



## For Action with Confidential Attachment

### TTC's 10-Year Collection Outlook - Modernizing Fare Collection

Date: June 23, 2022  
To: TTC Board  
From: Chief Strategy & Customer Officer (Acting)

#### Reason for Confidential Information

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This report contains advice or communications that are subject to solicitor-client privilege, including communications necessary for that purpose.

#### Summary

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The purpose of this report is to provide an overview of the progress made with the 10-Year Fare Collection Outlook to modernize the TTC's fare collection system. This report will outline the two options identified for implementation and a way forward to achieve the goals established as part of this work, as well as a proposed business case approach that will be used to evaluate the best path forward:

- 1) Continuing with the existing PRESTO contract; and
- 2) Implementing a new, independent fare collection system.

We will also provide an outline of the TTC's Fare Collection Business Case that will inform TTC's decision-making for 2027 (subject to a one year extension at the discretion of Metrolinx) when the TTC's Master E-Fare Agreement (the Agreement) concludes with Metrolinx.<sup>1</sup>

This report also provides a PRESTO update, which includes a status update on how contract deliverables have been progressing with Metrolinx, including open payments.

#### Recommendations

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It is recommended that the TTC Board:

1. Receive this report for information.
2. Approve the recommendation as set out in the Confidential Attachment and authorize that the information remain confidential as it is subject to solicitor-client privilege.

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<sup>1</sup> Metrolinx and TTC Master E-Fare Agreement  
<https://www.ttc.ca/transparency-andaccountability/PRESTO-TTC-Agreements>

## Financial Summary

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### Current PRESTO System

Work to implement Open Payments is ongoing with PRESTO. PRESTO is responsible for costs to implement Open Payments, with no change to the current 5.25% commission rate. The TTC, however, is responsible for costs to upgrade the Fare Gate Card Readers with an estimated total cost for hardware purchase and installation of \$4.0 million, net of HST rebate. Funding is available in the 2022-2031 Capital Budget and Plan approved by the TTC Board on December 20, 2021 and City Council on February 17, 2022 of \$79.2 million in project costs for the PRESTO project, of which \$62.9 million was incurred to the end of 2021, resulting in remaining funding of \$16.3 million cash flowed between 2022 and 2024.

### Future Fare Collection

The potential future implementation of an independent fare collection solution, as outlined in this report, is currently unfunded.

The 2022 Operating Budget, approved by the TTC Board on December 20, 2021, and approved by City Council on February 17, 2022, includes funding of \$0.86 million to support the development of the fare collection strategy and business case for the modernization of the fare collection system.

The TTC will continue to advance required preparatory work for the procurement of an independent fare collection system. Requirements will be included in the 2023 budget submission, for the Board's consideration.

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

## Equity/Accessibility Matters

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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, we are committed to ensuring reliable, safe and inclusive transit services for all our customers. This is supported through continued research, engagement with the City of Toronto's Poverty Reduction Strategy Office (PRSO) and the TTC's Advisory Committee on Accessible Transit (ACAT).

The two future fare system options – PRESTO, or a new independent TTC system – identified in this report will undergo a comprehensive review and evaluation to determine the best path forward for customers and TTC as a whole. The intent of the Business Case is to conduct a thorough analysis of each option (either moving forward with PRESTO or moving forward with a new independent fare collection system) to determine how the goals and objectives identified through the 10-Year Fare Collection Outlook can be best achieved and provide the most efficient, seamless and easy to use solution for customers.

As work to deliver Open Payments proceeds, the TTC must be mindful that, while leveraging credit/debit payment channels and mobile technology can improve the Fare Collection Modernization customer experience for many customers, reliance on these

capabilities may pose some equity and access impacts for marginalized and equity-seeking customers, such as Interac pre-authorizations and banking fees. The TTC and PRESTO have been working to proactively identify potential barriers to transit equity and access in joint modernization efforts by virtue of TTC and PRESTO customer research; comprehensive online research; and engagement with the City of Toronto's PRSO. The intent of identifying barriers is to avoid or mitigate these potential barriers, ensuring that no customer segments are left behind. Continued discussions on implementing open payments focus on ensuring these mitigations are in place and further consideration is given to ensure customer needs will be met.

## **Decision History**

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At its meeting on January 25, 2018, the TTC Board considered and adopted, with amendments, the [TTC Corporate Plan](#). This plan highlights the need to develop a fare strategy and connect the region by achieving broader fare integration. The TTC will also need to ensure that it keeps up with the changing technologies and strides in modernization as outlined by Critical Path 5 in the Plan. TTC Corporate Plan: Advancing to the Next Level – 2018-2020 & Beyond

At its meeting on October 24, 2019, the Board moved a motion to complete a [Fare Collection Request for Information \(RFI\)](#). The RFI will help the TTC determine new service providers and technologies, including open payment, being used by transit properties worldwide. The intent is to provide customers with a modern, efficient and customer-focused fare collection system.

At its meeting on December 12, 2019, the TTC Board considered a report entitled the [5-Year Service Plan & 10-Year Outlook](#), which identified service-related improvements to public transit in the city of Toronto between 2020-2024 and beyond.

At its meeting on May 13, 2020, the TTC Board considered a report detailing the proposed scope of work for two TTC policy documents: the [5-Year Fare Policy and the 10-Year Collection Outlook](#).

[At its meeting on September 24, 2020](#), the TTC Board received an update on the PRESTO implementation achievements, the progress on the negotiations with Metrolinx on further improvements to the PRESTO system, how to achieve the remaining key milestones, and resetting the TTC's ongoing relationship with PRESTO.

[At its meeting on February 10, 2021](#), the TTC Board received an update on the PRESTO implementation achievements, progress made since the last update in September 2020, and ongoing negotiations with Metrolinx on achieving the key remaining milestones. This report also provided a progress update on the development of the 5-Year Fare Policy and 10-Year Fare Collection Outlook.

At its meeting on May 12, 2021, the TTC Board received an update on the [5-Year Fare Policy and 10-Year Fare Collection Outlook](#). An analysis of the existing TTC fare policies and the findings from the fare collection RFI were presented. Seven strategic fare policy goals were approved, which have informed the technical analysis of several fare options. Staff were also directed to move forward with vendor demonstrations of Full System Integrators.

At its meeting on February 10, 2022, the TTC Board received an overview of the opportunities and benefits of a fare capping model along with key findings and messages from various stakeholder and customer groups, titled [Advancing the 5-Year Fare Policy](#). Fare capping was endorsed in principle, with a motion directing staff to conduct additional financial analysis to be presented to the Board in May 2022.

At its meeting on February 10, 2022, the TTC Board received an update on [TTC's Fare Collection Modernization](#) initiatives and endorsed in principle the technology and operations fare collection options in principle, including Open Payments, that informed the implementation plan being presented in this report for approval.

## **Issue Background**

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### **The 10-Year Fare Collection Outlook project sets the vision for the future of our fare collection system**

The current PRESTO system was implemented as a card-based fare collection system, a now older technology that limits fare policies and customer fare payment options. An important tenet of the 10-Year Fare Collection Outlook was to ensure that a future system would accommodate flexible fare policies and deliver innovative fare collection options to meet the needs of customers and our business.

Over the past 18 months, the TTC and York Region Transit (YRT) have collaborated on conducting a review of the existing fare collection system, and significant work has been completed to identify and prioritize the business and technical needs of the existing planned functionality of the PRESTO System. Through this work, TTC has completed:

- An industry wide Automated Fare Collection (AFC) request for information (RFI) and vendor demonstrations to collect industry information regarding the variety of fare collection technologies, system operations and business models available;
- A series of peer agency reviews to understand the technologies proposed in the RFI and vendor demonstrations in practice and real time, and discussions with partner transit agencies who have embarked on similar work and have successfully implemented modernized AFCs;
- A future needs assessment and internal stakeholder consultations were completed to determine where gaps exist in the current fare collection system and determine future system requirements and recommendations.

The findings from the fare collection review informed the recommendations outlined in the February 10, 2022 report, which were approved by the Board.

The 10-Year Fare Collection Outlook project will continue to inform the TTC's risk mitigation plan underway in preparation for the expiry of the TTC Metrolinx Agreement. In the near term, we continue to work in good faith with Metrolinx on PRESTO's re-procurement for a next-generation system and delivery plans under the draft TTC-Metrolinx PRESTO settlement agreement, which includes the delivery of Open Payment.

## **Open Payments has been a priority deliverable of the TTC-Metrolinx Agreement since its signing in 2012.**

The TTC and Metrolinx have discussed the modernization of PRESTO for several years to bring Open Payments to our customers. Through negotiations, Open Payments was made a priority deliverable and was slated, by Metrolinx, to be implemented at the end of 2024. In late 2021, Metrolinx approached the TTC with a plan to accelerate its own Open Payments delivery timeline with a revised Open Payments delivery date in 2022.

### **Comments**

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#### **10-Year Fare Collection Outlook Implementation Plan provides us with the foundation to continue with the TTC's risk mitigation plan while working with Metrolinx.**

From the work completed throughout the duration of the 10-Year Fare Collection Outlook, it has been identified that there are two main options for system implementation:

- 1) Continuing with a next generation PRESTO system from 2027<sup>2</sup> and beyond; or
- 2) Evaluating in detail a TTC risk mitigation plan to determine whether the best path is to move forward with an independent fare collection system from 2027<sup>2</sup>.

A high-level options analysis was completed to compare the two options and found:

#### Business Objectives

Both options have advantages and challenges with various business objectives. Benefits of familiarity with one system compared to the flexibilities of contract negotiation in a new system lead to various ways each option can meet the business objectives. Interoperability of an independent system with the PRESTO system on other regional agencies would be included as a required business objective.

#### Project Schedule

The PRESTO option could provide customers next generation features sooner than the independent solution. However, both options have risks of schedule delays due to complexities in integrating complex technology and challenges with Metrolinx procuring and managing their next-generation system.

#### Finances

There are significant capital and operating costs required for both options due to the infrastructure, software and resources required to implement new fare collection features, and sustainment costs for Option 2.

#### Operations and Resourcing

Process changes, performance monitoring and resource requirements will need to be updated for both options to improve on the current operational model and ensure that the new fare collection features are implemented and maintained efficiently.

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<sup>2</sup> Subject to a possible one-year extension at the discretion of Metrolinx

### Governance and oversight

An independent system option will provide the agencies with more control over the procurement and management of the fare system but will require a significant investment of time and resources to ensure the proper delivery of the system.

The implementation strategy helped to identify the differences between the two options and set the outline for a detailed Business case, to be completed and brought to the Board in early 2023.

The Business Case will further compare the two system options based on cost, governance and schedule, and will include the following major components:

- Implementation and Transition
- Procurement Plan
- Governance and Oversight
- Staffing & Resourcing Plan
- Capital Cost Analysis
- Operating Cost Analysis
- Cost of Fare Collection Summary
- Funding and Commercial Model
- Business Case Summary
- Final Report and Recommendation

Separate from the analysis of a potential independent TTC fare system, Metrolinx has invited the TTC to be part of their procurement of their next-generation PRESTO fare collection system, targeted to be fully complete in 2025. The 10-year Fare Collection Outlook will be used as the basis for the TTC's input into the process, ensuring a feature rich system that meets the needs of TTC customers and our business. We continue to participate in good-faith and are interested in the end result.

In the meantime, we continue to proceed with our risk mitigation plan of an independent TTC fare system, which includes the aforementioned Business Case. In 2023, we will continue work on the next phase which includes procurement plans, staffing plans and developing our own system specifications. By the end of 2024, the TTC will begin to see the outcomes of Metrolinx's procurement and our own risk mitigation plan, and will be able to make a decision on our path forward come the end of our Agreement with PRESTO (see Attachment 2 for the Program Overview).

**The TTC continues to work with PRESTO in settlement discussions which has resulted in a plan forward to fulfill the Agreement between TTC and Metrolinx, including the implementation of open payments.**

As part of the previous TTC and Metrolinx settlement negotiations, Metrolinx continues to prepare a Recovery Plan which includes a holistic view of contact deliverables including all interdependencies and any impacts associated with Metrolinx's procurement for their next –generation PRESTO fare collection system.

### *Open Payments and Virtual Cards*

At the February 2022 Board meeting, staff shared PRESTO's plan to deliver Open Payments and Virtual Cards in 2022, which includes the delivery of:

- **Open Payments (Debit and Credit) - Release one**
  - Credit/debit card payment (tap to pay – physical and digital cards)
  - Adult single fare
    - Equivalent price to Adult PRESTO fare
    - Monthly Passes not supported
  - Release two will include all concessions and additional functionality, to be delivered once PRESTO's next-generation system is complete.
  
- **PRESTO on Mobile: Virtual Card**
  - Enables the use of a virtual version of the PRESTO card on a Mobile Device (Phone/ Watch)
  - All concession fares and products available
  
- **Device Refresh: New and updated PRESTO devices to enable Open Payments**
  - Bus and streetcar new PRESTO validators
  - TTC Fare Gate modifications, including new PRESTO validators
  - Inspection devices
  - Mobile Fare Payment Application (MFPA) installed on tablets for accessible sedan taxis to enable fare payments and Mobile Fare validators (MFTP) installed on Wheel-Trans vehicles

Device updates are required for enablement due to the current hardware and software's inability to accept these forms of payment, and the need to comply with all ensuing updated accessibility, security and compliance standards.

It is important to note that delivery of these items will not replace the current physical PRESTO card, rather augment the available fare media options. Product types and fare type availability are outlined in **Table 1**.

**Table 1: Modernized Fare Product Availability by Fare Type**

	Customers <sup>3</sup>	Current		Post-Launch	
		PRESTO Ticket	PRESTO Card	Virtual Card	Open Payments (Debit/ Credit)
<b>Adult</b>	71.7%	Available	Available	Available	Available
<b>Senior</b>	8.4%	Not Available	Available	Available	Not Available
<b>Youth</b>	6.5%	Not Available	Available	Available	Not Available
<b>Fair Pass</b>	2.3%	Not Available	Available	Available	Not Available
<b>Post Secondary</b>	5.7%	Not Available	Available	Available	Not Available

Earlier this year, the TTC agreed in principal to the Metrolinx’s Open Payments Proposal and shared a set of conditions to proceed based on early reviews of the proposed solution.

Since the February Board meeting, the TTC has worked with Metrolinx on the detailed design and implementation plan of Open Payments and Virtual Cards to ensure the original solution developed by Metrolinx meets the interests of our customers and encompasses our business needs. Collectively, a revised implementation plan was developed to launch Open Payments and Virtual Cards in Q3 2023 which now incorporates:

- TTC’s business and customer requirements to support the implementation
- Sufficient time for testing, piloting and contingency planning
- Delays to new hardware availability due to supply chain challenges
- Resolution of TTC’s remaining conditions to proceed

Through our on-going discussions with Metrolinx, we have ensured the TTC’s conditions to proceed will be addressed.

- Metrolinx has confirmed that the TTC’s commission rate of 5.25% will apply for all new payment products and no additional fees will be incurred by the TTC or passed onto TTC customers;
- We have agreed to Metrolinx’s proposed devices which will meet TTC’s business specifications and customer needs.
- Real-time inspection will be in place as the inspection model to ensure equity at the time of inspection. There will be no post-processing inspection fares.

<sup>3</sup> 2021 full year ridership. Child (5.2%) and other ridership (0.2%) not included

- Debit pre-authorization fees will not exceed the total cost of the trip and will not cause undue burden to the customer as any pre-authorization fees will be closed within the two-hour transfer window.
- We continue to work together on developing Service Level Agreements (SLAs) with the intent to have them agreed in time for equipment installations, Open Payments and virtual card implementation.
- Metrolinx's proposal for accelerated implementation of Open Payments and Virtual cards has proven to be very aggressive. It has become apparent that delays in global supply chains may impact the start date; that sufficient time for testing, piloting and contingency planning is required; and that the TTC's business requirements to support the implementation must be addressed. All of these topics are actively being discussed and actioned by TTC and Metrolinx staff.

The TTC remains eager to launch Open Payments and Virtual cards. These represent fare modernization that the TTC and our customers have long requested and is part of our original agreement. As one of the largest transit agencies in North America, we want to ensure that we launch a world-class fare collection solution that increases the accessibility and reduce barriers for our customers.

## Contact

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## Signature

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Scott Haskill  
Chief Strategy & Customer Officer (Acting)

## Attachments

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Attachment 1: Confidential Attachment  
Attachment 2: TTC Fare Collection Program - Overview

# TTC Fare Collection Program: Overview

