

Integrated Financial and Carbon Budgeting

The City of Edmonton established a community-wide Carbon Budget of 155 megatonnes of carbon dioxide emissions between 2019 and 2050, or 135 megatonnes between 2020 and 2050. In order to remain informed and assess progress over this period, the City will require a new management and accounting approach to integrate greenhouse gas reductions into City budgeting and prioritization processes.

The deliverables of this initiative include the following:

- the presentation of a carbon budget in conjunction with financial budget systems and processes going forward,
- the provision of annual carbon budget progress updates to measure progress and identify opportunities and challenges, which includes a carbon forecast,
- the inclusion of a climate lens in the 2023-2026 proposed operating and capital budgets to assess carbon impacts of previous, current, and proposed investment decisions, and
- the incorporation of climate impacts into the Priority Based Budgeting tool to inform stakeholders.

Administration plans to establish a Carbon Budget Office, with resourcing support equivalent to one dedicated Carbon Budget Manager position at inset. Impacted areas beyond the Carbon Budget Office include project / program managers and financial staff throughout the City who will be required to contribute additional time and expertise to meet additional requirements of the new process. Resource requirements will be continuously assessed as implementation progresses.

Integration work is currently underway to move towards full implementation of integrated financial and carbon budgeting systems for the proposed 2023-2026 operating and capital budgets. Council will have the opportunity to inform and shape the process throughout the remainder of the current budget cycle. This includes:

- a baseline carbon budget update (Fall 2021)
- inclusion of carbon budget implications in the business planning cycle (Spring 2022)
- alignment discussions with Priority Based Budgeting
- integration of the carbon budget into the 2023-2026 budget planning process

A detailed listing of checkpoints and progress updates is provided in the following table.

Carbon Accounting Implementation Plan

COUNCIL PLANNING / BUDGET CHECK-IN	INTEGRATION OF CARBON BUDGET / ACCOUNTING
Q1 2021: Updated Energy Transition Strategy and Action Plan	Include the Proposed Carbon Accounting Framework in the report for Council review and / or debate.
Q4 2021. Fall Supplemental Capital / Operating Budgets	Include in the reports (or in a standalone report) current state information in terms of the Corporate and Community carbon budget, and estimated projections in various climate investment scenarios. This report can act as an initial baseline report to align with future progress reports. The initial focus will be towards City-driven programs.
Q1 - Q2 2022: Capital / Operating Budget Outlooks	The CIO / OIO will identify how an environmental lens that assesses carbon impacts, will be applied in the creation of the 4 year budget.
Q4 2022: Carbon Budget Status Update	(NEW) Annual update report to inform Council of the current state of emissions in relation to the carbon budget. Ideally, this update will be integrated into the Enterprise Performance Management (EPM) process currently in place. Progress in relation to initial baseline information will be the prime focus of this update.
Q4 2022: Proposed Capital / Operating Budgets	These reports will include a section (or standalone report) which highlights the carbon impacts associated with the base budgets as well as climate impacts of incremental budget requests (e.g. new service packages, capital profiles). It is anticipated that a focus of early budgets will be areas of current GHG accounting strengths, such as the Civic Operations GHG Management Plan and capital investment. As carbon budgeting processes mature, they will be expanded to include services that are often more difficult to quantify.
Q4 2022: Proposed Capital / Operating Budgets	The Priority Based Budgeting principles used to prioritize operating services and capital projects proposed in the 2023-2026 capital budgets will incorporate an environmental lens that would assess carbon impacts.
2023 and beyond: Ongoing Training, Education, Capacity Building	Further efforts beyond 2022 will be required to fully integrate carbon budget / accounting principles into existing systems and processes. Training will need to be provided to diverse disciplines throughout the Corporation including project management, environmental science, and finance and budget.

Once actions have been vetted through the implementation gates process, prioritization of the actions based on an integrated carbon and overall capital and operating budget.

Similar to a financial budget, a **Carbon Budget** includes revenues (annual emission limit), expenses (emissions) and deficits/surpluses (annual emission limit minus emissions). The Carbon Budget aligns with decision-making frameworks used by local

governments for capital and operating budgets, frameworks in which investments, costs and benefits are assessed over multiple years and often involve trade-offs between early action and deferred spending. When combined with effective monitoring of emissions, the Carbon Budget also provides a framework for reporting progress on a consistent basis from year-to-year.

Central to the success of Carbon Budgeting is a **Carbon Accounting Framework** to support the quantitative tracking and management of greenhouse gas emissions throughout the community. The accounting framework must contain the periodic emission inventories that provide the most accurate reading of overall progress toward achieving the level of emissions specified in the Carbon Budget. It must also support the quantification of the expected and actual emission impacts of the City's policies, practices and spending decisions, as well as the community emission impacts of initiatives of households, firms, utilities and other levels of government.