discussion within the Corporation on energy management to be able to explore new ideas and trends

With the development of the Energy Plan, all Departments will have a roadmap and a forum to continue to ensure energy management is a consideration in all operations and facility based decisions. The integration of operational processes, facility based infrastructure improvements and staff awareness is critical to move the Municipality toward the goal of reducing GHG emissions.

Organizational Understanding

- **Summary of Current Energy Consumption, Cost and GHGs:** The total annual energy consumption in municipal operations in 2017 is 984,460 eKWh, at a cost of \$222,566 per year and GHG emission of 42 tonnes/year eCO₂.

- **Renewable Energy Utilized or Planned:** The Municipality of Centre Hastings 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 any new corporate facilities with sound, south-facing roofs and the use of renewable energy systems when considering upgrades to our recreational facilities.

Existing renewable energy installations include a photovoltaic solar panel installed in 2009 with the splash pad to run the water circulation pump as well as solar lighting in some locations. In 2015 all streetlights were changed to LED units. The municipal arena was changed to LED lighting in 2017 and updated LED fixtures were installed in 5 municipal building in 2018.

Resources Planning

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

Projects Execution

- **Municipal Level:** The administration and implementation of this plan will be the responsibility of the Chief Administrative Officer. Since we all use energy in our daily activities, it will also be the responsibility of Department Heads and all municipal staff to be aware of their energy use and work towards a culture of conservation. Web based energy management tools will allow staff to see the results of their efforts and benchmark between facilities and with industry standards.

- **Asset Level:** In order to sustain a culture of conservation, staff must be engaged in an effective awareness and education program. Although facilities staff has the lead responsibility in ensuring municipal facilities operate efficiently, all staff should be familiar with and utilize energy efficient measures where possible. The first step in implementing an energy management program is the completion of energy audits for municipal facilities. Audits involve a technical review of a facility and its operations, the development and analysis of a baseline energy profile for the facility and identification of energy management opportunities and savings. The use of renewable energy measures can also help reduce overall corporate greenhouse gas emissions by lessening our demand for fossil fuel generated energy (oil, gas or coal). The investment for these types of measures can be significantly greater than conservation initiatives and therefore, should be considered on a case-by-case basis through a cost and environmental benefits analysis. However, it is acknowledged that the use of technologies such as wind, solar and geothermal can show community leadership and help raise awareness of the benefits of utilizing renewable energy.

Review

- **Energy Plan Review:** As part of any energy management strategy, continuous monitoring, verification, and reporting is an essential tool to track consumption and dollar savings and/or avoidance as the result of implemented initiatives. As part the Energy Plan, the implemented processes improvements, program implementation and projects will continued to be documented and reviewed annually to update consumption savings. By monitoring and reporting consumption and dollar savings and/or avoidance to Departments, the outcomes of their participation in energy management initiatives can be demonstrated, and feedback can be obtained for any new ideas. Reporting of the Municipal energy management initiatives and consumption data will be presented annually to Council.

Evaluation Progress

- **Energy Consumption:** Our energy consumption in 2017 was reduced to 3544 GJ from our 2016 levels of 3622 GJ.