

## **Priorities Committee Meeting\_Jul13\_2021**

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### **STRATEGIC INITIATIVE AND UPDATE**

#### **Strategic Energy Management Plan Update**

##### **Report Purpose**

To update the Priorities Committee on the status of the Facility Service's Strategic Energy Management Plan (SEMP) and support received from the Municipal Climate Change Action Centre for the Municipal Energy Manager (MEM) program.

##### **Our Prioritized Strategic Goals**

Goal 1 - Build strong communities to support the diverse needs of residents

Goal 2 - Manage, invest and plan for sustainable municipal infrastructure

Goal 4 - Ensure effective stewardship of water, land, air and energy resources

##### **Report**

As approved by Council in June of 2020 the Strategic Energy Management Plan (SEMP) was created to establish leadership for achieving energy efficiency improvement targets, and to create a framework to identify and implement energy improvement opportunities. The target is to reduce GHG levels by 15% in municipal buildings.

In 2018 the County produced 48,216 tonnes of GHG. Using this year as the base year, Council approved a Facility Services recommendation of reducing our GHG production by 15% from the 2018 level by 2030.

The goal for 2030 is to have reduced our GHG by 7,232 tonnes to 40,984 tonnes. This creates an annual reduction target of 723 GHG. The annual reduction target is for planning purposes, actual annual reduction may change year to year based on project implementation.

Through 2019 and 2020, the implementation of low-cost, no cost ECM's (Energy Conservation Management) has begun at facilities where highest impacts may be attained. These ECM's include.

- Replacing lighting with LED bulbs.
- Improve upon weather stripping which had been damaged or missing.
- Repair or replace damaged or missing piping insulation.
- Reduce domestic hot water temperature to a standard 140 degrees (F) Review and refinement of building management operating systems.
- Behavioural changes in operational staff through information sharing and using energy management principles.

Through life cycle asset management in 2020, capital projects have also been completed to date that have lowered energy use. The energy savings from some of the completed life cycle and other business as usual projects have been realized through the MEM program and includes to the following.

- Replacement of lighting fixtures to LED at KLC (Kinsmen Leisure Centre)
- Millennium Place Pool Boilers replaced with higher efficiency models

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The completed ECM's and noted life cycle projects have lowered GHG by 1342 tonnes exceeding the annual reduction goal and produce an annual cost savings of \$38,000. This reduction of GHG is in line with meeting the 2030 target.

ECM implementation in 2021 will include capital projects with the largest of note, upgrading all lighting in Millennium Place to LED. This includes all high area lighting over the Arenas and indoor Soccer fields. An application has been submitted and approved for 75% funding of the project costs. Dependent on the remaining budget, two other capital projects will be implemented in 2021. As well as the facility ECM's, as Electric Vehicle feasibility Study will also be completed in 2021 for Fleet.

The ECM's for 2022 include continued low cost/no cost items as well as eight capital ECM's proposed through submitted business case. The proposed ECM's include a Photovoltaic (PV) Solar system at Millennium Place, Five Recreational Facilities high area Lighting retrofits, and two recommissioning projects. These ECM's are anticipated to reduce GHG by 750 tonnes and save \$84,000 annually. The capital cost is \$800,000 with a potential for \$125,000 grant funding available.

Future investment required to maintain our goal beyond 2022, funding for energy efficiency projects will come from alignment with operational maintenance and life cycle projects, available grant funding, and approved capital funding. The energy efficiency projects will be included in the annual budget process to create transparency on project priorities and funding sources. The annual investment level needed to reach the 2030 target is estimated to be \$800,000. This investment will depend on many factors including available funding, types of projects, and typical project cost variability and will be reconciled and adjusted annually.

**Council and Committee History**

June 17, 2020	Council approved the GHG reduction target of 15% below 2018 levels by 2030.
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**Enclosure**

1	SEMP and Energy Manager Update
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