Toronto Emissions Decline but 2030 Target Looms Large

2016 Greenhouse Gas Emissions Inventory

TransformTO

SUMMARY

As part of its community-wide climate plan, TransformTO, the City of Toronto measures annual progress of its greenhouse gas (GHG) emission reductions. Even as Toronto's population soars, the city is making significant progress. As of 2016, **Toronto has reduced its emissions 6% since 2015 and 33% since 1990, surpassing the city's 2020 target ahead of schedule**. When compared to similar cities around the world, this progress underscores Toronto's climate leadership. But it's important not to take current progress for granted.

Toronto may have surpassed its 2020 target in 2016, but this was partly due to an unseasonably warm winter, causing natural gas consumption to be lower than usual for heating buildings. One colder winter could tip back the scales. Additionally, the majority of Toronto's reductions so far are related to one big play—the phasing out of coal-fired electricity generation carried out by the province. As a result, emissions from electricity have declined considerably. Now that this one big measure is complete, the next phase of reduction will require the city and its residents to carry out much wider transformation involving multiple measures—and the 2030 target of 65% reduction poses a much steeper challenge only eleven years into the future. **To continue on the path to progress and avoid dangerous climate change, Toronto will need to step up the pace of actions in the TransformTO plan, and fast**.

ABOUT TORONTO'S GREENHOUSE GAS INVENTORY

A GHG inventory measures the emissions in a given region using data from energy consumption in buildings, vehicles, waste, and industry. Governments and the public can use inventories to better understand emission sources and trends and track progress towards meeting a reduction goal. Reporting this progress is an important climate action for cities, and a key component of the TransformTO plan. The city shares its inventory annually via the C40 Cities network and its research methodology is in line with international standards.[2] View the data and compare other cities using the C40 dashboard here.

TORONTO'S TARGETS

Based on 1990 levels, the targets are:

30% by 2020
(currently at 33% reductions)

65% by 2030

80% by 2050

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2   Toronto's reporting methodology is in line with the Greenhouse Gas Protocol for Community-scale GHG Emission Inventories.

How does Toronto stack up against other cities?

Though factors vary in terms of city boundaries and most recent year of available data, the C40 platform allows us to generally compare our emissions to other cities around the world. Of these seven cities with relatively similar climates, Toronto is one of the leaders on reducing the most emissions since 1990.

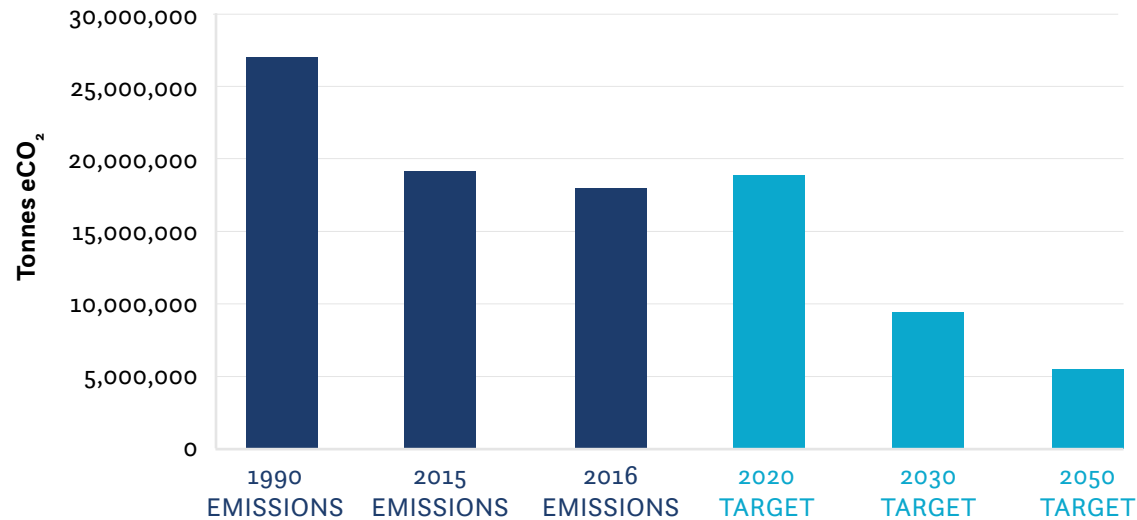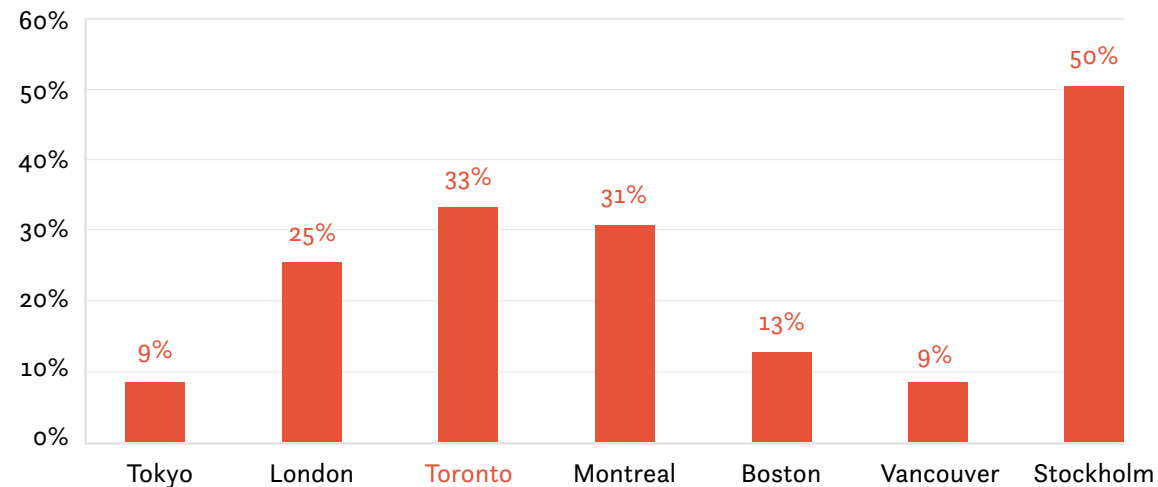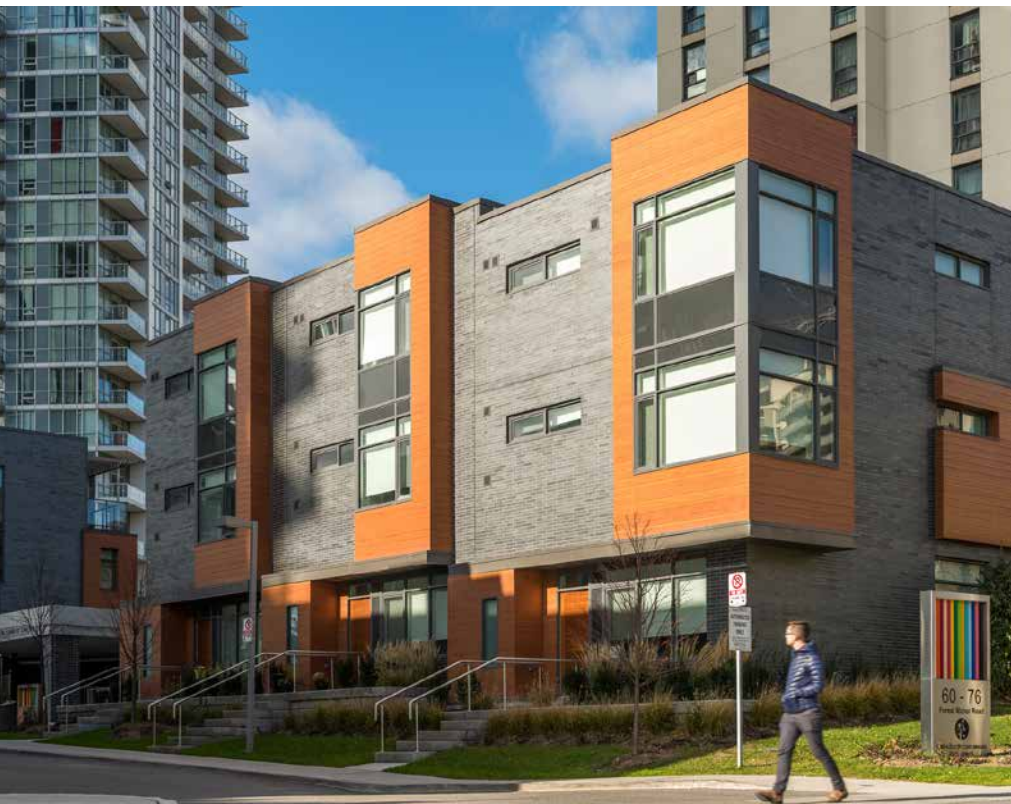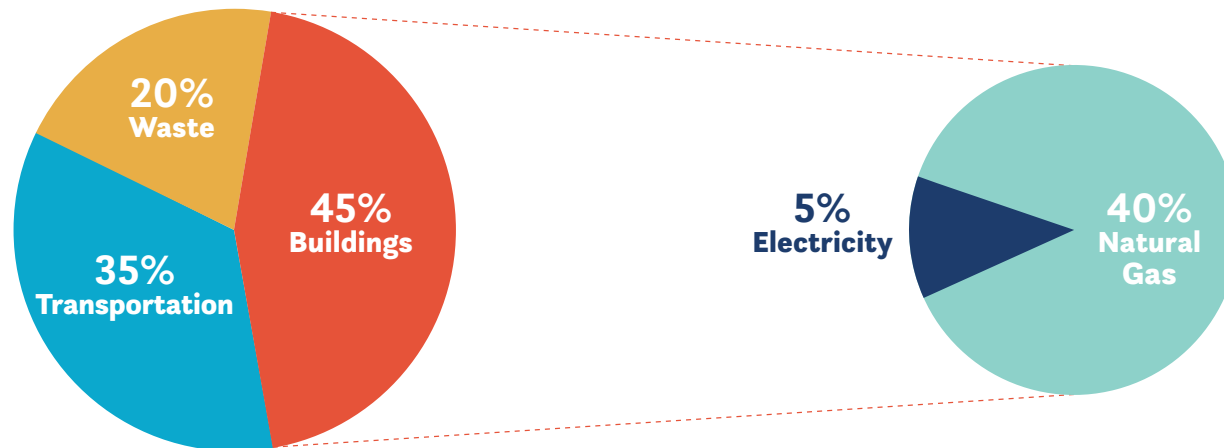**Figure 1: Emissions Progress Compared to Targets**

Figure 2: C40 City Comparison: Percentage of GHG emission reductions since 1990

SOURCES OF GHG EMISSIONS 2016

Figure 3: Where did Torontonians emit the most in 2016?

20% Waste
45% Buildings
35% Transportation

5% Electricity
40% Natural Gas

BUILDINGS:
Bold action will help climate and create jobs

Energy used in homes and commercial buildings accounts for nearly half of Toronto's GHG emissions, dominated by natural gas used for heating space and hot water. Ensuring we hit the 2020 target, especially if we experience a colder winter, requires redoubling gas conservation efforts. TransformTO modelling shows that getting on track for longer term targets requires that all new buildings be near-zero emission by 2030, and that deep energy retrofits are performed on all existing buildings by 2050. **Retrofit activity can also spur social housing renewal while creating good jobs to support a healthy local economy.** Higher standards for new buildings are required (stepping up current regulations under the Toronto Green Standard), as well as commitment to the capture and strategic use of data from the Province of Ontario's energy reporting and benchmarking policy.

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TRANSPORTATION:
We need to get active and electrify!

Transportation is Toronto's second biggest source of emissions. **As we increase our population at the current rate (equivalent to adding a medium-sized Canadian city every year!) immediate action is needed to achieve the required reductions while the city grows**. Emissions data from transportation has been unavailable since 2008, but updated data will be available in early 2019. What is clear now is that about 80% of transportation emissions come from passenger vehicles like cars and SUVs. **Improved transit, active transportation, and low carbon vehicles are key components of the TransformTO strategy**. To reach the 2050 target, 75% of all trips less than 5 km will need to be walked or cycled, actions which also improve public health. Switching personal and transit vehicles to electric significantly reduces carbon and air pollution and creates opportunities to improve reliability of our electricity supply. But this can impact affordability and poses challenges for our aging power grid. We need careful planning to ensure we maximize the benefits from the electric vehicle transition for all members of the community.

WASTE:
Working towards a zero waste future

Due to improvements in waste management and installing methane capture at the City's landfills, emissions decreased 32% below the 1990 baseline. However, there has been significant increase since 2013. Part of this is due to a change in inventory accounting methodology[2] but waste emissions may be showing an upward trend. **Toronto has set a goal of diverting 70% of its waste away from landfills by 2026 and supports progressive moves towards a circular economy and zero waste future**. In order to meet this goal Toronto will have to implement all of the changes in its cutting edge Long Term Waste Strategy.

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2   Methane's Global Warming Potential was increased from 21 to 34

WHAT'S NEXT?

TransformTO research shows that we can reach our targets using existing technology while creating many valuable community benefits. However, achieving them will require transformational changes in how we live, work, commute and build. Toronto City Council adopted three campaigns needed to meet the urgency of the challenge based on **high performance buildings, electric mobility, and low-carbon neighbourhoods**. Related actions like home retrofits and expansion of transit, walking and cycling bring local benefits like walkability, stable energy supply and improved housing. But to make these efforts successful, we need input and support at the neighbourhood level, focusing on building local leadership and skills to shape constructive conversations and decision-making.

To find out more about the actions required and how to get involved, visit TransformTO.ca.

Summary created by The Atmospheric Fund

TAF The Atmospheric Fund