

ISSUE

The Low Emissions Community (LEC) Plan defines the total greenhouse gas (GHG) reductions required to meet the City of Saskatoon's 80% GHG Reduction Target; the Climate Budget summarizes emissions reducing projects which are both funded and unfunded and shows how these projects contribute to the 2024-2025 reduction target from the LEC Plan. When the sum of the emissions reductions for these projects is compared to the GHG reduction target for 2024-25, there remains a GHG reduction gap, for which projects are neither defined, nor included, in climate planning for this cycle.

The 2024-2025 Climate Budget does not account for projects that were not fully complete and operational prior to the 2021 GHG emissions inventory. Projects that were funded in 2020-2023 are not included in the inventory, nor have they been considered as funded projects that contribute toward reducing the 2024-2025 GHG reduction gap.

Therefore, this supplemental information for the 2024-2025 Climate Budget is provided for a more complete picture of the GHG reductions expected from all capital projects from 2020-2025 and to explain factors around the GHG reduction gap.

BACKGROUND

On January 25, 2023, City Council approved the development of a Climate Budget and instructed Administration to quantify the greenhouse gas (GHG) implications of capital projects proposed for funding in the 2024-2025 Municipal Budget.

At its meeting held on November 1, 2023, the Standing Policy Committee on Environment, Utilities, and Corporate Services was presented with the [Funding Environmental Sustainability and Climate Budget – Update](#) report. The 2024-2025 Climate Budget was included as Appendix 1 of the report.

The 2024-2025 Climate Budget is included as a chapter in the 2024 Multi-year Business Plan and Budget.

This report, the Climate Budget Supplement, was created in response to questions from Committee members regarding additional information about the GHG gap.

DISCUSSION/ANALYSIS

The 2024-2025 Climate Budget analysis identifies a GHG reduction gap representing how far the City of Saskatoon (City) is from meeting the 2025 target as modelled in the LEC Plan. This gap is the difference between the GHG reduction target for 2025 and the cumulative estimated reductions of projects requesting funding in the 2024-2025 Multi-Year Business Plan and Budget.

Using this methodology, a GHG gap of 181,500 tonnes CO₂e (tCO₂e), or 90.1% deficiency, was identified which considers both funded (1,200 tCO₂e) and unfunded (18,800 tCO₂e) projects that were able to be quantified.

$$\mathbf{2025\ Gap = 201,500\ tCO_2e - 20,000\ tCO_2e = 181,500\ tCO_2e}$$

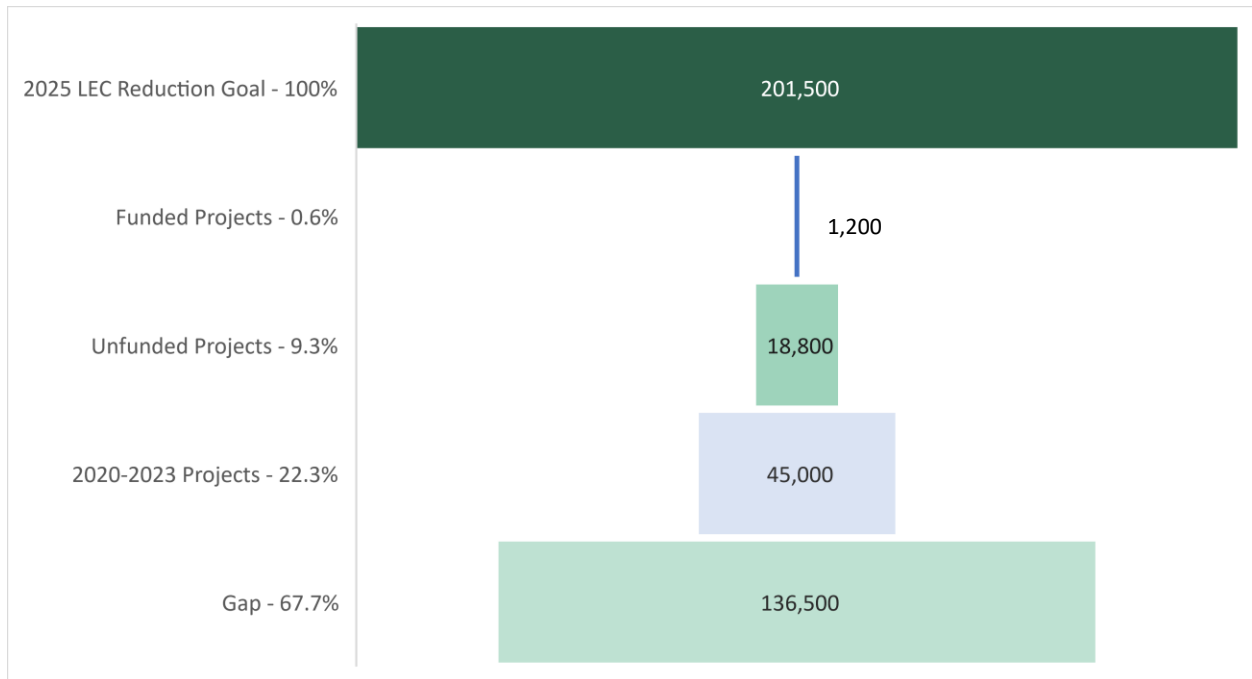
However, this gap does not consider the impacts of GHG reduction projects funded from 2020-2023 (i.e., the time between completion of the LEC Plan and development of the 2024-2025 Climate Budget). These additional projects are projected to have sizeable GHG emission reductions, and include:

- Residential Curbside Organics – 12,000 to 17,000 tCO_{2e} annually
- Landfill Gas Expansion – 30,000 tCO_{2e} annually
- LED Lighting Retrofits in Civic Buildings – 2,000 tCO_{2e} annually
- Home Energy Loan Program – 590 tCO_{2e} annually
- Dundonald Solar Farm – 450 tCO_{2e} annually
- Harry Bailey Aquatic Centre Major Renovation – 420 tCO_{2e} annually

The GHG reductions resulting from these projects at full build-out are estimated at approximately 45,000-50,000 tCO_{2e}. At the lower range, this is equivalent to 22.3% of the GHG reduction target for 2025, bringing the GHG gap down to 136,500 tonnes CO_{2e}, or 77.7% deficiency from the 2025 target.

Adjusted 2025 Gap = 181,500 tCO_{2e} – 45,000 tCO_{2e} = 136,500 tCO_{2e}

The figure below accounts for all projects included in the adjusted GHG gap for 2025.



There are additional considerations contributing to uncertainty around the GHG reduction gap, including:

- **GHG reductions expected, but not quantified.** Not all projects were quantified due to uncertainty around these projects' scope and reduction potential. For example, the Bus Rapid Transit project is expected to result in GHG reductions of approximately 900 tCO₂/year; however, GHG additions specific to the 2024-2025 budget cycle are unknown, so it wasn't included. Other projects like active transportation and waste reduction (other than organics) are difficult to project emission reductions.
- **GHG reductions expected, but project has not progressed past the planning stage.** Some actions identified in the LEC Plan for 2024-2025 require a feasibility study before they can proceed. Some of these studies are ongoing (e.g., solar pre-design at the Wastewater Treatment Plant) while others are requesting funding through the 2024-2025 Multi-Year Budget (e.g., District Energy Feasibility and Exploration of Green Power Generation Opportunities) but the implementation phases of the projects, and thus the associated emissions, cannot be projected until the feasibility studies are complete.
- **LEC actions that cannot progress due to lack of availability or market readiness.** Some actions in the LEC Plan are not yet feasible but, according to the model, were already expected to start reducing emissions in 2024-2025. An example of this is purchasing renewable energy credits and renewable natural gas.
- **Feasibility study finds lower GHG reduction estimates than LEC Plan.** Some projects may have lower emission reductions than modelled in the LEC Plan. This means we may need to identify additional actions to meet the targets.

The LEC Plan was completed in 2019, using information from 2016 to establish base year and model year conditions. A budget request to remodel the LEC Plan is included in the 2024-2025 Multi-Year Budget. If resourced, the remodel would be based on the updated GHG emissions inventory, include community engagement, and assess and revise the actions, assumptions, and related GHG implications from the 2019 LEC Plan required to meet the new net-zero target.

The LEC Plan remodel would also incorporate an update on the City's Climate Adaptation Strategy and include new material on community climate adaptation as part of the overall update to the City's Climate Action Program. Consideration for carbon sequestration in the Green Network will also be required within the remodelled LEC Plan to fully understand the pathway to net-zero emissions.

FINANCIAL IMPLICATIONS

There are no financial implications identified.

OTHER IMPLICATIONS

There are no additional privacy, legal, social, or environmental implications identified.