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2020 CAPITAL BUDGET BRIEFING NOTE

Capital Projects in the 2020 Budget Related to the TransformTO Plan

Issue/Background:

- On January 17, 2020, a briefing note was requested through the Budget Committee to provide information on what capital projects are in the 2020 budget related to the TransformTO plan.
- The EED 2020 budget is comprised five categories that all relate to the TransformTO plan, including Toronto Community Housing Corporation Retrofits, Residential Energy Retrofit Program (HELP), Community Energy Planning, TransformTO, and Renewable Energy Program.
- Several projects in the 2020 budget of other divisions have elements that support the TransformTO strategies and examples have been identified below. Staff are working to gather all the information and will report out at a later date when a complete list has been developed.

Key Points:

Environment & Energy

- Toronto Community Housing Corporation (TCHC) Retrofits (\$28.0 million) – The Environment & Energy Division is financing a retrofit of 39 TCHC buildings that will reduce greenhouse gas emissions and improve resilience. The financing will enable TCHC to install combined heat and power generators to create a resilient network of 39 sustainable buildings throughout the City of Toronto that will act as a haven when power is not accessible from the electricity grid. Most major systems within the buildings will be operational after this deployment (elevators, heating, water, common area lighting, security systems, community or logistics room for coordination efforts and if possible the whole building depending on demand) with locations distributed throughout the City.
- Residential Energy Retrofit Program (\$2.3 million) – The Home Energy Loan Program (HELP) is an award winning program that uses a secure, local improvement charge (LIC) mechanism to support residents in financing energy and water efficiency improvements to their homes. With HELP residents are able to improve the energy efficiency, affordability and comfort of their homes, while decreasing GHG emissions. With information and support provided through the BetterHomesTO initiative residents are supported in accessing information, rebates and incentives to maximize investments in upgraded their homes to be more comfortable and climate friendly.

- Community Energy Planning (\$5.7 million) includes:
 - Funding for the Energy Retrofit Loans program to enable building owners to engage in energy retrofits by providing low interest financing for the project.
 - Low interest financing for the YMCA to support the installation of low-carbon resilient energy systems at ten of their locations in the City, comprised of roof-top and/or wall-mounted solar energy generation, battery energy storage systems, electric vehicle (EV) charging infrastructure. They will also install high efficiency combined heat and power (CHP) systems in seven of the larger community centres that can provide on site generation for resilience.
- TransformTO (\$6.4 million) consists of four projects related to City buildings and assets, including:
 - Waterfront Neighbourhood Centre – Deep energy retrofit to include lake based geo exchange, solar photovoltaic (PV), energy storage, Building Automation Systems (BAS), and lighting retrofit with a projected 80% reduction in GHG emissions.
 - EMS HQ – Deep energy retrofit to include ground based geo exchange, solar PV, BAS, and lighting retrofit with a projected 80% reduction in GHG emissions.
 - EMS Fleet Retrofit with Low-Carbon Energy Fund Retrofit to EMS vehicle fleet installing hybrid electric drivetrain and solar PV panels to reduce engine idling.
 - Solar PV Projects (Carport & Rooftop) – Install solar PV systems on City properties which will offset site load and achieve utility cost reductions, while reducing our reliance on the electricity grid.
- Renewable Energy Program (\$1.248) is carried forward from 2019 to close out the Feed-in Tariff program.

Examples of Projects Contributing to TransformTO Strategies Outside of the EED Budget

- Mount Dennis – Childcare Centre- New construction of a net zero carbon childcare facility, featuring Solar PV/Thermal hybrid system, battery backup fed by the PV system, a geo-exchange energy centre, and a highly efficient building exterior design.
- 14 St. Clement's – Daycare – Planned retrofit of a historic-designated site. As of writing it is aiming to be a deep energy retrofit, due to the extent of the retrofit.
- 100 Queen St W. – Large backup generator to be installed at City hall to allow for continual operation in the event of power failures.
- 2945 Keele Street – Fire Station 144-New Downsview Fire Hall - New Fire hall incorporating highly efficient equipment and resiliency measures
- Queens Plate Drive – Fire Station 414-New Woodbine Racetrack Fire Hall & Paramedic - New Fire hall incorporating highly efficient equipment and resiliency measures

- 1535 Albion Rd – Toronto Paramedic Service – Deep energy retrofit project incorporating solar PV, backup batteries fed by PV, efficient exterior, and low-carbon heating systems.
- 1050 Ellesmere Rd, Building C – New facility for fleet services incorporating efficient thermal design, low-energy fixtures, and future proofing for servicing City's growing electric vehicle fleet.
- 1530 Markham Road – Replace Original Boilers with new high-efficiency boilers.
- 843 Eastern Ave – Emergency work on heating system incorporates high-efficiency systems and building exterior repairs mitigate thermal energy losses.

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