



## TTC's Green Bus Program: TTC-OPG-THESL Framework for Agreement on Electrification Infrastructure

**Date:** April 14, 2021  
**To:** TTC Board  
**From:** Chief Vehicles Officer

### Summary

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As a key element of the City of Toronto's TransformTO Action Plan, the TTC's Green Bus Program outlines a plan to transition the bus fleet to zero-emissions by 2040. The first phase of the plan included the procurement of 60 battery-electric buses (eBuses) and associated electrification infrastructure. As the TTC prepares for adoption at a rate of approximately 190 eBuses per year starting in 2023, infrastructure must be delivered accordingly.

At the February 2020 TTC Board meeting, staff provided an update on the TTC's Green Bus Program. The Report recognized the challenge of electrification and the overall success of the first phase of implementing, which was delivered by the TTC and Toronto Hydro-Electric Supply Ltd. (THESL) on time, on budget, and with minimal demand and disruption to TTC operations. The Board directed staff to explore partnership opportunities that could ensure best chances of continued success through a co-investment, design, build, own, operate and maintain model.

Following an update by TTC staff at the Board's October 2020 meeting, Commissioners directed staff continue its work with hydro utilities, THESL and Ontario Power Generation (OPG), and report back with draft agreement(s) for the delivery of the electrification infrastructure required for bus, Wheel-Trans and non-revenue vehicle charging infrastructure to enable achievement of the target of zero-emissions by 2040.

This report recommends approval of a Framework for Agreement between TTC, THESL and OPG, where THESL is responsible for upgrading the electrical supply to TTC properties and OPG co-invests, designs, builds, owns and operates electrification infrastructure on TTC property.

This delivery model, where hydro utilities deliver, own and operate public transit eBus infrastructure, is consistent with best practices being established by other leaders in the industry, such as in New York and California. The tripartite Framework for Agreement has been agreed to in principle by all parties.

With the Board's approval of the Framework for Agreement, the TTC would enter into a non-binding memorandum of understanding (MOU) with OPG and THESL. As definitive agreements with THESL are already defined by Ontario Energy Board regulations, the

TTC would progress negotiations with OPG on the commercial terms of a master agreement (TTC-OPG Master Agreement) and return to the TTC Board no later than Q3 2021 for approval to enter into the TTC-OPG Master Agreement.

## **Recommendations**

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It is recommended that the TTC Board:

1. Approve the Framework for Agreement between the TTC, Ontario Power Generation and Toronto Hydro-Electric System Ltd. as outlined in Appendix A for the co-investment, ownership, design, build, operations and maintenance of all electrification infrastructure required to implement the TTC's Green Fleet Program.
2. Delegate authority to the Chief Executive Officer to enter into the non-binding TTC-OPG-THESL memorandum of understanding under the Framework for Agreement satisfactory to the TTC's General Counsel; and
3. Report back to the Board no later than Q3 2021 with staff's proposed negotiating position and proposed commercial terms for the TTC-OPG Master Agreement, satisfactory to the TTC's General Counsel.

## **Financial Summary**

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The TTC's 2021-2035 Capital Investment Plan (CIP) identifies the need for an estimated \$500 million to upgrade electrical capacity at TTC sites, and for the electrification infrastructure required to implement the TTC's Green Bus Program.

Of the \$500 million required, the TTC's 2021-2030 Capital Budget and Plan includes \$79 million (approximately 16%) in funding, which was approved by City Council on February 18, 2021. This approved funding will allow for the design, procurement and construction of approximately 300 charging stations out of the 1,440 required over the next 10 years. With a two-to-three-year lead time, additional sources of funding are required for the remaining 1,140 charging stations by the end of Q2 2021 to ensure infrastructure is in place ahead of eBus deliveries in 2024 and beyond.

The recommendations in this report have no direct financial impact. The TTC plans to report back to the Board no later than Q3 2021 with a proposed negotiating position regarding the commercial terms of a TTC-OPG Master Agreement. The master agreement will not commit the TTC beyond the funding available through the approved TTC Capital Budget and Plan. However, it will be flexible enough to apply to future years as more funding becomes available.

The CIP further identifies an estimated \$50 million for electrification of the TTC's Wheel-Trans Green Bus Program, which is not funded. While it is expected that this program will be initiated in the next two or three years, currently there are no known available options on the market for all-electric buses that are in the size range required (six-metre to seven-metre) for Wheel-Trans operations, and that comply with the Government of Canada's Commercial Motor Vehicle Safety Standards.

The TTC will be applying lessons learned from electrification of the city bus fleet to position itself for an accelerated deployment of both electric Wheel-Trans buses and non-revenue vehicles as these markets mature and procurement options become available over the next one or two years.

All cost estimates for electrification infrastructure are currently at a concept screening level (Class 5 with 0% to 2% scope definition). The scope, schedule and cost estimates for the 20-year full fleet electrification program continue to be matured. At this point in time, no significant change in estimated final cost is expected. However, the level of confidence in the estimate is increasing and will be revised (Class 4 with 1% to 15% scope definition) through the 2022 Capital process.

The recommended Framework for Agreement between the TTC, OPG and THESL that will see the three parties entering into a non-binding memorandum of understanding for the co-investment, ownership, design, build, operations and maintenance of all electrification infrastructure required to implement the TTC's Green Fleet Program, reflects the outcome of an assessment of five delivery model options and contract bundling strategies.

The recommended option provides the greatest potential benefit to the TTC through the transfer of design, build and operational risk while allowing for vehicles to be procured separately by the TTC. This option offers additional benefits associated with the exclusive offer of co-investment, co-ownership and potential for government rate financing.

The Interim Chief Financial Officer has reviewed this report and agrees with the financial summary information.

## **Equity/Accessibility Matters**

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### **Equity**

A reliable and accessible transit network is critical for equity-seeking groups relying on TTC services to get to work, school, access health services, participate in recreational and cultural services, etc. Studies have shown that people who have less access to public services, including transit, typically have more adverse economic and health prospects. Access to transit that is equitable, accessible, safe, reliable, and that grows with or ahead of the population it serves, will help improve health outcomes, economic prosperity and equality throughout the city of Toronto, regionally and nationally.

An equity lens was applied when determining the sequence of garage electrification and which routes would first be served by eBuses. This was achieved by prioritizing garages that served the largest number of customers travelling to and from Neighbourhood Improvement Areas (NIA). With reference to the TTC's Green Fleet Program Update of June 2018, while this was not the only factor, it was and continues to be weighed heavily in the long-term planning for fleet electrification.

The TTC's Procurement Policy is currently being revised to include requirements in the areas of procurement equity and green procurement. As detailed more fully in the TTC's report on the eBus Head-to-Head Evaluation, which includes recommendations for the TTC's next bus procurements, all upcoming vehicle procurements and overhaul programs will have both equity procurement and green procurement requirements. TTC staff will work with THESL and OPG to extend and apply those requirements to contractors and sub-contractors implementing the electrification infrastructure program, specifically.

## **Accessibility**

A cornerstone of the TTC's Corporate Plan 2018-2022 is accessibility, and as a proud leader in providing accessible public transit in the city of Toronto, the TTC is committed to ensuring accessible, reliable, safe and inclusive transit services for all customers.

While the subject of this report is delivery of electrification infrastructure for the TTC's Green Bus Program, and does not directly have accessibility impacts, all transit buses, regardless of propulsion technology, are required to be compliant with the Canadian Standards Association (CSA) D435 standard for accessible transit buses and the Integrated Accessibility Standards – Part IV (Transportation Standards) under the Accessibility for Ontarians with Disabilities Act.

Further, the TTC strives to exceed minimum requirements and actively engages the Advisory Committee on Accessible Transit (ACAT) in the design and evaluation of all bus procurements. ACAT's continued involvement in the eBus head-to-head evaluation is helping staff to identify accessibility improvements for implementation in the upcoming hybrid-electric and battery-electric bus procurements.

## **Decision History**

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At the June 12, 2018 Board meeting, staff presented an update on the Green Bus Technology Plan, originally approved in November 2017. The Board delegated the authority to the CEO to procure an additional 30 long-range, battery-electric buses, for a total of 60, and directed the TTC to work with THESL to begin preparations for the electrification of the TTC's first all-electric bus garage to support future procurements of battery electric buses for a total project cost of \$90 million.

Report:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/June 12/Reports/27\\_Green\\_Bus\\_Technology\\_Plan\\_Update.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/June%2012/Reports/27_Green_Bus_Technology_Plan_Update.pdf)

Decision:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/June 12/Reports/Decisions/27\\_Green\\_Bus\\_Technology\\_Plan\\_Update\\_Decision.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/June%2012/Reports/Decisions/27_Green_Bus_Technology_Plan_Update_Decision.pdf)

At its January 27, 2020 meeting, the Board approved the amended 2020-2029 Capital Budget and Plan of \$11.924 billion, which included \$4.23 billion in net new funding made available through the dedicated City Building Fund and one-time Federal Gas

Tax. This provided the TTC with an additional funding amount of \$3.09 billion for subway infrastructure (State of Good Repair and Service Improvements), plus \$1.14 billion towards the replacement of existing vehicles and related systems.

Report:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/January 27/Reports/10 TTCs 2020 2029 Key Capital Investment Priorities Subway I.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/January%2027/Reports/10%20TTCs%202020%202029%20Key%20Capital%20Investment%20Priorities%20Subway%20I.pdf)

Decision:

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At its October 22, 2020 meeting, the Board received the TTC's Fleet Procurement Strategy and Plan. The Board requested the TTC to continue to work with THESL and OPG and report back to the Board in Q1 2021 with draft agreement(s) for the delivery of the required bus, Wheel-Trans and non-revenue vehicle charging infrastructure to enable achievement of the TTC's target for a fossil-fuel-free/zero-emissions fleet by 2040.

Report:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/October 22/Reports/5 TTC Fleet Procurement Strategy and Plan.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/October%2022/Reports/5%20TTC%20Fleet%20Procurement%20Strategy%20and%20Plan.pdf)

Decision:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/October 22/Reports/Decisions/2047 5 TTC Fleet Procurement Strategy and Plan Decision.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/October%2022/Reports/Decisions/2047%205%20TTC%20Fleet%20Procurement%20Strategy%20and%20Plan%20Decision.pdf)

## **Issue Background**

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In June 2018, the TTC Board directed TTC staff to work with THESL on the design and implementation of charging systems infrastructure for the TTC's first 60 eBuses.

In February 2020, recognizing the overall success of the first phase of electrification, the Board directed that the TTC explore partnership opportunities that could ensure best chances of continued success through a co-investment, design, build, own, operate and maintain model.

On October 22, 2020, the Board received the TTC's Fleet Procurement Strategy and Plan, which included a recommendation to continue working with THESL and OPG on agreements to enable full-fleet electrification. The Board directed that the TTC continue working with THESL and OPG and report back to the Board in Q1 2021 with a draft agreement(s) for the delivery of the required bus, Wheel-Trans and non-revenue vehicle charging infrastructure to enable achievement of the TTC's target for a fossil-fuel-free/zero-emissions fleet by 2040.

## Comments

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The TTC's Green Bus Program has the following four sub-programs:

1. Hybrid-electric bus procurement, as a transition technology to all-electric buses.
2. Battery-electric bus (eBus) procurement.
3. Electrification infrastructure implementation.
4. Business transformation.

The electrical infrastructure required at each of the TTC's eight bus garages includes an upgrade of power to the property, substation, battery energy storage system, natural gas generators, electric vehicle (EV) chargers and solar panels where practical. Also, there is extensive civil, structural and electrical work required to connect all of these systems, and an energy management system that is integrated within the TTC's existing planning and dispatching systems to control the resulting micro-grid. A simplified scope is depicted below in Figure 1.

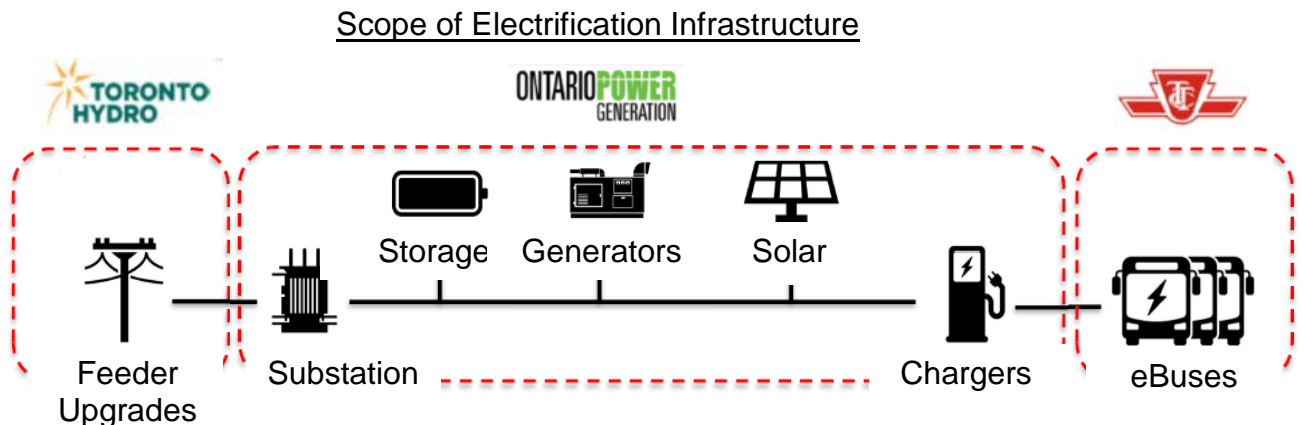


Figure 1 – Scope of Electrification Infrastructure

The first challenge of electrification is to ensure that the design is effective, reliable and future-proof to the greatest extent possible given the rapidly maturing field. Once it is clear 'what' charging infrastructure is required, the key is to determine 'how' best to deliver it. The delivery model must successfully achieve all of the following conditions:

- Manage program of unique retrofits to existing facilities;
- Sequence work with existing facility state-of-good-repair programs;
- Minimize impact to 24/7 bus operations;
- Deliver on time to stay ahead of eBus deliveries; and
- Deliver on budget.

Despite the challenges, the TTC and THESL successfully delivered electrification infrastructure for the TTC's first 60 eBuses on time and on budget. With THESL's responsibility as engineering, procurement and construction (EPC) contractor for most of the program scope, its primary interest was ultimately the increased supply of electricity rather than making profit from the construction. This alignment of goals

between transit authority and hydro utility is an opportunity unique to the delivery of the electrification infrastructure.

Recognizing the success of this capital asset delivery model, the Board directed that the TTC work with THESL and OPG on a draft agreement for the delivery of the required bus, Wheel-Trans and non-revenue vehicle charging infrastructure to enable achievement of the TTC’s target for a fossil-fuel-free/zero-emissions fleet by 2040. The Framework for Agreement presented in Appendix A, which has been agreed to in principle by all parties, includes a declaration of common interests, commitment to co-operate, roles and responsibilities and definitive agreements.

As a measure of due diligence, the TTC drew on support from third parties, including KPMG, to develop the delivery model assessment and ultimately to verify it is aligned with industry best practices.

The models assessed, as outlined in Figure 2, included the traditional design-bid-build (#1); design-build (#2); a design-build-finance-operate-maintain of the infrastructure (#3); and a design-build-finance-operate-maintain of infrastructure and vehicles (#4). As well, the assessment evaluated the proposed TTC-OPG-THESL Framework for Agreement and draft definitive agreement with OPG (#5).

### Contract Bundling Strategies

	1	2	3	4	5
	Design-Bid-Build (DBB)	Design-Build (DB)	Contract Bundle 1	Contract Bundle 2	TTC-OPG-THESL Framework for Agreement
<b>Description</b>	<ul style="list-style-type: none"> <li>▪ THESL to increase electrical supply</li> <li>▪ TTC procures, operates, maintains and owns the electrification infrastructure, which is designed and constructed by different third-parties</li> <li>▪ TTC procures, operates, maintains and owns the eBuses</li> </ul>	<ul style="list-style-type: none"> <li>▪ THESL to increase electrical supply</li> <li>▪ TTC procures, operates, maintains and owns the electrification infrastructure, which is designed and constructed by a single third-party</li> <li>▪ TTC procures, operates, maintains and owns the eBuses</li> </ul>	<ul style="list-style-type: none"> <li>▪ THESL to increase electrical supply</li> <li>▪ TTC bundles the infrastructure under a single contract including design, build, operate, and maintain</li> <li>▪ TTC procures, operates, maintains and owns the eBuses</li> </ul>	<ul style="list-style-type: none"> <li>▪ THESL to increase electrical supply</li> <li>▪ TTC bundles the vehicles and infrastructure under a single contract including design, build, operate, and maintain</li> <li>▪ TTC leases all infrastructure and buses under a single contract</li> </ul>	<ul style="list-style-type: none"> <li>▪ THESL to increase electrical supply</li> <li>▪ TTC and OPG to co-fund infrastructure</li> <li>▪ OPG to own assets and manage program across all TTC sites</li> <li>▪ OPG to design, build, operate, and maintain</li> <li>▪ TTC procures, owns, operates, and maintains eBuses</li> <li>▪ Potential for government rate financing via CIB</li> </ul>

	1 Design-Bid-Build (DBB)	2 Design-Build (DB)	3 Contract Bundle 1	4 Contract Bundle 2	5 TTC-OPG-THESL Framework for Agreement
<b>Benefits</b>	<ul style="list-style-type: none"> <li>Well understood approach</li> <li>Most control</li> <li>TTC can source buses competitively, separate from infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of most DB risk</li> <li>Potential DB efficiencies and cost savings</li> <li>TTC can source buses competitively</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of most DB and O&amp;M risk</li> <li>Potential to optimize lifecycle cost</li> <li>Greater lifecycle cost and schedule certainty</li> <li>TTC can source buses competitively</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of most DB, O&amp;M, and vehicle performance risk</li> <li>Potential to optimize lifecycle cost</li> <li>Greater lifecycle cost and schedule certainty</li> </ul>	<ul style="list-style-type: none"> <li>Co-investment and OPG ownership reduces overall risk</li> <li>Greatest potential to optimize lifecycle cost</li> <li>TTC can source buses competitively</li> <li>Opportunity for gov. rate financing</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>TTC retains delivery and performance risk</li> <li>High integration risk</li> <li>Not likely to optimize lifecycle costs</li> </ul>	<ul style="list-style-type: none"> <li>TTC retains performance risk regardless of O&amp;M delivery model</li> <li>Not likely to optimize lifecycle costs</li> </ul>	<ul style="list-style-type: none"> <li>Less direct control</li> <li>Higher long-term maintenance costs</li> <li>Private sector rate financing</li> <li>Interface risk between bus and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>May lose ability to source vehicles competitively</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory developments may offer greater opportunity</li> <li>Some interface risk between bus and infrastructure</li> </ul>

Figure 2 - Contract Bundling Strategies

With all contracting strategies, risks must be managed through the commercial negotiation process, strong governance structure, an effective TTC project team and robust protocols for communication and escalation.

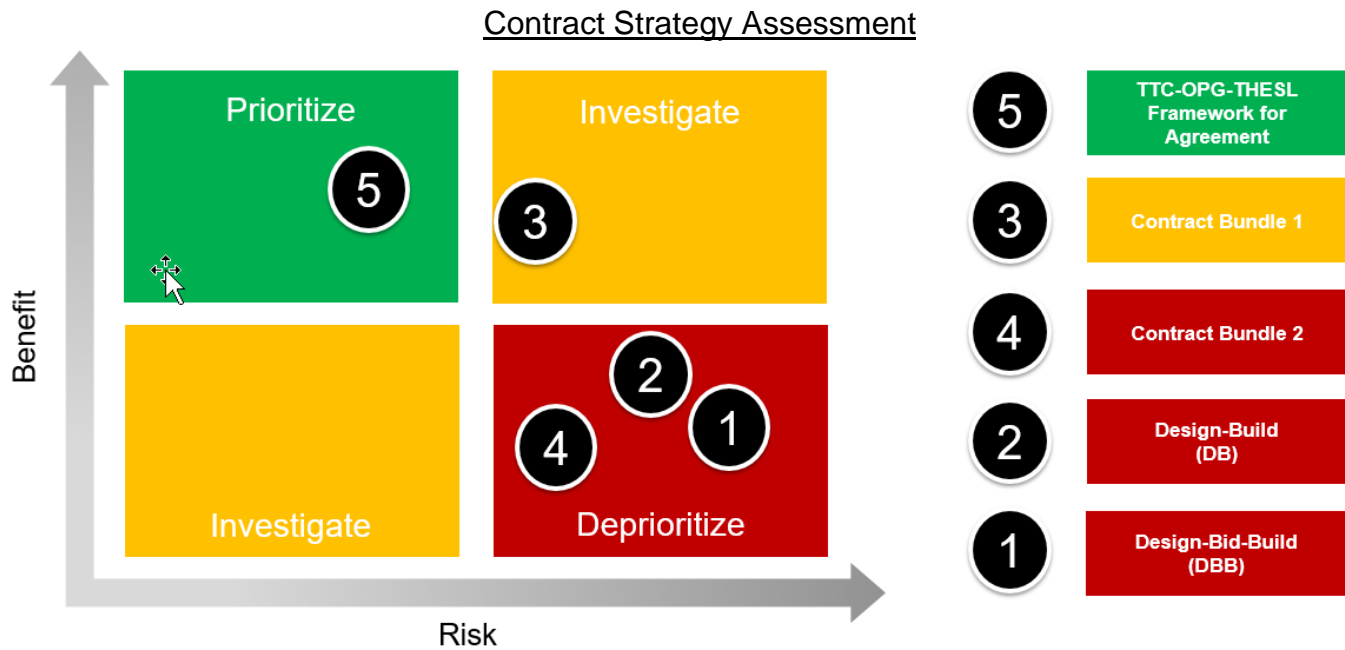


Figure 3 - Contract Strategy Assessment

While largely qualitative, the contract strategy assessment discounted three options as follows:

- The DBB (#1) and DB (#2) models offer benefits in control and flexibility. However, they both present higher risk related to delivery, system performance and lifecycle cost when compared to the other options.



- Contract Bundle 2 (#4) is currently offered by consortiums that include one bus manufacturer or another. This presents performance risk as operations is dependent on only one manufacturer. Further, it limits/eliminates opportunity for competition when sourcing buses, which is over 80% of the total eBus vehicle/infrastructure program cost.

Contract Bundle 1 (#3), offers significant benefit through transfer of design, build and operational risk while allowing for vehicles to be procured separately. However, this likely comes at the expense of higher operations, maintenance and financing costs.

The TTC-OPG-THESL Framework for Agreement (#5) offers the benefits of Contract Bundle 1. However, this offers additional benefits associated with the exclusive offer of co-investment, ownership and asset management by OPG, and OPG will work with the TTC to secure government financing. The next step would be to progress negotiation on commercial terms to verify cost assumptions.

With the Board's approval of the Framework for Agreement, the TTC would enter into a non-binding MOU with OPG and THESL. As definitive agreements with THESL are already defined by Ontario Energy Board regulations, the TTC would progress negotiations with OPG on the commercial terms of a TTC-OPG Master Agreement and return to the TTC Board no later than Q3 2021 for decision.

## **Contact**

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## **Signature**

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Richard Wong  
Chief Vehicles Officer

## **Attachment**

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Appendix A – TTC-OPG-THESL Framework for Agreement

## Appendix A

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### Framework for Agreement

#### 1) Declaration of Common Interest and Commitment to Cooperate:

- (a) TTC's Green Fleet Program requires implementation of reliable electricity supply and charging infrastructure at TTC bus garages and certain TTC stations and stops (collectively, "**TTC Sites**").
- (b) The parties acknowledge that the successful implementation of TTC's Green Fleet Program requires significant cooperation between their organizations to upgrade electrical infrastructure, enable connections to the electrical distribution system in the City of Toronto, provide for the reliability of the electricity supply in accordance with regulatory requirements, and enable operations of charging infrastructure at TTC Sites.
- (c) TTC, OPG, and THESL agree to provide their assistance and share their expertise in an open, reasonable, and transparent way to jointly work toward an effective and efficient implementation of TTC's Green Fleet Program. Such expertise shall include the expertise of:
  - i. TTC in the acquisition and operation of electric vehicles to serve the community;
  - ii. OPG in the management of engineering, procurement, construction, operation, and maintenance of behind-the-meter charging infrastructure and distributed energy resources at TTC Sites; and
  - iii. THESL in the effective and efficient delivery of electrical service to TTC Sites.
- (d) The parties agree to work together in good faith to undertake their respective roles and responsibilities (outlined below) in the spirit of cooperation and in accordance with their legal requirements.

#### 2) Roles and Responsibilities

- (a) TTC will develop and maintain the TTC's Green Fleet Plan establishing the path to successful implementation of the business transformation program and ultimately ensuring electrification of transit in the City of Toronto by 2040. TTC responsibilities include the following:
  - i. SCOPE: Define vehicle charging needs and define the minimum performance requirements for the charging infrastructure and distributed energy resource assets located on TTC Sites (collectively, the "**Electrification Infrastructure**").
  - ii. TIMING: Define the timeline for fleet electrification in accordance with TTC's Green Fleet Program.

- iii. FUNDING: Make best efforts to obtain government funding required for implementation of TTC's Green Fleet Program and for ongoing operations and maintenance of the Electrification Infrastructure.
  - iv. COORDINATION and OVERSIGHT which will include the following:
    - A. Specify TTC's technical and operational requirements, acting as liaison for OPG and THESL in coordinating among TTC stakeholders, and provide oversight to ensure successful delivery of TTC's Green Fleet Program.
    - B. Apply to the City of Toronto, Ontario Energy Board, and/or other authorities to obtain necessary permits, licences, and permissions for construction and use of electricity generation, energy storage, and wholesale market participation or other uses as applicable.
- (b) OPG will deliver, own, maintain, and operate the Electrification Infrastructure required at TTC Sites. OPG responsibilities include the following:
- i. CO-INVESTMENT: Invest in the Electrification Infrastructure at TTC Sites, such as battery energy storage systems, backup generators, and solar generation systems. Seek government grants and government financing to benefit the program.
  - ii. CAPITAL ASSET MANAGEMENT
    - A. DELIVERY: Manage the engineering, procurement, and construction of the Electrification Infrastructure at each TTC Site in accordance with the timeline specified for fleet electrification under TTC's Green Fleet Program.
    - B. OPTIMIZATION AND RENEWAL: Manage the optimization of the assets including the asset renewal planning.
  - iii. OPERATIONS AND MAINTENANCE: Manage all services reasonably required to operate, repair, maintain, and modify the Electrification Infrastructure at TTC Sites, including but not limited to the following:
    - A. Operate and maintain the Electrification Infrastructure at TTC Sites to enable on-time delivery of buses for revenue service.
    - B. Optimize TTC's electricity usage and cost.
    - C. Leverage electricity market revenues for demand response, operating reserve, capacity, and other ancillary services.

- iv. **REGULATORY AND TECHNICAL REQUIREMENTS:** Meet all applicable regulatory and technical requirements including, but not limited to, those established by the Canadian Standards Association, the Electrical Safety Authority, and THESL relating to the assessment, connection, operation and maintenance of the Electrification Infrastructure at TTC Sites.
  - (c) THESL will provide a reliable electrical supply to TTC Sites in accordance with legal and regulatory requirements and will upgrade connection points to TTC Sites. THESL's responsibilities include the following:
    - i. **ELECTRICAL CONNECTIONS AND SERVICE UPGRADES** which will include:
      - A. Review and assess connection applications in a fair and reasonable manner in accordance with THESL's connection processes, technical specifications, and standards.
      - B. Enable connections to the distribution system in accordance with Offers to Connect and Connection/Operating Agreements in forms satisfactory to THESL.
      - C. Ensure that any new connections or upgrades of existing connections to THESL's distribution system do not negatively impact the safety and reliability of the THESL distribution system.
- 3) **Definitive Agreements**
- (a) TTC and OPG plan to enter into a master agreement through which OPG will co-invest in the Electrification Infrastructure and further support implementation of TTC's Green Fleet Program by managing the engineering, procurement, construction, maintenance, and operations of the Electrification Infrastructure required at TTC Sites.
  - (b) TTC and THESL plan to enter into agreements including, but not limited to, Offers to Connect and Connection/Operating Agreements, in accordance with the Distribution System Code and THESL's technical standard requirements and practices, through which THESL will support the required increase in electrical loads and the distributed energy resources at TTC Sites.