

To: COUNCIL

Meeting Date: 9/23/2025

Subject: **Energy Conservation Demand Management (ECDM) Plan Update 2025-2029**

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Report No.: 25-015-IFS

File No.: C11

Wards Affected: All Wards

RECOMMENDATION(S):

THAT Report 25-015-IFS Energy Conservation Demand Management (ECDM) Plan Update 2025-2029 be received;

AND FURTHER THAT Council consider the resources required for implementation of the specific initiatives through future budget cycles and grant applications.

EXECUTIVE SUMMARY:

Purpose

The purpose of this report is to present to Council the Energy Conservation Demand Management (ECDM) Plan Update 2025-2029. The ECDM Plan deals with the corporate emissions from City facilities, fleet vehicles, waste, and other operations and seeks to reduce or eliminate them within the next five years and towards longer-term target dates in 2030 and 2050. The ECDM Plan satisfies a regulatory requirement (O. Reg 25/23) for developing a facility energy conservation plan as well as the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection (PCP) program. Finally, the ECDM Plan serves as a prerequisite for applying for grant opportunities through the Green Municipal Fund for implementing initiatives (for example, the Greenhouse Gas Emissions Reduction Feasibility Study, approved by Council July 22, 2025 (25-006-CRE) relied on the ECDM Plan for application eligibility and information).

Key Findings

The ECDM Plan is the corporate emissions mitigation strategy that presents GHG reduction and supportive policy projects.

The City currently has achieved 11% emissions reduction from the 2010 baseline.

The ECDM Plan outlines a “pathway” which lists the projects that would need to be completed within the next five years in order to reach 50% emissions reductions. The pathway notes that an estimated maximum of 30% emissions reductions could be achieved through future waste, fleet, and facility projects. It further notes that offsets or credits could be purchased if Council wished to achieve 50% emissions reduction by 2030. Staff prefer to apply limited resources to direct emissions reduction projects and not offsets but do recognize that long-term targets may require them. An offsets and credits policy development project (C10) within the ECDM Plan will consider the advantages and disadvantages in more detail. It is estimated that the city would release 2,700 tCO₂e in 2050 – a reduction of 69% compared to 2010 levels. In order to reach the Council-approved (2019) target of 80% emissions reductions by 2050 offsets or credits would need to be purchased.

The ECDM Plan initiatives include updating the City’s Green Building Policy for new buildings and implementing the Greenhouse Gas Emissions Reduction Feasibility Study for existing buildings (Council approved July 22, 2025, 25-006-CRE). Implementation of the Fleet Strategy (Appendix C of the ECDM Plan) and installation of charging infrastructure aim to reduce emissions from the City’s light duty vehicles and equipment. Development of a corporate solid waste management plan will address one of the largest sources of emissions at the City. A number of policy development initiatives provide the corporate culture needed to address climate change. These initiatives revolve around the regulatory requirement to include climate action in asset management while other initiatives include a sustainable purchasing policy, review of the City’s energy conservation reserve fund, a policy for procuring clean energy, and development of a financial strategy for financing initiatives.

Financial Implications

Financial implications are estimated within the specific initiatives outlined in Table A2 in the ECDM Plan Appendix. In addition to the project-specific costs, it is recommended that a capital budget project request be submitted for 2028 (\$100,000) as part of the regular budget process in order to complete the 5-year inventory and a new ECDM Plan Update as per Ontario Regulation 25/23 in time for the 2029 deadline. Monitoring of corporate emissions and annual regulatory reporting to the Province is already within the existing annual operational budget totaling \$25,000.

STRATEGIC ALIGNMENT:

Strategic Action

Objective(s): RESILIENCY - Use a future-oriented, proactive approach to climate action and emergency preparedness

Strategic Action: Take action to combat climate change

OR

Core Service

Program: Not Applicable

Core Service: Not Applicable

The ECDM Plan provides a pathway and a number of emissions reduction and supportive policy projects to address Council's climate emergency resolution as well as the regulatory requirement for a plan update every five years. The City has a history of building LEED-certified facilities, preparing and implementing corporate climate action plans and projects, and collaborating with other municipalities and community organizations on community climate action plans and projects.

BACKGROUND:

Since 2013, the City of Cambridge has developed emission reduction plans, implemented projects and reported on its corporate GHG emissions under the Ontario Green Energy Act (GEA) and the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP) Program.

Ontario regulations under the Green Energy Act (initially O. Reg 397/11, then 507/18, and presently 25/23) required municipalities to report annually on energy and GHG emissions and to produce five-year plans.

The City's first corporate emissions mitigation plan surpassed its target of 6% and the subsequent 2020 plan continued reduction efforts toward the long-term targets currently at 11% below the 2010 baseline.

The ECDM Plan provides the policy framework for developing capital budget requests and grant applications as well as implementing projects.

Two initiatives to highlight from previous plans are the LED streetlight conversion and electric ice resurfacers projects:

- In 2016, the City spent \$1.5 million per year for the electricity associated with streetlights and an additional amount for regular maintenance of HPS fixtures. By 2023, after the conversion of approximately 10,000 streetlights, the City spent

\$890,000 on energy, with savings of \$600,000 per year and additional savings in reduced maintenance.

The conversion of ice resurfacers from propane to electric involved energy and emissions reduction but also co-benefits such as a healthier indoor environment for players and spectators as documented by Health Canada (Best Practices for Improving Air Quality in Ice Arenas, May 2021). The savings are primarily derived through the building's operations, and not the vehicle, as 100% of the arena air no longer needs to be exchanged sixteen times a day during ice resurfacing. The City currently operates three electric ice resurfacers and will replace the remaining units as they reach the end of their operational asset life cycles.

ANALYSIS:

The 2025-2029 ECDM Plan Update continues past efforts with energy conservation, emissions reduction, and supportive policy initiatives. The ECDM Plan contains 17 initiatives, the Fleet Strategy, and a suggested pathway for achieving 50% emissions reductions by 2030. The ECDM Plan features forecasts on what emissions reductions could be achieved by 2030 and 2050 (i.e. a maximum of 30% by 2030 and 69% by 2050 without the purchase of offset credits). The City's target is an 80% reduction in emissions by 2050. The Business-As-Usual or "do nothing" forecast estimates a 17% reduction in emissions against the 2010 baseline by 2050.

The pathway (Table ES-3 on page ix) notes the initiatives, including implementing the 2026-2029 projects within the Greenhouse Gas Reduction Feasibility Study approved by Council July 22, 2025 (25-006-CRE) in order to achieve 50% emissions reduction by 2030. The 50% figure is consistent with the community plan (TransformWR) target and an interim trajectory on the way to the 2050 target that the ECDM Plans since 2020 have been proposing.

The City's GHG Team staff prefer projects that directly reduce facility, fleet, and corporate waste emissions and would recommend to continue with these types of projects rather than purchase offsets or credits. Offsets are contemplated by almost every municipality, especially those with "net zero plans," in reaching short (2030) and long-term (2050) emissions reduction targets and has therefore been identified in this ECDM Plan as an initiative (C10, Develop Policy on Purchasing Offsets or Credits to Reduce City Emissions). This project would allow staff to explore criteria and conditions for purchasing offsets. Such conditions may include location of projects (e.g. within Ontario), or that they are assets of the City (e.g. solar energy generation), among other potential criteria.

EXISTING POLICY / BY-LAW(S):

The City has existing policies consistent with the objectives of the ECDM Plan including the Strategic Plan, green building policy, climate adaptation plan, asset management plan, urban forest plan, and community climate action plan (TransformWR).

Council approval and publication of the plan on the City's website fulfills regulatory requirements under the Green Energy Act (O. Reg 25/23).

FINANCIAL IMPACT:

Financial impacts associated with the ECDM Plan Update (2025-2029) include the following (as noted in Table A2 of the ECDM Plan Appendix):

- One-time \$25,000 for the preparation of the ECDM Plan and an existing annual operating budget allocation of \$25,000 for associated consulting services in order to comply with O. Reg 25/23 annual reporting.
- 8.9 FTE – reflection of the existing human resources in various City divisions required to implement the projects. Any incremental increase to FTE would be subject to Council approval as part of the annual budget process.
- Future capital project requests of \$12.515 million to be considered in future budget cycles to implement; emissions reductions in facilities, a corporate waste plan, a climate action plan financial strategy. Future capital project requests also include; a review and development of a Green Building Policy, Sustainable Purchasing Policy, Cost of Carbon Policy, and Offsets Policy Review. It should be noted that \$11.7 million of this amount is for direct energy conservation / emissions reduction projects in City facilities as detailed in the Greenhouse Gas Emissions Feasibility Study and that these costs can be offset through grants.
- Capital costs for replacement generators and asset management plan projects are within the existing capital budget forecast.
- Capital costs for fleet conversion and EV chargers (and associated building upgrades) are not included in the above estimate and will be brought forward through the capital budget process.

It is anticipated that grant applications, as they become available, will be submitted for facility emissions reduction projects and that the City's existing Energy Conservation Reserve Fund will offset costs associated with these initiatives.

PUBLIC VALUE:

Sustainability:

The ECDM Plan proposes a number of emission reduction and policy initiatives to address Strategic Plan objectives around corporate climate action and progress toward

the Council-approved 80% emissions reduction by 2050 target.

Leadership:

The ECDM Plan continues a corporate practices of leadership in energy efficient design of facilities and policy development. The ECDM Plan also aligns with the community plan, TransformWR, which calls for leadership in building net-zero carbon in the public sector (Action 3.2.7) and planning and implementing a transition to zero emission vehicles for municipal fleets (Action 2.1.2).

Collaboration:

The ECDM Plan depends upon all City divisions addressing sources of emissions and developing supportive policies

Transparency:

The ECDM Plan and its initiatives are published on the City’s website and are developed and reported on through Council.

ADVISORY COMMITTEE INPUT:

The Cambridge Environmental Advisory Committee (CEAC) and Corporate Leadership Team (CLT) were provided presentations on the ECDM Plan and invited to provide feedback.

PUBLIC INPUT:

Posted publicly as part of the report process.

INTERNAL / EXTERNAL CONSULTATION:

Internal collaboration through the GHG Team involved quarterly meetings and workshops dedicated to discussing, developing, and reviewing past and future initiatives. External consultation does not normally occur on ECDM Plans and its operational focus on facilities, fleet, and corporate policies.

CONCLUSION:

The ECDM Plan Update (2025-2029) fulfills a regulatory requirement to update facility energy conservation plans every five years as well as the Strategic Plan corporate commitment to address climate change. The Plan provides a “pathway” for achieving an estimated 30% reduction in emissions by 2030 over the 2010 baseline through future capital projects associated with solid waste, facilities, and fleet at an estimated cost of \$12.515 million (with Federal and Provincial grant assistance). A number of policy review and development projects including sustainable procurement, the City’s green building policy, and the energy conservation reserve fund compliment the direct

emissions reduction initiatives and develop a corporate culture, consistent with the Strategic Plan and aligned with the community plan TransformWR, for advancing climate action.

REPORT IMPACTS:

Agreement: **No**

By-law: **No**

Budget Amendment: **Yes**

Policy: **Yes**

APPROVALS:

This report has gone through the appropriate workflow and has been reviewed and or approved by the following as required:

Director

General Manager

Chief Financial Officer

City Solicitor

City Manager

ATTACHMENTS:

24-015-IFS Appendix A – ECDM Plan Update (2025-2029).