

Authority: Infrastructure and Environment Committee Item 2021.IE26.16, adopted by City of Toronto Council on December 15, 2021 (Dec. 15, 16, and 17 mtg.)

Enacted by Council:

CITY OF TORONTO

Bill No. ____

BY-LAW No. ____

To introduce a new chapter to the City of Toronto Municipal Code to codify the City of Toronto's climate change policies and programs, including targets, reporting requirements, and governance processes.

WHEREAS subsection 8(1) of the City of Toronto Act provides the City with the broad authority to provide any service or thing the City considers necessary or desirable for the public;

WHEREAS City Council has the authority to pass by-laws for the City's environmental well-being including respecting climate change;

WHEREAS City Council has adopted the target of reducing greenhouse gas emissions for the City of Toronto and the Corporation of the City of Toronto to net zero emissions by 2040 and endorsed the TransformTO Net Zero Strategy;

WHEREAS City Council has repeatedly set climate change mitigation and adaptation goals and undertaken programs and projects to implement them; and

WHEREAS the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, the report of the United Nations High Level Expert Group on Net Zero Emissions Commitments, and the ISO Net Zero Guidelines, have provided expert guidance on scientific and governance principles for cities and other non-state actors to follow in pursuing *net zero emissions* commitments;

The Council of the City of Toronto HEREBY ENACTS as follows:

1. Chapter 669 presented in Schedule 1 is enacted in its entirety.

SCHEDULE 1

Chapter 669

CLIMATE CHANGE GOALS AND GOVERNANCE

ARTICLE I

Definitions

§ 669-1 Definitions

For this chapter, the following terms shall have the following meanings:

ABSOLUTE ZERO EMISSIONS means the state whereby an organization or jurisdiction has achieved zero greenhouse gas emissions from sources attributable to that organization or jurisdiction in a given year (i.e. no residual emissions);

CARBON DIOXIDE EQUIVALENT or CO₂e means a single unit of measurement that allows for the impact of different emissions of *greenhouse gas* emissions to be evaluated on a common basis.

CARBON REMOVAL means a human activity that removes carbon dioxide from the atmosphere, coupled with short-term carbon storage (e.g. storage of carbon in a biological system like a forest or soils) or long-term carbon storage (e.g. storage of carbon within a geological system like an underground saline formation or mineralization of carbon dioxide into solid carbonate);

CITY OF TORONTO SECTOR-BASED GREENHOUSE GAS EMISSIONS INVENTORY means the annual inventory of *greenhouse gas* emissions in Toronto published by the City of Toronto prepared in accordance with a recognized methodology that is updated from time to time. For greater certainty, the inventory data for past years shall be taken from the most recent inventory publication, including any retrospective revisions due to updated emission factors or for any other reason.

COMMUNITY EMISSION SOURCES means all sources of greenhouse gas emissions that are included in the *City of Toronto Sector-based Greenhouse Gas Emissions Inventory*, excluding *Corporate emission sources*;

CORPORATE EMISSION SOURCES means all sources of greenhouse gas emissions attributable to the *Corporation* that are included in the *City of Toronto Sector-based Greenhouse Gas Emissions Inventory*;

CORPORATE EMISSION SOURCES – BUILDINGS means all *Corporate emission sources* within the sub-sectors labelled City Facilities & Buildings and Social Housing;

CORPORATE EMISSION SOURCES – TRANSPORTATION means all *Corporate emission sources* within the sub-sector labelled Transportation;

CORPORATION means the Corporation of the City of Toronto including all Agencies, Boards and Corporations;

EMISSIONS BUDGET means the targeted total amount of *greenhouse gas* emissions for a specified set of sources over a specified period of time;

EMISSION REDUCTION means a reduction in the amount of *greenhouse gas* entering the atmosphere because of activities that avoid or reduce emissions, with or without storage;

GREENHOUSE GAS or GHG means carbon dioxide (CO₂), methane (CH₄), and/or nitrous oxide (N₂O);

NET ZERO EMISSIONS means the state whereby an organization or jurisdiction's human-caused emissions of *greenhouse gas* into the atmosphere are balanced by equivalent human-caused *carbon removal* from the atmosphere, or removals of other *greenhouse gas*, where this balancing is like-for-like in terms of warming impact and timescale, as determined by Global Warming Potentials, and storage durability;

NET ZERO STRATEGY means the City of Toronto's Transform TO Net Zero Strategy to achieve net zero emissions, endorsed by Toronto City Council at its meeting of December 15, 16, and 17, 2021 in Decision 2021.IE26.16, or any other successor strategies;

OFFSET CREDIT means a credit representing one metric tonne of carbon dioxide equivalent (CO₂e) of *emission reduction* or *carbon removal* that can be transacted between two parties, whether or not the credit is registered on a registry;

RESIDUAL EMISSIONS means the *greenhouse gas* emissions from sources attributable to an organization or jurisdiction that remain on an annual basis after all feasible means to reduce those emissions have been exhausted before the target date for achieving *net zero emissions*.

ARTICLE II Net Zero Strategy

§ 669-2 Targets

In taking action to reduce *greenhouse gas* emissions from *Community emission sources* and *Corporate emission sources*, the *Corporation* seeks to achieve the following targets:

A. By 2025

1. *Greenhouse gas* reductions from *Community emission sources* of 45 percent below 1990 levels.

B. By 2030

1. *Greenhouse gas* reductions from *Community emission sources* of 65 percent below 1990 levels, and in pursuing this target the *Corporation* seeks to achieve the following sectoral goals:

Homes & Buildings

- a. All new homes and buildings will be designed and built to be near zero greenhouse gas emissions;
- b. Greenhouse gas emissions from existing buildings will be cut in half, from 2008 levels;

Energy

- c. 50 per cent of community-wide energy comes from renewable or low-carbon sources;
- d. 25 per cent of commercial and industrial floor area is connected to low carbon thermal energy sources;

Transportation

- e. 30 per cent of registered vehicles in Toronto are electric;
- f. 75 per cent of school/work trips under 5km are walked, biked or by transit;

Waste

- g. 70 per cent residential waste diversion from the City of Toronto's waste management system;
- h. Identify pathways to more sustainable consumption in City of Toronto operations and in Toronto's economy.

2. *Greenhouse gas* reductions from *Corporate emission sources* of 65 percent below 2008 levels, and in pursuing this target the *Corporation* seeks to achieve the following sectoral goals:

- a. All City Agency, Corporation and Division-owned new developments are designed and constructed to applicable Toronto Green Standard Version 4 standard achieving zero carbon emissions, beginning in 2022;

- b. Greenhouse gas emissions from City-owned buildings are reduced by 60 per cent from 2008 levels; by 2040, City-owned buildings reach net zero greenhouse gas emissions;
- c. All City-owned facilities have achieved zero waste;
- d. Generate and utilize 1.5 Million Gigajoules of energy from biogas;
- e. Approximately 107,700 tonnes CO₂e per year are reduced through Organics Processing with Renewable Energy and Landfill Gas Utilization;
- f. 50 per cent of the City-owned fleet is transitioned to zero-emissions vehicles;
- g. 50 per cent of the TTC bus fleet is zero-emissions.

C. By 2040

- 1. *Community emission sources and Corporate emission sources are net zero emissions.*

§ 669-3 Net Zero Emissions

Interim Targets

- A. Achievement of the targets set out in § 669-2, sub-articles A(1), B(1) and B(2) shall be assessed by the City Manager, or designate, based on emissions of *greenhouse gas* from *Community emission sources* and *Corporate emission sources* in the target years, as the case may be, exclusive of any *offset credits* held by the *Corporation*.

Achievement of Net Zero Emissions Target

- B. The primary objective in pursuing the target of *net zero emissions* by 2040 set out in § 669-2 sub-article C(1) is to reduce emissions from *Community emission sources* and *Corporate emission sources* to as close to *absolute zero emissions* as feasible by 2040.
- C. The City shall have regard to the *Net Zero Strategy*, and any successor strategies, in all planning and management activities for the reduction of *greenhouse gas* emissions.
- D. Achievement of *net zero emissions* from *Corporate emission sources* in 2040 and subsequent years shall be assessed based on the *Corporation* balancing any *residual emissions* from *Corporate emission sources* with an equivalent amount of *carbon removal*;
 - 1. The *Corporation* shall act to ensure any *residual emissions* from *Corporate emission sources* in 2040 and subsequent years are balanced with an equivalent amount of *carbon removal*;

2. The Executive Director, Environment & Climate Division, shall bring forward for adoption by City Council a policy to further clarify the process by which the *Corporation* will balance its *residual emissions*.
- E. Achievement of *net zero emissions* from *Community emission sources* in 2040 and subsequent years shall be assessed based whether any *residual emissions* from *Community emission sources* are balanced with an equivalent amount of *carbon removal*.
1. No act shall be taken by or on behalf of the *Corporation* to balance *residual emissions* from *Community emission sources* without authority granted by City Council for that purpose.

§ 669-4 Carbon Accountability

Purpose

- A. The purpose of this article is to:
1. Define the *greenhouse gas emissions budgets* consistent with an equitable approach to achieving the City's *greenhouse gas* reduction targets set out in § 669-2; and
 2. Prescribe related planning, reporting, and prioritization processes that enable transparency and accountability in pursuit of the City's *greenhouse gas* reduction targets and *emissions budgets*.

Establishing *Emissions budgets*

- B. The *greenhouse gas emissions budget* for *Community emission sources* is 53,060,555 tonnes CO₂e between 2026-2030.
- C. No later than June 30, 2025, the City Manager, or designate, shall bring forward for adoption by City Council *emissions budgets* for *Community emission sources* for the periods between 2031-2035 and 2036-2040, considering the recommendation of the Executive Director, Environment & Climate.
1. Any amount of CO₂e that exceeded the 2026-2030 *greenhouse gas emissions budget* shall be subtracted from the 2031-2035 *emissions budget*;
 2. Any amount of CO₂e that exceeded the 2031-2035 *greenhouse gas emissions budget* shall be subtracted from the 2036-2040 *emissions budget*;
- D. The *greenhouse gas emissions budget* for *Corporate emission sources* is 2,016,471 tonnes CO₂e between 2026-2030.
- E. No later than June 30, 2025, the City Manager, or designate, shall bring forward for adoption by City Council *emissions budgets* for *Corporate emission sources* for the periods between

2031-2035 and 2036-2040, considering the recommendation of the Executive Director, Environment & Climate.

1. Any amount of CO₂e that exceeded the 2026-2030 *greenhouse gas emissions budget* shall be subtracted from the 2031-2035 *emissions budget*;
 2. Any amount of CO₂e that exceeded the 2031-2035 *greenhouse gas emissions budget* shall be subtracted from the 2036-2040 *emissions budget*;
- F. The recommendation of the Executive Director, Environment & Climate, for the 2031-2035 and 2036-2040 *emissions budgets* shall include an estimate of *residual emissions* from *Community emission sources* and *Corporate emission sources* in 2040.
- G. No later than December 31, 2024, the City Manager, or designate, shall bring forward for adoption by City Council 2026-2030 *greenhouse gas emissions budgets* for *Corporate emission sources – Buildings* and *Corporate emission sources – Transportation*, considering the opinions of the Executive Director, Environment & Climate, the Executive Director, Corporate Real Estate Management, the President and Chief Executive Officer, Toronto Community Housing Corporation, the General Manager, Fleet Services, and the Chief Executive Officer, Toronto Transit Commission.
1. The 2026-2030 *greenhouse gas emissions budgets* for *Corporate emission sources – Buildings* and *Corporate emission sources – Transportation* must not add up to more than 85 per cent of the 2026-2030 *greenhouse gas emissions budget* for *Corporate emission sources*.
- H. No later than December 31, 2029, the City Manager, or designate, shall bring forward for adoption by City Council 2031-2035 *greenhouse gas emissions budgets* for *Corporate emission sources – Buildings* and *Corporate emission sources – Transportation*, considering the opinions of the Executive Director, Environment & Climate, the Executive Director, Corporate Real Estate Management, the President and Chief Executive Officer, Toronto Community Housing Corporation, the General Manager, Fleet Services, and the Chief Executive Officer, Toronto Transit Commission.
- I. No later than December 31, 2034, the City Manager, or designate, shall bring forward for adoption by City Council 2036-2040 *greenhouse gas emissions budgets* for *Corporate emission sources – Buildings* and *Corporate emission sources – Transportation*, considering the opinions of the Executive Director, Environment & Climate, the Executive Director, Corporate Real Estate Management, the President and Chief Executive Officer, Toronto Community Housing Corporation, the General Manager, Fleet Services, and the Chief Executive Officer, Toronto Transit Commission.
- J. Achievement of the *greenhouse gas emissions budgets* set out in this article shall be assessed based on the sum of total annual emissions of *greenhouse gas* in the relevant years from *Community emission sources*, *Corporate emission sources*, *Corporate emission sources –*

Buildings, or Corporate emission sources – Transportation, as the case may be, exclusive of any offset credits held by the Corporation.

Planning and Reporting - Community Emissions budgets

- K. No later than June 30, 2025, the City Manager, or designate, and the Chief Financial Officer and Treasurer, considering the advice of the Executive Director, Environment & Climate Division, shall provide to City Council an Advanced Plan for actions to achieve the 2030 *greenhouse gas* emission reduction targets set out in § 669-2, sub-article B(1) and the *greenhouse gas emissions budget for Community emission sources* for the period between 2026-30.
1. The Advanced Plan must contain the information set out in Schedule 1 to this Chapter.
- L. No later than December 31, 2029, the City Manager, or designate, and the Chief Financial Officer and Treasurer, considering the advice of the Executive Director, Environment & Climate Division, shall provide to City Council an Advanced Plan for actions to achieve the *greenhouse gas emissions budget for Community emission sources* for the period between 2031-2035;
1. The Advanced Plan must contain all the information specified in sub-article § 669-4, K(1), but in respect of the period between 2031-2035;
 2. If, in the opinion of the Executive Director, Environment & Climate Division, *greenhouse gas* emissions for the period between 2026-2030 are expected to exceed the 2026-2030 *greenhouse gas emissions budget for Community emission sources*, the Advanced Plan must contain information on additional actions to reduce *greenhouse gas* emissions in the 2031-2035 period equal to the level of expected exceedance.
- M. No later than December 31, 2034, the City Manager, or designate, and the Chief Financial Officer and Treasurer, considering the advice of the Executive Director, Environment & Climate Division, shall provide to City Council an Advanced Plan for actions to achieve the 2040 *net zero emissions* target set out in § 669-2, sub-articles C(1) and the *greenhouse gas emissions budget for Community emission sources* for the period between 2036-2040;
1. The Advanced Plan must contain all the information specified in sub-article § 669-4, K(1), but in respect of the period between 2036-2040;
 2. If, in the opinion of the Executive Director, Environment & Climate Division, *greenhouse gas* emissions for the period between 2031-2035 are expected to exceed the 2031-2035 *greenhouse gas emissions budget for Community emission sources*, the Advanced Plan must contain information on additional actions to reduce *greenhouse gas* emissions in the 2036-2040 period equal to the level of expected exceedance.
- N. The City Manager, or designate, and the Chief Financial Officer and Treasurer, or their delegates, shall consult residents, businesses and other appropriate stakeholders when developing the Advance Plans referred to in sub-articles § 669-4, K, L and M.

1. Before an Advanced Plan has been added to the agenda of City Council or any committee reporting to City Council, the Climate Advisory Group must be provided at least two in-person consultations with the City Manager, or designate, and the Chief Financial Officer and Treasurer, or their delegates.
2. After an Advanced Plan has been added to the agenda of City Council or any committee reporting to City Council but before any vote by City Council in respect of the Advance Plan, the Climate Advisory Group must be provided at least one in-person consultation with the City Manager, or designate, and the Chief Financial Officer and Treasurer, or their delegates;

Planning and Reporting - Corporate Buildings *Emissions budgets*

- O. No later than June 30, 2025, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2026-30 *greenhouse gas emissions budget for Corporate emission sources – Buildings*.
1. The Advanced Plan must contain the information set out in Schedule 1 to this Chapter.
- P. No later than June 30, 2028, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.
1. The Progress Report must contain the information set out in Schedule 1 to this Chapter.
- Q. No later than December 31, 2031, the City Manager, or designate, shall bring forward for consideration by City Council an Achievement Report.
1. The Achievement Report must contain the information set out in Schedule 1 to this Chapter.
- R. No later than June 30, 2030, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2031-35 *greenhouse gas emissions budget for Corporate emission sources – Buildings*.
1. The Advanced Plan must contain all the information specified in sub-article § 669-4, O(1), but in respect of the period between 2031-2035;
- S. No later than June 30, 2033, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.
1. The Progress Report must contain all the information specified in sub-article § 669-4, P(1), but in respect of the period between 2031-2035;
- T. No later than June 30, 2035, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2036-40 *greenhouse gas emissions budget for Corporate emission sources – Buildings*.

1. The Advanced Plan must contain all the information specified in sub-article § 669-4, O(1), but in respect of the period between 2036-2040;
- U. No later than December 31, 2036, the City Manager, or designate, shall bring forward for consideration by City Council an Achievement Report.
1. The Achievement Report must contain all the information specified in sub-article § 669-4, Q(1), but in respect of the period between 2031-2035;
- V. No later than June 30, 2038, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.
1. The Progress Report must contain all the information specified in sub-article § 669-4, P(1), but in respect of the period between 2036-2040;

Planning and Reporting - Corporate Transportation *Emissions budgets*

- W. No later than June 30, 2025, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2026-30 *greenhouse gas emissions budget for Corporate emission sources – Transportation.*
1. The Advanced Plan must contain the information set out in Schedule 1 to this Chapter.
- X. No later than June 30, 2028, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.
1. The Progress Report must contain the information set out in Schedule 1 to this Chapter.
- Y. No later than December 31, 2031, the City Manager, or designate, shall bring forward for consideration by City Council an Achievement Report.
1. The Achievement Report must contain the information set out in Schedule 1 to this Chapter.
- Z. No later than June 30, 2030, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2031-35 *greenhouse gas emissions budget for Corporate emission sources – Transportation.*
1. The Advanced Plan must contain all the information specified in sub-article § 669-4, W(1), but in respect of the period between 2031-2035.
- AA. No later than June 30, 2033, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.
1. The Progress Report must contain all the information specified in sub-article § 669-4, X(1), but in respect of the period between 2031-2035.

BB. No later than June 30, 2035, the City Manager, or designate, shall bring forward for consideration by City Council an Advanced Plan for actions to achieve the 2036-40 *greenhouse gas emissions budget for Corporate emission sources – Transportation*.

1. The Advanced Plan must contain all the information specified in sub-article § 669-4, W(1), but in respect of the period between 2036-2040.

CC. No later than December 31, 2037, the City Manager, or designate, shall bring forward for consideration by City Council an Achievement Report.

1. The Achievement Report must contain all the information specified in sub-article § 669-4, Y(1), but in respect of the period between 2031-2035.

DD. No later than June 30, 2038, the City Manager, or designate, shall bring forward for consideration by City Council a Progress Report.

1. The Progress Report must contain all the information specified in sub-article § 669-4, X(1), but in respect of the period between 2036-2040.

Identifying and Prioritizing GHG Reduction Actions - Annual Carbon Budget

EE. Prior to March 31 each year, the City Manager and Chief Financial Officer and Treasurer, considering the opinion of the Executive Director, Environment & Climate, shall provide Action Guidance to all City Divisions, Agencies and Corporations on the sectors where new actions, or enhanced existing actions, to reduce *greenhouse gas* emissions would significantly contribute to achieving the City's *greenhouse gas* reduction targets and *emissions budgets*.

1. For greater certainty, the Action Guidance may include information on the types of actions that have potential to significantly reduce *greenhouse gas* emissions in those sectors, whether or not those types of actions have been the subject of previous Council direction for study or reporting.

FF. City Divisions, Agencies and Corporations shall consider the Action Guidance and, prior to June 30, notify the City Manager, Chief Financial Officer and Treasurer, and Executive Director, Environment & Climate, of any proposal(s) for new or enhanced existing actions to reduce *greenhouse gas* emissions that could be included in capital and/or operating budgets in the following year.

GG. Prior to the submission of budget proposals to Council, the Chief Financial Officer and Treasurer, and Executive Director, Environment & Climate, shall:

1. For new actions to reduce *greenhouse gas* emissions, or enhanced existing actions to reduce *greenhouse gas* emissions, assist the relevant City Divisions, Agencies or

Corporations in developing estimates of the *greenhouse gas* reduction impact of the actions, where feasible, and capital and/or operating budget impact of the actions; or

2. For existing actions to reduce *greenhouse gas* emissions that, in the opinion of the Executive Director, Environment & Climate, may significantly reduce *greenhouse gas* emissions in Toronto, prepare estimates of the *greenhouse gas* reduction impact of the actions, where feasible, and capital and/or operating budget impact of the actions.

HH. Concurrent with the submission of budget proposals to Council by City Divisions, Agencies and Corporations, the City Manager and Chief Financial Officer and Treasurer, assisted by the Executive Director, Environment & Climate, shall submit to Council a Carbon Budget Report addressing collectively the actions included under sub-article § 669-4, GG, (1) and (2).

1. The Carbon Budget Report must contain the information set out in Schedule 1 to this Chapter.
2. Where the Executive Director, Environment & Climate is of the opinion that an action reviewed under sub-article § 669-4, GG, (1) or (2) is not likely to significantly reduce *greenhouse gas* emissions in Toronto, that action shall not be included as part of the Carbon Budget Report.

II. For greater certainty, City Council approval of funding for the actions addressed in the Carbon Budget Report will be decided via approval of the capital and operating budgets for each City Division, Agency or Corporation designated as leads for each action included in the Carbon Budget Report.