



**TransformTO:
Getting to net zero**

Public Consultation Report

November 2021



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About this report

Executive Summary

In the summer of 2021, the City of Toronto held an online consultation program to collect public feedback on the proposed TransformTO Net Zero Strategy climate actions.

During the consultation period approximately 1,025 Torontonians and interested parties participated in an online survey, 677 viewed an explainer video, 110 submitted ideas through an online Idea Board and 70 participated in 10 community discussions.

The TransformTO Net Zero Strategy will include climate actions that will help the city meet the 2030 short-term greenhouse gas reduction goals and set Toronto on the path to net zero by 2050, or sooner. With previous input from Torontonians, key climate actions were identified for reducing emissions from each of the largest sources of greenhouse gases in Toronto.

Participants were asked to prioritize which climate actions should be implemented in the short-term to make sure the city of Toronto meets its 2030 short-term greenhouse gas reduction target and beyond. Participants were also asked to consider what these actions might look like in their community and their households and provide insight on which climate actions might be challenging if implemented.

The survey presented the climate actions in their respective categories and participants were asked to choose:

- Up to three **'buildings'** actions they believe are the highest priority
- Up to three **'energy'** actions they believe are the highest priority
- Up to three **'transportation'** actions they believe are the highest priority
- One or two **'sustainable consumption and waste'** actions they believe are the highest priority
- Up to four **'greenspace, and decision-making and equitable engagement'** actions that they believe are the highest priority



The survey and community discussion participants selected the following climate actions as highest priority:

Buildings

- Support early action to make retrofits that improve efficiency, comfort and the switch away from fossil fuel heating easier and more affordable for home and building owners.
- Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.
- Set requirements to report on and limit greenhouse gas emissions from homes and buildings.

Energy

- Increase installation of rooftop and ground-mount solar panels.
- Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.
- Support district energy system owners and developers with the implementation of low-carbon energy solutions.

Transportation

- Expand public transit and accelerate implementation of bus rapid transit.
- Expand bike and pedestrian infrastructure and priority zones.
- Continue electrification of the Toronto Transit Commission fleet.

Sustainable consumption and waste

- Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).

Greenspace, decision-making and equitable engagement

- Increase tree canopy cover, biodiversity and enhance greenspaces.
- Adopt a corporate-wide climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.



- Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.
- Work with Indigenous communities to share knowledge.

Rationale and further descriptions of the feedback received is available in the **Summary of Findings** section.

Several overarching themes and recommendations emerged from all of the consultation activities when participants were asked what supports the community might need in order to take climate action:

- **City involvement:** The majority of participants urged the City to take an active role in enforcing climate-positive actions.
- **Incentivization:** Participants urged the City to incentivize climate-positive actions.
- **Education:** Participants consistently suggested that the City should increase education and outreach, especially to a more diverse group of Torontonians.
- **Corporate action:** Participants strongly advised the City to require all corporations that operate within Toronto to adhere to the net zero goals and contribute to the idea-generation, planning and strategy, mobilization and funding of climate actions.
- **Political commitment:** Participants believe the City should enforce strong environmental and emissions policies.

A full breakdown of the suggested supports needed is available in the **Summary of Findings** section.

About the TransformTO Net Zero Strategy

TransformTO is Toronto's climate action strategy. Unanimously passed by Toronto City Council in 2017, TransformTO lays out a set of long-term, low-carbon goals and strategies to reduce local greenhouse gas emissions and improve health, grow the economy, promote social equity and improve climate resilience. In the fall of 2019, Toronto City Council voted unanimously to declare a climate emergency and directed staff to report back on an accelerated goal of net zero emissions by 2050 or sooner.



In response, the City is building on the initial TransformTO strategy, the TransformTO Implementation Plan, the Impacts and Opportunities Report from Toronto's Office of Recover and Rebuild, the Indigenous Knowledge Workshop and all community feedback received to date, to develop a Net Zero Strategy that will lead Toronto on a path to achieving net zero by 2050, or sooner. This bold strategy will include short-term goals of reducing greenhouse gas emissions by 65 per cent by 2030; a key milestone on the path to net zero.

The TransformTO Net Zero Strategy will include ambitious goals in the areas of buildings, energy, transportation, sustainable consumption & waste, greenspace, and decision-making and equitable engagement.



About the Climate Actions

The TransformTO Net Zero Strategy will include climate actions that will help the city meet the 2030 short-term greenhouse gas reduction goals and set Toronto on the path to net zero by 2050, or sooner. With previous input from Torontonians, key climate actions were identified for reducing emissions from each of the biggest sources of greenhouse gases in Toronto. This consultation presented the list of climate actions to solicit feedback that will advance the Net Zero Strategy.

The list of proposed climate actions presented for consideration include:

Buildings

- Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.
- Require net zero emissions for construction of City-owned buildings.
- Support building owners to use low-carbon materials for new construction.
- Set requirements to report on and limit greenhouse gas emissions from homes and buildings.
- Support early action to make retrofits that improve efficiency, comfort and the switch away from fossil fuel heating easier and more affordable for home and building owners.
- Support the creation of jobs in the building sector and build industry capacity to enable rapid market transformation to scale up zero emission retrofits for existing buildings.

Energy

- Produce renewable natural gas from waste.
- Increase installation of rooftop and ground-mount solar panels.
- Support district energy system owners and developers with the implementation of low-carbon energy solutions.
- Accelerate investment in energy storage.
- Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.



Transportation

- Increase uptake of electric vehicles through incentives.
- Increase electric vehicle charging in public spaces and on private property.
- Expand usage of and support for low-emissions freight and last mile delivery strategies to move goods.
- Expand bike and pedestrian infrastructure and priority zones.
- Expand public transit and accelerate implementation of bus rapid transit.
- Continue electrification of the Toronto Transit Commission fleet.

Sustainable consumption and waste

- Conduct a city-wide consumption-based emissions inventory and set a reduction target.
- Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).
- Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste.

Greenspace

- Increase tree canopy cover, biodiversity and enhance greenspaces.
- Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.

Decision-making and equitable engagement

- Adopt a corporate-wide climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.
- Focus outreach on equity-seeking groups to lead and implement local climate action.
- Work with Indigenous communities to share knowledge.
- Focus on youth engagement and leadership.
- Establish a Climate Advisory Group to reflect the priorities of residents and stakeholders.



About the Consultation Process

The City of Toronto executed a public consultation program to solicit feedback on the proposed TransformTO Net Zero climate actions from June 28 to August 4, 2021. The consultation included:

- A Community Discussion Guide and Net Zero Strategy and Climate Actions Backgrounder
- An explainer video
- An online survey
- An online Idea Board

During the consultation period approximately 1,025 Torontonians and interested parties participated in the online survey, 677 viewed the explainer video, 110 submitted ideas on the Idea Board, and 70 participated in 10 community discussions.

About the participants

The following is an overview of the demographics of the survey participants.

Gender

- Man – 48 per cent
- Woman – 38 per cent
- Gender non-binary – 3 per cent
- Other or prefer not to answer – 10 per cent

Age

- Less than 20 years or prefer not to answers – 4 per cent
- 20-24 years – 4 per cent
- 25-29 years – 9 per cent
- 30-54 years – 50 per cent
- 55-64 years – 15 per cent
- 65 plus years – 19 per cent



Housing

- Own – 61 per cent
- Rent – 27 per cent
- Permanently living with parents or other family members – 6 per cent
- Other or prefer not to answer – 6 per cent

Location

- Participants within Toronto – 72 per cent (747 total)
- Participants outside Toronto but inside GTA – 24 per cent (246 total)
- Participants outside of Toronto and GTA – ~3 per cent (32 total)

About the engagement activities

Online survey

The online survey was launched on June 28, 2021 and was live until August 4, 2021. The objective of the survey was to solicit feedback on the proposed TransformTO Net Zero climate actions. Participants were asked to prioritize which climate actions should be implemented in the short-term to make sure Toronto meets its 2030 short-term greenhouse gas reduction target and beyond. Participants were also asked to consider what these actions might look like in their community and their households and provide insight on which climate actions might be challenging if implemented.

The survey presented the climate actions in their respective categories and participants were asked to choose:

- Up to three **'buildings'** actions they believe are the highest priority
- Up to three **'energy'** actions they believe are the highest priority
- Up to three **'transportation'** actions they believe are the highest priority
- One or two **'sustainable consumption & waste'** actions they believe are the highest priority
- Up to four **'greenspace, and decision-making and equitable engagement'** actions that they believe are the highest priority

For each category, participants were asked to explain why they selected the priority climate actions and which actions might be most challenging for them, their household and/or their community if implemented (if any).



The final question of the survey asked for ideas about what is needed to support and encourage uptake of the net zero climate actions in the community. Examples were provided that included education, outreach, incentives, funding, enforcement, infrastructure, regulation and communications.

At the end of the survey, participants answered optional demographic questions. A copy of the survey questions is included in **Appendix 1**.

Community discussions

Community groups and organizations were invited to host their own discussions about the climate actions. Using the TransformTO supporting resources (see below) seven community groups/organizations and three unaffiliated groups gathered feedback from approximately 70 participants between June 28 and August 4, 2021. Community groups and organizations that participated include:

- Ward 25 Scarborough (Councillor McKelvie)
- Toronto Society of Architects
- Toronto and York Region Labour Council
- Toronto and Region Conservation Authority
- Drawdown Toronto
- RideFairTO
- ClimateFast

Idea board

The City of Toronto created an Idea Board on the EngageTO platform where Torontonians could share ideas related to climate actions. Participants were provided with the supporting resources and were asked how the City can support them and/or their local community to take climate action. Torontonians were asked to share stories and ideas about what would inspire, encourage or assist them to improve the energy efficiency of their home; walk, cycle or take transit instead of driving; and reduce the amount of waste sent to landfill.

A summary of the ideas and stories shared by Torontonians is included in the **Summary of Findings** section.



About the supporting resources

Explainer video

The City of Toronto developed an [explainer video](#) to support the consultation activities. The seven-minute video introduced TransformTO and the Net Zero Strategy, provided a high-level overview of the TransformTO climate actions, and invited participants to complete the online survey and/ or host a community discussion.

The video was developed using simple, eye-catching icons and graphics that present the high-level key messaging to complement the other supporting resources. The video was developed in English with closed captioning available in five languages including Tamil, Tagalog, Spanish, and traditional and simplified Chinese. There were over 650 views of the video during the consultation period while it was available on the project webpage and Live Green Toronto's YouTube account.

Net Zero Strategy and Climate Actions Backgrounder

During the consultation period, Torontonians were invited to review the Net Zero and Climate Actions Backgrounder prior to participating in the online survey or in a community discussion about the TransformTO climate actions. The backgrounder included detailed information about:

- TransformTO and the Net Zero Strategy;
- Current City of Toronto greenhouse gas emissions and sources, and 2030 and 2050 greenhouse gas emissions reduction targets;
- Climate actions categorized by sector; and
- Relevant definitions and terminology (i.e., greenhouse gases, net zero, district energy etc.).

The Net Zero Strategy and Climate Actions Backgrounder was available in six languages, including English, Tamil, Tagalog, Spanish, and traditional and simplified Chinese. The Net Zero and Climate Actions Backgrounder is included in **Appendix 2**.



Community Discussion Guide

The TransformTO Net Zero Community Discussion Guide was designed for community groups, organizations, groups of friends and family, and individuals who wanted to kick-start a conversation in their community about climate change and share their thoughts with the City. It was available for download from June 28 to August 4, 2021.

The guide was adaptable for any size of group or time constraint and was developed with COVID-19 restrictions in mind, assuming most (if not all) discussions would be virtual. The guide was available in six languages, including English, Tamil, Tagalog, Spanish, and traditional and simplified Chinese. The TransformTO Net Zero Discussion Guide is included in **Appendix 2**.

This Discussion Guide included three sections:

1. Tools and resources to host discussions or meetings;
2. Background information about the development of the Net Zero Strategy and the climate actions; and
3. Discussion questions.

The guide provided participants with detailed information about the climate actions and the TransformTO Net Zero Strategy and included discussion questions consistent with the online survey, including:

1. What are the most important net zero climate actions to implement in the short-term? Why?
2. Which net zero climate actions do you think would be the most challenging for you or your community, and why?
3. What is needed to support and encourage uptake of these net zero climate actions in your community?

Responding to all questions was optional. After participants completed their discussion, they were asked to outline their group's discussion and submit a summary electronically.



Summary of Findings

Buildings

Highest priority climate actions

Table 1 below presents the buildings climate actions in order of priority as identified by survey respondents.

Table 1: Buildings priority climate actions

Climate action	Per cent of survey respondents who identified the action as high priority for implementation
Support early action to make retrofits that improve efficiency, comfort and the switch away from fossil fuel heating easier and more affordable for home and building owners.	72 per cent
Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.	69 per cent
Set requirements to report on and limit greenhouse gas emissions from homes and buildings.	40 per cent
Support the creation of jobs in the building sector and build industry capacity to enable rapid market transformation to scale up zero emission retrofits for existing buildings.	36 per cent
Support building owners to use low-carbon materials for new construction.	25 per cent

For each of the three highest priority buildings climate actions for implementation, participants provided rationale and additional comments as outlined below.



Climate Action: Support early action to make retrofits that improve efficiency, comfort, and the switch away from fossil fuel heating easier and more affordable for home and building owners.

Rationale and Comments:

- **Promotes retrofitting:** Many participants support the implementation of retrofits that improve the energy efficiency of existing buildings and believe its adoption should be incentivized because they feel it offers the biggest source of emission reduction and moves the city to carbon neutrality faster. Participants noted that Toronto's existing buildings make up a large portion of emissions and dedicating resources toward retrofitting existing buildings will have the greatest impact because it makes up most of the city's buildings (versus planned/in-development new builds). Participants suggested that the City should support early action to retrofit existing buildings and provide financial incentives or subsidies to install green technology such as the installation of solar panels for greener energy or green roofs, white roofs and other engineering strategies that improve insulation.
- **Changes behaviour:** Many participants consider the adoption of strict regulations that limit natural gas to be a priority and support the enforcement of legislation that require residents/homeowners to immediately stop investing in a fossil-fuel future. For example, responses suggested that Toronto should consider banning the installation of new gas furnaces that have a 15 to 20-year lifespan.
- **Opportunity for green affordable housing:** Participants suggested that current public investment in affordable housing provides the opportunity to promote energy efficient technology and offer cost effective retrofits using subsidized low-carbon supplies. Participants agree that new guidelines for net zero targets should not result in the need to demolish existing structures or affect communities / individuals who cannot afford to meet targets. Participants feel that maintaining established affordable homes for lower income residents is crucial in reducing greenhouse gas emissions.



Climate Action: Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.

Rationale and Comments:

- **Promotes net zero emission construction:** The majority of participants agree that all new developments should be net zero by 2030 or sooner and that the Toronto Green Standard should be applied to set requirements that limit and report on emissions. They feel that it is easier to reduce greenhouse gas emissions in new construction, particularly in the ongoing building operations, with immediate measurable impact. Participants also highlighted the need for investment in low-carbon construction since the building sector is one of the highest emitters of greenhouse gases. Participants also feel that retrofitting homes and buildings can be a complicated process; implementing net zero requirements for the construction of private buildings would mean future homeowners may not have to go through complicated retrofits.
- **Encourages immediate and strategic action:** Many participants support an accelerated collective action comprising of net zero emission standards on all new construction as well as deep retrofits of all existing buildings. Participants recognize that buildings are the biggest contributors to emissions and initiatives that combine green construction and retrofits with low-carbon materials are the most effective at creating wide-scale change that can be implemented quickly and sustainably. Participants suggested that these efforts can be further reinforced by amending the building code to include zero-carbon buildings requirements.
- **Promotes use of low-carbon materials:** Participants urged the City to assist homeowners in lowering their carbon footprint and support builders with low-carbon materials because they feel it gives them more incentive to reach the set targets. Participants noted that buildings contain more embodied carbon than usable carbon and feel that there is an immediate need to use new materials that help lead to net zero emissions. Participants also suggested that new



low-carbon home heating technologies, like heat pumps for example, should be mandatory when planning new buildings. Participants also feel that using energy efficient materials in construction will have immediate impacts compared to operational retrofit benefits that are measured over the life of a building.

Climate Action: Set requirements to report on and limit greenhouse gas emissions from homes and buildings.

Rationale and Comments:

- **Long term sustainability:** Participants believe disciplined reporting of greenhouse gas emissions from homes and buildings is important in creating reasonable environmental targets. They believe that greenhouse gas emissions cannot be reduced if they're not measured. They feel it will allow the City to set appropriate benchmarks and implement practical climate actions to tackle greenhouse gas emissions. Participants suggested that the emissions reporting should be done by utility companies to reduce burden on homeowners, and the data should be entered in a public database. They also recommended that the data should influence real estate values and believe that this will motivate building and housing owners to act.
- **Enables individual accountability:** Participants believe that transparency on household emissions through public reporting will help to reduce greenhouse gas emissions, raise individual consciousness and compliance, and make residents feel accountable for their actions. They also feel that it will put more responsibility on community members who may be better resourced to financially support carbon reduction initiatives. There is strong support for public reporting because many participants believe it will give environmentally-conscious consumers the opportunity to choose a more energy efficient building. They also recommended that the City request energy reports on the sale of existing buildings and mandate retrofits if the building fails to meet set targets.



- **Enhances the Toronto Green Standard:** Participants believe that the requirements in the Toronto Green Standard are not strict and demanding enough to influence the work force and skills in the building sector. They suggested that the Toronto Green Standard should include regulations to report and limit greenhouse gas emissions and provide a predictable roadmap for implementing rapid decarbonization of new buildings. Participants also recommend that the Toronto Green Standard include mandatory requirements for limiting greenhouse gas emissions with the accompanying public reporting and penalties for failure to comply.

Implementation challenges

Public consultation participants identified the following buildings climate actions as those that might be most challenging for individuals, households and communities to implement:

- Support early action to make retrofits that improve efficiency, comfort and the switch away from fossil fuel heating easier and more affordable for home and building owners; and
- Set requirements to report on and limit greenhouse gas emissions from homes and buildings.

The following rationale was provided:

- **Concerns regarding affordability:** The majority of participants raised concerns regarding the significant high cost of home retrofits and fear that government subsidies might not be enough to cover the cost of renovating a house to passable standards. There are also concerns that mandating all existing buildings to be retrofitted might result in landlords imposing unfair rent increases to cover the cost which could negatively affect low-income renters.
- **Absence of building regulations and expertise:** Participants who have retrofitted their homes noted that they found the process extremely difficult to navigate due to the lack of official standards and clear guidelines from the City. They also experienced challenges finding building contractors with the specialized skills and knowledge required to complete energy retrofits on existing buildings.



- Impacts of enforcing emission limits:** Many participants are concerned that requirements to limit greenhouse gas emissions will not account for renters of older buildings. They feel renters in older buildings with less efficient heating and energy sources do not have the authority to make retrofits to the property and would be negatively impacted by any imposed emissions limit. They have observed that the average homeowner does not have the ability to measure household emissions and fulfilling reporting requirements will be challenging without proper guidance and support from the City.

Energy

Highest priority climate actions

Table 2 below presents the energy climate actions in order of priority as identified by survey respondents.

Table 2: Energy priority climate actions

Climate action	Per cent of survey respondents who identified the action as high priority for implementation
Increase installation of rooftop and ground-mount solar panels.	70 per cent
Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.	58 per cent
Support district energy system owners and developers with the implementation of low-carbon energy solutions.	53 per cent
Accelerate investment in energy storage.	45 per cent
Produce renewable natural gas from waste.	42 per cent

For each of the three highest priority energy climate actions for implementation, participants provided rationale and additional comments as outlined below.



Climate Action: Increase installation of rooftop and ground-mount solar panels.**Rationale and Comments:**

- **Efficient and economical technology:** Many participants agree that solar panels are innovative and well established and have become more affordable and adaptable over time. They believe that solar panels are cost-effective with a great return on investment for individual homeowners. Participants also noted that they believe solar panels are cost competitive for mass investment and installation and can be implemented on a large-scale.
- **Ease of implementation:** Many participants support the development of climate policies and direct actions that will encourage the widespread adoption of renewable energy through solar panels. They believe that solar panels are a proven technology that can be installed quickly by amending building codes to require the provision of solar panels on buildings. They also noted that there are many rooftops on warehouses and flat top buildings within the city with the potential to be converted to useful space for generating electricity through solar panels. Participants suggest that the City expand ongoing initiatives like SolarTO to proactively approach businesses/building owners that have a high potential for solar power generation.
- **Encourages energy diversification:** Participants believe the prevalent installation of solar panels will influence developers and energy system owners to divest from fossil fuel energy and move towards sustainable low-carbon energy sources. They also suggested that the City can further encourage community-wide diversification from fossil fuel use by promoting resilient energy policies and supporting local renewable energy solutions with incentives.



Climate Action: Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.

Rationale and Comments:

- **Enables cohesive action:** Participants agree the co-ordination with other levels of government is needed to fully migrate from fossil fuels to renewable energy sources. They believe that collaboration with other levels of government will have a meaningful impact on emission reductions since the provincial and federal governments have greater legislative control over energy policy to stop increasing the supply of oil and gas, and financial capacity to help pay for innovations. They also noted the importance of having provincial and federal actions complimenting local initiatives. Participants believe that implementing a zero-carbon provincial grid is critical to achieving net zero emissions in Toronto. Participants would also like to see provincial and federal support for increased generation of local renewable energy.
- **Generates innovative solutions:** Participants agree that all levels of government need to co-ordinate to develop meaningful and innovative ways to stop our reliance on fossil fuels and continue a transition to renewable energy. They believe the provincial government can support the construction industry in creating better design solutions to meet the net zero target. They also feel that the city needs more energy solutions that can be implemented on a day-to-day basis, for instance, some respondents suggested installing kinetic pavers in sidewalks that can harness energy and be stored for later use.

Climate Action: Support district energy system owners and developers with the implementation of low-carbon energy solutions.

Rationale and Comments:

- **Equitable renewable energy solution:** Participants agree that district energy systems reduce costs for lower income residents and increase social equity by enabling the sharing of system costs across multiple households, offices etc. They noted that the cost of



a zero-emission district thermal heating/cooling system is substantially lower than the cost of installing ground source heat pumps and energy storage systems in individual buildings. However, they noted that the benefits of district energy production and distribution requires broad public involvement and urge the City to invest in more awareness and education resources.

- **Reliable renewable energy solution:** Many participants agree that district energy should be implemented and combined with energy storage solutions to provide reliable climate resilient energy sources. They noted that concerns regarding energy storage is the greatest barrier to wider adoption and reliance on renewable energy sources. Participants believe that an effective district energy system requires investment in energy storage options to reduce grid-demand and withstand power outages.
- **Faster route to emission reduction:** Many participants believe that a zero-carbon district energy system is the fastest and most sustainable route to greenhouse gas emissions reduction because it enables local energy production and energy self-reliance. They feel that district energy has a proven capacity and effectiveness to decarbonize existing fossil-based energy systems such as nuclear facilities because it can achieve major carbon reductions with fewer projects. In order to fully benefit from a district energy system, participants urge the City to enforce design requirements that will support the renewable energy source for new buildings in the city.

Implementation challenges

Public consultation participants identified the following energy climate action as one that might be most challenging for individuals, households and communities to implement:

- Increase installation of rooftop and ground-mount solar panels

The following rationale was provided:

- **Concerns regarding the capital investment and maintenance cost:** Many participants recognize that while solar panels provide significant emissions



and energy cost reduction over time, they are currently an expensive investment because of the upfront purchase and installation cost. They urge the City to provide incentives that will encourage the adoption of solar panels and be transparent in providing information on the cost and level of effort required for maintenance in order to ensure residents can make an informed decision when transitioning to green energy sources.

- **Concerns regarding installation and operation:** Many participants have concerns regarding the practicality of installing and operating solar panels in urban areas due to the possible impact of tall neighbouring buildings in reducing the amount of solar energy received and significantly impacting its performance.

Transportation

Highest priority climate actions

Table 3 below presents the transportation climate actions in order of priority as identified by survey respondents.

Table 3: Transportation priority climate actions

Climate action	Per cent of survey respondents who identified the action as high priority for implementation
Expand public transit and accelerate implementation of bus rapid transit.	67 per cent
Expand bike and pedestrian infrastructure and priority zones.	65 per cent
Continue electrification of the Toronto Transit Commission fleet.	44 per cent
Increase electric vehicle charging in public spaces and on private property.	40 per cent
Expand usage of and support for low-emissions freight and last mile delivery strategies to move goods.	38 per cent
Increase uptake of electric vehicles through incentives.	32 per cent

For each of the three highest priority energy climate actions for implementation, participants provided rationale and additional comments as outlined below.



Climate Action: Expand public transit and accelerate implementation of bus rapid transit.

Rationale and Comments:

- **Impactful emissions reduction potential:** Many participants agree that expanding Toronto's public transportation system has a measurable emissions reduction potential. They have observed that communities with the highest emissions from personal vehicle use often lack efficient rapid transit systems. Participants urge the City to consider the types of future transit systems built. They noted the carbon footprint of constructing and operating a subway produces more carbon than above ground Light Rail Transit systems. They believe that all future rapid transit plans must provide a better transportation alternative by being above ground and available throughout the city to prevent a car-reliant future.
- **Improved accessibility:** The majority of participants believe the expansion of public rapid transit infrastructure is both energy-efficient and equitable. They acknowledged that incentives to increase the adoption of electric vehicles will most likely only be accessible to more privileged individuals. They also noted that residents who need public transit the most are in lower-income areas and the expansion of transit systems must be centred around their needs for accessible and sustainable transit to ensure the greatest positive impact on equity. Participants recommended more investment in accessible and affordable low-carbon public infrastructure particularly in under-served and densely-populated neighbourhoods.
- **Creates a viable transportation alternative:** Many participants agree that a drastic reduction of personal vehicle use (including ride-hailing) is crucial in reducing energy consumption. They feel that electric vehicles still require substantial energy compared to low-carbon travel options and the main priority of the City should be to encourage people to drive less. Participants believe that investments in more reliable and convenient public transit will enable transit to be considered a viable alternative to driving and will reduce car usage. They urge government to consider redirecting road widening funds



into improving public transit options and prioritizing space-efficient and low-carbon modes of travel on our streets.

- **Improves network connectivity:** Participants agree that Toronto desperately needs more comprehensive public transit that prioritizes connectivity to surrounding suburbs. They believe a key transportation priority should be providing more reliable and efficient transit options in places that will reduce traffic, commute times, single occupancy vehicle trips and related emissions. Participants suggested that prioritizing transit over cars on every major route will reduce more greenhouse gas emissions than any other strategy. They believe a network of electric-powered buses that reach under-served neighbourhoods will offer an immediate benefit and reduce people's need for commuting by car.

Climate Action: Expand bike and pedestrian infrastructure and priority zones.

Rationale and Comments:

- **Prioritizes active transportation:** Many participants support the aggressive expansion of active transit networks as a key priority to achieving climate goals. They believe that Toronto strongly needs to rebuild roads as complete streets (i.e., comfortable travel and access for users of all ages and abilities regardless of their mode of transportation). They also believe the City should invest in improvements to cycling and pedestrian infrastructure that are cost efficient to implement, upgrade and that help to decarbonize public spaces.
- **Improved zoning and neighbourhood planning:** The majority of participants support the building of low-carbon spaces and communities. They believe that investment into alternative modes of transportation can make walking, biking, and public transit the easiest choice for travel. They feel that street design should prioritize public transit, bikes, walking and other low-carbon transportation to boost their use and encourage short distance travel patterns by active methods. Participants also suggested that Toronto's restrictive midrise development guidelines are a huge barrier to building homes



on transit corridors and that bike and pedestrian priority zones will improve neighbourhood character and livability. They noted that livable cities with more narrow streets, less cars, access to bikes and pedestrian infrastructure are healthier and safer communities.

- **Community benefit:** Many participants agree that increasing pedestrian and biking infrastructure is a cost-effective way to significantly reduce greenhouse gas emissions and generate broad community benefits. They believe that improved active transportation infrastructure is better for overall health of people and cities. They believe that improving local public transit will positively impact more people, especially equity-seeking groups. Participants also noted that providing reliable, safe, and well-connected infrastructure for active modes of transportation will increase walking and cycling and could also motivate community members to rely more on public transit.
- **Prioritizes safety:** Participants believe that investing in safer cycling infrastructure will encourage more people to bike instead of drive. They are willing to support all initiatives that encourage the expansion of bike infrastructure to increase safety and convenience, specifically through the provision of protected bike lanes.

Climate Action: Continue electrification of the Toronto Transit Commission fleet.

Rationale and Comments:

- **Improved public health:** Many participants agree that the expansion and electrification of all Toronto Transit Commission transportation options is one of the best ways to reduce carbon emissions and improve the overall health of citizens. For example, participants noted that personal electric vehicles still create large volumes of pollution in their manufacturing and use and pollution from conventional vehicle exhaust has been linked to high rates of asthma and other medical issues – reducing the amount of personal vehicles through expanding an electrified transit system will improve air quality for all Torontonians.
- **Environmental targets:** Participants support the electrification of Toronto’s public transit system because they feel it is critical to



meeting environmental targets and climate goals. They believe individual motorized vehicles, either electric or fossil-fuelled, are resource-intensive, require massive unsustainable concrete infrastructure to function, reduce green space and are highly detrimental to achieving our climate obligations. On the other hand, they felt that a fully electric public transit system is less energy intensive, reduces pollution and supports low-carbon active transportation options like walking and biking.

Implementation challenges

Public consultation participants identified the following transportation climate actions as those that might be most challenging for individuals, households and communities to implement:

- Increase uptake of electric vehicles through incentives
- Expand public transit and accelerate implementation of bus rapid transit

The following rationale was provided:

- **Expense of purchasing personal vehicle:** Many participants are concerned that climate actions that focus on increasing the adoption of electric vehicles will be challenging to implement because electric vehicles – even with incentives – will be unaffordable for many people, specifically those in lower-income households. They also noted that while electric vehicles have significantly lower emissions than traditional gas fuelled cars, they still promote a car reliant culture with significant societal and environmental consequences.
- **Concerns regarding transit reliability:** Many participants are concerned that the current unreliability of the city's transit systems might make residents resistant to abandoning their cars and adopting public transit as a primary mode of travel. They also noted that prioritizing transit will be particularly difficult for residents living outside the downtown core with less reliable transit options.



Sustainable consumption and waste

Highest priority climate actions

Table 4 below presents the sustainable consumption and waste climate actions in order of priority as identified by survey respondents.

Table 4: Sustainable consumption and waste priority climate actions

Climate Action	Per cent of survey respondents who identified the action as high priority for implementation
Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).	78 per cent
Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste.	40 per cent
Conduct a city-wide consumption-based emissions inventory and set a reduction target.	39 per cent

For the highest priority sustainable consumption and waste climate actions for implementation, participants provided rationale and additional comments as outlined below.

Climate Action: Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).

Rationale and Comments:

- Discourages throwaway culture:** Many participants stated that they believe this climate action would discourage a throw away culture. Participants noted that they would like to support a circular economy that focuses on product longevity, renewability, reuse, and repair as opposed to disposal, but certain roadblocks prevent its adoption. For instance, some respondents have observed that repairing an item often costs more than buying a new one. They also noted that to ensure the adoption of a circular economy, the City needs to enforce standards to ensure high-quality, longer lasting products, and permit co-ops for sharing items and resources.



- **Promotes packaging regulation:** Many participants observed that climate targets to reduce city-wide material consumption and increase circularity are needed and will help to promote packaging regulation. Participants noted that this climate action will most likely be impacted by the lack of regulation regarding the use of non-reusable materials in packaging. They believe that there needs to be an immediate enforcement of fines and taxes that target manufacturers (when possible) to reduce packaging and limit disposal. Participants also suggested that the City should encourage a reduction in packaging by banning single use plastic containers and bags, investing in compostable packaging, and supporting restaurants in adopting reusable take out containers.

Implementation challenges

Public consultation participants identified the following sustainable consumption and waste climate actions as those that might be most challenging for individuals, households and communities to implement:

- Reduce city-wide material consumption and increase circularity
- Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste

The following rationale was provided:

- **Adoption of sustainable packaging and reusable containers:** Many participants noted that reducing consumption will be challenging for many residents because plastic and wasteful products packaging are cheaper and more readily available than reusable and sustainable options. They believe that it will be difficult to change residents' behaviour around waste and convenience and reducing the creation of waste at the source using legislation is a more effective tool in ensuring reduction in consumption. For instance, respondents suggest banning plastic bags at grocery stores and replacing them with paper and reusable bags.
- **Concerns regarding proper recycling and composting:** Many participants are concerned that the efforts put toward outreach and education on waste reduction will be irrelevant because a significant number of apartment



buildings and condos have failed to provide their residents with proper recycling and composting infrastructure.

Greenspace, decision-making and equitable engagement

Highest priority climate actions

Table 5 below presents the greenspace, decision-making and equitable engagement climate actions in order of priority as identified by survey respondents.

Table 5: Greenspace, decision-making and equitable engagement priority climate actions

Climate action	Per cent of survey respondents who identified the action as high priority for implementation
Increase tree canopy cover, biodiversity and enhance greenspaces.	71 per cent
Adopt a corporate-wide climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.	66 per cent
Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.	63 per cent
Work with Indigenous communities to share knowledge.	43 per cent
Focus outreach on equity-seeking groups to lead and implement local climate action.	32 per cent
Establish a Climate Advisory Group to reflect the priorities of residents and stakeholders.	26 per cent
Focus on youth engagement and leadership.	25 per cent

For each of the four highest priority greenspace, decision-making and equitable engagement climate actions for implementation, participants provided rationale and additional comments as outlined below.



Climate Action: Increase tree canopy cover, biodiversity and enhance greenspaces.**Rationale and Comments:**

- **Improves public health:** A majority of participants agree that an increase in tree cover has one of the highest spillover benefits for communities in terms of health and wellbeing. They acknowledged that greenspaces have been shown to mitigate higher temperatures from climate change, increase the mental well-being of residents, and sequester carbon in trees thereby reducing the greenhouse gas emissions in the community. They strongly believe that increasing greenspace should be a priority in Toronto. They strongly agree that this climate action will provide cleaner air, a more adequate habitat and a calming environment.
- **Supports climate resilience:** A majority of participants agree that protecting and promoting biodiversity in the city is crucial for resilience. They believe that mature trees must be universally protected, and more trees should be grown to complement and assist Toronto's maintenance of a healthy environment because trees and greenspace provide both mitigation and adaptation benefits from the impacts of climate change. They also feel that the amount of greenspace within the city limits is far less than what is required for the growing population and increasing tree cover while protecting old growth trees from developers should be a top priority.
- **Sustains wildlife:** Many participants agree that increasing Toronto's native tree canopy is crucial to sustaining wildlife. They believe that the wildlife in Toronto has not been able to flourish with the existing amount of greenspace. They believe a focus should be placed on alternatives to turf, rehabilitating riverbanks, and prioritizing native plant species which participants believe are more resilient to climate change, and support insects, birds and animal diversity.
- **Ease of implementation:** Many participants believe that increasing tree canopy is feasible, effective, and easy to implement. They suggested that the City should enact enforcement with zero tolerance and fines to discourage homeowners from cutting down trees or converting greenspaces into non-porous surfaces.



Participants recommended that by-laws should be strengthened to require more greenspace regulations for new and existing development including commercial properties in industrial areas that limit the removal of existing trees. They also feel that these by-laws should be expanded to ensure landscapers prioritize foliage and ecologically sustainable greenery.

Climate Action: Adopt a corporate-wide climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.

Rationale and Comments:

- **Improves governance:** Participants feel that the City needs to incorporate a climate lens for all programs and capital projects to ensure climate responsibility is upheld in decision making. They believe a climate lens will significantly influence city planning and budget allocation and ensure all projects comply with the City's climate targets. Participants also noted that mandating a climate lens at the municipal level will create regulations that could support local initiatives from community groups and has the ability to improve public support, participation and social cohesion around positive climate actions.
- **Enables long range planning:** Many participants agree that it is short-sighted for climate considerations to not be a top priority in any municipal process, considering the immediate and long-term threat they pose to the local and global community. They believe that the long-term carbon emission consequences of routine city decisions and processes need to be re-evaluated. For instance, participants noted that planning decisions like the neighbourhood zoning designation exacerbate long-term carbon emissions by preventing density and requiring longer automobile trips. Participants also strongly recommend that the City enact greater tree protection policies that limits the damage and removal of mature trees. They feel that there is no real climate advantage to replacing a 50-year-old tree with saplings because it will not make up for the biodiversity lost and the years taken to create and sustain the ecosystem.



- **Enforces corporate responsibility:** A majority of participants agree that some large corporations need to be held accountable for their contribution to the climate crisis and be mandated to consider the environmental impacts and consequences of their operations on the community. They strongly believe that corporations have a major part to play in reducing carbon emissions and in order to achieve our net zero goals, corporations should be mandated to adhere to the City's climate actions. Participants feel that this will ensure that corporations are committed to considering the climate impacts in all future activities and may then treat the climate crisis like an emergency.

Climate Action: Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.

Rationale and Comments:

- **Decreases effect of urban heat island:** Participants agree that significantly increasing urban forestry lowers city temperatures by absorbing carbon dioxide and producing a cooling effect that is vital in reducing the radiative heat transfer from the urban heat island effect. They acknowledge that low-income communities often lack adequate tree canopy cover and public green spaces required to mitigate higher temperatures. Many participants believe that as the climate gets hotter, poorer communities will be the most vulnerable to extreme temperatures and require tree canopy cover and greenspace the most. They also feel that increasing urban forestry will decrease the demand for air conditioning which will be crucial as the climate continues to warm.
- **Creates livable communities:** A majority of participants agree that increasing greenspace improves the quality of life in underserved communities and creates livable and healthy spaces. They recognize that lower income neighbourhoods typically have less mature trees and desperately need more greenspace infrastructure investments. Participants believe that adequate tree coverage will improve pedestrian infrastructure and increase livability and walkability of a community by providing resiliency against increasing temperatures. They also urge the City to provide effective



tree canopy throughout Toronto, specifically along major and minor artery and highway margins.

- **Advances environmental justice:** Participants agree that investing in greenspace and increasing tree canopies and biodiversity in historically underserved low-income communities is vital in advancing environmental justice. They recognize that increasing urban forestry and greenspace reduces the prevalence of impermeable concrete in these communities and mitigates the impacts of rising temperatures and extreme weather events such as increased flooding. Participants also noted that improving biodiversity offsets the emissions from older buildings owned by low-income residents who might not be able to afford retrofits.

Climate Action: Work with Indigenous communities to share knowledge.

Rationale and Comments:

- **Ensure climate initiatives considers Indigenous tradition:** Many participants shared the sentiments that Indigenous involvement should not be limited to the sharing of information but rather should focus on acknowledging their long-standing role as rights holders and stewards of the land. They believe that Indigenous communities prioritize nature and caring for the earth and have traditional ecological knowledge on how to successfully mitigate the impacts of climate change while sustaining their immediate needs. Participants acknowledge the need to collaborate with Indigenous communities to establish climate initiatives that consider the ecological history of the land and honours Indigenous culture and traditions.
- **Supports reconciliation efforts:** Many participants strongly support increasing engagement with Indigenous communities who will also feel the effects of climate change. They believe it will be vital in improving reconciliation efforts and should be considered across all sectors of climate innovation.
- **Enables better decision making:** Many participants agree that the Indigenous communities have a better understanding of living sustainability with the natural environment and their knowledge will be



crucial in improving urban planning and development of greenspaces. They also believe that Indigenous people can offer beneficial advice on implementing and enforcing policies and regulation based on long-term consequences rather than immediate concerns.

Implementation challenges

Public consultation participants identified the following greenspace, decision-making and equitable engagement climate actions as those that might be most challenging for individuals, households and communities to implement:

- Increase tree canopy cover, biodiversity and enhance greenspaces; and
- Adopt a corporate-wide climate lens.

The following rationale was provided:

- **Difficulties in abandoning a manicured environment:** Many respondents shared concerns regarding the maintenance involved in adopting a naturalized environment of pollinator-attracting native plants and native species like sedges and grasses to increase biodiversity on their property. They also had similar sentiments regarding the quality of urban soil and the long-term maintenance effort required in rehabilitating the soil to effectively support the ecosystem.
- **High cost of tree maintenance:** Many participants acknowledged that most city residents do not care about increasing tree canopy cover and for the few who do care, the cost of maintaining old trees on their property is significantly high. They strongly urge the City to implement programs that support and encourage private citizens to sustain trees on their property rather than impose fees and fines.
- **Higher cost of living:** Many participants are concerned that a corporate-wide focus on climate initiatives across all City programs and policies has the potential to increase the cost of living faster than wage growth. They noted that this would be particularly hard on low-income residents and retired seniors.



Supports needed for the net zero climate actions

Participants in the survey, community discussions and EngageTO Idea Board were asked to provide ideas about what the community might need in order to take climate action. The following themes were identified:

- **City involvement:** The majority of participants urge the City to take an active role in enforcing climate-positive actions. They believe that residents should not be left to make their own decisions on how and when to implement low-carbon initiatives. Participants also suggested the City should lead by example and promote greener action in every department, for example, electrifying all city police vehicles and committing to net zero city-owned buildings. Participants feel that when left to their own devices, residents will choose cost over climate. For example, purchasing a fossil-fuelled vehicle is cheaper than an electric vehicle and the ability to continue purchasing gas powered appliances will continue without City policy intervention.
- **Incentivization:** Participants urge the City to incentivize climate-positive actions. They feel that with incentives, residents will be more inclined to change their behaviour, especially if coupled with policy change. For example, participants noted that if electric vehicles had privileges beyond that of fossil-fuelled vehicles (i.e., special lanes, subsidized costs), residents may be more inclined to purchase electric vehicles over fossil-fuelled vehicles. Participants also suggested that incentives could be reversed, for example, charging a toll on major routes may incentivize Torontonians to walk, take transit or cycle instead.
- **Education:** Participants consistently suggested that the City should increase education and outreach, especially to a more diverse group of Torontonians. They feel that some residents are not properly informed on how to recycle, or the benefits of sorting their waste. Participants also feel the City should look for opportunities to include TransformTO messaging in more city programs to help promote the net zero message. Some participants suggested that green activities like retrofitting existing homes and buildings can be intimidating for homeowners as they do not know which contractors to trust, and that homeowners often times are not aware of the benefits and/or maintenance and installation costs of most retrofits. With increased education and transparency, participants feel that more homeowners will participate in climate-friendly actions.



- **Corporate action:** Participants strongly advise the City to require all corporations that operate within Toronto to adhere to our net zero goals and contribute to the idea-generation, planning and strategy, mobilization and funding of climate actions. This especially includes corporations who work with the City under contracts and partnerships.
- **Political commitment:** Participants believe the City should enforce strong environmental and emissions policies. They believe that doing so will lead to a systemic change in consumer behaviour and challenge corporations, developers and building management companies into adopting renewable energy and resources. They also urge the City to review existing laws and regulations and eliminate legal obstacles that hinder compliance to net zero actions.

The follow is a sample of additional recurring comments and suggestions shared by participants when asked to provide ideas about what the community might need in order to take climate action:

- Encourage sharing of resources (i.e., clothing swaps, shared resident green and waste bins, food from community gardens)
- Incentives to walk and cycle (i.e., free cycling maintenance/training, outreach events, reduced-cost transit, cycling maps)
- More community gardens and increased promotion of urban agriculture
- Policy changes to prioritize green and climate friendly initiatives (i.e., parking lots with bike parking, diverting funds from highway to active transit, digital city services, less heat-generating glass in tall buildings, no more disposable packaging, allow for e-bikes and e-scooters, carbon free materials in all construction, enforce locally made materials and resources)
- Increase greenspace and natural creeks and streams
- Assistance in existing building retrofits (i.e., incentives, zero-interest loans, cost transparency and education)
- Increased green infrastructure (i.e., more electric vehicle charging stations, green rooftops)
- Enhance education and outreach (i.e., utilize traditional and social media to educate and empower Torontonians to make practical lifestyle changes and become carbon neutral.)



Alignment with previous climate action consultation

The results from this round of consultation aligns with the overall themes noted in 2019 during the TransformTO Implementation Plan consultation. However, there are some differences regarding climate action implementation.

Similar to the previous TransformTO consultation results, participants continue to believe that the City should be aggressive with their environmental targets and implement strategies that encourage immediate climate action. There continues to be considerable emphasis on ensuring that the climate actions are equitable, particularly to senior, low-income and marginalized community members. Participants of this round of consultation also urge the City to consider the impacts of the climate actions on affordability and the cost of living for Torontonians, particularly renters. Many participants shared concerns about the potential for landlords and building owners to significantly raise rent prices to make up the cost of retrofitting existing buildings. However, some participants noted they are willing to embrace the higher cost of goods and services if the increase in price is because of the application of a climate lens.

The key difference between the themes in this year's consultation results and the previous results is the sense of urgency. Responses received from this survey are more action-oriented than in 2019. Participants strongly believe that the City's focus should be on implementing aggressive climate action and fining or taxing those who fail to comply with the actions rather than prioritizing education and outreach. However, participants still feel education and outreach are important tactics to continue.

Participants continue to support the City's investment in infrastructure but feel it shouldn't be limited to transit and active transportation. For example, the comments received advise the City to invest in green energy, low-carbon construction and subsidize building retrofits and maintenance of privately-owned mature trees. There is still a demand for corporate involvement in climate action, but not as much mention of raising revenues from polluting companies with a high carbon footprint. Participants acknowledge the importance of city-wide involvement – including individuals and corporations – in developing and delivering on climate action to achieve the set environmental targets.





Appendix 1

Online Survey Questions and Content



Appendix 1: Online survey questions and content

The following climate actions focus on the largest sources of local greenhouse gas emissions across Toronto. They also include actions for increasing the amount of greenspace and other initiatives to promote a liveable, low-carbon city.

Help us to prioritize the actions that should be implemented in the short-term. Considering that buildings and transportation make up the majority of emissions in the city, these sectors have the greatest potential for reduction; however, climate actions in energy, consumption/waste, as well as in equitable engagement and decision-making are also essential. When all actions are implemented, greenhouse gases in our city will achieve near-zero, while fully achieving net zero will require action on the part of all levels of government to ensure a low-carbon energy grid and reduced reliance on natural gas.

Buildings

According to our most recent Greenhouse Gas Inventory, 55 per cent of local greenhouse gas emissions come from the energy used in our buildings; they emit greenhouse gases when using fossil fuels as an energy source, and during manufacturing and construction. Natural gas consumption to heat buildings continues to be the largest source of emissions community-wide, accounting for approximately 50 per cent of all emissions in Toronto.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on ensuring new construction has near-zero emissions and uses low-carbon materials. We also need to retrofit existing buildings to reduce energy consumption and switch to low-carbon energy sources.

Please choose up to three ' buildings' actions below that you believe are the highest priority.

- Continue to implement the Toronto Green Standard (TGS) sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.
- Require net zero emissions for construction of City-owned buildings.
- Support building owners to use low-carbon materials for new construction.
- Set requirements to report on and limit greenhouse gas emissions from homes and buildings.



- Support early action to make retrofits that improve efficiency, comfort and the switch off fossil fuel heating easier and more affordable for home and building owners.
- Support the creation of jobs in the building sector and build industry capacity to enable rapid market transformation to scale up zero emission retrofits for existing buildings.

Why did you choose these actions as highest priority?

Which of these actions do you think might be the most challenging for you, your household and/or your community if implemented (if any)?

Energy

As a city, we use a lot of energy – particularly in our buildings. But we currently generate very little of our own energy in Toronto, as most energy comes from the provincial electricity grid.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on expanding local renewable energy generation and encouraging climate-informed decision making. We also need to advocate for low-carbon provincial energy policies.

Please choose up to three 'energy' actions below that you believe are the highest priority.

- Produce renewable natural gas from waste.
- Increase installation of rooftop and ground mount solar panels.
- Support district energy system owners and developers with the implementation of low-carbon energy solutions.
- Accelerate investment in energy storage.
- Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.



Why did you choose these actions as highest priority?

Which of these actions do you think might be the most challenging for you, your household and/or your community if implemented (if any)?

Transportation

Transportation methods and activities account for 36 per cent of local greenhouse gas emissions; burning fossil fuels for our cars, trucks, ships, trains and planes creates greenhouse gases. 73 per cent of transportation emissions come from personal vehicles.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on facilitating rapid uptake of electric vehicles while encouraging active transportation and public transit use.

Please choose up to three 'transportation' actions below that you believe are the highest priority.

- Increase uptake of electric vehicles through incentives.
- Increase electric vehicle charging in public spaces and on private property.
- Expand usage of and support for low-emissions freight and last mile delivery strategies to move goods.
- Expand bike and pedestrian infrastructure and priority zones.
- Expand public transit and accelerate implementation of bus rapid transit.
- Continue electrification of the TTC fleet.

Why did you choose these actions as highest priority?



Which of these actions do you think might be the most challenging for you, your household and/or your community if implemented (if any)?

Sustainable Consumption & Waste

Waste accounts for 9 percent of local greenhouse gas emissions. Most greenhouse gas emissions from waste come from landfills, with a small portion from wastewater treatment processes.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on advancing toward a zero-waste, circular economy. A circular economy will focus on product longevity, renewability, reuse and repair instead of just taking a resource, making a product and then throwing that product away.

Please choose one or two 'sustainable consumption & waste' actions below that you believe are the highest priority.

- Conduct a city-wide consumption-based emissions inventory and set a reduction target.
- Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).
- Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste.

Why did you choose these actions as highest priority?

Which of these actions do you think might be the most challenging for you, your household and/or your community if implemented (if any)?



Greenspace, Decision-Making and Equitable Engagement

Getting to net zero also requires consideration of opportunities to remove carbon from the atmosphere. Green spaces, including trees, parks and ravines, provide natural carbon removal and help create a liveable and healthy city.

We also need informed decision-making and community-wide involvement– including with Indigenous communities, equity-seeking groups and youth.

Please choose up to four 'greenspace, and decision-making and equitable engagement' actions below that you believe are the highest priority.

- Increase tree canopy cover, biodiversity and enhance greenspaces.
- Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.
- Corporate-wide adoption of a climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.
- Focus outreach on equity-seeking groups to lead and implement local climate action.
- Work with Indigenous communities to share knowledge.
- Focus on youth engagement and leadership.
- Establish a Climate Advisory Group.

Why did you choose these actions as highest priority?

Which of these actions do you think might be the most challenging for you, your household and/or your community if implemented (if any)?

Thank you for providing your input. We have several optional demographic questions before the survey is complete.



The City of Toronto is seeking to understand the demographic profile of respondents. This information will help staff by informing future planning and ensuring equitable representation. All survey results will be kept confidential and the results from everyone who responds will be analyzed together. No identifiable information will be shared. These demographic questions are optional. You can choose to not answer any or all questions.

What is your age?

- 10 to 19 25 to 29 55 to 64 75+
 20 to 24 30 to 54 65 to 75

Please provide the first 3 digits of your postal code (e.g., M5H)

What is your ethnic or cultural background?

- Arab, Middle Eastern or West Asian (examples: Afghan, Armenian, Iranian, Lebanese, Persian, Turkish)
 Black (examples: African, African-Canadian, Afro-Caribbean)
 East Asian (examples: Chinese, Japanese, Korean)
 First Nations (status, non-status, treaty or non-treaty), Inuit or Métis
 Latin American (examples: Brazilian, Colombian, Cuban, Mexican, Peruvian)
 South Asian or Indo-Caribbean (examples: Indian, Indo- Guyanese, Indo-Trinidadian, Pakistani, Sri Lankan)
 Southeast Asian (examples: Filipino, Malaysian, Singaporean, Thai, Vietnamese)
 White (examples: English, Greek, Italian, Portuguese, Russian, Slovakian)
 Not listed, please describe: _____

Gender identity is the gender that people identify with or how they perceive themselves, which may be different from their birth-assigned sex. What best describes your gender? *Gender non-binary (including gender fluid, genderqueer, androgynous)*

- Man Trans Man Two-spirit Not listed, please describe:
 Woman Trans Woman Prefer not to answer _____



What best describes your current housing situation? Please select one only.

- Home owner
- Permanently living with parent(s) or other family members (s)
- Renting
- Temporarily staying with others (no fixed address)
- Not listed, please describe: _____

What was your total household income before taxes last year? Your best estimate is fine.

- | | | |
|-----------------------------------------------|-------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> 0 to \$29,999 | <input type="checkbox"/> \$70,000 to \$99,999 | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> \$30,000 to \$49,999 | <input type="checkbox"/> \$100,000 to \$149,999 | <input type="checkbox"/> Prefer not to answer |
| <input type="checkbox"/> \$50,000 to \$69,999 | <input type="checkbox"/> \$150,000 or more | |





Appendix 2

Net Zero Strategy and Climate Actions Backgrounder





**TransformTO:
Getting to net zero**

Community Discussion Guide

June/July 2021



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About the Discussion Guide

This guide was created to help members of the community host their own conversations about the TransformTO Net Zero Strategy that will be presented to Toronto City Council this fall.

We're seeking input from Torontonians on the climate actions currently under consideration to reduce greenhouse gas emissions to net zero. This guide provides another way for people to get involved. It is designed to be used by community groups, organizations, groups of friends and family, and individuals who want to kick-start a conversation in their community about climate change and share their thoughts.

It can be adapted for any size of group or time constraint, and you don't need to answer all of the questions or cover every topic. It has been developed with COVID-19 restrictions in mind and it is assumed that most (if not all) discussions will be virtual.

This Discussion Guide includes three sections:

1. Tools and resources to host your own discussion or meeting;
2. Background information about the development of the TransformTO Net Zero Strategy and the climate actions; and
3. Discussion questions.

If you are hosting an event using this guide, the City of Toronto may be able to provide assistance such as marketing and promotional support, logistics support, virtual event attendance, connections to groups active in local climate action, and relevant background materials and information. If you would like support with your event, please reach out to transform@toronto.ca.

Please use this Discussion Guide to have conversations within your network and provide your responses by **July 26, 2021** through [the online form](#) or by email to transform@toronto.ca.

All feedback collected will help inform the TransformTO Net Zero Strategy, which City staff will present to Toronto City Council in fall 2021.



Tools and Resources to Host Your Own Discussion or Meeting

Use these tips and sample agendas to help host virtual meetings in your community. Don't forget to [submit your feedback online](#).

Tips for hosting an online conversation

- Set a time, place and objective.
- Determine who you would like to participate in the meeting and what you would like to discuss.
- Review this Discussion Guide, including the backgrounder and questions. You can discuss all the questions, only those that interest you, or split your group into smaller groups and divide up the sections among them.
- Determine what platform you will use. There are many ways to connect and collaborate online. Some examples include: [WebEx](#), [Skype](#), [Google Hangouts](#). Please note: the listing of these options is not a City endorsement.
- Contact participants, members of your organization or community to see what time and meeting format works best for them.
- Consider hosting more than one session to accommodate shifts, childcare, or other commitments.
- Give invitees enough notice to increase the chances that people can participate.
- Ask invited participants to confirm if they will attend. If you have a larger group, consider dividing your meeting into smaller groups or host multiple meetings to work through the questions in sections.
- Ensure participants have any background material or have access to any materials you will reference during the meeting.
- Set an agenda and share with participants before the meeting.

Practice using the technology

- Ensure you feel comfortable using the online tool you plan to use.
- Consider asking a volunteer to run the technology while you host the discussion.
- Hold a practice session a day or two ahead of time to work out any problems.
- Test both the audio and video connections.



Hosting

- The meeting host is responsible for:
 - Starting and ending the meeting; and
 - Facilitating the meeting - keeping the meeting flowing, following the agenda and providing an opportunity for as many participants as possible to contribute (see facilitation tips below).
- The host does not need to be an expert on the subject being discussed, but they should familiarize themselves with the content, the agenda and questions in advance.
- The host can send one submission on behalf of the group using [the online form](#), but can also invite participants to take notes and submit their ideas using [the online form](#) and through the survey available at [TransformTO.ca](https://www.transformto.ca) if they choose.

Facilitation tips

- Ask everyone to introduce themselves and share one or two words on why they chose to attend, if time permits.
- Start by describing the agenda or process you have chosen for the discussion and ask if there are any questions.
- Start or end by doing a go-around that lets everyone share a first or final thought, if time permits.
- Keep the conversation focused, remind people of the discussion questions if they get off track.
- Draw quiet participants into the conversation by asking if they have thoughts they want to add, while giving them the option to pass. Ask people who are speaking a lot to let others who haven't spoken yet contribute.
- Suggest that people provide comments or feedback through alternative means, such as chat functions or in emails to the host during the meeting.
- Repeat what you hear and ask for clarity when needed.
- Keep things moving and on time – watch the clock!
- Don't allow intimidation or disrespectful language. Participants should be respectful of others' opinions, but if someone says something disrespectful, remind the group the discussion should be welcoming and inclusive.



- In virtual meetings it's sometimes hard to know who wants to speak when everyone is muted or everyone is talking at once. With cameras on, you can ask people to raise their hand, or hold up a sign asking to speak. Some online meeting platforms have a built-in hand raising function or allow participants to privately chat with a moderator. For smaller groups, you might consider calling each person out by name at least once to ensure everyone gets a chance to speak.

Designate other roles

- In addition to the host, you may consider having a:
 - **Note taker:** Takes notes during the meeting, emails notes to participants and submits the discussion summary. If you break into smaller groups for discussion, try to have a note taker in every group. The note takers can take notes either electronically or using print-outs. Some virtual meeting software includes built-in note taking – utilize this tool if available.
 - **Technical support person:** Helps with technical troubleshooting. Ensure that the contact information for the technical support is available for participants in case there are issues during the meeting.

Decide how you will organize the discussion

- Ask for RSVPs so that you know how many people you can expect. If you have a small number (8 or fewer) you can go through the questions and answer all the questions together. If you have a larger group (9 or more people) consider dividing into smaller break-out groups to work through the questions in sections, leaving time to 'report back' to each other about what was discussed. We have included some sample agendas you could use to structure your conversation.

Provide background materials

- Provide an electronic version of this Discussion Guide for your participants. Suggest attendees read the guide thoroughly prior to the meeting.

Host your conversation

- Try to work towards consensus rather than just canvassing each person for their own opinion. This will make for a better discussion. Just remember to take good notes!



Take a virtual photo (screenshot) of your group

- You can submit it along with your notes [via the online form](#). Please ensure everyone in the photo knows and provides consent that it will be shared with the City afterwards.

Have participants fill out an information form

- To help us get a better understanding of who attended your conversation, have participants fill out the anonymous [Participant Info Form at this link](#).

Sharing feedback

- Summarize your group's discussion and submit your feedback online using this link: <https://s.cotsurvey.chkmkt.com/DiscussionGuideSubmission>
- Participants are also encouraged to submit their feedback individually via the online survey at [TransformTO.ca](https://www.transformto.ca) if they choose.
- Please provide your feedback by July 26, 2021.**

Sample agenda

Item #	Description	Suggested time
1	Virtual discussion starts <ul style="list-style-type: none"> Allow attendees to join online virtual space. 	5 minutes
2	Welcome	3 minutes
3	Land acknowledgement	2 minutes
4	Review the agenda	5 minutes
5	Review of backgrounder and video <ul style="list-style-type: none"> Materials available at TransformTO.ca; materials can also be reviewed in advance to save time. 	10 minutes
6	Discussion – questions numbers 1 to 3 <ul style="list-style-type: none"> Allow 10 to 15 minutes per question. 	30 to 45 minutes
7	Wrap-up, thanks and next steps	5 minutes
Total time:		60 to 75 minutes



Sample detailed agenda

Item #	Description	Suggested time
1	<p>Virtual engagement start</p> <ul style="list-style-type: none"> ● Allow attendees to join online virtual space (e.g., WebEx, Skype, Google Hangout etc.). ● Attendees may join or depart throughout the event and may not all be visible on screen. ● Use time to recognize participants and have small talk, but do not convey any critical information as majority of participants may not hear some or all of information. ● Post the Participation Information Form link in the chat and ask people to complete: https://s.cotsurvey.chkmkt.com/ParticipantInfoCard 	5 minutes
2	<p>Engagement welcome</p> <ul style="list-style-type: none"> ● Formally acknowledge the start of the meeting. ● In order to allow all participants to hear each other as best as possible, request that all participants mute when not speaking. ● Take the opportunity to practice finding mute and providing basic instructions / rules of the meeting. For example, you may share tips like using the hand-raising function in larger meetings, utilizing the chat, optional video (some users may feel more comfortable with their video turned off), etc. 	3 minutes
3	<p>Land acknowledgement</p> <ul style="list-style-type: none"> ● Providing a land acknowledgement at the beginning of an event or meeting gives time for reflection and demonstrates recognition of Indigenous lands, treaties and peoples. Visit here to learn more. ● There are two versions depending on where the meeting is being held: <ul style="list-style-type: none"> ○ Version 1: If you are hosting the discussion in Etobicoke, North York, York, East York or Toronto: <i>We acknowledge the land we are meeting on is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.</i> 	2 minutes



Item #	Description	Suggested time
	<ul style="list-style-type: none"> ○ Version 2: If you are hosting the discussion in Scarborough: <i>The land I am standing on today is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. I also acknowledge that Toronto is covered by Treaty 13 signed with the Mississaugas of the Credit, and the Williams Treaties signed with multiple Mississaugas and Chippewa bands.</i> 	
4	Review the agenda	5 minutes
5	Review of backgrounder and video presentation <ul style="list-style-type: none"> ● Ask everyone to open/download the Discussion Guide available at TransformTO.ca. ● Provide an overview/summary of the Discussion Guide (Backgrounder & Climate Actions); materials can also be reviewed in advance to save time. 	10 minutes
6	Discussion – questions numbers 1 to 3 <ul style="list-style-type: none"> ● Choose any or all questions in the guide. ● Consider use of "Chat" function to allow users to also submit questions, comments, responses or general input (if online engagement platform offers such a function). ● Do not record session unless all participants agree. ● Allow 10 to 15 minutes per question; <i>Remember: multiple sessions can be held to keep the meetings to a reasonable time limit.</i> 	30 to 45 minutes
7	Wrap-up, thanks and next steps <ul style="list-style-type: none"> ● Thank all participants for their contributions to the discussion. ● Remind participants of options to provide their answers to Discussion Guide questions, or that you will be submitting as group: <ul style="list-style-type: none"> ○ Online: https://s.cotsurvey.chkmkt.com/DiscussionGuideSubmission ○ By email: Transform@toronto.ca ● City will be collecting all input until July 26, 2021. ● All input will be summarized and posted to Toronto's Open Data Portal– www.toronto.ca/Open. More information, including reports on these engagements and to City Council on TransformTO are available at TransformTO.ca. 	5 minutes
Total Time:		60 to 75 minutes





TransformTO Net Zero Strategy and Climate Actions Backgrounder



TransformTO Net Zero Strategy and Climate Actions Backgrounder

What is the TransformTO Net Zero Strategy?

TransformTO is Toronto's climate action strategy. It aims to reduce our city's greenhouse gas emissions while improving our health, advancing social equity, growing our economy, and improving climate resilience.

What are greenhouse gases?

Greenhouse gases like carbon dioxide (CO₂) and methane (CH₄) are necessary to keep our planet warm to sustain life. However, in excessive quantities, they block heat from escaping the earth's atmosphere, causing the earth to heat up and creating imbalances in the atmosphere which lead to more unstable and severe weather events.

Getting TO net zero, with no one left behind

In recent years, we've felt the impacts of a warming climate. Toronto's weather is expected to get hotter, wetter and wilder – **and extreme weather events around the world are predicted to become more frequent and more intense** – as climate risks increase due to carbon pollution; Toronto residents and businesses are already experiencing flooding and other severe weather events. We need to act quickly and urgently.



The sooner, the better

In October 2019, City Council voted unanimously to declare a climate emergency in Toronto and accelerate on-going efforts to mitigate and adapt to climate change.

In response, we are realigning the initial TransformTO plan toward an accelerated greenhouse gas emissions reduction target of net zero by 2050 or sooner, and creating a more liveable, prosperous Toronto. This bold Net Zero Strategy will include short-term goals of reducing our greenhouse gas emissions by 65 per cent from 1990 levels by 2030; a key milestone on the path to achieving net zero.

We've got this TO!

Toronto has reduced its greenhouse gas emissions by 40% below 1990 levels.

Bold moves drive net zero

We know that bold moves drive net zero, and getting to net zero requires immediate climate action to meet our 2030 emission reduction goals. Your input during this consultation period will inform the Net Zero Strategy that will be submitted to Toronto City Council this fall.

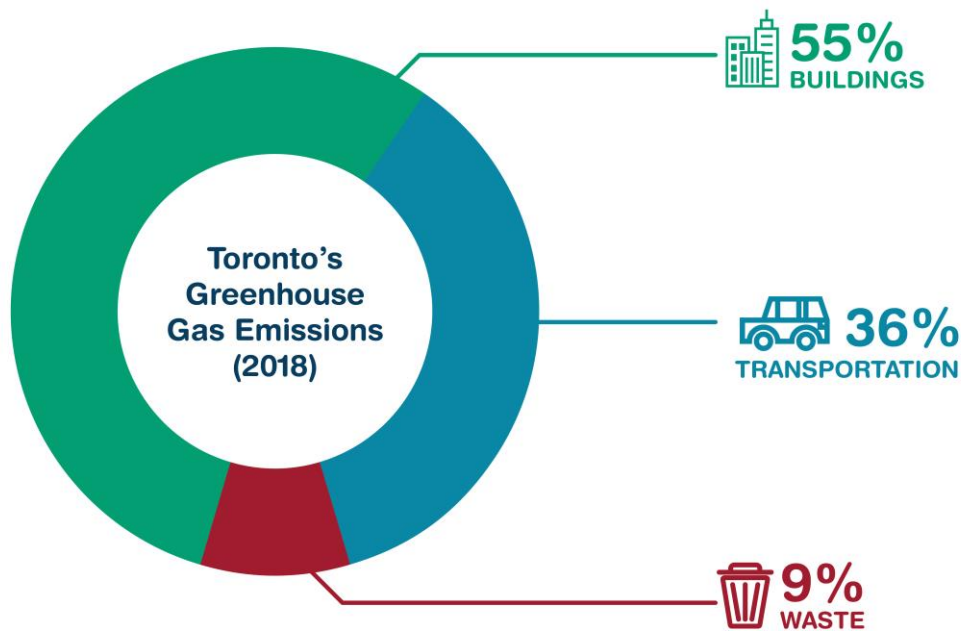


How do we get to net zero?

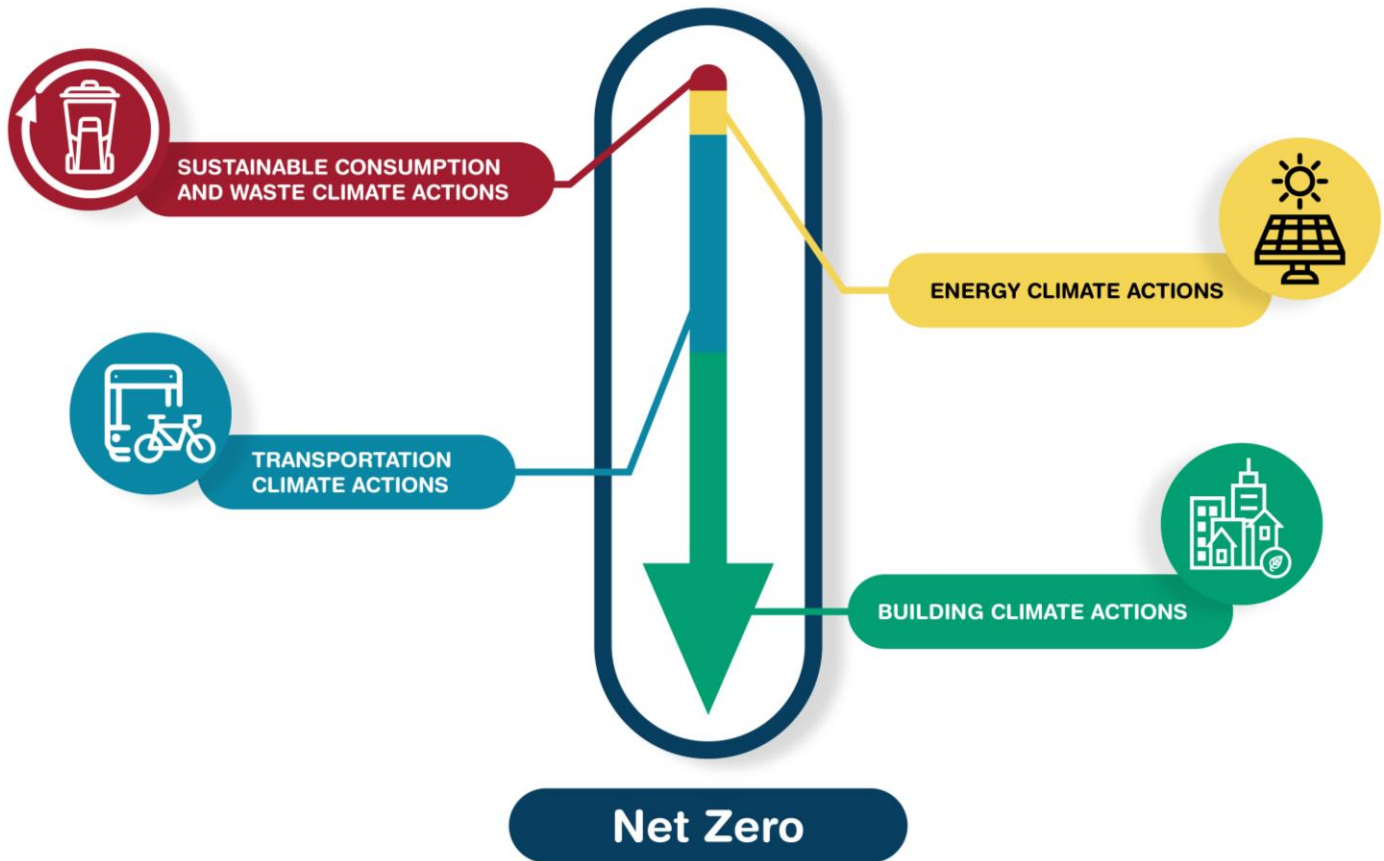
What is net zero?

'Net zero' is achieved when we decarbonize our city meaning we change how we move, build, generate energy, and dispose of our waste so that the greenhouse gases we produce are as close to zero as possible.

We can get Toronto to net zero by 2050 or sooner if we act urgently. We need to implement climate actions that target the major greenhouse gas sources in our city. Reaching our 2030 greenhouse gas emissions reduction target will set us on the right path to net zero.



Our TransformTO Net Zero Strategy will include climate actions that will help us meet our 2030 goals and set us on the path to net zero. With previous input from Torontonians, we've identified key climate actions for reducing emissions from each of the biggest sources of greenhouse gases in Toronto.



The above graphic shows the relative emissions reduction potential of key sectors in Toronto. Considering that buildings and transportation make up the majority of emissions in the city, these sectors have the greatest potential for reduction; however, climate actions in energy, consumption/waste, as well as in equitable engagement and decision-making are also essential. When all actions are implemented, greenhouse gas emissions in our city will reach **near-zero**. Fully achieving **net zero** will require action on the part of all levels of government, to ensure a low-carbon energy grid and reduced reliance on natural gas.



What are the benefits of getting to net zero?

Reducing our greenhouse gas emissions and getting to net zero will contribute to the global effort to protect our climate and create a more climate resilient Toronto – this means creating a city that is prepared for, and can withstand, the stress and shocks of future heatwaves, flooding and ice storms.

Reducing emissions to net zero also creates benefits beyond a greener, low-carbon Toronto, such as advancing social equity. This includes actions that address the issues of equity, prosperity and health, and that don't unfairly impact any specific communities in Toronto.

Our climate action modelling shows that getting on a net zero path will improve our overall health and create many new job opportunities between 2020 and 2050. This is important as we look to community health and economic recovery from the COVID-19 pandemic.

Our modelling also shows us that by implementing climate actions that reduce greenhouse gas emissions, households could save approximately \$1,500 every year in energy costs. So, while we're creating a healthier low-carbon Toronto, we're saving money too!

The net zero climate actions

The TransformTO Net Zero Strategy will include bold climate actions focused on the largest sources of local greenhouse gas emissions. It also includes actions for enhancing greenspaces and other initiatives to promote a liveable, low-carbon city.

Buildings

According to our most recent [Greenhouse Gas Inventory](#), 55 per cent of local greenhouse gas emissions come from the energy used in our buildings; they emit greenhouse gases when using fossil fuels as an energy source, and during manufacturing and construction. Natural gas consumption to heat buildings continues to be the largest source of emissions community-wide, accounting for approximately 50 per cent of all emissions in Toronto.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on ensuring new construction has near-zero emissions and uses low-carbon materials. We also need to retrofit existing buildings to reduce energy consumption and switch to low-carbon energy sources.



The actions we need to take to reduce our buildings' greenhouse gas emissions are:



For new buildings...

Action: Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.

Action: Require net zero emissions for construction of City-owned buildings.

Action: Support building owners to use low-carbon materials for new construction.

For existing buildings...

Action: Set requirements to report on and limit greenhouse gas emissions from homes and buildings.

Action: Support early action to make retrofits that improve efficiency, comfort and the switch off fossil fuel heating easier and more affordable for home and building owners.

Action: Support the creation of jobs in the building sector and build industry capacity to enable rapid market transformation to scale up zero emission retrofits for existing buildings.



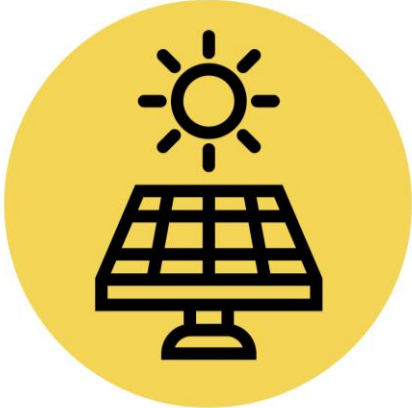
Energy

As a city, we use a lot of energy – particularly in our buildings (see above). But we currently generate very little of our own energy in Toronto, as most energy comes from the provincial electricity grid.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on expanding local renewable energy generation and encouraging climate-informed decision making. We also need to advocate for low-carbon provincial energy policies.



The actions we need to take to reduce our energy-related greenhouse gas emissions are:



Action: Produce renewable natural gas from waste.

Action: Increase installation of rooftop and ground mount solar panels.

Action: Support district energy system owners and developers with the implementation of low-carbon energy solutions.

Action: Accelerate investment in energy storage.

Action: Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.

Transportation

Transportation methods and activities account for 36 per cent of local greenhouse gas emissions; burning fossil fuels for our cars, trucks, ships, trains and planes creates greenhouse gases. 73 per cent of transportation emissions come from personal vehicles.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on facilitating rapid uptake of electric vehicles while encouraging active transportation and public transit use.

The actions we need to take to reduce our transportation greenhouse gas emissions are:

Action: Increase uptake of electric vehicles through incentives.

Action: Increase electric vehicle charging in public spaces and on private property.

Action: Expand usage of and support for low-emissions freight and last mile delivery strategies to move goods.

Action: Expand bike and pedestrian infrastructure and priority zones.

Action: Expand public transit and accelerate implementation of bus rapid transit.

Action: Continue electrification of the TTC fleet.



Sustainable consumption and waste

Waste accounts for 9 per cent of local greenhouse gas emissions. Most greenhouse gas emissions from waste come from landfills, with a small portion from wastewater treatment processes.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to focus on advancing toward a zero-waste, circular economy. A circular economy will focus on product longevity, renewability, reuse and repair instead of just taking a resource, making a product and then throwing that product away.

The actions we need to take to reduce our waste greenhouse gas emissions are:



Action: Conduct a city-wide consumption-based emissions inventory and set a reduction target.

Action: Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).

Action: Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste.

Greenspace

Getting to net zero also requires consideration of opportunities to remove carbon from the atmosphere. Greenspaces, including trees, parks and ravines, provide natural carbon removal and help create a liveable and healthy city.

To meet our 2030 reduction targets and achieve net zero by 2050 or sooner, we need to also implement the following nature-based solutions:

Action: Increase tree canopy cover, biodiversity and enhance greenspaces.

Action: Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.



Decision-making and equitable engagement

Getting to net zero needs informed decision-making and community-wide involvement. In addition to targeting the largest sources of greenhouse gas emissions and enhancing greenspaces in our city, we need to focus on making climate informed decisions and engaging with our local community – including with Indigenous communities, equity-seeking groups and youth.

The actions we need to take include:



Action: Corporate-wide adoption of a climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.

Action: Focus outreach on equity-seeking groups to lead and implement local climate action.

Action: Work with Indigenous communities to share knowledge.

Action: Focus on youth engagement and leadership.

Action: Establish a Climate Advisory Group.

Help us get to net zero!

We need your help to prioritize which climate actions should be implemented in the short-term to make sure we meet our 2030 goals and beyond. Effectively reducing our emissions and reaching net zero means leaving nobody behind—so while you're considering which climate actions should be implemented first, also give some thought to what these actions might look like in your community while we travel the path to net zero together.

Complete the survey at [TransformTO.ca](https://transformto.ca) or host your own climate conversation using the questions and materials provided in the Discussion Guide.



Proposed TransformTO Net Zero Strategy actions - summary

Buildings

- Continue to implement the Toronto Green Standard sustainable design requirements for new developments and require net zero ready private buildings by 2030 or sooner.
- Require net zero emissions for construction of City-owned buildings.
- Support building owners to use low-carbon materials for new construction.
- Set requirements to report on and limit greenhouse gas emissions from homes and buildings.
- Support early action to make retrofits that improve efficiency, comfort and the switch off fossil fuel heating easier and more affordable for home and building owners.
- Support the creation of jobs in the building sector and build industry capacity to enable rapid market transformation to scale up zero emission retrofits for existing buildings.

Energy

- Produce renewable natural gas from waste.
- Increase installation of rooftop and ground mount solar panels.
- Support district energy system owners and developers with the implementation of low-carbon energy solutions.
- Accelerate investment in energy storage.
- Work with other levels of government to ensure low-carbon and resilient energy policies to enable local solutions.

Transportation

- Increase uptake of electric vehicles through incentives.
- Increase electric vehicle charging in public spaces and on private property.
- Expand usage of and support for low-emissions freight and last mile delivery strategies to move goods.
- Expand bike and pedestrian infrastructure and priority zones.
- Expand public transit and accelerate implementation of bus rapid transit.
- Continue electrification of the TTC fleet.

Sustainable consumption and waste

- Conduct a city-wide consumption-based emissions inventory and set a reduction target.
- Reduce city-wide material consumption and increase circularity (i.e., efficient re-use and recovery of resources).
- Continue outreach and engagement on city-wide waste reduction and diversion, with a focus on food and organic waste.

Greenspace

- Increase tree canopy cover, biodiversity and enhance greenspaces.
- Achieve equitable distribution of the urban forest, increasing tree canopy where it is most needed.

Decision-making and equitable engagement

- Corporate-wide adoption of a climate lens for all new City operating programs and capital projects to incorporate climate considerations in the municipal decision-making process.
- Focus outreach on equity-seeking groups to lead and implement local climate action.
- Work with Indigenous communities to share knowledge.
- Focus on youth engagement and leadership.
- Establish a Climate Advisory Group.



Terminology and definitions

Climate advisory group – This group would include individuals from a range of backgrounds to advise on the TransformTO strategy and ensure that the City's actions are equitable and reflect the priorities and interests of residents.

Climate lens – A 'climate lens' would incorporate considerations of climate impacts into all major City of Toronto decisions, including financial decisions. This would help ensure City investments, policies and programs are supporting our climate change goals.

Consumption-based emissions inventory – The City would study and set a limit for the greenhouse gas emissions from the consumption of goods and services that are produced elsewhere, shipped, then used and disposed of by Torontonians.

District energy – A low-carbon district energy system uses energy from renewable sources, such as heat recovery, geo-exchange and solar thermal, to heat and cool multiple buildings in an area to reduce emissions and increase efficiency.

Energy storage – Provides the ability to store renewable energy and use it when needed.

Low-carbon materials – Studies show that emissions embodied in construction materials can account for up to 80 per cent of a large buildings' total emissions from extraction to decommissioning. Using low-carbon materials and construction practices can have a big impact.

Toronto Green Standard (TGS) – Toronto's sustainable design requirements for new private and city-owned developments.

Zero emission retrofits – Making changes to existing buildings to reduce greenhouse gas emissions. We will support workforce development and training to ensure a strong and sufficiently numbered workforce is ready to meet the new demand for deep emissions retrofits. Partner with trades unions, training organizations, industry associations to enhance existing trainings and support development of new ones.





Discussion Guide



Discussion Guide

Now that you've had the opportunity to review the Transform TO: Net Zero Climate Actions Backgrounder, please consider and discuss the following questions.

1. What are the most important net zero climate actions to implement in the short-term? Why?
2. Which net zero climate actions do you think would be the most challenging for you or your community, and why?
3. What is needed to support and encourage uptake of these net zero climate actions in your community?

Please refer to the terminology and definitions section on Page 21 for further information.

