



Subject: Energy Conservation and Demand Management Plan (2024-2029)

Report to: Thorold City Council

Recommendations

1. That Council **APPROVE** the Energy Conservation and Demand Management Plan (2024-2029) and publish the document in accordance with Regulation 25/23 of the *Electricity Act, 1998*; and
2. That Council **APPROVE** funding for the study in the amount of \$8,100 (plus HST), from the Municipal Land and Building Reserve; and
3. That staff **BE DIRECTED** to include the proposed recommendations in the 10-year Capital Forecast.

Key Facts

- Municipalities in Ontario are required to prepare, publish and implement energy conservation and demand management (CDM) plans in accordance with Regulation 25/23 of the *Electricity Act, 1998*.
- The CDM Plan must document annual energy consumption and greenhouse gas emissions from municipal operations.
- This report has been prepared using the consumption data collected over the past five years noting that energy consumption trends at municipal facilities over this period have been impacted by temporary closures resulting from the COVID pandemic.
- The purpose of this report is to seek Council's approval of the recommendations contained in the report and to fund the study cost from the Municipal Building and Land Reserve.

Budgetary Status

Funding for this project was not included in the 2024 Budget.

Analysis

The City of Thorold has a population of approximately 22,000 residents and has 20 municipal facilities including a library, community centres and arenas. Facility operations and maintenance are performed by City Staff at each facility. This report excludes the Walker Centre for Abilities at Canada Games Park which is a consortium-owned and operated facility.

The plan sets out a five-year road map and includes initiatives to implement cost recovery and environmental benefits in the form of energy and emission reductions. The project involved the collection of electricity and natural gas data from monthly billings. Using Portfolio Manager Software, a base year of 2022 was used to establish benchmarks. Overall, a decrease in energy use in electricity and natural gas was experienced resulting in a corresponding decrease in GHG emissions. Major decreases were experienced at the Arena, Operations Centre and Fire Stations 1 and 4. Increases in consumption occurred at City Hall and the pool. The City's energy consumption is split approximately 25% electricity and 75% natural gas.

The City has four existing solar photovoltaic (PV) systems located at:

- The Thorold 50+ Centre – 8 Carleton
- Fire Station #2 – 701 Allanburg Rd.
- Fire Station #4 – 2189 Canboro Rd.
- City Hall – 3540 Schmon Parkway

Each location has rooftop units with a capacity of 10kw. These units were installed as part of the microFIT program and generate revenue of \$0.549 per kWh. The total revenue generated in 2022-2023 was \$41,960.72.

The proposed upgrades required at City facilities are included in Appendix "A" of the CDM plan prepared by Tree House Energy Services (see Appendix 1). This firm was procured on the City's behalf through LAS/AMO and is a preferred provider of competitively priced business services for Ontario municipalities. Funding in the amount of \$8,100 (plus HST) will be required from the Municipal Building and Land Reserve.

Impact on the Environment, Climate Change

The documentation and measurement of the City's energy consumption assists in the cost management and strategic planning of existing and future facilities.

Alternatives Reviewed

Municipalities were required under the regulation to file its CDM Plan by July 1st, 2024.

Relationship to Strategic Plan

The City of Thorold Strategic Plan (2024-2027 and Beyond) includes the “Completion of a Conservation Demand Management Plan” as an Environmental Sustainability priority.

Other Pertinent Reports

None.

Prepared and Recommended by:

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Approved and Submitted by:

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Chief Administrative Officer

*This report was prepared in consultation with Christine Tonon, Acting PWCS
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Appendices

Appendix 1 - Energy Conservation and Demand Management Plan (2024-2029)