

City of Mississauga Corporate Report



<p>Date: September 9, 2024</p> <p>To: Chair and Members of Budget Committee</p>	<p>Originator's files:</p>
<p>From: Sam Rogers, MBA, Acting Commissioner of Transportation and Works</p>	<p>Meeting date: October 2, 2024</p>

Subject

MiWay 2025 and 2026 Bus Procurement

Recommendation

1. That the report entitled "MiWay 2025 and 2026 Bus Procurement" dated September 9, 2024 from the Commissioner of Transportation and Works, be approved.
2. That Budget Committee pre-authorize the funds of \$110,500,000, to allow the 2025 and 2026 procurement of Hybrid-Electric and Clean Diesel buses as outlined in the Corporate Report dated September 9, 2024 entitled "MiWay 2025 and 2026 Bus Procurement" from the Commissioner of Transportation and Works for the bus purchases of (88) transit buses total. The purchase of (13) hybrid-electric buses and (10) sixty-foot clean diesel buses are to be pre-approved for delivery in 2025. The purchase of (65) hybrid-electric buses to be pre-approved for delivery in 2026.

Executive Summary

- The ICIP-MIS-01 (Bus Replacement Program) has provided much-needed funding to allow MiWay to replace public transit buses since 2022.
- As part of the 2025 and 2026 Multi-Year Bus Procurement, MiWay will replace (78) forty-foot buses, and (10) sixty-foot buses for a total of (88) buses, which equates to 18% of the total fleet size. This funding request does not include the (10) Hydrogen FCEB buses that was already approved in a preceding report presented to Budget Committee on September 18, 2024.
- As of January 1, 2024 there are no sixty-foot hybrid-electric bus options available for sale in North America. Cummins, the engine manufacturer, did not recertify their Cummins L9 engine to the latest 2024 Environmental Protection Act (EPA) Emissions Regulations for hybrid-electric bus applications. As a result the City does not have an option to purchase any sixty-foot hybrid-electric buses, therefore City staff is planning to purchase (10) sixty-

foot clean diesel buses to maintain fleet size and service requirements. Forty-foot buses are not affected since they use a different Cummins engine configuration which are certified to the latest EPA Emissions Regulations.

- MiWay currently owns and operates a total of 206 hybrid-electric buses. 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.
- MiWay is seeking pre-approval of \$110,500,000 to purchase 88 buses for delivery in 2025 and 2026. 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 latest bus order. Therefore it is important for MiWay to begin the procurement as quickly as possible.
- The purchase of hybrid-electric buses to replace aging diesel buses that have reached their useful life will lead to transit improvement outcomes including improved capacity and service levels as well as reduce over crowding/closed door scenarios of our transit system.

Background

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 up to 320 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. **Table 1** below shows the funding sources, per cent contribution, and total funding amounts that were approved.

Table 1: Breakdown of ICIP Funding by Source, Percentage of Contribution, and Amount

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
Total:	100.00 %	\$359,700,000

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 received the bus order over the course of 2023 receiving its final delivery January 2024. All (165) buses have since been delivered to MiWay and are in active revenue service.

If approved by Council, the City plans to purchase up to (78) forty-foot hybrid-electric replacement buses. The procurement process will begin in October 2024 with bus delivery planned for Q3 2025.

Since 2019, MiWay has purchased exclusively hybrid-electric buses and currently owns and operates a total of 206 hybrid-electric buses. With recent operational experience MiWay is achieving great benefits with 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.

Clean Diesel Bus Procurement

MiWay is actively working to reduce overcrowding on our busiest corridors across the network. To effectively meet demand, enhance service capacity and reduce overcrowding, in addition to the planned hybrid-electric bus purchase, City staff is planning to purchase ten (10) sixty-foot (60ft) clean diesel replacement buses. These new buses will reduce the frequency of closed doors, ensuring that we can accommodate more passengers, minimize wait times, and improve overall service efficiency.

As of January 1, 2024 there are no sixty-foot hybrid-electric bus options available in North America. Cummins, who is the engine manufacturer for Transit buses did not recertify their Cummins L9 engine to the latest 2024 Environmental Protection Act (EPA) Emissions Regulations for hybrid-electric bus applications. As a result the City does not have an option to purchase any sixty-foot hybrid-electric buses. Forty-foot hybrid-electric buses are not affected since they use a different Cummins engine which are certified to the latest EPA Emissions Regulations.

Comments

Transit Bus Fleet Replacement Schedule

As part of the 2025 and 2026 Multi-Year Bus Procurement, MiWay will replace (78) forty-foot and (10) sixty-foot for a total of (88) buses, which equates to 18% of the total fleet size. This funding request does not include the (10) Hydrogen FCEB buses that was already approved in a preceding report presented to Budget Committee on September 18, 2024.

The (88) buses planned for purchase in 2025 and 2026 will facilitate the replacement of MiWay's 2010 Orion forty-foot buses, 2011 New Flyer forty-foot buses, and 2013 New Flyer sixty-foot buses. With projected service increases to pre-pandemic levels or more, MiWay will need to replace these buses as soon as possible to increase reliability and ultimately maintain service levels.

In recent years, manufacturing of Transit buses takes approximately 12 months to build and deliver however with recent parts supply challenges it may take substantially longer as MiWay has experienced with the last bus order. Therefore it is important for MiWay to begin the procurement as soon as possible to mitigate long lead times. At the same time this would allow Original Equipment Manufacturers (OEM's) to better plan 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 2025 and 2026 Capital Budget.

Financial Impact

MiWay is seeking pre-approval of \$110,500,000 to purchase 88 buses for delivery in 2025 and 2026. For the (78) hybrid-electric buses specifically, 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 for the (78) hybrid-electric buses is \$26,032,500. The (10) sixty-foot clean diesel buses is \$13,000,000 and funded from the 33121-tax capital reserve fund.

The 2025 Business Plan and Budget has the following budget request for the bus replacement program and the funding sources for 2025 and 2026, which is being requested for pre-approval through this Corporate Report.

SAP Number	25201
Cost	
715380 - Vehicle Replacement Cost	\$110,500,000
Funding Source	
590132 - Recovery from Province	\$32,467,500
590133 - Recovery from Federal	\$39,000,000
33121-Tax Capital reserve fund	\$39,032,500

Historically it takes 12 months for buses to be delivered to MiWay therefore it is important that the funds are pre-approved ahead of the 2025 Business Plan and Budget in order to receive the buses in an appropriate timeframe.

Conclusion

The purchase of hybrid-electric buses to replace aging diesel buses that have reached their useful life will lead to transit improvement outcomes including improved capacity and service levels as well as reduce over crowding/closed door scenarios. If council pre-approves the funds required to purchase public transit buses this will enable MiWay to replace aging buses on time and increase levels of service and reliability. Replacing existing forty-foot 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.



Sam Rogers, MBA, Acting Commissioner of Transportation and Works

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