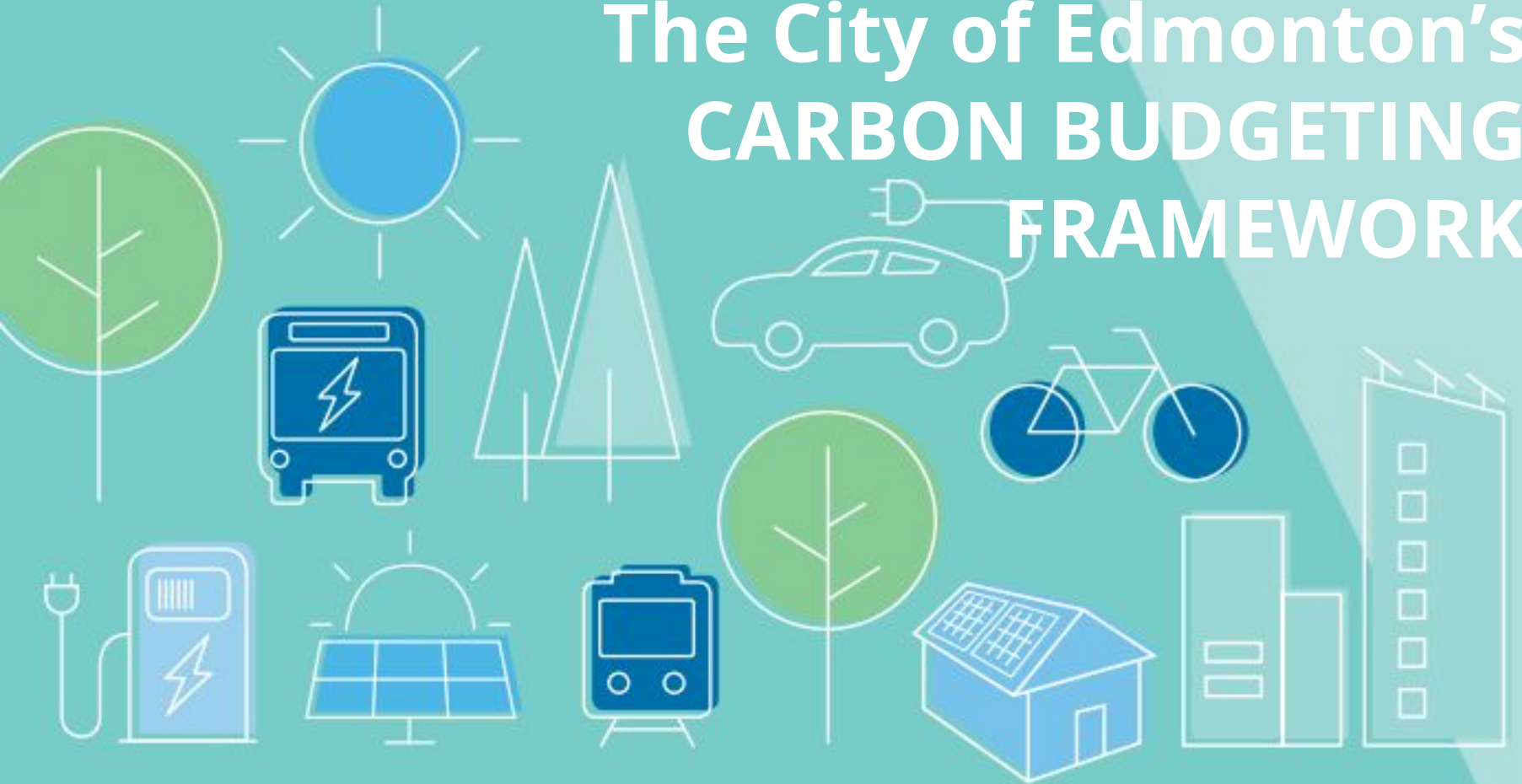


The City of Edmonton's CARBON BUDGETING FRAMEWORK



Historic Emissions Reduction Targets

1997 Kyoto Protocol

- Reduce emissions by 5% between 2008 and 2012 relative to 1990 levels.

2015 Paris Agreement

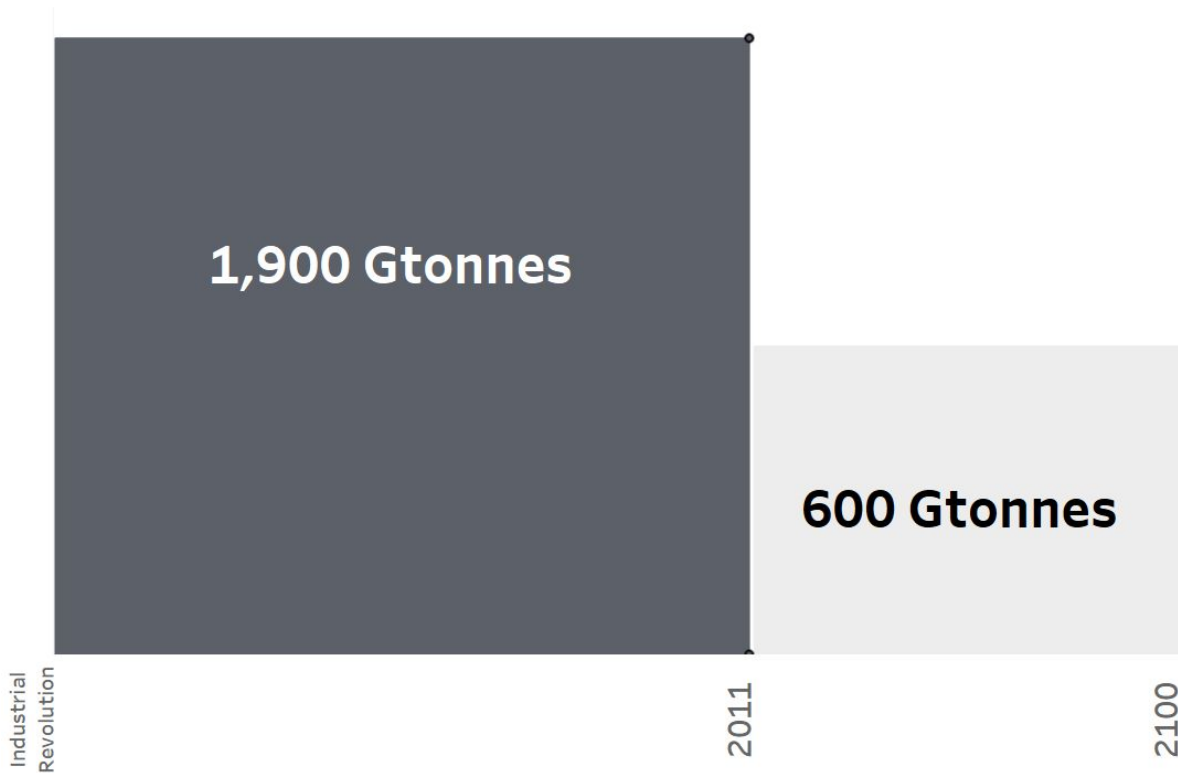
- Temperature increase must be kept below 2° C.
- Emissions must peak soon.
- Progress must be reported regularly.

Carbon Budget

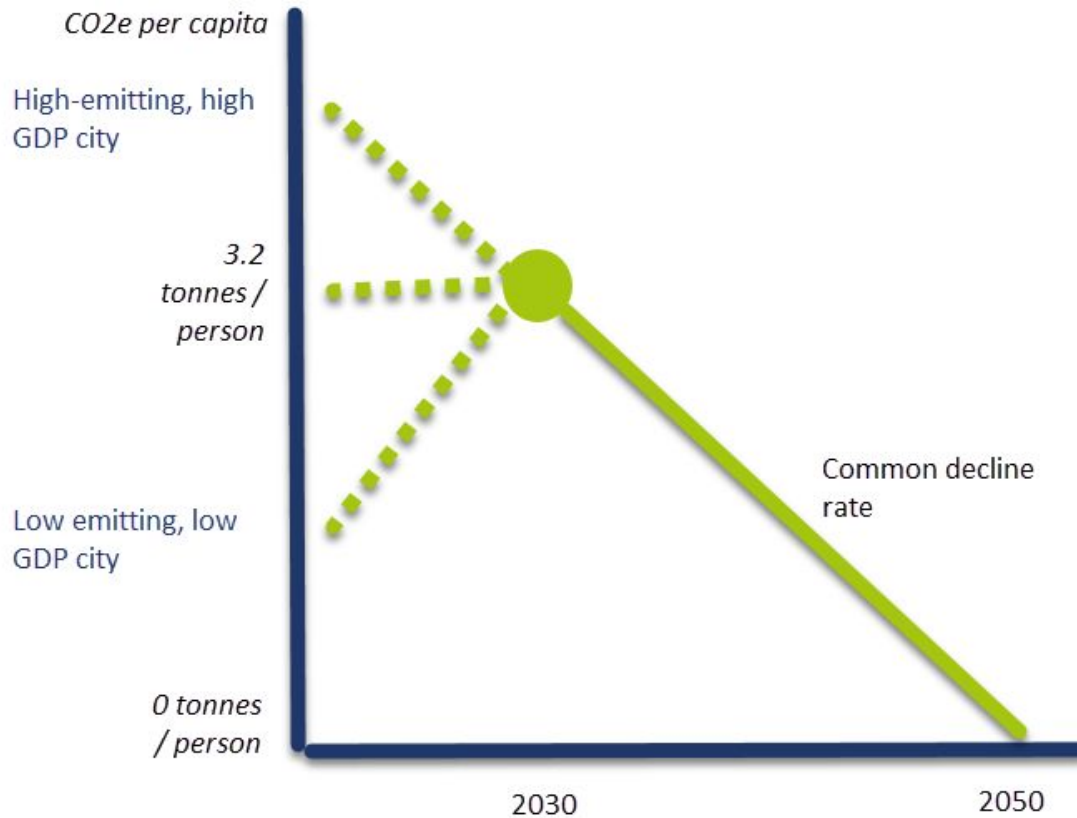
The maximum amount of greenhouse gases that can be emitted world-wide without increasing the global average temperature more than 1.5° Celsius.

How much is the
global carbon budget?

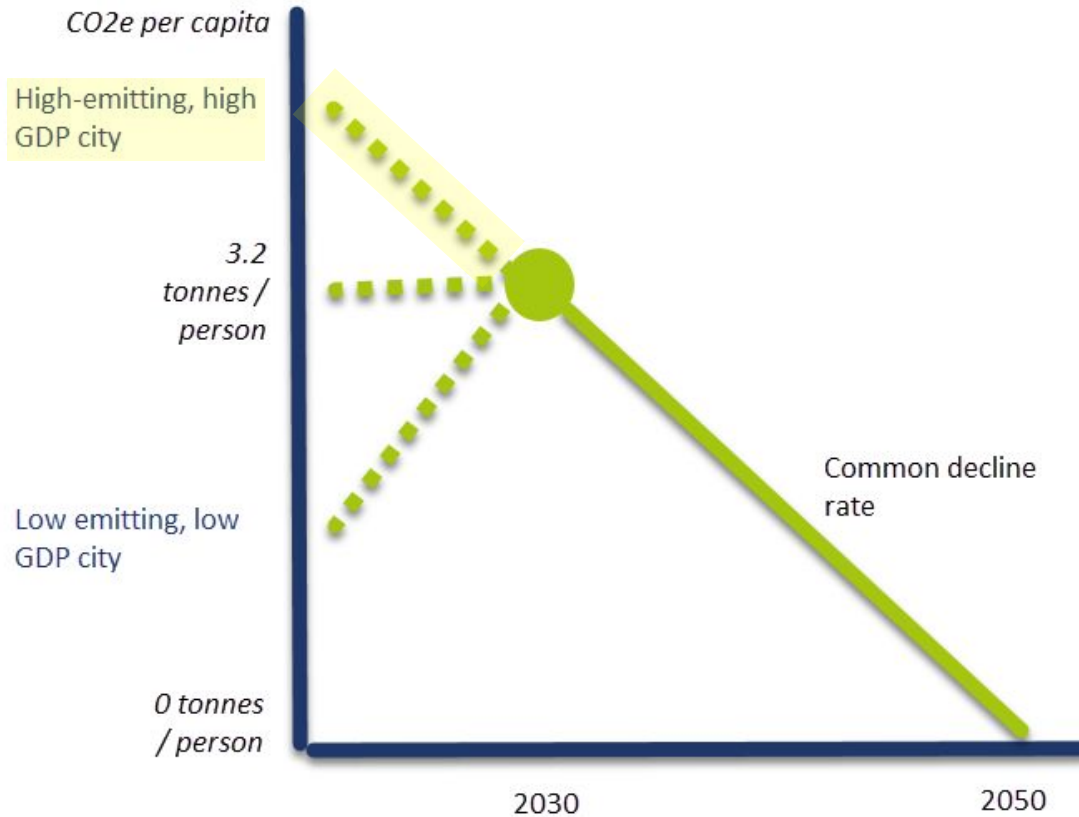
2,500 Gtonnes
CO₂e



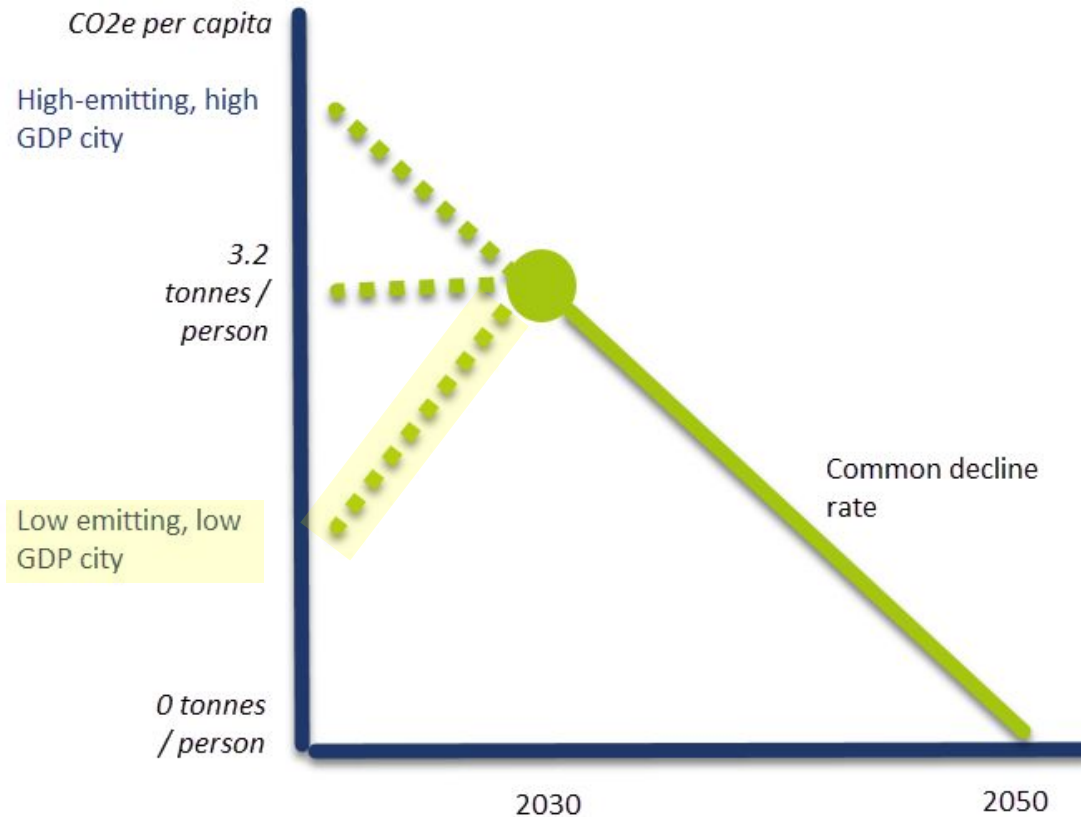
Equitable distribution



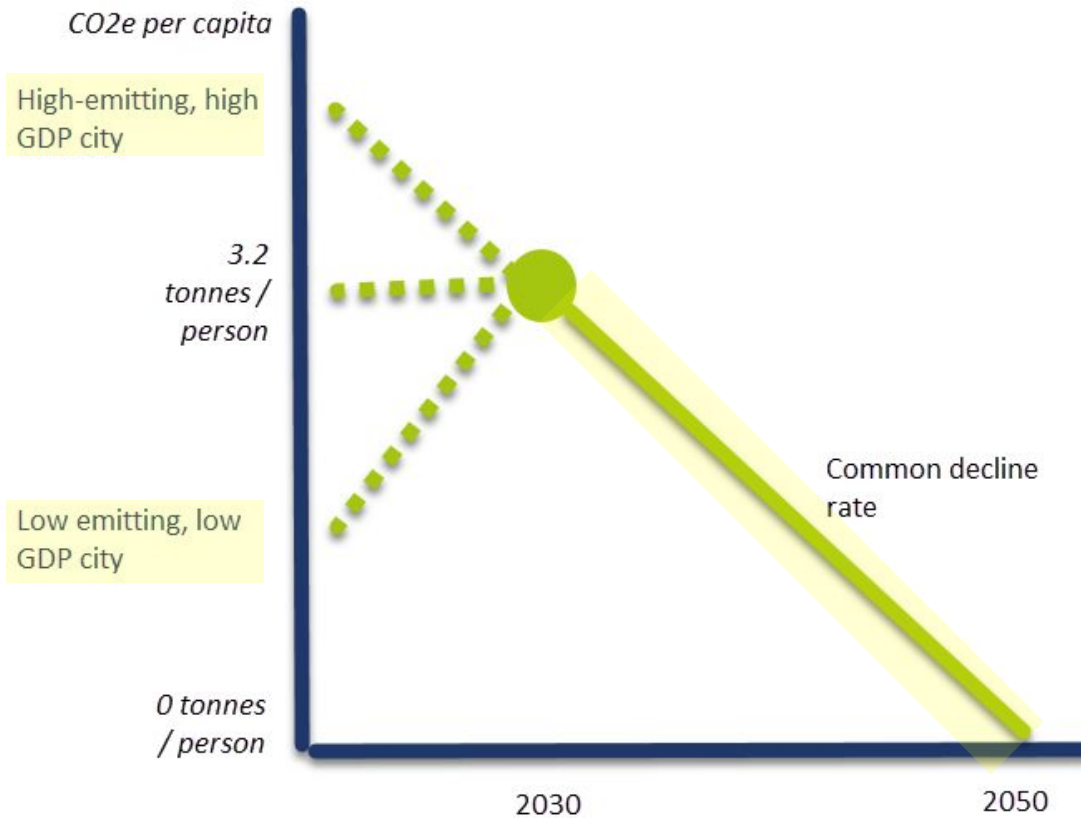
Equitable distribution



Equitable distribution

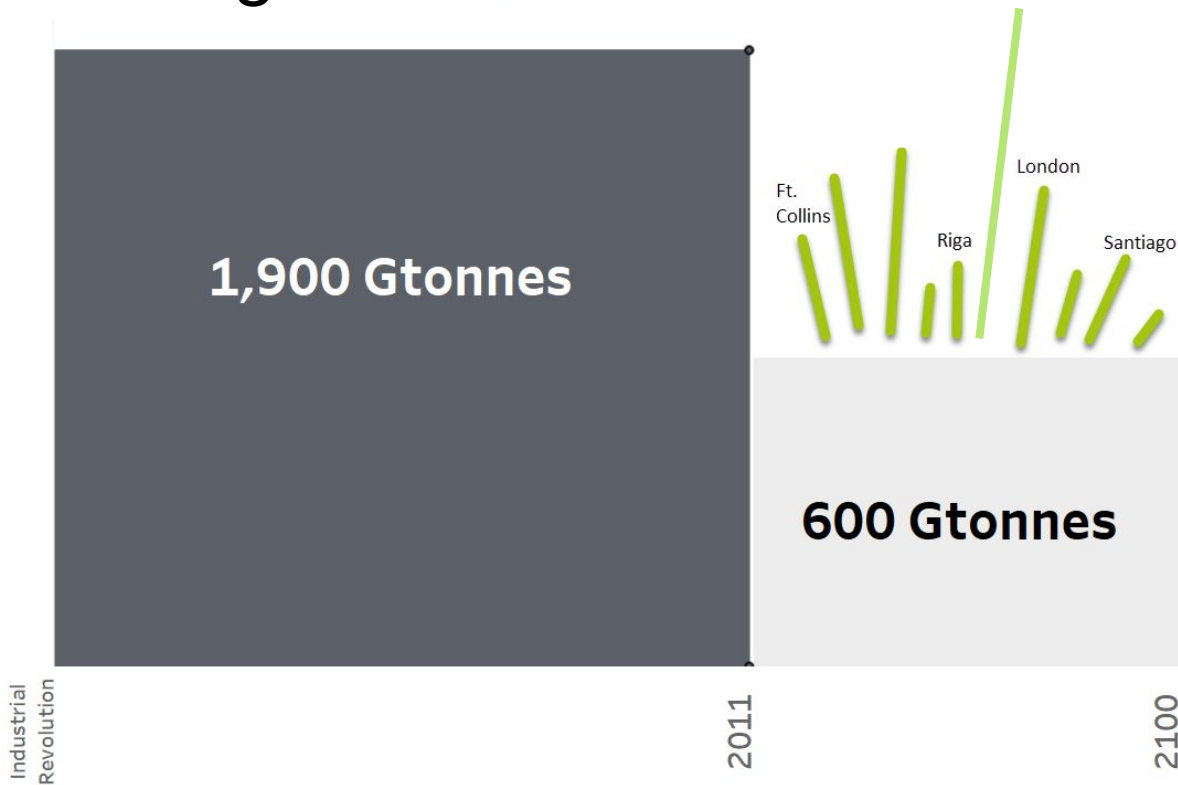


Equitable distribution



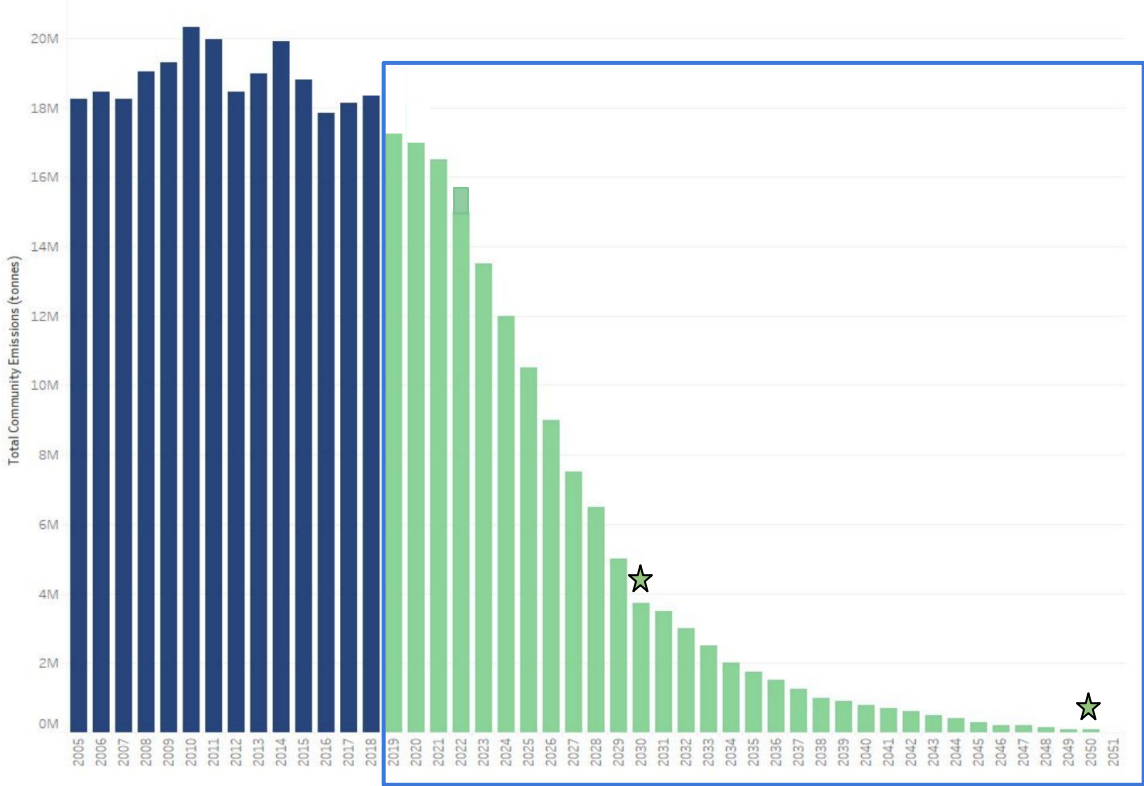
How much is Edmonton's carbon budget?

155 Mtonnes CO₂e



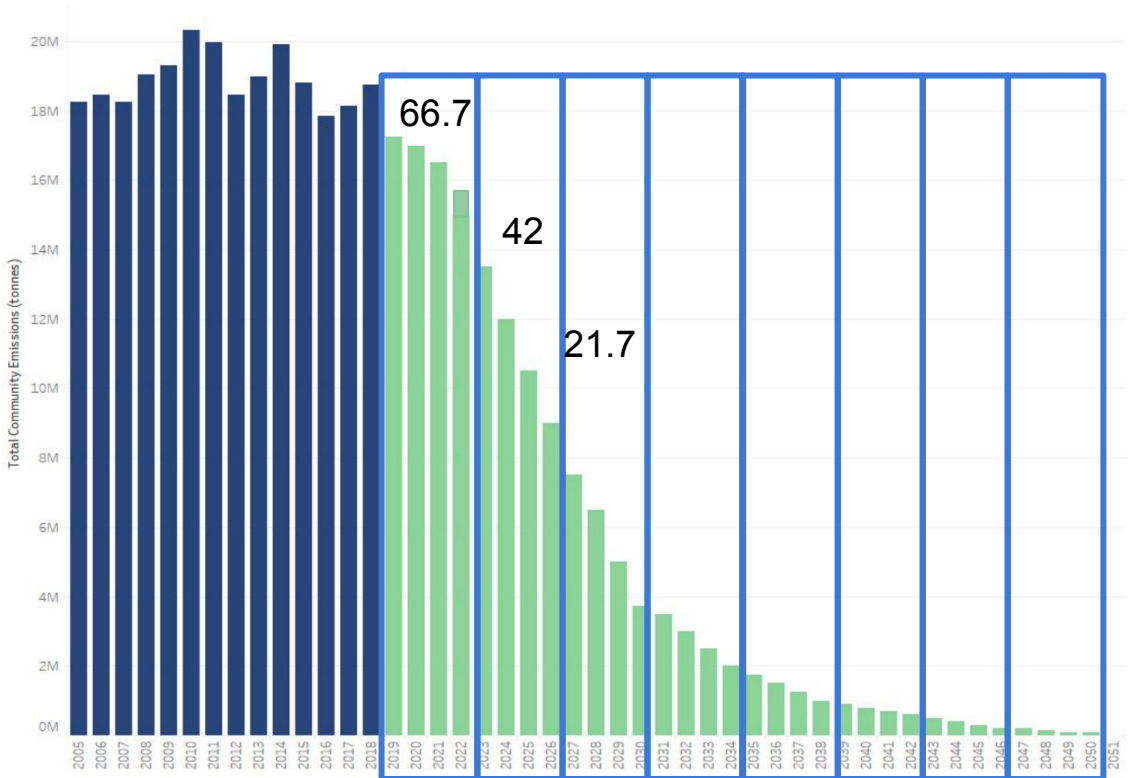
Carbon Budget, Annualized

Edmonton 2019-2050:
155 Megatonnes



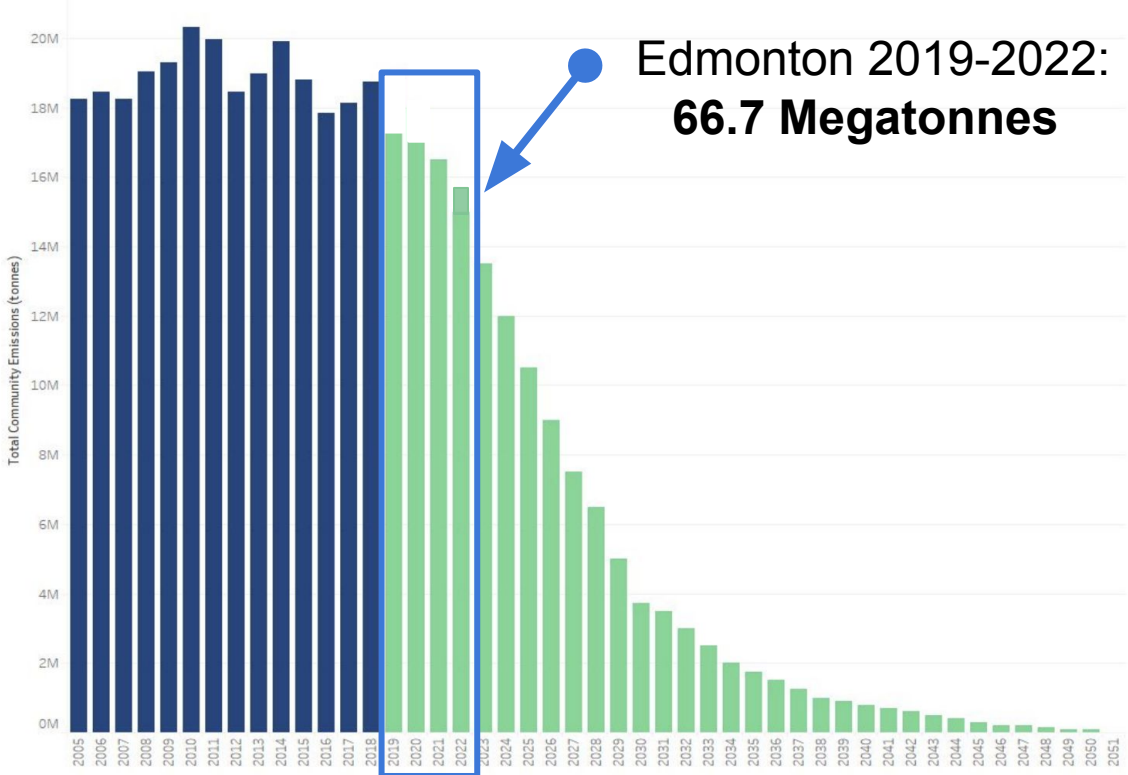
★ 2030 & 2050 align with “convergence and contraction” model.

Carbon Budget, Aligned with Financials

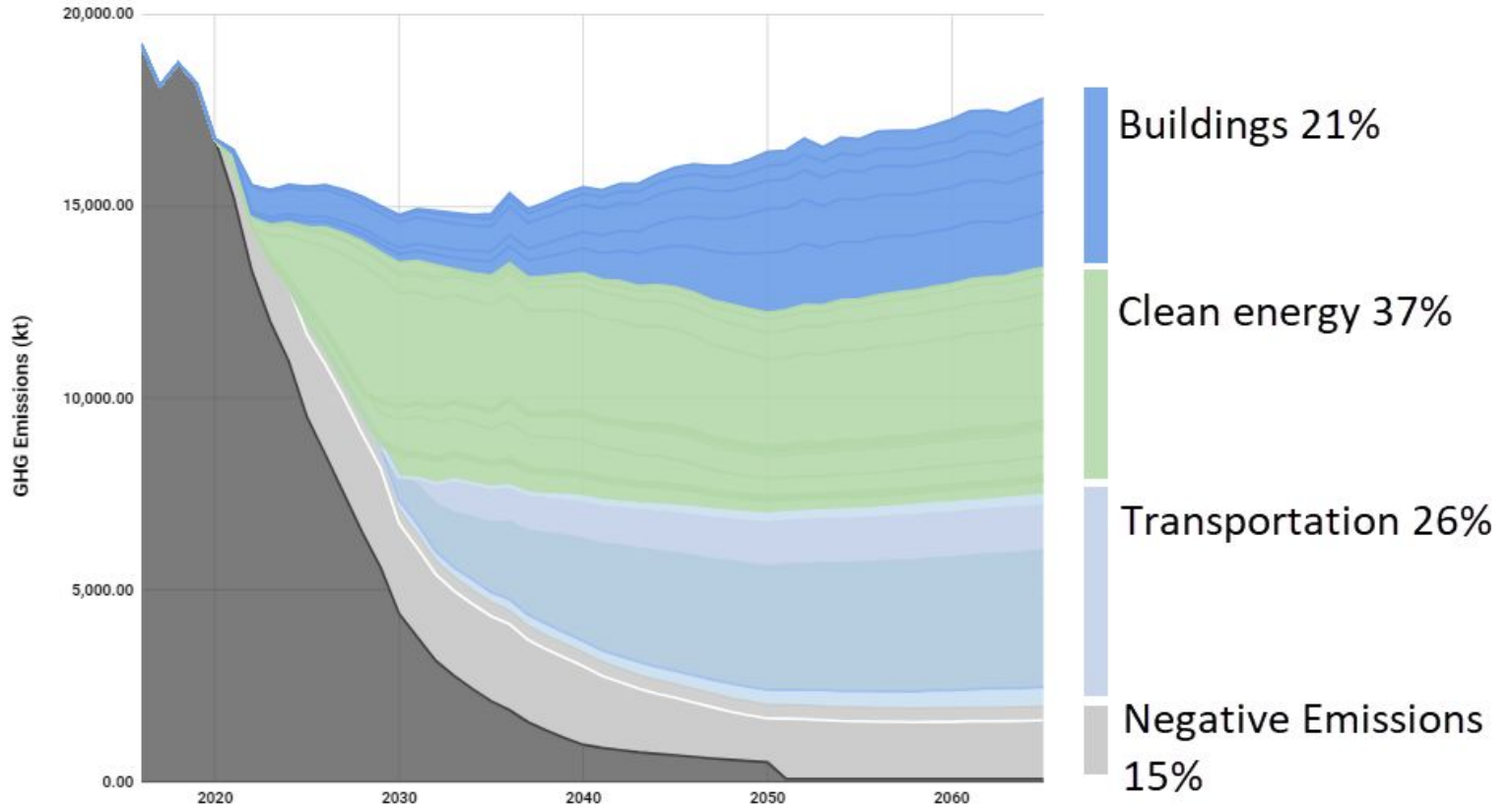


155 Megatonnes
aligned with
financial budget
periods

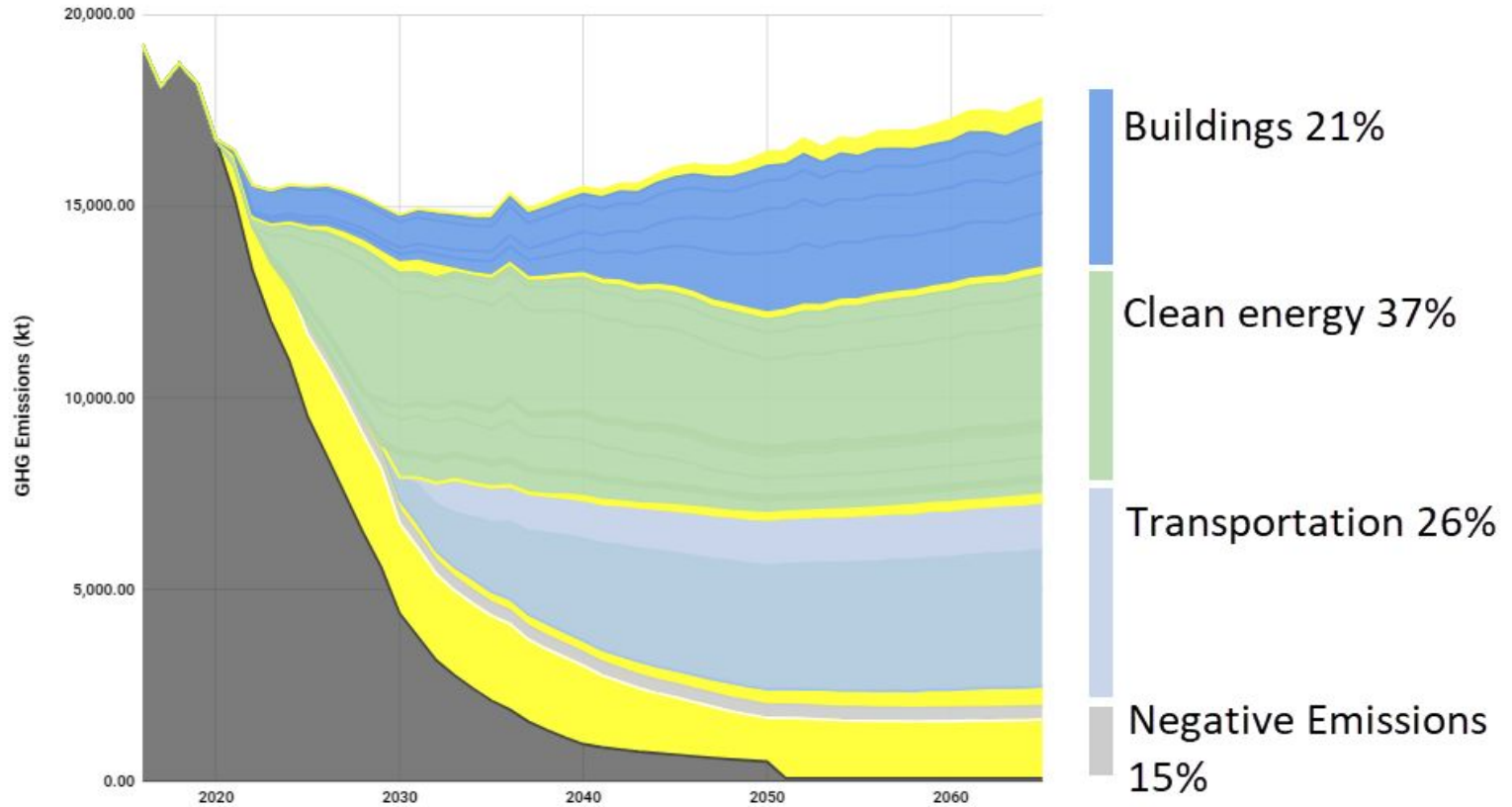
Current Carbon Budget

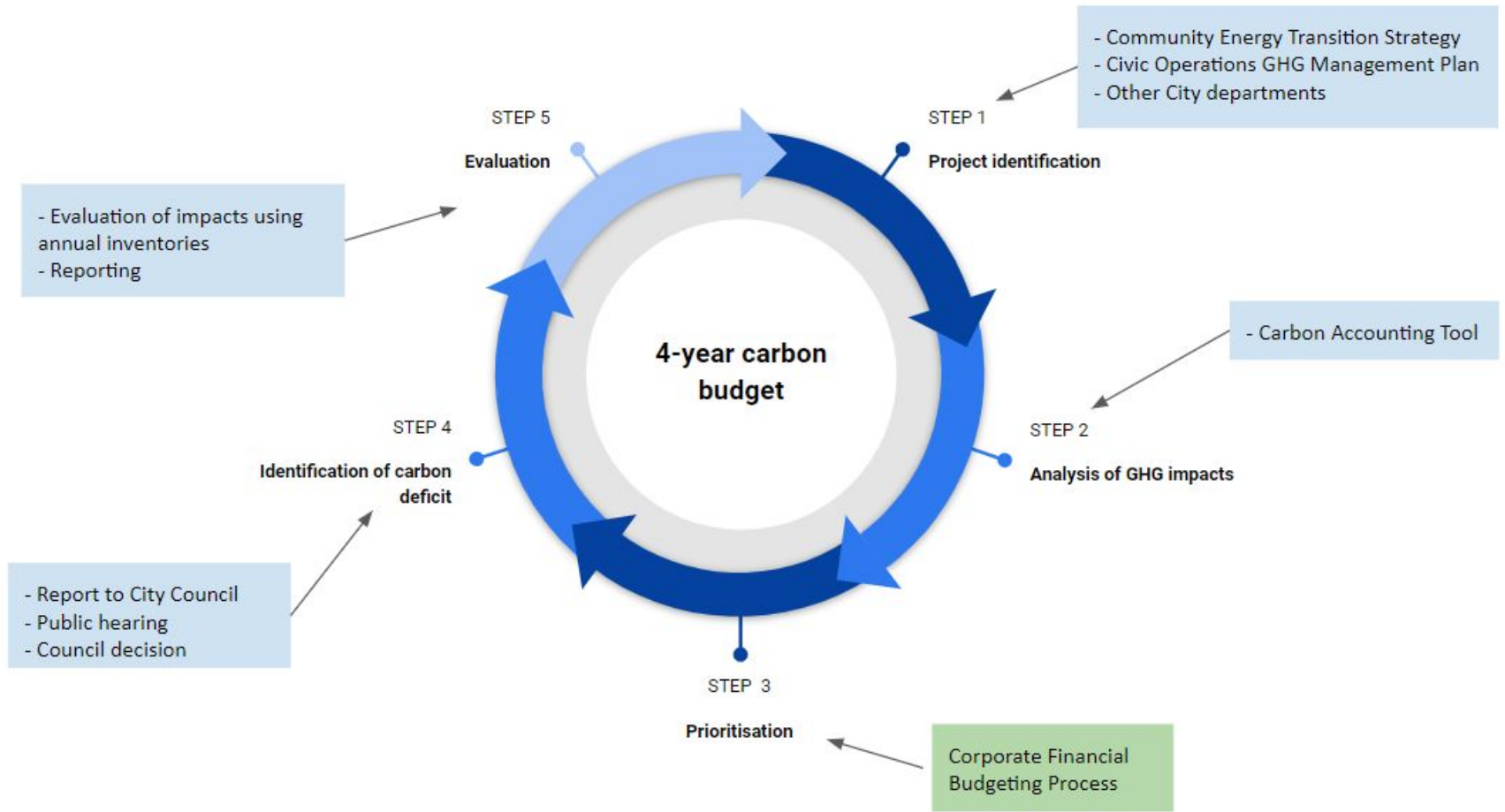


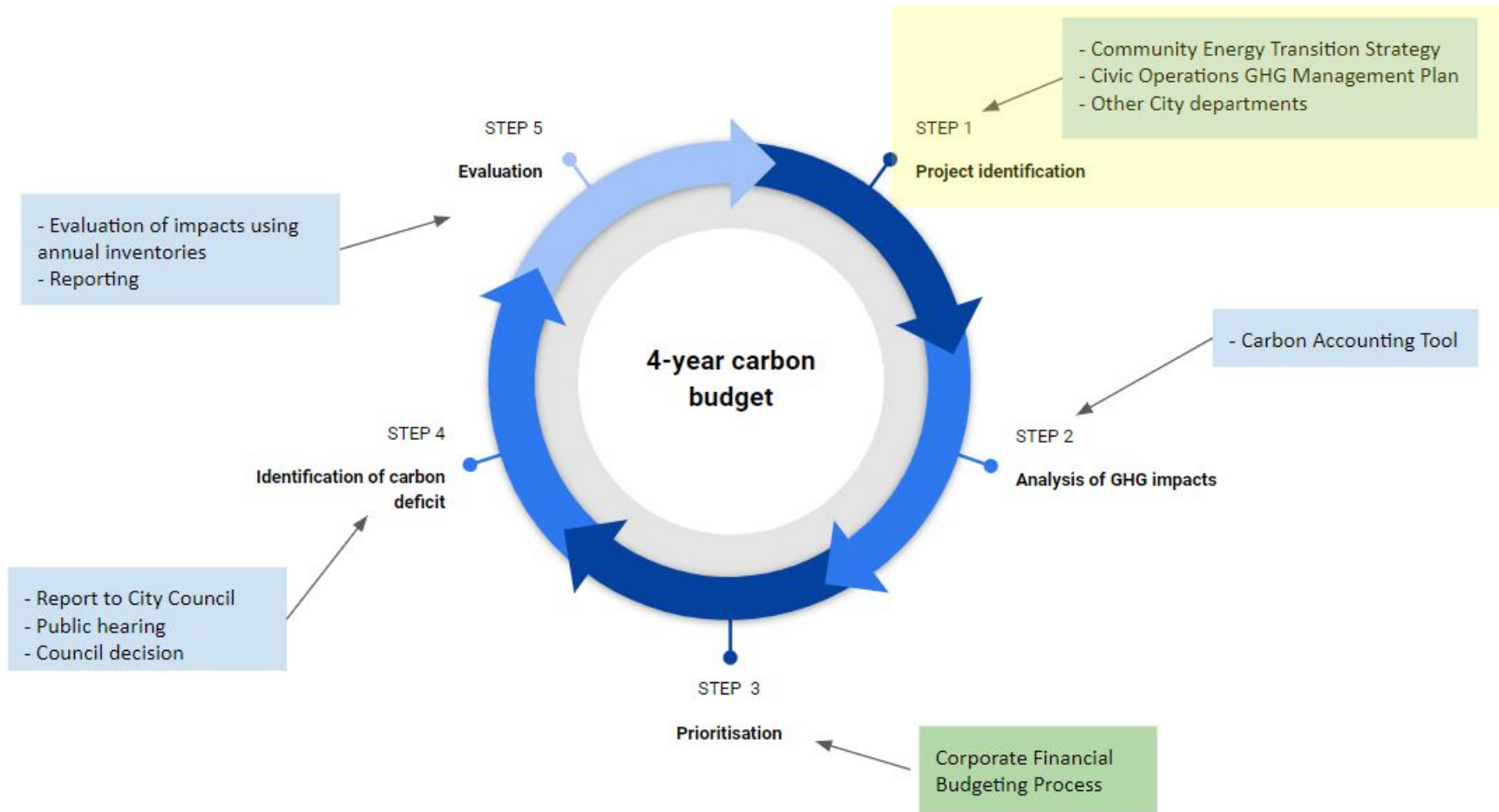
A Pathway to Get There

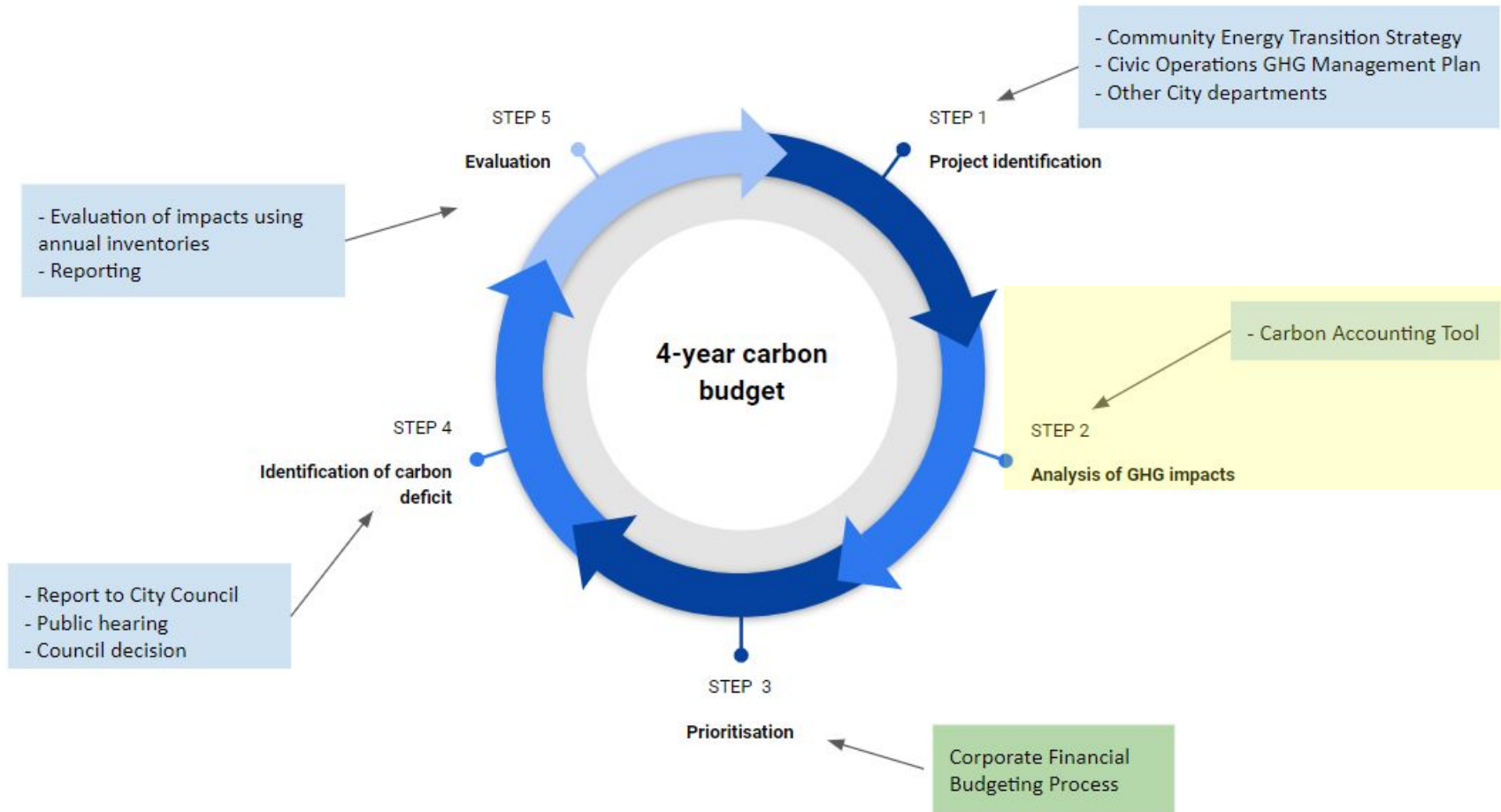


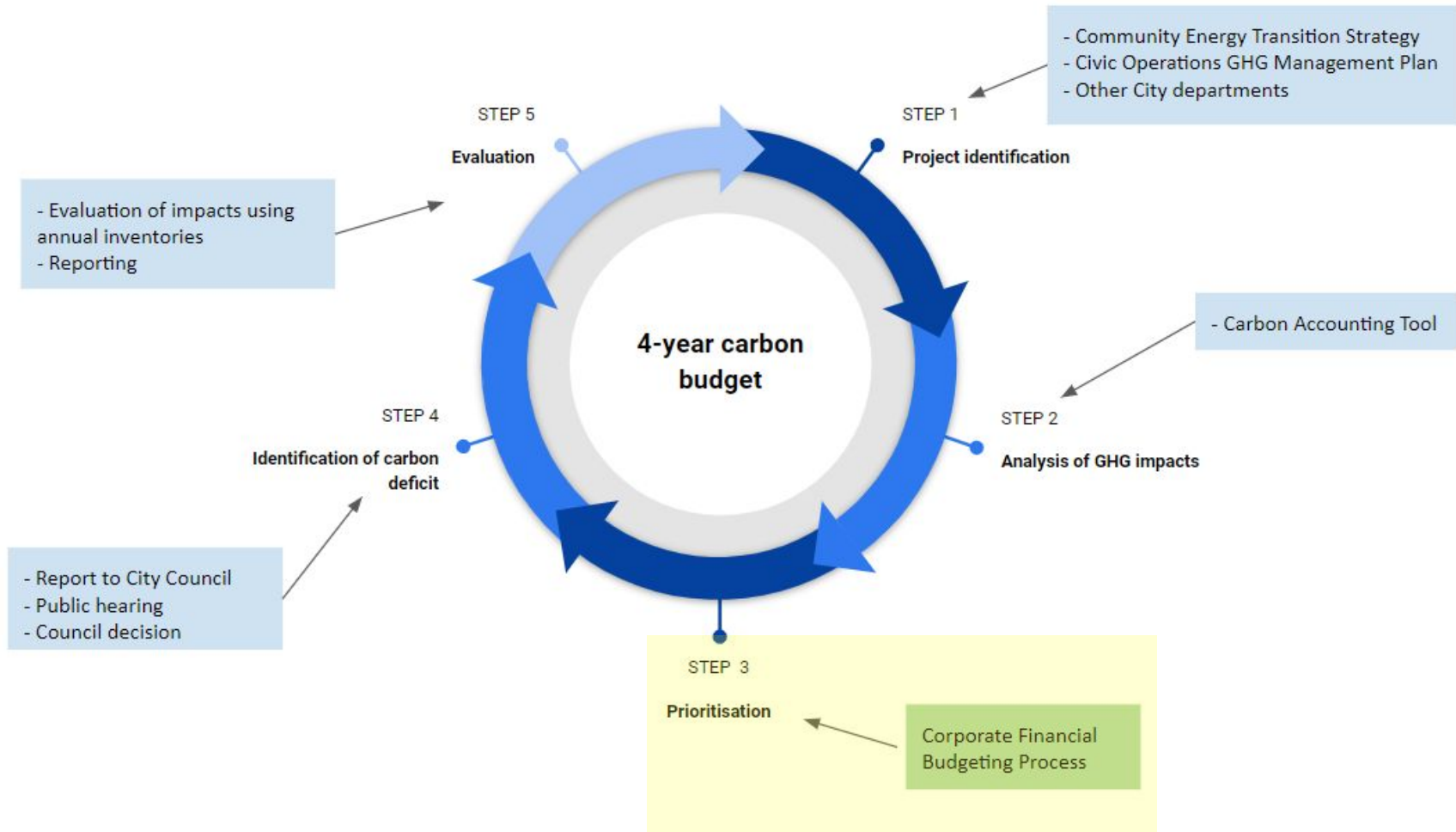
Shaping the Path

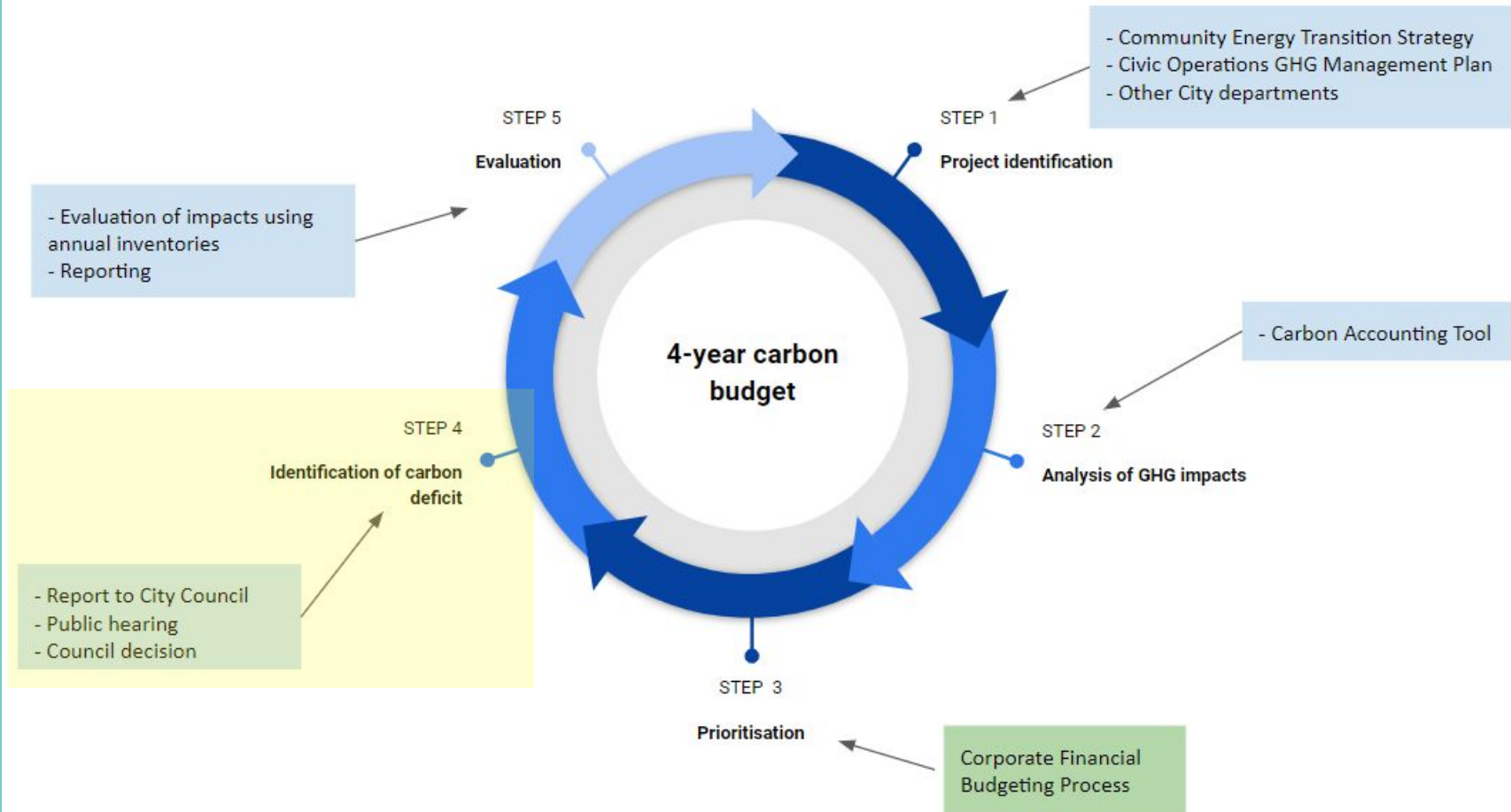


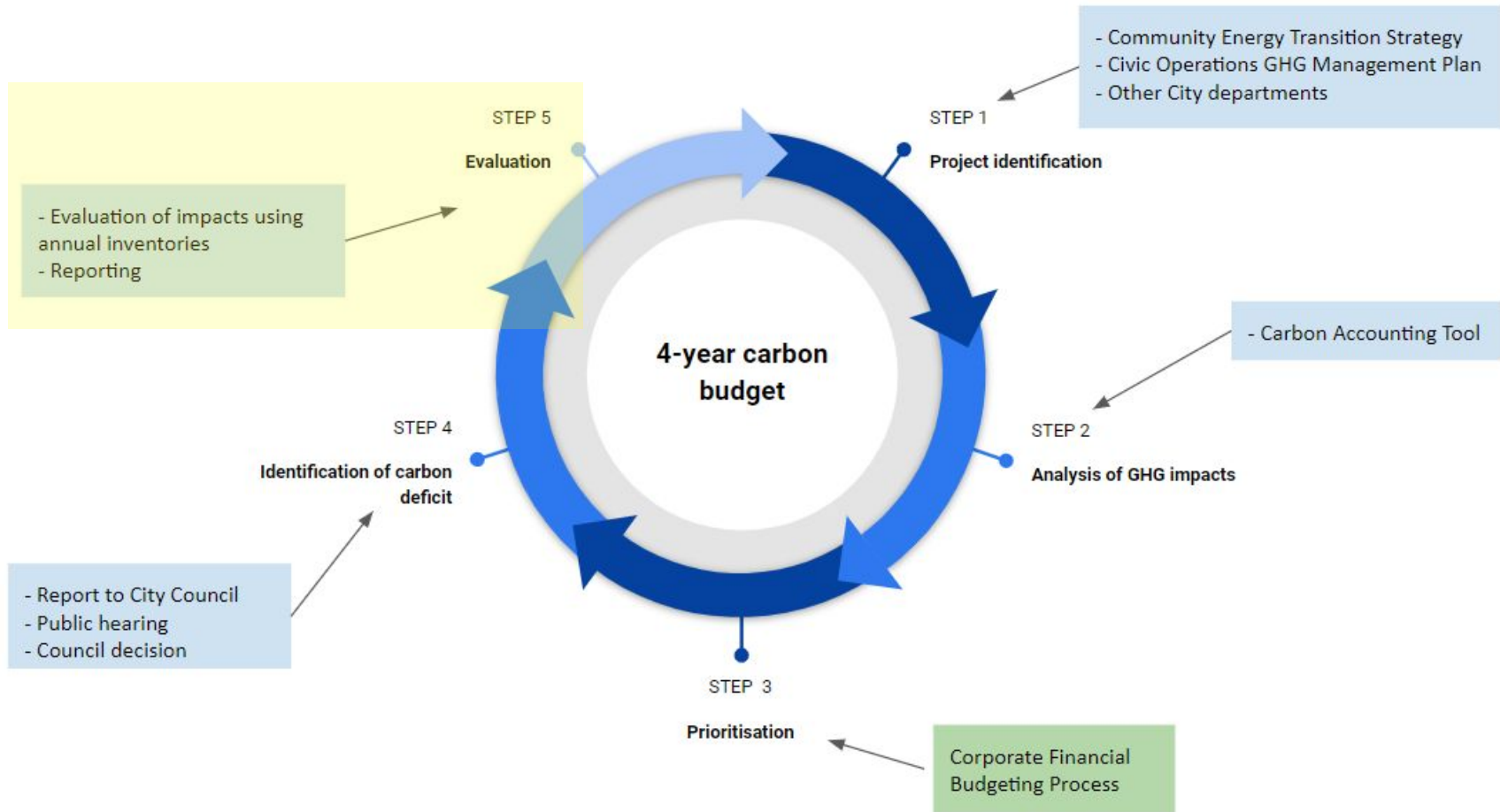












The Climate Lens

Branch - Urban Planning & Environment

Branch - Urban Planning & Environment
Program – INPUT PROGRAM TYPE HERE - See #1
Title – INPUT SERVICE PACKAGE TITLE HERE

Unfunded
Service Package Type
INPUT SERVICE PACKAGE
TYPE HERE - See #2

CLT Category - INPUT CLT CATEGORY HERE

Short Description (399 character maximum)

Results to be Achieved

State what result(s) the initiative is trying to achieve. How does it align to the results (Council goals) and result definitions? Address how the service package impacts the Outcomes. State what success looks like. State how success is measured. Where appropriate, state the current resources in terms of FTEs and dollars.

Climate Change

GHG impact: Reduction/Increase

Project achieves x% of the corporate target to retrofit the buildings.

Project saves/increases 1 MtCO2 (0.4%) of the remaining gap of 265 MtCO2e between 2020-2050.

Project saves/increases \$156 for each tonne of GHG reduced between 2020-2050.

The GHG impact is included as information for each action. GHG actions for some actions may not be able to be quantified.

The Carbon Accounting Tool

The carbon accounting tool tracks the impact of each action against the overall carbon budget in a coherent framework and the status of each sector.

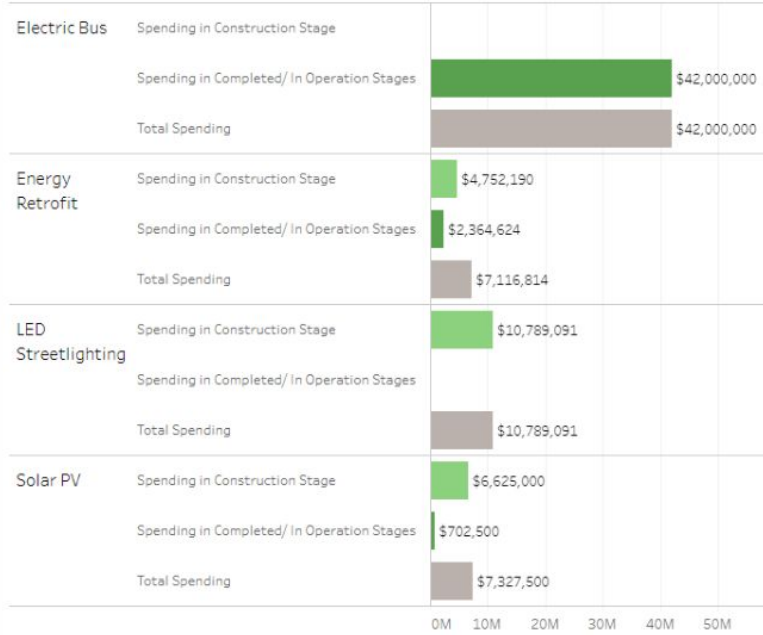
| Carbon Account Summary (kilotonnes CO2e) | | | | | | | | | | | | | |
|--|-------------------|----------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Sector | Cumulative Total 2016-2050 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | |
| 3 | All Sectors | Baseline (no actions) | 555,076 | 19,213 | 18,127 | 18,731 | 18,201 | 16,751 | 16,487 | 15,561 | 15,437 | 15,549 | 15,533 |
| 4 | All Sectors | Base Budget | 226,023 | 19,213 | 18,127 | 18,731 | 18,201 | 16,751 | 14,962 | 13,364 | 11,897 | 10,662 | 9,523 |
| 5 | All Sectors | Gap | 329,052 | - | - | - | - | - | 1,525 | 2,197 | 3,590 | 4,887 | 6,010 |
| 6 | All Sectors | Actions | 1,020 | - | - | - | - | - | 10 | 10 | 10 | 20 | 20 |
| 7 | All Sectors | Actions Impact | 554,056 | 19,213 | 18,127 | 18,731 | 18,201 | 16,751 | 16,477 | 15,551 | 15,427 | 15,529 | 15,513 |
| 8 | All Sectors | Remaining gap | 328,032 | - | - | - | - | - | 1,515 | 2,187 | 3,490 | 4,867 | 5,990 |
| 9 | All Sectors | Actions as pct of gap | 0.3% | N/A | N/A | N/A | N/A | N/A | 0.7% | 0.5% | 0.3% | 0.4% | 0.3% |
| 10 | Residential | Baseline (no actions) | 107,630 | 3,406 | 3,172 | 3,550 | 3,403 | 3,010 | 3,012 | 2,771 | 2,778 | 2,861 | 2,897 |
| 11 | Residential | Base Budget | 43,826 | 3,406 | 3,172 | 3,550 | 3,403 | 3,010 | 2,689 | 2,401 | 2,145 | 1,916 | 1,711 |
| 12 | Residential | Gap | 63,803 | - | - | - | - | - | 323 | 370 | 633 | 945 | 1,186 |
| 13 | Residential | Actions | - | - | - | - | - | - | - | - | - | - | - |
| 14 | Residential | Actions Impact | 107,630 | 3,406 | 3,172 | 3,550 | 3,403 | 3,010 | 3,012 | 2,771 | 2,778 | 2,861 | 2,897 |
| 15 | Residential | Remaining gap | 63,803 | - | - | - | - | - | 323 | 370 | 633 | 945 | 1,186 |
| 16 | Residential | Actions as pct of gap | 0.0% | N/A | N/A | N/A | N/A | N/A | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 17 | Commercial | Baseline (no actions) | 102,601 | 3,219 | 3,054 | 3,710 | 3,482 | 3,115 | 3,090 | 2,840 | 2,843 | 2,935 | 2,943 |
| 18 | Commercial | Base Budget | 41,779 | 3,219 | 3,054 | 3,710 | 3,482 | 3,115 | 2,782 | 2,485 | 2,210 | 1,982 | 1,771 |
| 19 | Commercial | Gap | 60,823 | - | - | - | - | - | 308 | 356 | 624 | 953 | 1,172 |
| 20 | Commercial | Actions | 1,020 | - | - | - | - | - | 10 | 10 | 10 | 20 | 20 |
| 21 | Commercial | Actions Impact | 101,581 | 3,219 | 3,054 | 3,710 | 3,482 | 3,115 | 3,080 | 2,830 | 2,833 | 2,915 | 2,923 |
| 22 | Commercial | Remaining gap | 59,803 | - | - | - | - | - | 298 | 346 | 614 | 933 | 1,152 |
| 23 | Commercial | Actions as pct of gap | 1.7% | N/A | N/A | N/A | N/A | N/A | 3.2% | 2.8% | 1.6% | 2.1% | 1.7% |
| 24 | Transportation | Baseline (no actions) | 181,161 | 5,824 | 5,729 | 5,664 | 5,601 | 5,534 | 5,473 | 5,408 | 5,347 | 5,277 | 5,207 |
| 25 | Transportation | Base Budget | 73,768 | 5,824 | 5,729 | 5,664 | 5,601 | 5,534 | 4,943 | 4,415 | 3,944 | 3,522 | 3,146 |
| 26 | Transportation | Gap | 107,394 | - | - | - | - | - | 530 | 992 | 1,403 | 1,754 | 2,060 |
| 27 | Transportation | Actions | - | - | - | - | - | - | - | - | - | - | - |
| 28 | Transportation | Actions Impact | 181,161 | 5,824 | 5,729 | 5,664 | 5,601 | 5,534 | 5,473 | 5,408 | 5,347 | 5,277 | 5,207 |
| 29 | Transportation | Remaining gap | 107,394 | - | - | - | - | - | 530 | 992 | 1,403 | 1,754 | 2,060 |
| 30 | Transportation | Actions as pct of gap | 0.0% | N/A | N/A | N/A | N/A | N/A | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 31 | Industry | Baseline (no actions) | 137,755 | 6,173 | 5,563 | 5,030 | 4,980 | 4,395 | 4,198 | 3,854 | 3,773 | 3,761 | 3,767 |
| 32 | Industry | Base Budget | 56,093 | 6,173 | 5,563 | 5,030 | 4,980 | 4,395 | 3,926 | 3,506 | 3,132 | 2,797 | 2,499 |
| 33 | Industry | Gap | 81,662 | - | - | - | - | - | 273 | 348 | 641 | 964 | 1,269 |
| 34 | Industry | Actions | - | - | - | - | - | - | - | - | - | - | - |
| 35 | Industry | Actions Impact | 137,755 | 6,173 | 5,563 | 5,030 | 4,980 | 4,395 | 4,198 | 3,854 | 3,773 | 3,761 | 3,767 |
| 36 | Industry | Remaining gap | 81,662 | - | - | - | - | - | 273 | 348 | 641 | 964 | 1,269 |
| 37 | Industry | Actions as pct of gap | 0.0% | N/A | N/A | N/A | N/A | N/A | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 38 | Waste | Baseline (no actions) | 2,230 | 44 | 61 | 62 | 63 | 65 | 66 | 67 | 65 | 62 | 60 |
| 39 | Waste | Base Budget | 908 | 44 | 61 | 62 | 63 | 65 | 58 | 53 | 46 | 41 | 37 |
| 40 | Waste | Gap | 1,322 | - | - | - | - | - | 8 | 16 | 19 | 21 | 23 |
| 41 | Waste | Actions | - | - | - | - | - | - | - | - | - | - | - |
| 42 | Waste | Actions Impact | 2,230 | 44 | 61 | 62 | 63 | 65 | 66 | 67 | 65 | 62 | 60 |
| 43 | Waste | Remaining gap | 1,322 | - | - | - | - | - | 8 | 16 | 19 | 21 | 23 |
| 44 | Waste | Actions as pct of gap | 0.0% | N/A | N/A | N/A | N/A | N/A | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 45 | Energy Production | Baseline (no actions) | 23,699 | 548 | 548 | 715 | 671 | 633 | 648 | 630 | 653 | 659 | 733 |
| 46 | Energy Production | Base Budget | 9,650 | 548 | 548 | 715 | 671 | 633 | 565 | 505 | 451 | 403 | 360 |
| 47 | Energy Production | Gap | 14,049 | - | - | - | - | - | 83 | 116 | 179 | 250 | 299 |

Corporate GHG Management Plan Progress Reporting Dashboard

Enter a portfolio name to have it highlighted

Highlight Portfolio of work

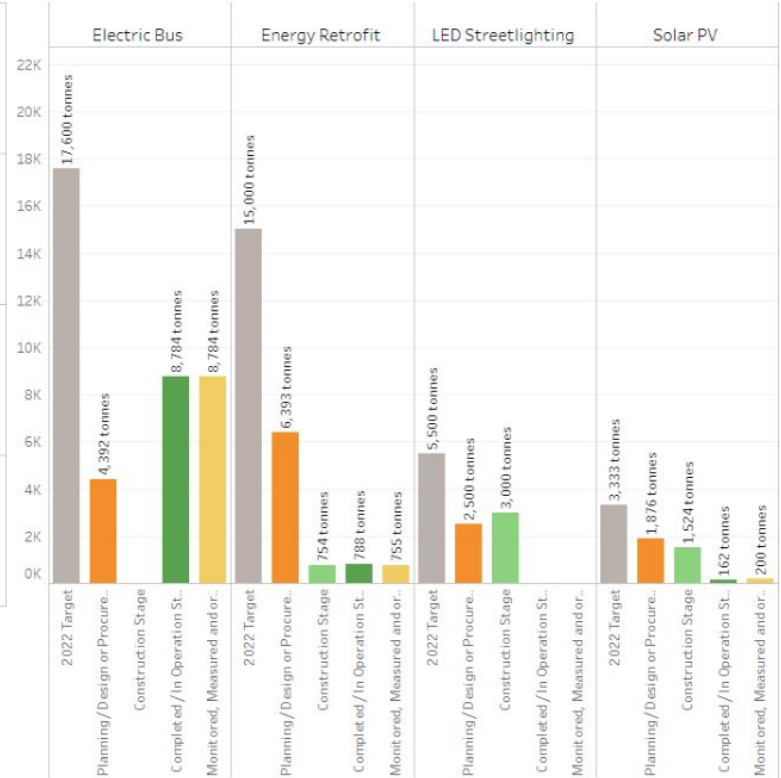
Spending by Portfolio and Stage



Colour Legend

- 2022 Target
- Completed / In Operation Stages
- Planning / Design or Procurement
- Monitored, Measured and or Verified
- Construction Stage

GHG Reductions by Portfolio and Stage



Note: Numbers shown here are examples only.

Objectives of the Accounting Framework

1. Governance: Integration of emissions implications into city governance
2. Accountability: Emissions management mechanism and accountability framework
 - a. Trade-offs and synergies between finances and emissions
 - b. Emissions tracking for civic and corporate projects and policies
 - c. Enable transparent environmental reporting
3. Literacy: Build carbon literacy in the organisation

