

Matthew Green, Infrastructure and Environment Committee Secretariat

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IE26.16 TransformTO – Critical Steps for Net Zero by 2040

Dear Infrastructure and Environment Committee Members,

The Atmospheric Fund strongly supports the City of Toronto’s leadership in proposing a bold new climate target – net zero by 2040. If approved, this will be among the strongest climate targets adopted by any level of government in Canada. We applaud the City for proposing an ambitious, science-based target consistent with global commitments to limit climate change to 1.5C.

A rapid and immediate acceleration in climate action is needed to get on track for net zero by 2040. As noted in the City’s [technical report](#), currently approved policies and programs (e.g., the “business as planned scenario”) are not sufficient to reach the previous target of an 80% reduction by 2050. Similarly, the technical report shows that currently approved policies and programs leave a major gap to the existing 2030 target of 65% reduction.

The proposed Net Zero Strategy builds on the practical leadership Toronto has previously shown on key initiatives such as the Toronto Green Standard and the Home Energy Loan Program, influential policies that have been adapted by municipalities across Ontario. ***TAF supports many elements of the proposed Net Zero Strategy, and wish to highlight our strong support for the following elements:***

- The bold new net zero by 2040 target,
- New 2030 targets for renewable energy, electric vehicle adoption, and low carbon district energy,
- The proposals to streamline procurement processes for climate action pilots and partnerships (Staff recommendations 5 & 6),
- The proposed list of federal and provincial policy advocacy priorities (Staff recommendations 13 & 14),

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- The proposed establishment of a climate advisory group to ensure implementation is equitable and reflects the priorities and interests of the community.

Despite many positive elements however, the strategy as drafted will not put Toronto on track for its 2030 or 2040 targets. The Technical Report outlines the additional or accelerated actions needed to get on track for the net zero by 2040 target, but many of these new or accelerated actions are not reflected in the Short-Term Implementation Plan or the staff recommendations. Our recommendations below offer steps to help close the gap between the draft strategy and the 2030 and 2040 targets, support Toronto in achieving its leading-edge new target, and build on the City's reputation as a leader in climate action.

BUILDINGS

1. Ensuring near zero emissions for all new construction by 2030

Issue: TAF supports the proposed 2030 target of ensuring “100% of new buildings are designed and built to be near zero greenhouse gas emissions.” However, the current timeline - set in 2017- for advancing the Toronto Green Standard (TGS) is not aligned with this goal. As outlined in the Technical Report (p. 54), achieving the goal requires accelerating the schedule for updating the Toronto Green Standard (TGS). TGS version six, which requires near-zero emissions, is scheduled to apply to projects applying for site plan approval in 2030. Because there is a 2-3 year gap between site plan applications and commencement of construction, the policy will not achieve near zero new construction until 2032-33.

Recommendation:

1. a) Advance the schedule for implementing versions five and six of the Toronto Green Standard by one year each, such that version five applies in 2025 and version six applies in 2028. Build industry capacity for compliance by strengthening incentives for projects that voluntarily build to near zero standards ahead of the requirements.

2. Advancing implementation of the net zero existing buildings strategy

Issue: The Net Zero Existing Buildings Strategy, adopted earlier this year, is centred on the development of mandatory emissions performance standards for existing buildings, with compliance beginning in 2025 for large buildings. However, the policy development process is moving too slowly to enable standards to come into effect in 2025. The real-estate industry will require at least two years notice of the policy details in order to plan for compliance. The current schedule is to have a program design by Q2 2023, with no firm date for a draft bylaw, which will not allow for implementation in 2025.

Recommendation:

2. a) Accelerate the development of building emissions performance standards by completing policy and program design by the end of 2022 for implementation in 2025, focusing on the use of the City's existing authorities to support compliance.

3. Buildings sector target

Issue: The draft plan includes a target of reducing building sector emissions by 50% below 2008 levels. It is unclear why a 2008 baseline was selected, and because of the baseline year this target is not compatible with the City's overall 2030 target of 65% below 1990 levels (it equates to only 53% below 1990). This building sector target was not derived from the emissions modelling process and would require unrealistically deep cuts to transportation and waste emissions to reach the overall 2030 target for community-wide emissions. It is also unnecessarily confusing for the community and stakeholders to use a 1990 baseline for city-wide emissions targets, and a 2008 baseline for building sector targets.

Recommendation:

3. a) The building sector target should be at least 60% below 1990 levels.

RENEWABLE ENERGY AND STORAGE

4. Advancing low carbon thermal energy sources

Issues: The plan includes an ambitious 2030 target for having 25% of commercial and industrial floor area connected to low carbon thermal energy sources. Staff have advised us that currently only 2-3% of floor area is connected to such systems. Achieving this target will require rapid and massive investment in low carbon thermal energy systems. The actions in the plan are limited to provision of technical and planning support and are not sufficient to achieve this target. Additionally, there are existing fossil fuel-based district energy systems which need to be converted to low carbon energy sources, and there are no actions outlined for achieving this. The Technical Report shows that all existing district energy systems need to be net-zero by 2030 (p. 54), and this should be reflected in the strategy. Finally, no definition has been provided for low carbon thermal energy sources, making it difficult to track progress against the target.

Recommendations:

4. a): Work with the operators of existing fossil-fuel based district energy systems to ensure plans and financing are in place by 2025 to ensure conversion to low carbon energy sources by-or-before 2030.
4. b): Develop a plan to provide financing support for low carbon thermal energy systems, potentially including the use of Local Improvement Charges or other financial mechanisms, for implementation by 2023.
4. c): The City needs a clear definition of low carbon thermal energy sources to enable monitoring of progress against the target.

5. Increasing deployment of renewable energy and storage

Issue: The plan includes an ambitious 2030 target for having 50% of city-wide energy use come from renewable or low carbon energy sources. While renewable energy is defined in the

plan, no definition is provided for low carbon energy sources. Additionally, this will require a massive deployment of renewable energy over the next eight years. The draft action to produce a staff report in 2023 outlining options for accelerating renewables does not line up with that timeline. Achieving the target will not be possible by only encouraging or incentivizing renewable energy projects on an individual building scale. Achieving this level of adoption in eight years will require a different approach which leverages economies of scale and aggregation to deliver renewable energy quickly and efficiently on a large-scale basis. The City should consider working with Toronto Hydro to develop and implement such a program, leveraging the City's financing tools (HELP, ERL) and Toronto Hydro's expertise in procurement, contracting, and grid interconnection processes.

Recommendations:

- 5. a): Massively scale-up solar and storage by directing Toronto Hydro and Toronto's Energy and Environment Division to develop a large-scale solar and storage program that offers turnkey project delivery with no upfront costs to home and building owners.
- 5. b): Include a definition of "low carbon energy sources" or revise the 2030 target to only reference renewable energy sources.

TRANSPORTATION

6. EV Charging

Issue: Toronto needs a network of on-street chargers to support EV adoption by "garage orphans" who do not have the option of installing EV charging at home. A small pilot has been completed in partnership with Toronto Hydro, but there is no timeline or targets for expanding this. In contrast, leading North American cities have hundreds of on-street chargers installed. Council has [previously requested](#) a report-back with targets and timelines for expansion of on-street charging, but this has not happened yet. And there are no actions related to on-street charging in the short-term implementation plan. We know that more on-street charging is needed, and we know how to deliver it, we simply need to do it.

Recommendation:

- 6. a) The City should work with Toronto Hydro to initiate expansion of on-street charging, with implementation beginning in 2022.

BUDGET

7. Funding for TransformTO

Issue: The strategy does not include any additional funding and is identified as having no impact on the 2022 budget. Accelerating climate action in response to a climate emergency means immediately increasing funding for climate action.

Recommendation:

- 7. a) Ensure increased funding in the 2022 budget year to accelerate climate action.

CLIMATE ADVISORY GROUP AND COMMUNITY ENGAGEMENT

8. Role of Climate Advisory Group and community

Issue: We support the proposal to establish a Climate Advisory Group and make the following recommendations about its structure and composition.

Recommendations:

8. a) Establish a climate advisory group that includes representation from Indigenous communities, youth, and other equity deserving communities, in addition to other stakeholders and experts. The advisory group's activities should include regular consultation with the City throughout the year and any reports or recommendations should also be publicly available. Ensure meaningful involvement of residents in the design, development, and evaluation of actions, including the [recommendations provided by Toronto Environmental Alliance](#) to support community hubs and other local support networks as key social and physical infrastructure for strengthening community climate engagement and resilience.
8. b) Provide the advisory group with resources to publish an annual independent report on Toronto's climate progress.

LEADING BY EXAMPLE

9. Climate action at the City

Issue: We support the City's commitment to leading by example through climate action in City owned buildings, fleets, and other assets. There are several longstanding Council directions around this, many of which are reiterated or elaborated in the Short-Term Implementation Plan. However, there appears to be an implementation gap and a lack of clarity across City divisions in terms of these requirements. We suggest clearer and more explicit language in Council directions to avoid ambiguity. It should be noted that ensuring all new investments in city assets are compatible with net-zero is financially prudent because it will be far more expensive to replace or retrofit assets before the end of their life to meet the net zero target.

Recommendations:

9. a) Design and construct all new City buildings to be net zero emissions. This would supplement Short Term Action 27A with a simple and clear Council directive to avoid any confusion.
9. b) Stop purchasing fossil-fuel fired heating equipment for city buildings. The City continues to replace natural gas-fired equipment in existing buildings with new natural

gas fired equipment. A simple directive of this nature would supplement Short Term Action 27B and avoid any confusion.

9. c) Commit to only purchasing zero emissions/electric vehicles, across all vehicle classes, as soon as they are available, and use large scale City purchases to induce suppliers to make these vehicles available in our market. A simple directive of this nature would supplement Short Term Action 28A and avoid confusion.

In closing, we wish to congratulate the City for its leadership in adopting a net-zero by 2040 target. We strongly encourage the City to align the Net Zero Strategy with the 2030 and 2040 targets, including by considering the recommendations outlined above. We look forward continuing to support the City on climate action implementation.

Sincerely,

Bryan Purcell
VP of Policy and Programs

The Atmospheric Fund

About the Atmospheric Fund

The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area (GTHA) and helps scale them up for broad implementation. Please note that the views expressed in this submission do not necessarily represent those of the City of Toronto or other GTHA stakeholders. We are experienced leaders and collaborate with stakeholders in the private, public and non-profit sectors who have ideas and opportunities for reducing carbon emissions. Supported by endowment funds, we advance the most promising concepts by investing, providing grants, influencing policies and running programs. We're particularly interested in ideas that offer benefits in addition to carbon reduction such as improving people's health, creating local jobs, boosting urban resiliency, and contributing to a fair society.

Appendix – Recommendations at a Glance:

BUILDINGS

New Construction Recommendation:

Advance the schedule for implementing versions five and six of the Toronto Green Standard by one year each, such that V5 applies in 2025 and V6 applies in 2028.

Existing Buildings Recommendations:

A: Report back in Q1 2022 on the feasibility of implementing emissions performance standards using the City's existing authorities.

B: Report back in Q4 2022 with either an emissions performance standards program design and bylaw with compliance requirements beginning in 2025; or, taking into account the results of part A, recommendations for any regulatory or legislative changes needed to enable implementation of emissions performance standards.

Buildings Sector Target Recommendation:

The building sector target should be at least 60% below 1990 levels.

ENERGY AND STORAGE

Low carbon thermal Recommendations:

A: Work with the operators of existing fossil-fuel based district energy systems to ensure plans and financing are in place by 2025 in order to ensure conversion to low carbon energy sources by-or-before 2030.

B: Develop a plan to provide financing support for low carbon thermal energy systems, potentially including the use of Local Improvement Charges or other financial mechanisms, for implementation by 2023.

C: The City needs a clear definition of low carbon thermal energy sources in order to enable monitoring of progress against the target.

Increasing renewable energy deployment and storage Recommendations:

A: Massively scale up solar and storage by directing Toronto Hydro and EED to develop a large-scale solar and storage program that offers turnkey project delivery with no upfront costs to home and building owners

B: Include a definition of "low carbon energy sources" or revise the 2030 target to only reference renewable energy sources.

TRANSPORTATION

EV Charging Recommendation: That EED and Transportation Services work with Toronto Hydro to initiate expansion of on-street charging, with implementation beginning in 2022.

BUDGET

Recommendation: Ensure increased funding in the 2022 budget year to accelerate climate action.

CLIMATE ADVISORY GROUP AND COMMUNITY ENGAGEMENT

Recommendations:

A: Establish a climate advisory group that includes representation from Indigenous communities, youth, and other equity deserving communities, in addition to other stakeholders and experts. The advisory group's activities should include regular consultation with the City throughout the year and any reports or recommendations should also be publicly available.

B: Provide the advisory group with resources to publish an annual independent report on Toronto's climate progress.

C: Ensure meaningful involvement of residents in the design, development, and evaluation of actions, including the [recommendations provided by Toronto Environmental Alliance](#) to support community hubs and other local support networks as key social and physical infrastructure for strengthening community climate engagement and resilience.

LEADING BY EXAMPLE

Recommendations:

A) Design and construct all new City buildings to be net zero emissions. This would supplement Short Term Action 27A with a simple and clear Council directive to avoid any confusion.

B) Stop purchasing fossil-fuel fired heating equipment for city buildings. The City continues to replace natural gas-fired equipment in existing buildings with new natural gas fired equipment. A simple directive of this nature would supplement Short Term Action 27B and avoid any confusion.

C) Commit to only purchasing zero emissions/electric vehicles, across all vehicle classes, as soon as they are available, and use large scale City purchases to induce suppliers to make these vehicles available in our market. A simple directive of this nature would supplement Short Term Action 28A and avoid confusion.