



EV-Ready New Developments in Toronto Workshop – June 15, 2022

Workshop Purpose & Desired Outcomes

Purpose: Engage with Toronto development industry to support EV ready new developments

Desired outcomes:

- Participants gain better understanding of Toronto's EV ready requirements for new developments and strategies to minimize the cost of meeting these requirements
- City of Toronto staff gain better understanding of the development industry's needs for meeting the EV ready requirements and information resources that can help meet these needs.

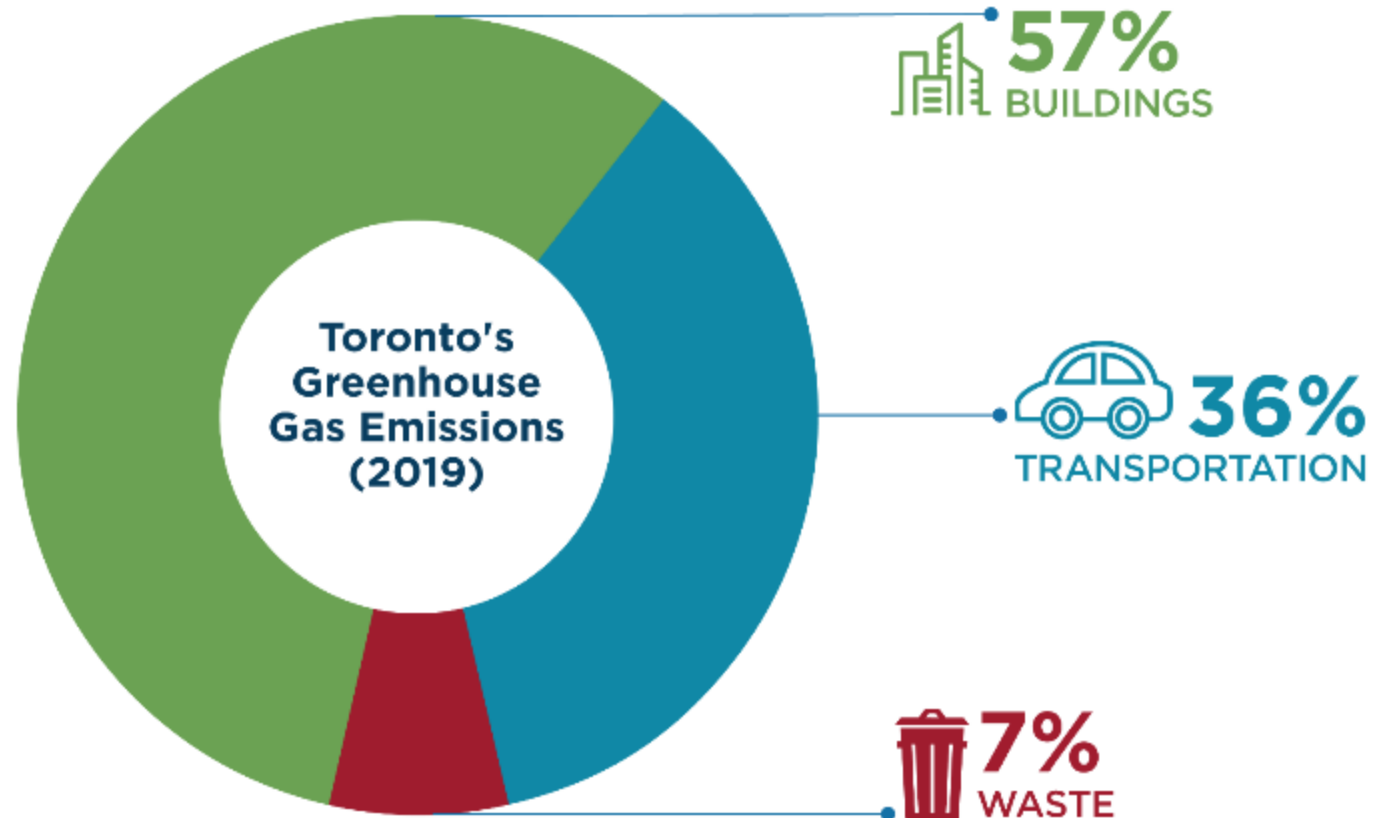
Workshop agenda

- 8:30 am Workshop start and presentations
- Brief overview of TransformTO
Sophie Plottel, Program Manager, City of Toronto
 - Toronto's EV-ready requirements for new developments
Lisa King, Senior Planner, City of Toronto
 - 100% “EV Ready” Requirements: Why they exist, how to comply, and design strategies to maximize value
Brendan McEwan, Managing Consultant, Dunsky Energy Consulting
 - Toronto Hydro's role in supporting low carbon transportation
Marc Simmons, Climate Action Plan Project Team (secondment), Toronto Hydro
- 10:10 am Refreshment break and networking
- 10:30 am
- Opportunities & Challenges in Implementing 100% “EV Ready” Multifamily Condominium Developments: ASPAC Developments’ Experience
Jim Twining, Senior Project Manager, ASPAC Developments
- 11:00 am Breakout groups: What information resources would best support Toronto's development industry in meeting EV charging infrastructure requirements?
- 11:30 am Wrap up
- 11:35 am Catered lunch, networking and EV test drives (optional)



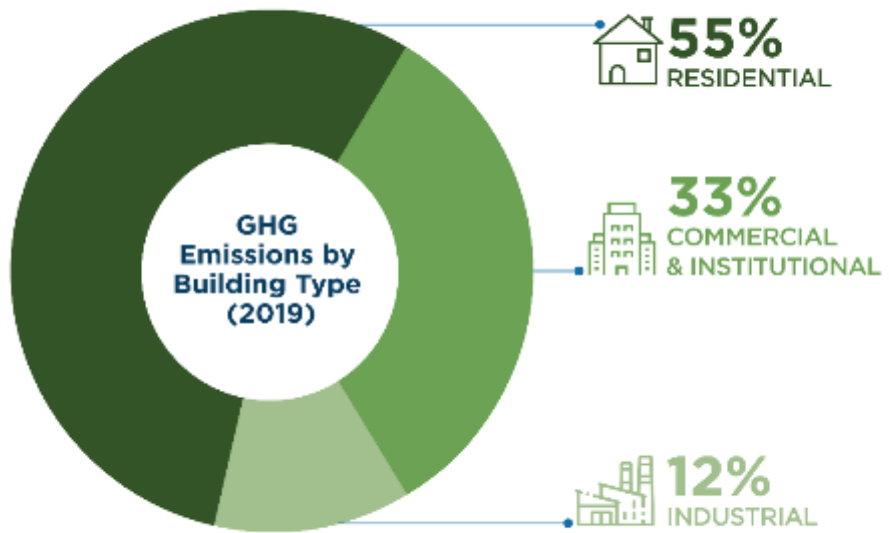
TransformTO Climate Action in Toronto

Where Toronto's Emissions Come From

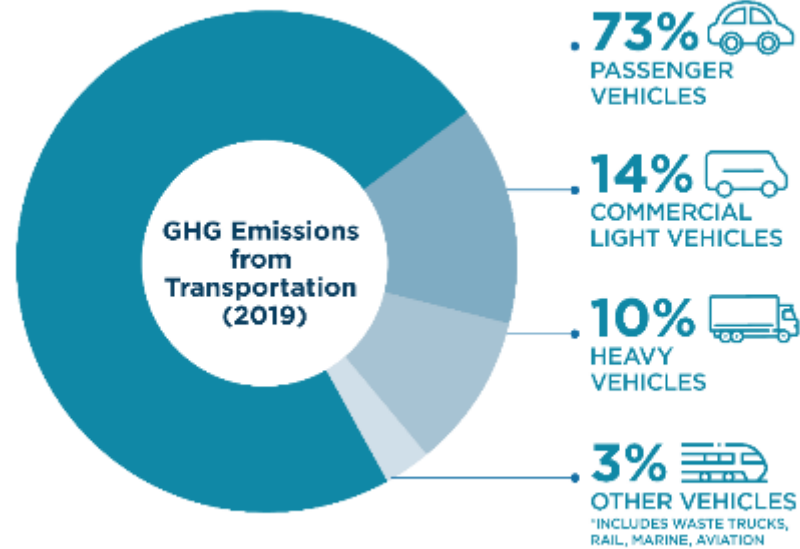


Toronto GHG Emissions by Sector

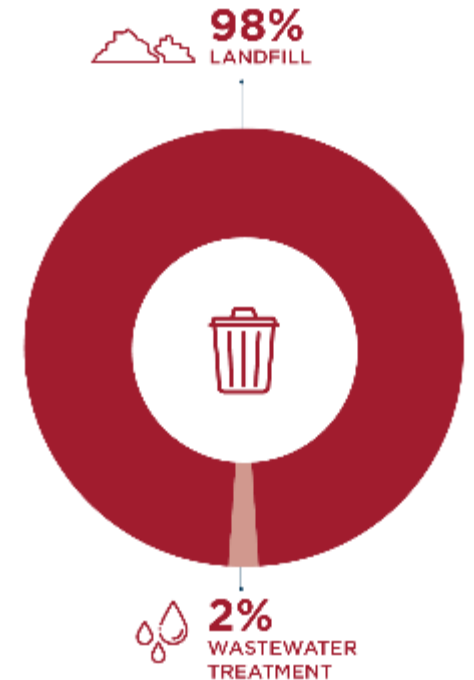
Buildings (57%)



Transportation (36%)




Waste (7%)



Climate Perceptions & Attitudes Survey

When it comes to climate action, Toronto residents...

are concerned about climate
change and its effects on our city:

78% 

agree that everyone needs
to reduce their emissions:

91% 

link climate change
with extreme weather:

76% 


don't know what they can do
to address climate change:

42% 

agree climate change affects
personal health and well-being:

89% 

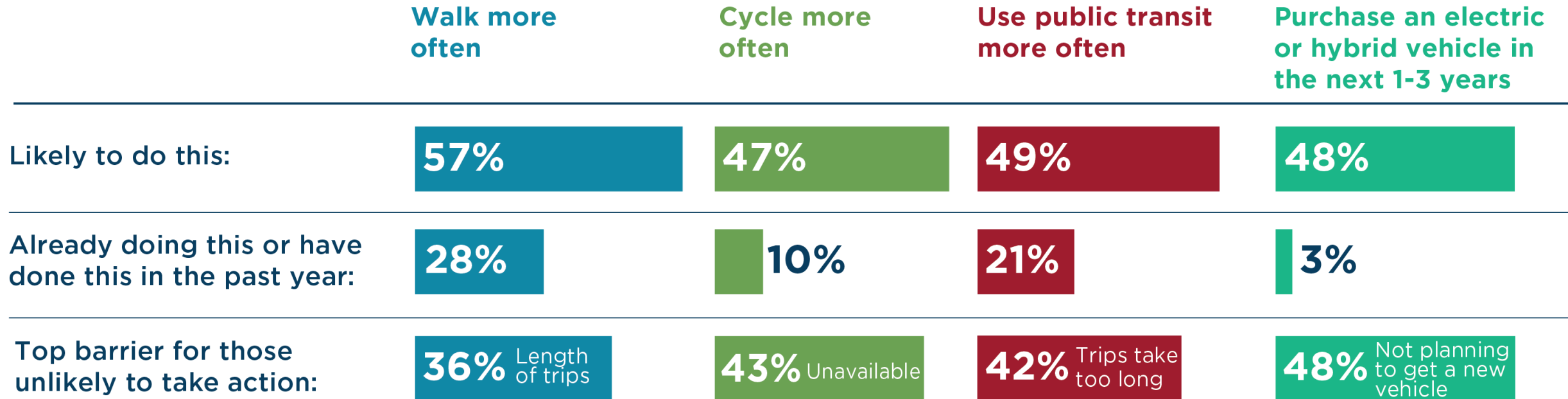
are aware of TransformTO
climate action strategy:

23% 

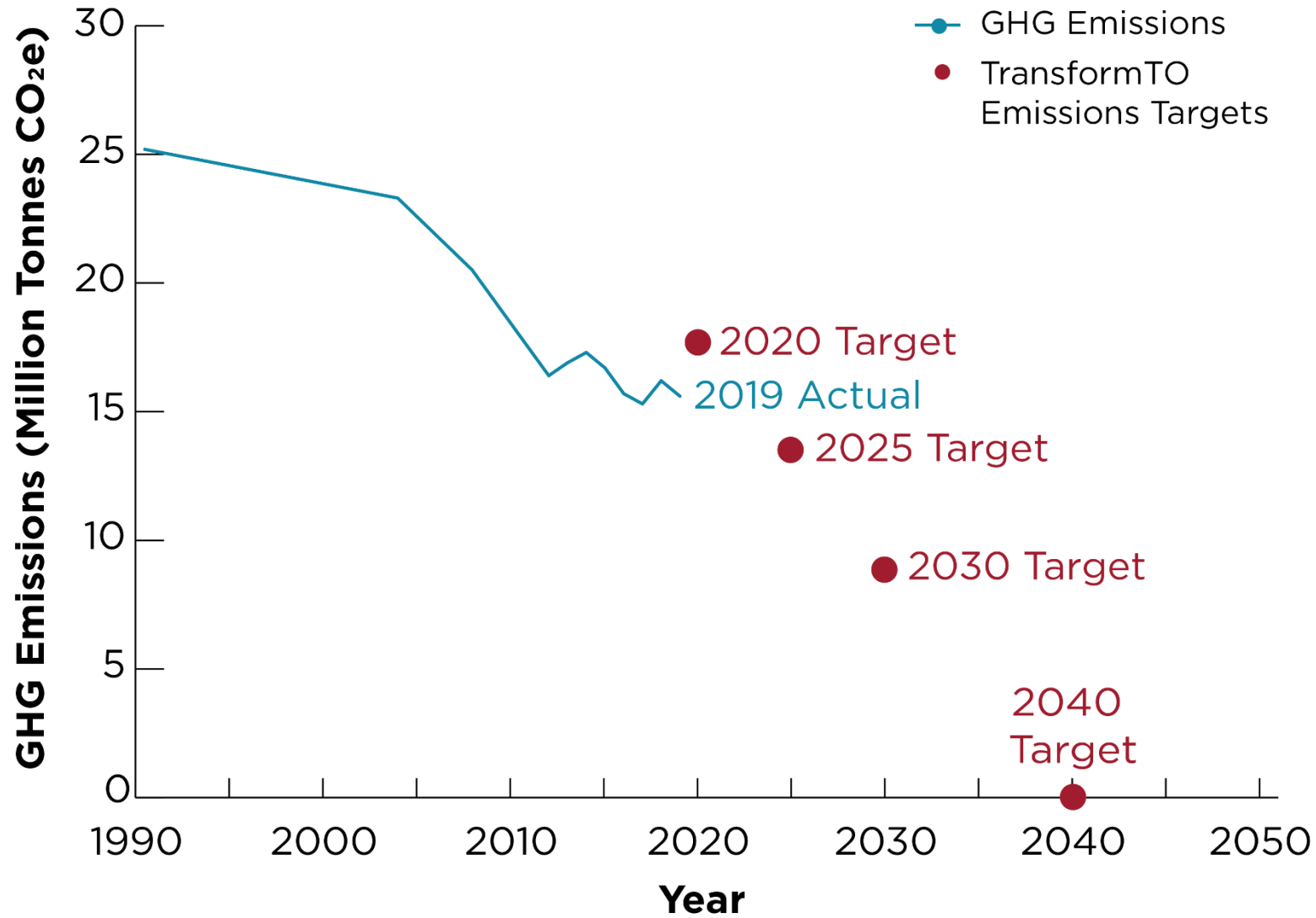
Climate Perceptions & Attitudes Survey

Key Stats: Transportation

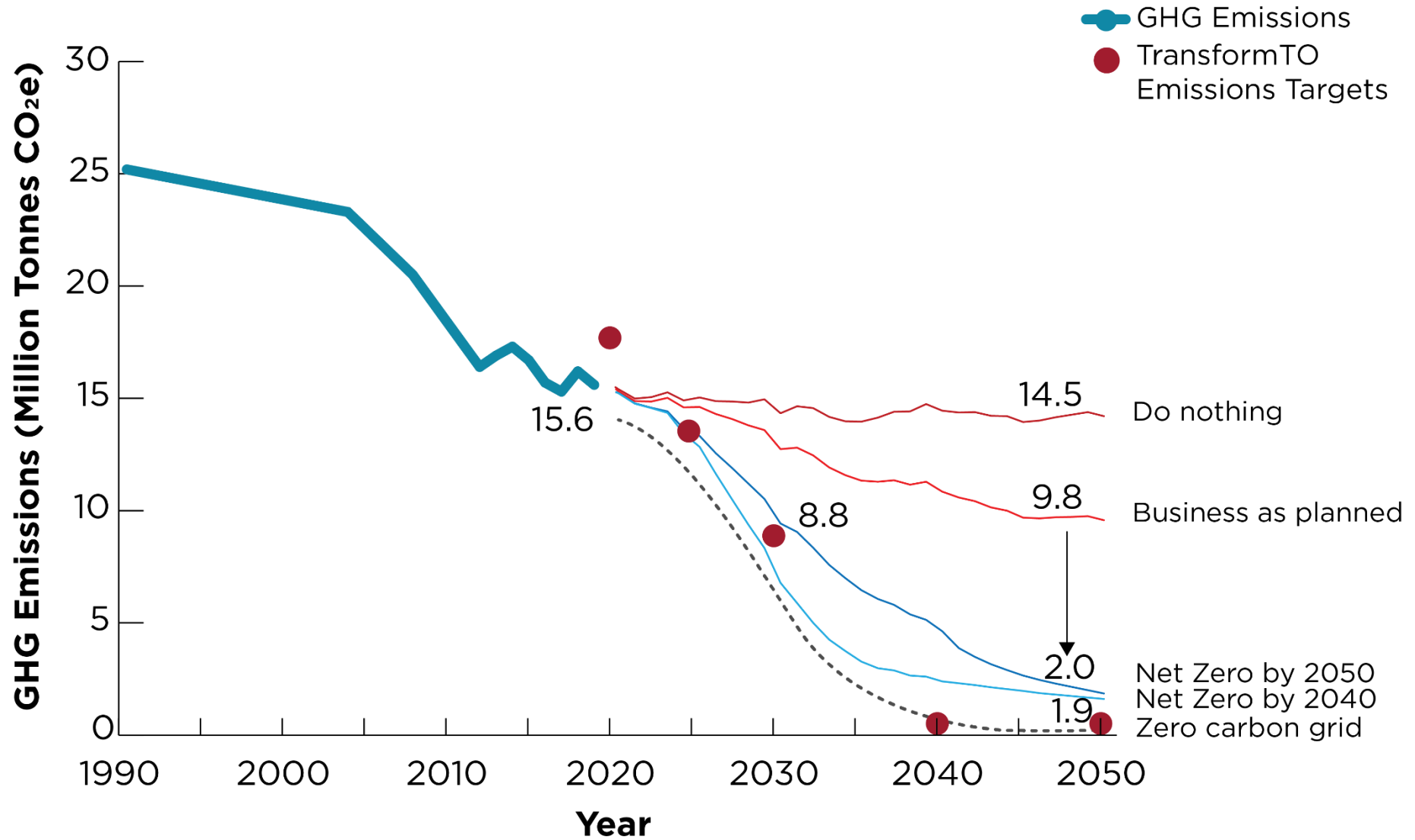
When it comes to climate action, Toronto residents report that they are...



Toronto's GHG Emissions and Targets



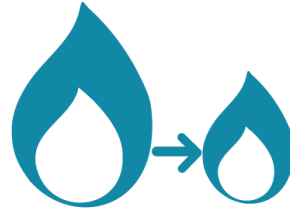
Toronto's GHG Emissions and Targets



Five Critical Steps



**Carbon accountability
through carbon budgets**



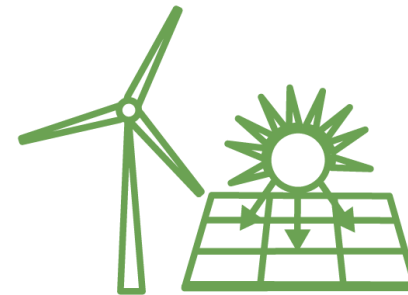
**Accelerate significant
reduction of natural gas**



**Establish building
performance targets**



**Increase low carbon
transportation options**



**Increase local renewable
energy & storage**

New TransformTO Strategy (December 2021)

- Net zero GHG emissions by 2040
- Sector-based targets for 2030 (buildings, transportation, energy, waste)
- 45% reduction in community-wide GHG emissions by 2025, from 1990 levels
- Detailed Net Zero Strategy matching each sector-based target with a set of 30 short-term actions for 2022-2025

TransformTO 2030 Goals

100% 

of new buildings are designed to net zero GHG emissions

50% 

decrease in emissions from existing buildings (from 2008 levels)

50% 

of energy comes from renewable or low-carbon sources

25% 

of commercial/industrial floor area uses low-carbon thermal energy

30% 

of registered vehicles in Toronto are electric

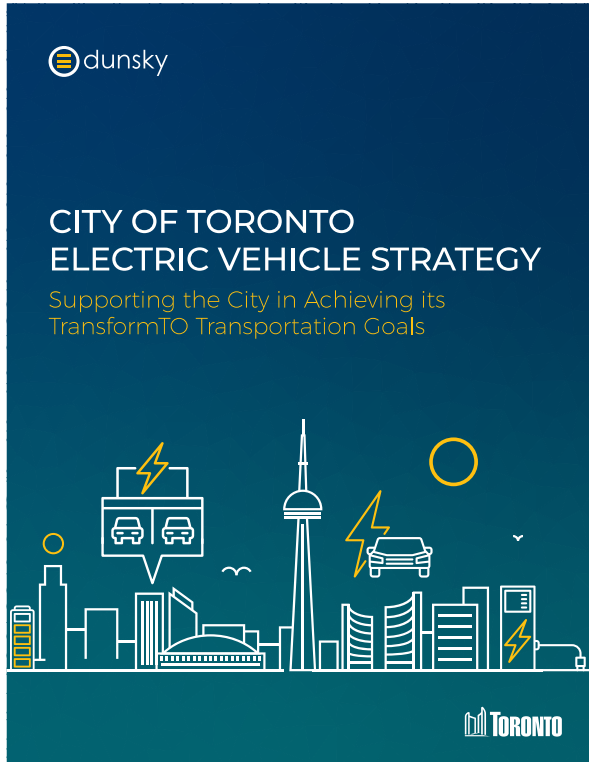
75% 

of school/work trips under 5km are walked, biked or by transit

70% 

of City of Toronto residential waste is diverted

Electric Vehicle Strategy



Approved by City Council
Jan. 29, 2020

Focus on light duty vehicles

Targets – share of EVs in
total registered personal
vehicles in Toronto:

- 5% by 2025
- 20% by 2030
- 80% by 2040
- 100% by 2050

← New: 30% of total registered vehicles



Federal targets

Share of ZEVs in new light-duty
cars and passenger trucks sales:

- 20% by 2026
- 60% by 2030
- 100% by 2035

EV Strategy Areas of Opportunity

EV charging infrastructure requirements for new buildings



A. Charging Availability

Increasing the real and perceived availability of charging infrastructure

B. Cost and Convenience

Reducing the overall cost (both financial and non-financial) of owning and using EVs

C. Education & Advocacy

Increasing EV awareness and comfortableness among consumers and key stakeholders

D. Economic Opportunities

Capturing the economic benefits associated with the transition to electric mobility



Questions?

Sophie Plottel
Program Manager, Policy & Research
Environment & Energy Division
Sophie.plottel@Toronto.ca



Electric Vehicle Requirements

EV Amendments to Zoning By-law 569-2013
& Updates to the Toronto Green Standard

Lisa King, City Planning Division

June 15, 2022



Toronto Green Standard (Version 4)

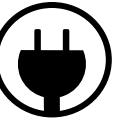
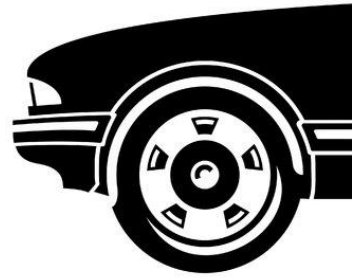
- Sustainable design requirements for NEW private and City-owned developments since 2010
- TGS V4 applies to all new applications received after **May 1, 2022**
- EV requirements have changed



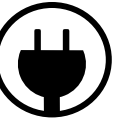
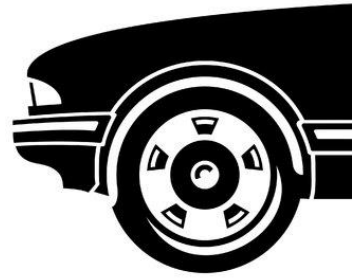
Zoning By-law Amendments

City Council approved December 15, 2021 (*Item PH29.3*)

- ZBL 569-2013 auto related amendments, including EV requirements, came into force in February.
- Some of the amendments include:
 1. Removal of Minimum Parking Supply Requirements
 2. No Minimum or Maximum Parking Requirements for Low-Rise Residential
 3. Maintaining Accessible Parking Requirements
 4. New Electric Vehicle Requirements & Permissions
- <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.PH29.3>



EV Infrastructure



New 'EV Ready' Parking Requirements:

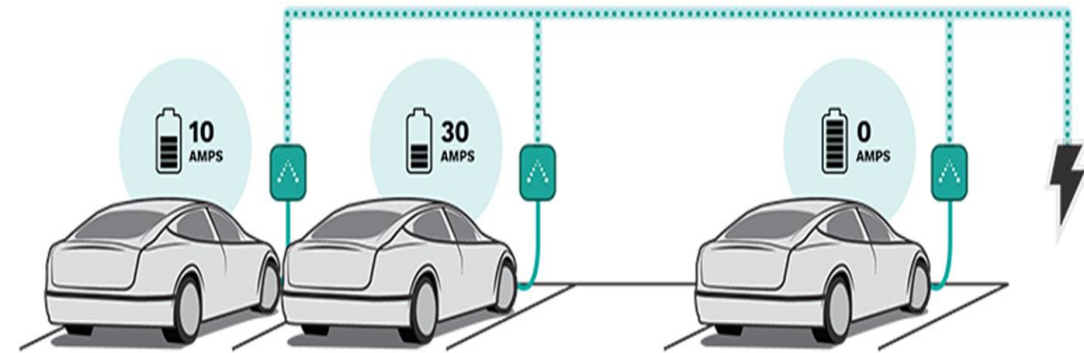
- All parking spaces (indoor) for residents must be EV Ready and 25% of all other parking spaces in development must also be EV Ready.
 - EV ready refers to provision of an energized outlet capable of supplying "level 2" charging. The parking space is fitted with a 240V electric receptacle or equivalent junction box that is ready to receive EV charging equipment.
 - In addition, to make it easier to install EVSE and limit the number of variance applications, the new zoning amendments introduce permissions for EV infrastructure to be located within the defined areas of the parking space.

Toronto Green Standard V4



Tier 1

- TGS consistent with Zoning By-law 569-2013, as amended, Regulation 200.5.1.10(2) E)
- EV Infrastructure:
 - 100% EV-ready with load sharing for residential (energized outlet)
 - EVEMS monitor and control EV loads
 - 25% EV-ready for “other”/non-residential/visitor spaces
- 15% Electric Bike spaces



***Technical Bulletin to be developed to support applications**

TGS: EV Documentation (Zoning and/or SPA)



AQ 1.2 Electric Vehicle Infrastructure

Toronto

Statistics Template – Toronto Green Standard Version 4.0
Mid to High Rise Residential and all New Non-Residential Development

The Toronto Green Standard Version 4.0 Statistics Template is submitted with Site Plan Control Applications and stand-alone Zoning Bylaw Amendment applications. Complete the table and copy it directly onto the Site Plan submitted as part of the application.

For Zoning Bylaw Amendment applications: complete General Project Description and Section 1.
For Site Plan Control applications: complete General Project Description, Section 1 and Section 2.
For further information, please visit www.toronto.ca/greendevdevelopment

General Project Description	Proposed
Total Gross Floor Area	
Breakdown of project components (m ²):	
Residential	
Retail	
Commercial	
Industrial	
Institutional/Other	
Total number of residential units	

Section 1: For Stand Alone Zoning Bylaw Amendment Applications and Site Plan Control Applications

Low Emissions Transportation	Required	Proposed	Proposed %
Number of Parking Spaces			
Number of parking spaces with EVSE (residential)			
Number of parking spaces with EVSE (non-residential)			

Cycling Infrastructure	Required	Proposed	Proposed %
Number of long-term bicycle parking spaces (all-uses)			
Number of long-term bicycle parking located on:			
a) first storey of building			
b) second storey of building			
c) first level below-ground			
d) second level below-ground			
e) other levels below-ground			

LEGEND

- VER. BICYCLE STALL 1.20Mx0.57M HxR
- BICYCLE STACKERS 1.20Mx0.57M
- OUTDOOR AMENITY SPACE 1.296 SQ.M
- PARKING SPACE EQUIPPED W/ ELECTRICAL CHARGE STATION

REVISIONS

NO.	DATE	DESCRIPTION
2	2024/02/19	ISSUED FOR BLOCK CONTEXT PLAN DISCUSSION
1	2024/02/19	ISSUED FOR BLOCK CONTEXT PLAN DISCUSSION

DRAWING STATUS: _____
STATUS APPROVAL: _____
DATE: _____

ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DIMENSIONS ARE NOT TO BE CHANGED.

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STARLIGHT INVESTMENTS
25 FISHERVILLE RD. DEVELOPMENT

P2 LEVEL PLAN

Level 2 Energized Outlet

GARBAGE RM
74 M²
2.44

TRI-SORTER AND COMPACTOR INSTALLED

TGS Version 4 Website

Toronto Green Standard Version 4

Applying the TGS sets your development apart: high performance, high quality, low emissions and future-proofed. TGS v4 developments will contribute to savings of over 1MT CO2e cumulative greenhouse gas emissions by 2050, or taking more than 300,000 cars off the road each year.

Applications submitted on or after May 1, 2022 are required to meet Version 4 of the Toronto Green Standard. Tier 1 performance measures must be met and compliance is reviewed through the planning approval process. Applications pursuing the voluntary Toronto Green Standard [Development Charge Refund Program](#) must meet the program requirements in addition to Tier 1. Select the Standard that best applies to the development that is the subject of your application below.

Low-Rise Residential Version 4

Residential development less than 4 storeys with a minimum of 5 dwelling units.

Mid to High-Rise Residential & Non-Residential Version 4

Residential apartment development 4 storeys and higher and all Industrial, Commercial and Institutional (ICI) developments.

City Agency, Corporation & Division-Owned Facilities Version 4

Non-residential development for all City Agencies, Corporations & Divisions.

Energy Modelling Guidelines Version 4

Guidelines on meeting the energy efficiency requirements.

Mid to High-Rise Residential & Non-Residential Version 4



The Arbour, George Brown College, Moriyma & Teshima Architects and Acton Ostry Architects

The Toronto Green Standard Version 4 for Mid to High-Rise Residential & Non-residential development, applies to residential apartment buildings 4 storeys and higher, and all Industrial, Commercial and Institutional (ICI) developments. Tier 1 performance measures are required for all planning applications. Tier 2 and 3 performance measures are voluntary and associated with the Toronto Green Standard [Development Charge Refund Program](#).

Refer to the numbered Specifications and Resources provided below each standard for details on how to apply the requirement.

Checklists & Templates

Complete the Checklist and Statistics Templates with each planning submission to demonstrate compliance with the TGS.

Air Quality

Performance measures for low emissions transportation & mobility.

Buildings Energy, Emissions & Resilience

Performance measures to optimize energy efficiency, reduce GHG emissions and enhance building resilience to extreme weather.

Water Quality & Efficiency

Performance measures for stormwater management, green infrastructure and potable water reduction.

Ecology & Biodiversity

Performance measures to enhance the urban forest, increase biodiversity and minimize urban heat islands.

Waste and the Circular Economy

Performance measures to divert waste going to landfill and use sustainable building materials.



Michael Hain

Program Manager

Transportation Planning

416-392-8698

Michael.Hain@toronto.ca

Lisa King

Senior Policy Planner

Strategic Initiatives, Policy & Analysis

416-392-9698

Lisa.M.King@toronto.ca

Heather McDonell

Senior Transportation Planner

Transportation Planning

416-396-7025

Heather.McDonell@toronto.ca