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2020 CAPITAL BUDGET BRIEFING NOTE Report Back on Building Net Zero Buildings Now – MM12.10

This briefing note provides a response to the request from Council for further information on the impacts of Toronto's Climate Emergency direction, as it pertains to new buildings in the City construction pipeline.

Background:

On November 26, 2019, Council adopted a motion which requested specific information from the Deputy City Manager, Corporate Services as part of the 2020 budget process related to the incremental costs and delays which would be experienced if active, construction building projects were to be amended to be net zero buildings, among other instructions. The full motion can be viewed here:

http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM12.10

This briefing note responds to the initial request in the motion, 1.a., which asked:

...for buildings already in the design or construction procurement phase, report back as part of the 2020 budget process with estimates of both the associated costs and any delays to ensure these buildings are net zero.

Net Zero:

A net-zero emissions building is one that is highly energy-efficient and produces onsite, or procures, carbon-free and or renewable energy in an amount sufficient to offset the annual carbon emissions associated with it operations or simply eliminates carbon emissions altogether.

TransformTO establishes the goal of all new buildings designed and built to be near-zero GHG emissions by 2030 including a very efficient thermal envelope, efficient internal systems and the ability to achieve net-zero with the installation of onsite renewables.

Approach:

Upon receiving the direction in MM12.10 the Corporate Real Estate Management (CREM) division began to collect project information across multiple City divisions and agencies including CreateTO, Parks, Forestry, & Recreation, Toronto Public Library, Toronto Community Housing Corporation, Solid Waste Management, Shelters Support and Housing Administration,

as well as new construction projects led by CREM. To date the information collected identifies potential impacts to 37 new construction projects that represent \$850 million in construction value. Only projects that were identified to be in the pre-construction phase (design or construction procurement) and that have approved budgets for construction were included.

The incremental investment needed to achieve net zero for the identified building projects ranges from 8% to 27% of project value. These estimates are based off of industry reports and estimates received on active City projects.

Estimated Impact:

For projects identified to date, the estimated impact on cost and schedule to ensure these buildings are net zero range from \$68 to \$226 million and delays of 1 to 3 years for any given project. The specific impact to each project will be unique depending on the stage the project is in, the type of project and the extent to which some elements that would support a net zero building have already been incorporated into the building design.

The estimates above are based on the best information gathered and available to date. Further due diligence is required and further consultation with City Divisions and Agency partners, such as Toronto Water and TTC, are needed to assess the full impact across the City, which include the incremental investments needed as well as the benefits that would be derived from ensuring these buildings are net zero.

Next Steps:

Under the new City-wide Real Estate strategy, CREM along with CreateTO are continuing to work with Divisions and Agencies to strategize and coordinate capital investments City-wide, including state of good repair and major capital projects such as the building of new facilities. CREM will continue to work with City Divisions and Agency partners to determine the impact of ensuring these facilities are net zero, and will include, along with responses to other recommendations in the motion, updated estimates in the report back to Infrastructure and Environment Committee in the third quarter of 2020.

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