

Overview of the Net Zero Carbon Plan

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A Presentation to the Infrastructure and Environment Committee
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Purpose

This presentation provides an overview of the Net Zero Carbon Plan (“the Plan”), developed by Corporate Real Estate Management, and the key investment initiatives to transition City buildings to be net zero emissions buildings.

Developed in partnership with City divisions and agencies, the Plan describes how City buildings will achieve net zero emissions status incrementally, contribute to the city-wide reduction of greenhouse gas emissions based on City Council-set targets, and lead by example, supporting the broader strategic work of TransformTO.

Overview of Plan Initiatives

Lower Carbon New Builds

Implementing net zero carbon requirements for new builds by adopting the highest Toronto Green Standard



On-site Renewables

Implementing on-site energy generation and storage across the building portfolio



Strategic Divestment

Divesting from carbon-intensive assets to focus on creating lower-carbon buildings

Fuel Switching and Efficiency Retrofits

Primary method for emissions reduction (50% of total); switching from high to low carbon fuel systems for new and existing buildings, considering efficiency retrofits when possible



Training and Education

Training staff on how to efficiently manage new systems



Offset and Off-site Renewables

Purchasing carbon offsets to balance out operational emissions and offset outstanding emissions

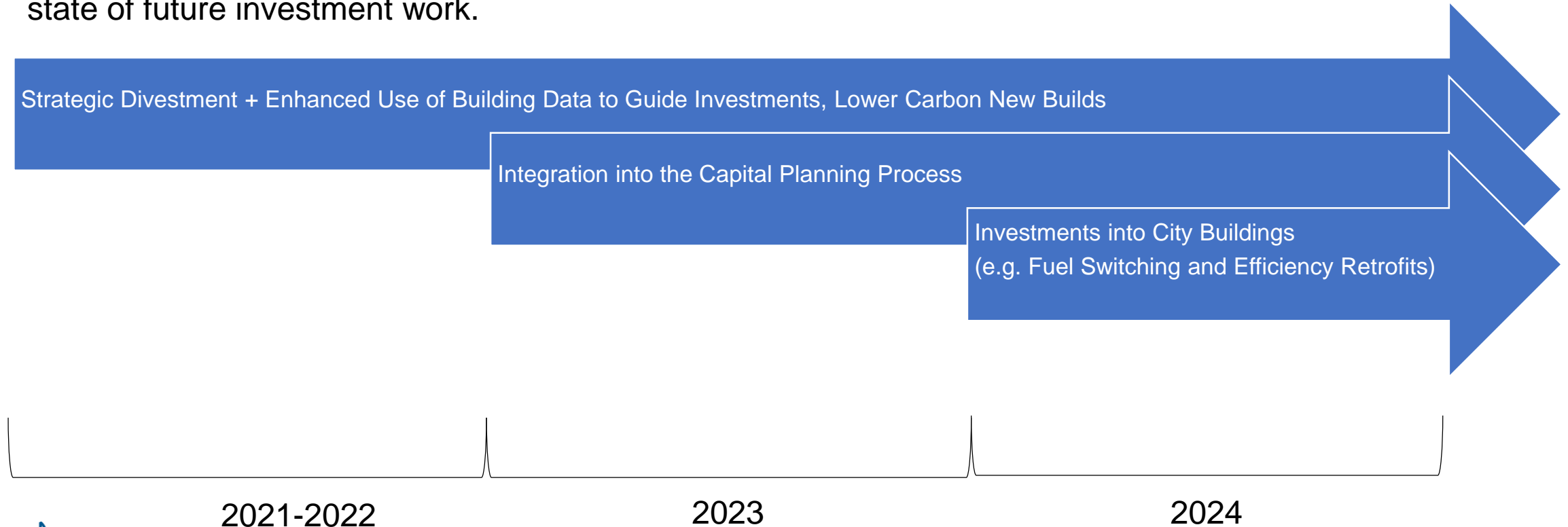


Enhanced Use of Building Data

Consolidating City building information to track/analyze energy consumption, calculate carbon emissions, set KPIs and track progress

Implementation of the Net Zero Carbon Plan

Initially, implementation will focus on working with Financial Planning to integrate the Plan into the capital planning process, using a climate lens and the asset management strategy. Integration will incorporate strategic divestment and enhanced use of building data to guide investment decisions, so that by 2023 net zero considerations will be seamlessly included in all state of future investment work.



Costing Breakdown and Options

Creating net zero emissions buildings will be prioritized in the capital planning process using the climate lens and Financial Planning's asset management strategy. As such the City expects emissions reductions can be achieved with no net new increases to the capital budget.

Initiative	Annual Average Expenditure for 80 percent reduction by 2040 (\$ millions)	Annual Average Expenditure for Net zero emissions status by 2040 (\$ millions)
Fuel Switching and Efficiency Retrofits	90.0	165.0
Lower Carbon New Builds	5.0	5.0
Training and Education	10.0	10.0
On-site renewables and storage	25.0	25.0
Total Estimated Cost*	130.0	205.0
Total Estimated Investment to 2040	2,600.0	4,100.0
Total Estimated Carbon Reduction	114,000 tonnes¹	131,000 tonnes²

¹Represents approximately 14,000 homes' energy use for one year.

²Represents approximately 16,000 homes' energy use for one year.

Funding Opportunities

Corporate Real Estate Management is exploring funding and loan opportunities provided by other orders of government and associated programs to support implementation of the Plan.



Canadian Infrastructure Bank Commercial Building Retrofits Initiative provides financing for energy retrofits projects on infrastructure portfolios owned and/or managed by the public sector.



Infrastructure Canada's Green and Inclusive Community Buildings Program aims to build more community buildings and improve existing ones while also making the buildings more energy efficient, lower carbon, more resilient, and higher performing.



Green Bonds are an option the City may wish to consider.

Benefits



This investment is expected to:

- Reduce annual City facility emissions by **114,000-131,000** tonnes;
- Avoid up to **\$90 million per year** in utility costs by 2040 through fuel switching*;
- Improve local air quality; and
- Create **2000 to 4000 new jobs** in the community and increase activity within the local economy (approximately **\$6 to \$8 billion** in gross domestic product growth)



Thank you

