

Energy Conservation Demand Management (ECDM) Plan Update

2025-2029

City Council

September 23, 2025

CAMBRIDGE





Purpose

- City of Cambridge's corporate-level
 - GHG inventory
 - GHG reduction targets
 - GHG and energy reduction plan
- Meets both voluntary goals and regulatory requirements
- Seeking Council approval of updated ECDM Plan (2025-2029)

Scope – Community vs. Corporate



Corporate (ECDM Plan Update)

- GHG inventory captures emissions associated with all local government operations: fleet, street lighting, buildings, wastewater pumping

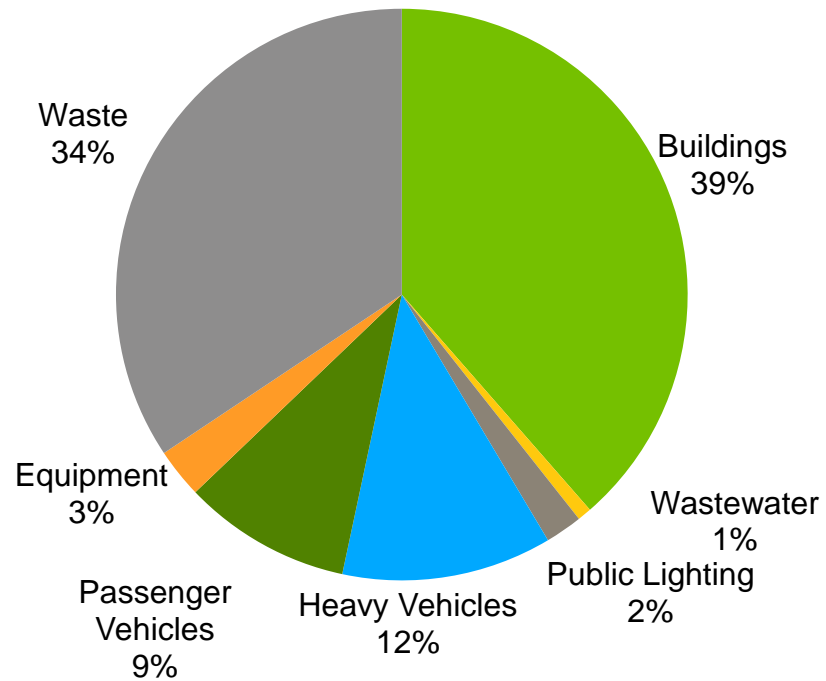
Community (TransformWR Strategy)

- GHG inventory captures emissions produced by various sectors of the community including residential, business, and institutional, determined by the geopolitical boundary of the municipality or region

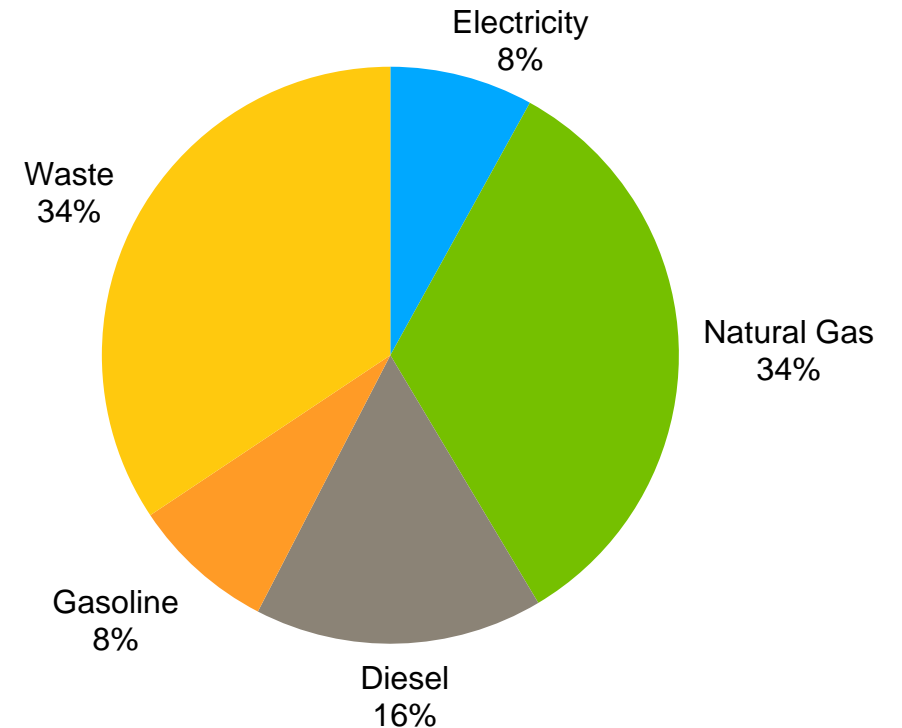


2023 GHG Emissions By Sector and Source

2023 GHG Emissions by Sector



2023 GHG Emissions by Source

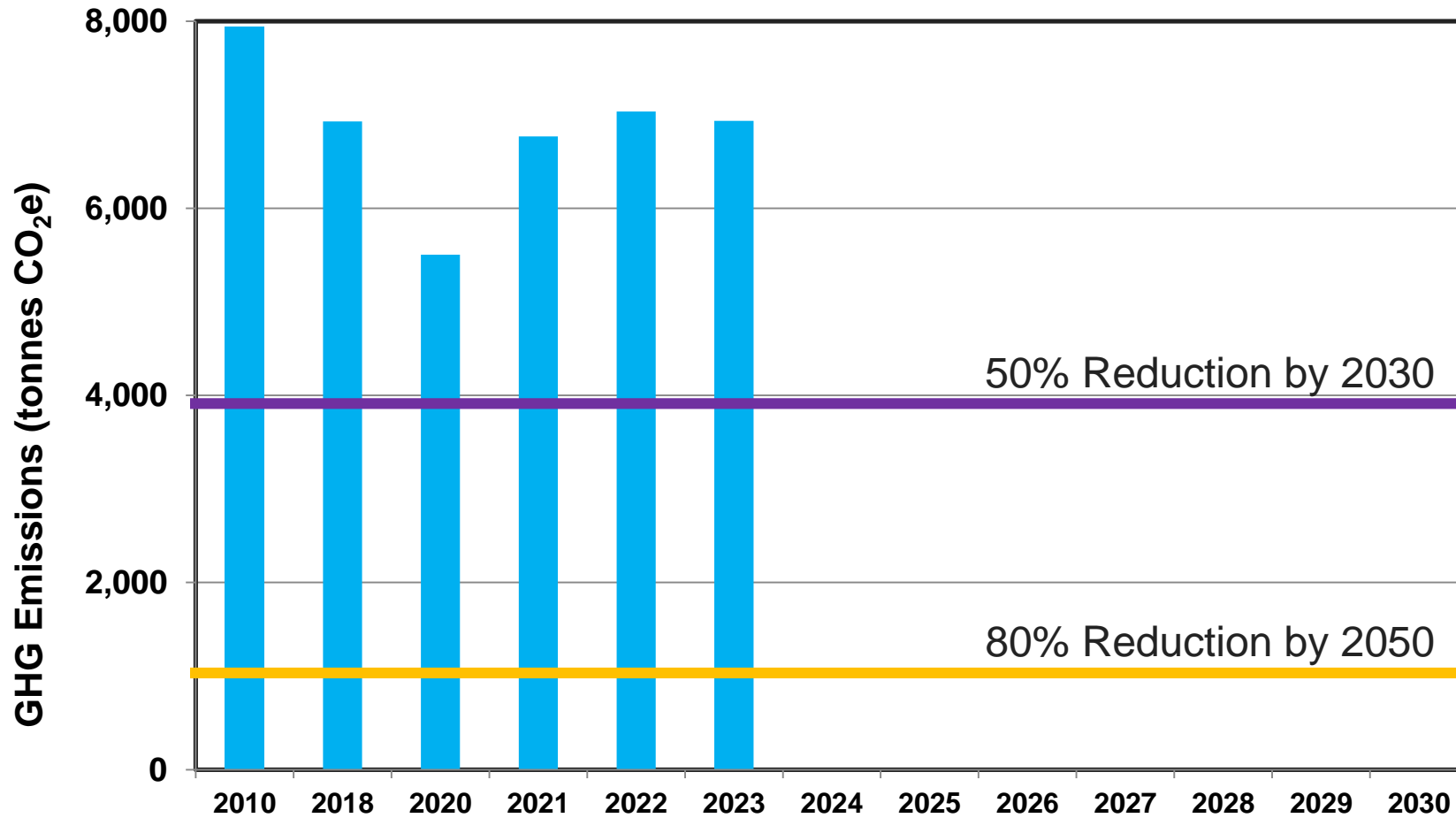


Waste: Now tracking City Garbage Truck Collection (Scope 1). Updated PCP methodology now requires a default residential waste composition.

2021 – 2023 results are similar

Comparison of GHG Reduction Targets and GHG Emissions

The COVID-19 shutdown in 2020 shows that reducing services cannot meet 50% target – energy sources need to be changed





ECDM Plan Initiatives

Targets

Reduce GHG emissions by:
50% below 2010 levels by 2030
80% below 2010 levels by 2050

- **Mix of policy, projects, and programs**
- **Staggered implementation over the next 5 years**
- **Purposeful focus on buildings, fleet, and corporate operations**
- **Considers population growth and technological changes**
- **Estimates GHG reduction potential and cost/effort**
- **Priorities identified for implementation**
- **Responsible departments are identified**
- **Indicators proposed and annual inventories undertaken to measure progress**

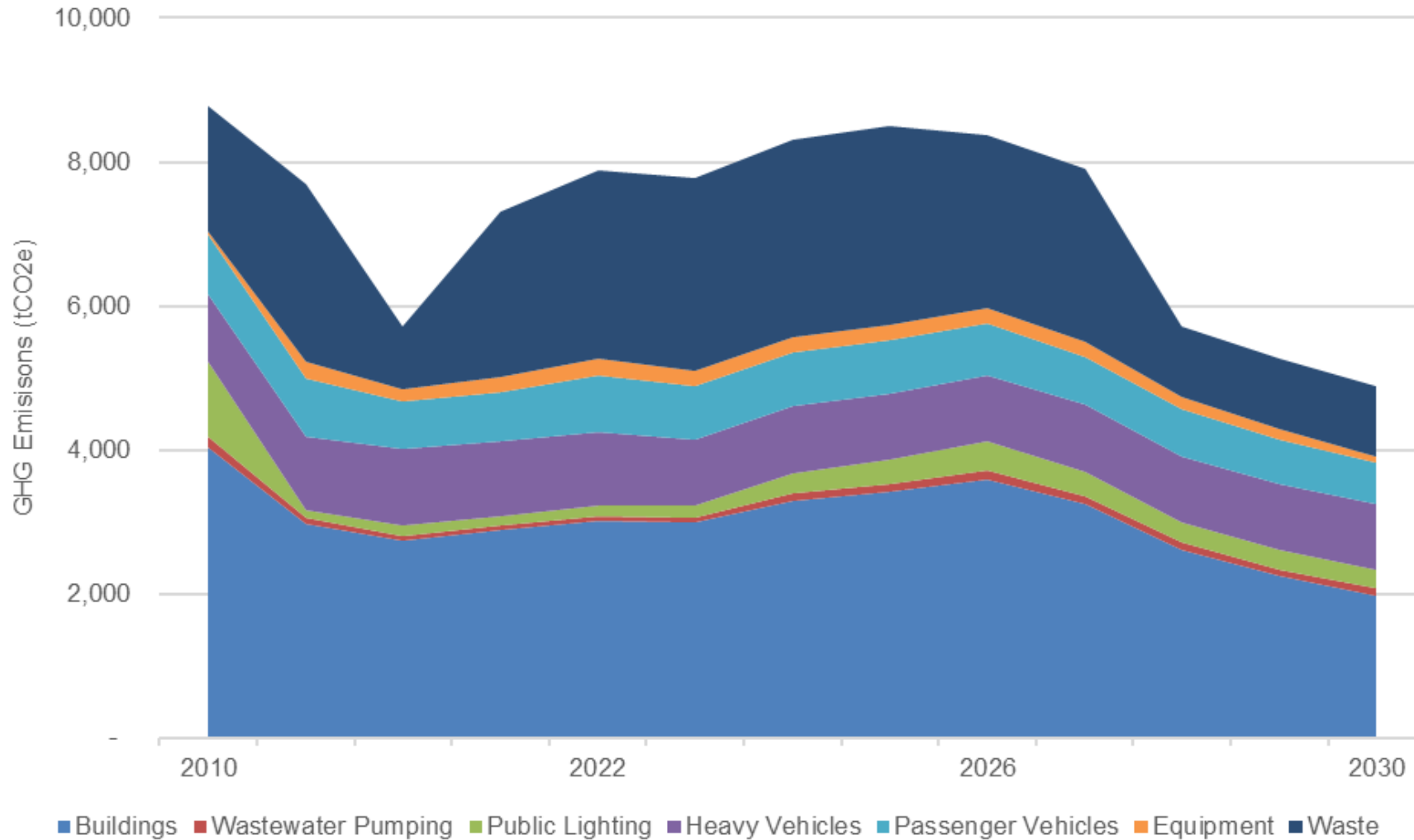
Pathway to achieve 50% by 2030 target

- | | |
|---|-----------|
| 1. Solid Waste Management – improved data collection (composition, tonnage) | 20% |
| 2. Fleet – Parks equipment conversion (>90% electric) | 2% |
| 3. Fleet – Fleet vehicle conversion (45 EV cars, 15 EV pickups) | 2% |
| 4. Buildings – Decarbonization (arenas, rec centres, pools, BOC) | 18% |
| 5. Buildings – energy conservation and electrical efficiency improvements | <u>1%</u> |

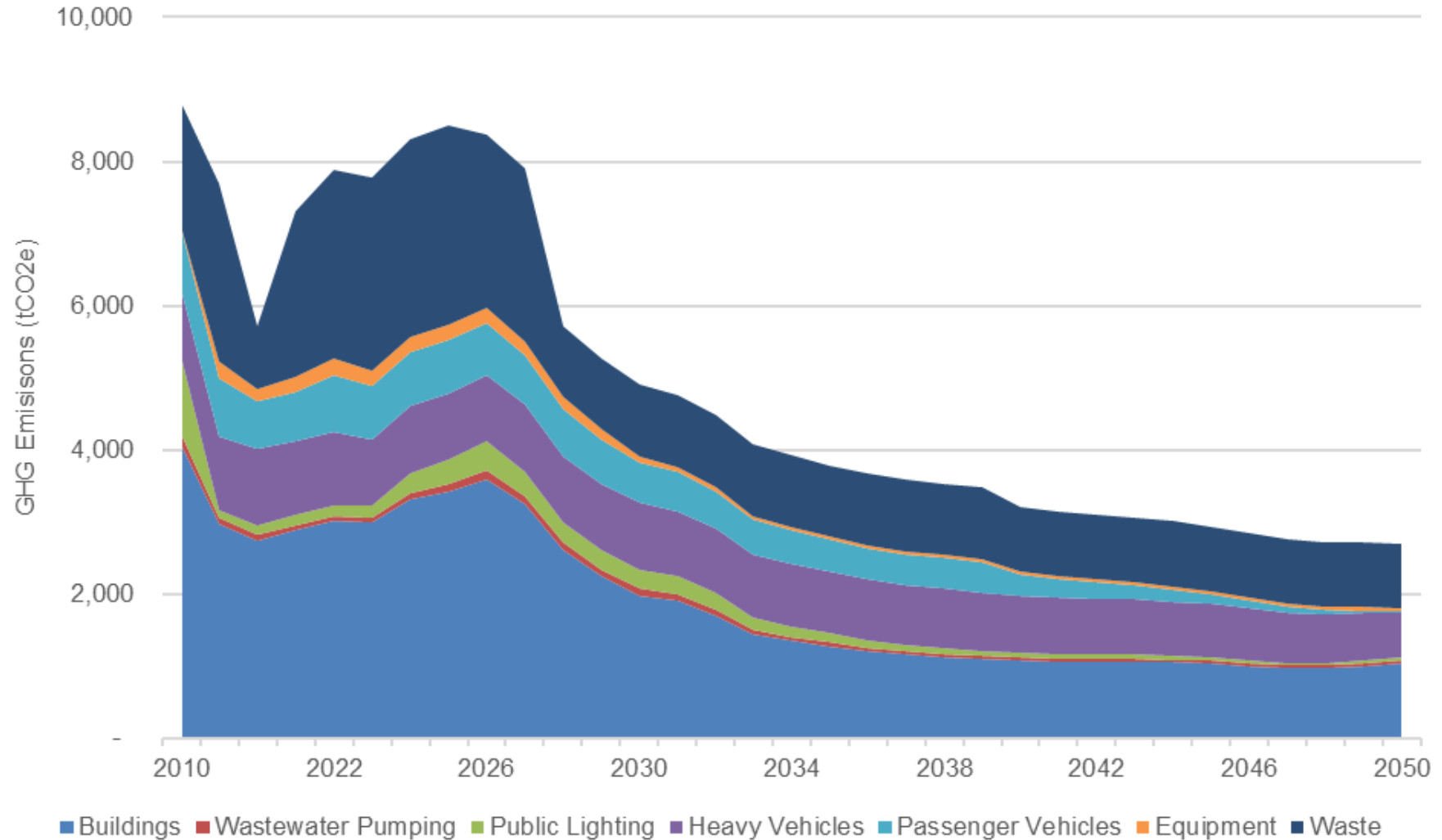
Reductions from Initiatives 43%
Renewable Energy Credits (7 – 15%)

Initiatives + Offsets 50-55%

Achieving 50% GHG Reduction by 2030 – 2024 ECDM Plan



Achieving 80% GHG Reduction by 2050 – 2024 ECDM Plan



ECDM Plan Update 2025-2029 Initiatives

Update Green Building Policy and Technical Standards

Implement Decarbonization Plan for Buildings

Building Commissioning Program

Opportunistic Energy Conservation Projects

Fleet Rightsizing Operational Procedure

Opportunistically Switch Off-Road and Hand-Held
Equipment to Electric

Install Appropriate Charging Infrastructure to Support Light
Duty Fleet Conversion

Develop Corporate Solid Waste Management Plan

Develop a Climate Action Financial Strategy

Replace Diesel Powered Backup Generators with
Energy Efficient Natural Gas Generators

Recognize Green Infrastructure as an Asset Class

Develop a Sustainable Purchasing Policy

Review the existing Corporate Energy Efficiency
Reserve Fund Policy

Develop an Internal Cost of Carbon Policy

Investigate Purchasing of Emission-free / Low
Emission Electricity and Natural Gas

Develop Policy on Purchasing Offsets or Credits

ECDM Plan Update 2025-2029 Initiatives

Financial Impacts

- ❑ existing annual operating budget (account 101220) allocation of \$25,000 for associated consulting services in order to comply with O. Reg 25/23 annual reporting
- ❑ 8.9 FTE – this reflects the existing human resources in various City divisions required to implement the projects. No new positions are proposed
- ❑ Future capital project requests of \$12.515 million = emissions reductions in 10 facilities (\$11.7m), a corporate waste plan, a climate action plan financial strategy. 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

Summary



Energy credits and/or carbon offsets will be required to achieve targets.

Comprehensive Roadmap

The plan outlines clear strategies to reduce use of fossil fuels and GHG emissions.

Strategic Initiatives

Focused initiatives will drive effective implementation to meet goals.

Ongoing Monitoring

Continuous monitoring ensures progress and adjustment toward achieving targets.

Municipal Leadership

The city aims to be a model for leadership in urban sustainability efforts.





Questions

Thank you for your attention!