

City of Mississauga  
**Corporate Report**



<p>Date: February 21, 2023</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works</p>	<p>Meeting date: March 8, 2023</p>

## Subject

**MiWay 2024 Bus Procurement**

## Recommendation

1. That the report entitled "MiWay 2024 Bus Procurement" dated February 21, 2023 from the Commissioner of Transportation and Works be approved.
2. That the funds of \$85,200,000 be pre-authorized in the 2024 Capital Budget in advance of the 2024-2027 Budget and Business Plan, to allow the 2024 procurement of Hybrid-Electric buses by competitive procurement as outlined in the corporate report dated February 21, 2023 entitled "MiWay 2024 Bus Procurement" from the Commissioner of Transportation and Works.

## Executive Summary

- The ICIP-MIS-01 (Bus Replacement Program) has provided much-needed funding to allow MiWay to replace public transit buses since 2022.
- MiWay is seeking budget approval to move forward with 2024 procurement of Hybrid-Electric buses, which has proven to reduce emissions and increased fuel efficiency compared to diesel buses. Bus deliveries to MiWay will take at least (12) months.
- As part of the 2024 Bus Procurement, MiWay is expected to replace (82) Forty-Foot buses, which equates to 16% of its total fleet. These buses will replace the aging 2007, 2008, and 2009 MiWay buses, which most have surpassed their service life.
- MiWay is seeking pre-approval of \$85,200,000 to purchase buses for delivery in 2024. Mississauga will need to contribute 26.7% of total project costs, while the Federal and Provincial government will fund the remaining total project costs (40.0% and 33.3% respectively). The municipal portion of funds is equal to roughly \$22,722,840.

## Background

### Hybrid-Electric Bus Procurement

On October 6, 2021, Council authorized the pre-approval of \$183,400,000 for the 2022 and 2023 Capital Budget to purchase (165) Hybrid-Electric Buses. This multi-year procurement allowed MiWay to take advantage of economies of scale for price advantages. This contract was awarded to New Flyer Industries (NFI) in 2022, however due to component parts supply shortages, microprocessor chip shortages, and unreliable supplier performance, the buses were delayed. MiWay has begun to receive these buses and have placed the first bus of this order into revenue service in February 2023. By the end of 2023, all (165) buses are planned to be delivered to MiWay.

Since 2019, MiWay has purchased exclusively hybrid-electric buses, and by the end of 2023, MiWay will have 206 hybrid-electric buses total. With recent operational experience with these buses, MiWay is seeing great benefits of this technology from a fuel savings, GHG reduction, and reliability perspective, and are confident that hybrid-electric buses is the feasible stepping stone for MiWay's journey to a fully zero-emission transit fleet.

If approved by Council, the tender for the 2024 bus procurement is planned to be released in March/April 2023, and bus deliveries will be planned for Q2 2024.

### Transit Bus Fleet Replacement Schedule

As part of the 2024 Bus Procurement, MiWay will replace (82) forty-foot buses, which equates to 16% of its total fleet. The following 2025 Bus Procurement may include Zero-Emission Buses (Battery-Electric and/or Hydrogen Fuel Cell Electric) if the funding and associated infrastructure is available before then.

**Table 1: Fleet Replacement Procurement Plan 2024 – 2029**

	← Remainder of ICIP Funding →					
<b>Bus Type</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
40' Local	82	15	43	0	0	0
60' Local	0	10	0	0	0	30
40' Express	0	20	0	15	14	7
60' Express	0	0	0	0	0	0
<b>Total Buses</b>	<b>82</b>	<b>45</b>	<b>43</b>	<b>15</b>	<b>14</b>	<b>37</b>

The (82) buses planned for purchase in 2024 will facilitate the replacement of MiWay's 2007, 2008, and 2009 New Flyer buses. These buses have been previously deferred due to the anticipation of the ICIP funding announcement. As a result, most of these buses have been operating past their expected life and are receiving more corrective maintenance to remain serviceable. With projected service increases to pre-pandemic levels or more, MiWay will need to replace these buses as soon as possible to maintain service levels.

In recent years, it would take the bus manufacturers an estimated (12) months to build and deliver buses, however with recent parts supply challenges, it may take substantially longer, as MiWay has experienced with the current bus order. Therefore, it is important for MiWay to begin the procurement as soon as possible. At the same time, this would allow OEMs to better plan for design and production schedules if orders are committed in advance, which would reduce risks of delivery delays. Prices will also be locked in throughout the duration of the contract, therefore municipal capital budgets will be better informed of expected costs ahead of the 2024 Capital Budget.

#### Facility Infrastructure Requirements – Central Parkway (CP) Garage

As mentioned in the last report, in order to operate hybrid-electric buses out of the main bus facility, MiWay had to undertake a facility modification project at the Central Parkway (CP) bus storage garage to accommodate hybrid-electric buses, which are taller than diesel buses. This project was complete in the summer of 2022 and ductwork and associated mechanical infrastructure was raised to accommodate the taller buses. Both the Central Parkway and Malton Transit Garages are now capable of maintaining and storing hybrid-electric buses.

## Comments

#### ICIP Funding Approval for MIS-01 – Bus Replacement Program

The Investing in Canada Infrastructure Program (ICIP) is a ten-year federal infrastructure program designed to create long-term economic growth, build inclusive, sustainable and resilient communities and support a low-carbon economy. Through ICIP, the Federal government is providing \$33B in federal infrastructure funding to cost-share projects. On July 22, 2019, the Government of Ontario launched the ICIP Public Transit funding stream for inside the GTHA. Under the Public Transit Stream, funding allocations to municipalities and Metrolinx were established using a ridership formula. The City of Mississauga was allocated \$339M in federal funding and \$282.5M in provincial funding with a required City cost share of \$226M. Although an allocation has been provided, the ICIP Public Transit Stream is application based.

In October 2019, following Council approval, the City of Mississauga submitted applications for funding consideration in order to utilize the full funding allocation. As a result of MiWay's application submission, the **ICIP-MIS-01 (Bus Replacement Program) was approved in Q1 2022 by the Ministry of Transportation**, which provided much needed funding to allow MiWay

to purchase and replace aging diesel buses to hybrid-electric buses. The scope of the funding will allow 358 buses to be purchased between 2022 and 2027.

As part of the ICIP-MIS-01 (Bus Replacement Program), the total funding amount for the purchase of MiWay buses is \$359,700,000 between 2022 and 2027. Mississauga will need to contribute 26.7% of total project costs, while the Federal government will fund 40%, and the Provincial government will fund the remaining 33.3% of project costs. The table below shows the funding sources, per cent contribution, and total funding amounts that were approved.

Funding Source	% Contribution	2022-2027 Funding Amount
Federal	40.00 %	\$143,880,000
Provincial	33.33 %	\$119,888,010
Municipal (Mississauga)	26.67 %	\$95,931,990
<b>Total:</b>	<b>100.00 %</b>	<b>\$359,700,000</b>

## Strategic Plan

The purchase of Hybrid-Electric buses would contribute to two strategic goals: **Move** (Develop Environmental Responsibility) and **Green** (Lead and Encourage Environmentally Responsible Approaches). Mississauga has been proactive in sustainability and climate change governance for over two decades. This includes joining the FCM Partners for Climate Protection program in 1999, integrating climate change and environmental considerations into the City's Strategic Plan in 2009, developing the City's Living Green Master Plan, integrating climate change considerations into its Official Plan in 2012, and becoming a signatory to the Global Covenant of Mayors for Climate and Energy (coalition of 10,000 Cities) in 2017.

The Climate Change Action Plan was approved in 2019 and calls for the City to significantly reduce its greenhouse gas (GHG) to meet a 40% GHG reduction by 2030 and an 80% reduction by 2050. As Transit is the most significant source of GHGs corporately (approximately 70%), the electrification of the MiWay bus fleet is critical to meet these targets.

## Financial Impact

MiWay is seeking pre-approval of \$85,200,000 to purchase 82 buses for delivery in 2024. Mississauga will need to contribute 26.7% of total project costs, while the Federal and Provincial government will fund the remaining total project costs (40.0% and 33.3% respectively). The municipal portion of funds is equal to roughly \$22,722,840.

The 2023 Business Plan & Budget has the following budget request for the bus replacement program and the funding sources for 2024, which is being requested for pre-approval through this Corporate Report.

Parent Number	TWTR002752
Questica PN	2752
	<b>2024</b>
<b>Cost</b>	
715380- Vehicle Replacement Cost	85,200,000
<b>Funding Source</b>	
590132- Recovery from Province	28,397,160
590133- Recovery from Federal	34,080,000
575104 - Transfers to/from Reserve Fund	22,722,840

The municipal portion of \$22,722,840 is funded with Tax Debt account 37100.

## Conclusion

The ICIP-MIS-01 (Bus Replacement Program) is an important investment in public transit for the City of Mississauga. The purchase of hybrid-electric buses to replace aging diesel buses that have well surpassed their useful lives will lead to transit improvement outcomes including improved capacity of public transit infrastructure, and improved quality, safety, and access of our transit system.

If council pre-approves the funds required to purchase public transit buses using existing ICIP funding, this will enable MiWay to catch up on previously deferred bus replacements, and increase levels of service and reliability. Replacing diesel buses with cleaner, fuel efficient, and proven hybrid-electric buses will continue to mark a milestone for the City's commitment to a cleaner propulsion technology.



Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works

Prepared by: Stephen Bacchus, Manager Transit Fleet Assets