REPORT FOR ACTION

Contract Award - Phase 2 Pay by Plate Equipment Purchase

Date: July 4, 2024
To: Board of Directors, Toronto Parking Authority
From: President, Toronto Parking Authority
Wards: All

SUMMARY

The purpose of this report is to secure the Board's approval to purchase 339 Pay by Plate (PbP) parking meters for $3.1 million as part of management's multi-year strategy to replace its end-of-life parking payments equipment. These dollars are included in the TPA's 2024 capital plan.

As background, on April 21, 2023, the Board of Directors of the Toronto Parking Authority (TPA) approved the purchase of 225 pay-by-plate (PbP) on-street parking meters valued at $2.06 million. This purchase and deployment represented Phase One of our parking equipment modernization strategy. (Please refer to PA3.8 Pay by Plate Equipment Purchase).

During Q4 of 2023, 225 new PbP meters were deployed. The implementation of these meters has driven better performance outcomes; specifically, the TPA achieved approximately $198,000 in savings, driven by reduced operating expenses, avoidance of EMV fees, and rate change expenses. In addition, the new meters provide improved consumer payment options including debit, Apple and Google pay.

The investment in the new equipment will also materially mitigate our Parking Equipment/Technology Management risk profile identified in our Enterprise Risk Management Strategy (ERM). (Please refer to PR5.4 TPA Enterprise Risk Management Report). TPA will leverage its Master Services Agreement with Precise Park Link (PPL) to purchase the PbP on-street equipment.

RECOMMENDATIONS

The President, Toronto Parking Authority recommends that:

1. The Board of Directors, Toronto Parking Authority, authorize payment of $3,112,698 excluding Harmonized Sales Tax (HST) for the purchase of 339 PbP parking machines from PPL, which will be made pursuant to the terms and conditions of the Master Services Agreement between the TPA and PPL dated July 1, 2016.

FINANCIAL IMPACT

The total cost of the new PbP parking machines is $3,112,698 (excluding HST) and is based on a cost submission provided by PPL as a statement of work against the existing Master Services Agreement. The total cost of this purchase has been included in TPA's approved 2024 Capital Budget.

All operating expenses on a per unit basis for the new PbP parking machines will remain consistent with the current parking equipment.

DECISION HISTORY

At its meeting on April 25, 2024, the TPA Audit and Risk Management Committee adopted the report on the completion of the setup of the TPA Enterprise Risk Management Program as outlined in the report PR5.4 - Toronto Parking Authority Enterprise Risk Management Report. Additional information on this report can be found at the following link: https://secure.toronto.ca/council/agenda-item.do?item=2024.PR5.4

At its meeting on November 23, 2023, the Board of Directors of Toronto Parking Authority approved the 2024 Operating Budget and 2024-2026 Capital Budget for TPA as outlined in the report PA 7.4 "Toronto Parking Authority - 2024 Operating Budget and 2024-2026 Capital Plan". Additional information on this report can be found at the following link:
https://secure.toronto.ca/council/agenda-item.do?item=2023.PA7.4

At its meeting on April 21, 2023, the Board of Directors of Toronto Parking Authority authorized payment of $2,056,961.25 (excluding Harmonized Sales Tax) for the purchase of 225 Pay by Plate parking machines from Precise Parklink Inc. as outlined in the report PA3.8 "Pay by Plate Equipment Purchase". Additional information on this report can be found at the following link:
https://secure.toronto.ca/council/agenda-item.do?item=2023.PA3.8

The Board of Directors of Toronto Parking Authority received for consideration item PA33.1 "Toronto Parking Authority – 2023 Operating Budget and 2023-2032 Capital Budget) at its meeting of November 14, 2022". The Board received the proposed 2023

Operating Budget and 2023-2032 Capital Budget for TPA as outlined in the report.
https://secure.toronto.ca/council/agenda-item.do?item=2022.PA33.1

The Board of Directors of Toronto Parking Authority received for information item PA1.5 "2023 Annual Operating Plan: Executive Summary."
https://secure.toronto.ca/council/agenda-item.do?item=2023.PA1.5

COMMENTS

The purpose of this paper is to seek authorization from the Board of Directors of the TPA to purchase the second tranche of 339 on-street multi-space parking meters valued at $3,112,698.

TPA is North America's largest municipal parking operator and has historically been recognized as a leader in the deployment of innovative parking solutions. In 1995, TPA introduced the first fully automated parking garage at St. Lawrence Market. In 1998, the TPA pioneered the use of automated P&D machines for on-street parking and by 2002 had deployed the largest network in the world with 1,269 units. Most recently in 2016, the TPA launched its Green P App which remains one (1) of the premiere municipal parking apps in the world with over two (2) million active customers.

Today, TPA manages approximately 21,800 on-street paid parking spots, serviced by 2,612 multi-space meters, 151 single-space meters, and the Green P App with over 2.0 million subscribers. The P&D parking technology that was once considered class-leading in the early 2000's is now over 20 years old and is approaching the end of its intended service life. There is an immediate need to modernize TPA's parking technology to reduce the risk associated with aging equipment, increase customer payment options, and integrate proof of payment into TPA and Toronto Police Service's enforcement platforms. The window for modernization is narrowing and the case for change is real.

That case for change, detailed Board Paper PA3.8 "Pay by Plate Equipment Purchase" in April 2023, is summarized below.

- The 20+ year-old P&D equipment does not accept debit card payments, which account for 28 percent of all retail payments in Canada. Additionally, the equipment does not support any other form of contactless payments, including Tap, Apple Pay, Google Pay, Samsung Pay, etc.
- All P&D machines currently in operation are not "chip and pin" compliant, resulting in an additional fee of $0.15 USD per transaction for failing to meet Europay, Mastercard and Visa (EMV) standards that came into effect in October 2023. This upgrade is a critical enabler of our cyber security risk management programme.
- P&D equipment requires a physical ticket to be placed on the vehicle dashboard as proof of payment. This process is not user friendly for the customer and unproductive from an enforcement standpoint, leading to additional costs.
- TPA's legacy P&D equipment operates exclusively on 3G networks, which are expected unavailable post 2026.

The introduction of the first tranche of PbP parking meters in 2023 has driven material improvements in performance. These include a broader range of payment options, the elimination of the need for customers to return to their vehicles to display receipts, and real-time adjustments to parking rates. By removing the need for a one-for-one meter exchange, these measures have reduced both operational and capital expenditures, minimized street clutter, and improved pricing flexibility. These improvements underscore the organization's commitment to optimizing resource allocation and maximizing financial performance.

Critically, the new PbP meters comply with EMV industry payment standards, avoiding a non-compliance fee of $0.15 USD per transaction, which is being applied to our legacy P&D machines as of October 2023. Phase One deployment benefits are highlighted in Table 1.

Table 1: *Phase 1 PbP Deployment Findings*

Findings	Summary	Impact
Reduction in Hardware	The PbP meters have allowed for an increased ratio of meters to parking stalls from 1:6 to 1:12 driving a 30% reduction in required equipment.	• $123,000 annual reduction in OPEX • $606,000 reduction in CAPEX for replacement costs • Less street furniture, which supports the City of Toronto with programs such as Café TO, Cycling infrastructure and additional space for pedestrians.
Rapid Programming Change Ability	Modifying parking rates or operational hours can now be executed virtually in real time. In contrast, adjustments to P&D machines require programming and the physical installation of an EPROM (computer chip).	• $55K reduction in EPROM costs for rate changes • 90% reduction in OPEX for labour & time for rate changes • Improved customer service

EMV / Chip & Pin Mandate	EMV is a global standard for secure payments, utilizing dynamic digital data in chip and pin transactions to reduce counterfeit fraud. Visa mandated EMV compliance for all payment terminals, including those on existing P&D parking machines, with a non-compliance fee of $0.15 USD per transaction from October 2023.	• 225 PbP Meters that meet EMV compliance. • $20,718 USD reduction in OPEX fees for EMV non-compliance fees. • Note that in 2024, TPA expects to pay approximately $495,000 for EMV non-compliance fees for the remaining P&D meters.

Phase 2 Pay-by-Plate Parking Machine Deployment

This second tranche of 339 PbP parking machines will expand our coverage to our highest velocity locations which are reflected in areas closest to the downtown core. This expansion will capture approximately 45% of all on-street parking revenue generated through parking meters See Table 2 below.

Table 2: *Parking Modernization Phasing Summary*

	Phase 1 - Completed (November 2023)	Phase 2 - Proposed (December 2024)	TOTAL (Phase 1 + 2)
Number of PbP Parking Machines for Install	225	339	564
Number of P&D Parking Machines Decommissioned	291	402	693
Percentage of total on-street revenue from Parking Machines	21%	24%	45%

As identified in TPA's Enterprise Risk Management (ERM) program, aging parking equipment poses significant risks to the TPA. Continuing the deployment of PbP parking machines on-street will significantly mitigate these risks associated with the on-street paid parking operation. Failing to update the P&D parking machines will lead to escalating risks that could impair TPA's ability to operate the business effectively. These risks are highlighted in Table 3.

Table 3: Enterprise *Risk*

Risk	Summary	Impact
Serviceable Life	Existing P&D parking machines are at the end of intended serviceable life with an increasing rate of service failure. Refurbished parts and other components that are used to maintain the existing P&D equipment are now scarce, expensive, and subject to long lead times.	• Increased labour costs for maintaining end of life P&D parking machines. • Higher rate of failure with critical parts in P&D parking machines will result in poor customer satisfaction, loss of revenue, and reputational risks.
Network Connectivity	Network connectivity of the existing P&D parking machines is built to operate on the 3G network which was first deployed 20 years ago. While 3G is still supported in Canada, industry experts widely believe that teleco providers plan to sunset the use of the network post 2026.	Network connectivity is required to process payments and other transactional data from the P&D parking machines. Without network connectivity the P&D devices would no longer be able to communicate with servers. Therefore, payment and other transactional information would not be transmitted from P&D machines.
Revenue	Customers have increasingly moved to using alternate forms of payment including mobile payment, digital wallets (Apple Pay, Google Pay, Samsung Pay) and the increasing use of debit cards.	It's essential to offer customers the option to pay using modern and widely adopted payment methods. Failing to do so can increase the risk of non-compliance and discourage the use of parking as an accessible mobility option. Additionally, this limitation can negatively impact cost efficiency, as debit card transactions are generally more cost-effective to process compared to cash or credit card payments. By integrating diverse payment options, the TPA can promote greater equity and convenience for all users while also optimizing operational costs.

Next Steps

In summary, the phase two (2) purchase and deployment of 339 PbP equipment allows the TPA to continue our multi-year journey to modernize our equipment, protect our on-street base business and minimize current risks. More importantly, PbP equipment enables the TPA to elevate our customer offerings. It provides modern payment options, ease of use, speed and choice. It allows customers to pay and continue their journey without returning to the vehicle to provide proof of payment. Strategically, PbP unlocks the future development of an integrated omni-channel digital solution for our Parking, Bike Share and EV charging verticals.

TPA will leverage its Master Services Agreement with PPL, to purchase the PbP on-street equipment. PPL is a Toronto-based organization with more than 800 staff across Canada that is recognized for providing integrated parking and mobility solutions for both private and public sector customers including hospitality, commercial, healthcare, aviation, institutional and government. Existing municipal customers include Toronto, Ottawa, Vancouver, Calgary, Edmonton, Saskatoon, Halifax, Fredericton, Oakville, Burlington and Mississauga.

CONTACT

Jarrett McDonald, Vice President Operations, Toronto Parking Authority
(437) 833-3363, jarrett.mcdonald@greenpmobility.com

Faiyaz Patel, Director Parking Development, Toronto Parking Authority
(437) 777-6234, faiyaz.patel@greenpmobility.com

SIGNATURE

W. Scott Collier, President
Toronto Parking Authority