



2024-2027

Multi-Year Budget

City of London



Business Case #P-52 - Zero-Emission Bus Transition

Primary Strategic Area of Focus: Mobility and Transportation

Primary Outcome: Londoners of all identities, abilities and means can move throughout the city safely and efficiently.

Primary Strategy: Continue to support the London Transit Commission’s Zero Emission Bus (ZEB) Fleet Implementation Framework.

Business Case Type: Additional Investment

Description: Business case to request additional incremental cost to transition into Hybrid and Zero Emission Electric Buses (ZEB).

Service(s): Conventional Transit

Lead: Kelly Paleczny, General Manager

Business Case Tax Levy Impact Table (\$ Thousands)

Tax Levy Impact Detail	2024	2025	2026	2027	2024 to 2027 Total
Annual Tax Levy Impact	\$0	\$857	\$1,901	\$4,659	\$7,418
Annual Incremental Tax Levy Impact	\$0	\$857	\$1,044	\$2,758	\$4,659
Estimated Annual Tax Levy Impact %	0.00%	0.11%	0.12%	0.31%	0.14% Average
Estimated Annual Taxpayer Impact \$ ¹	\$0	\$3.84	\$8.51	\$20.86	\$8.30 Average

Subject to rounding.

1) Calculated based on the average assessed value of \$252 thousand for a residential property (excludes education tax portion and impacts of tax policy).

What is Included in the Base Budget?

Base Budget Table (\$ Thousands)

Base budget includes bus replacement and bus expansion capital program	2023	2024 to 2027 Total	2028 to 2033 Total
Total Tax Levy Funded – Operating	\$0	\$0	N/A
Full-Time Equivalents	0.0	0.0	N/A
Total Capital	\$25,828	\$83,183	\$126,071
MU1044 - Bus Replacement Program	\$10,756	\$62,886	\$106,913
MU1176 - Bus Expansion Program	\$3,252	\$20,297	\$19,158
MU1101 - Zero Emission Bus Implementation Strategy	\$11,820	\$0	\$0

Subject to rounding.

Base Budget Summary:

London Transit currently operates a fleet of 231 transit buses, 223 of which are clean diesel and the remaining eight are hybrid diesel/electric. The costs associated with the continued purchase of diesel buses for both replacement and expansion are included in each of the respective capital budget programs. Base budget also includes previously approved business case for ZEB trial project.

Business Case Summary

This business case represents the incremental costs associated with the purchase of zero-emission buses beginning in 2026 through to 2033 including the costs of the associated charging infrastructure as set out in London Transit's Zero-Emission Fleet Implementation Strategy. In addition, to make progress on greenhouse gas reductions, this business case includes the incremental costs associated with the purchase of hybrid (diesel/electric) buses in 2024 and 2025, noting the wholesale move to battery electric or hydrogen fuel cell buses will not occur until such time as the Electric Bus trial is underway (anticipated for 2025). This hybrid/electric option is being provided as a consideration only if Municipal Council wishes to advance progress on the fleet transition.

This program is in addition to the Zero Emission Bus Trial project which is funded separately and includes the purchase of ten battery electric buses, three depot chargers and two opportunity (wayside) chargers. The switch to full scale zero emission technology is not anticipated to occur until such time as the ZEB Trial project has provided the necessary experience with the new bus technology to ensure a larger scale transition will not result in service interruptions.

The costs outlined in the program for the years 2026 through 2033 represent the incremental costs of electric buses and related charging infrastructure above that of the diesel bus costs included in the Bus Replacement and Bus Expansion programs. The costs associated with this transition are anticipated to be covered in part by the new Permanent Transit Funding program, noting that the Federal Zero Emission Transit Fund will no longer be available in 2026. The pace of replacement included in this business case are consistent with London Transit's Zero Emission Fleet Implementation Plan.

Financial and Staffing Impacts

Operating Budget Table (\$ Thousands)	2024	2025	2026	2027	2024 to 2027 Total
Expenditure – Debt Servicing	\$0	\$857	\$1,901	\$4,659	\$7,418
Revenue: Grants	-\$0	-\$0	-\$0	-\$0	-\$0
Revenue: User Fees	-\$0	-\$0	-\$0	-\$0	-\$0
Revenue: Savings from Existing Budget	-\$0	-\$0	-\$0	-\$0	-\$0
Revenue: Other (Specify funding source)	-\$0	-\$0	-\$0	-\$0	-\$0
Net Tax Levy	\$0	\$857	\$1,901	\$4,659	\$7,418

Subject to rounding.

Capital Budget Table (\$ Thousands)	2024	2025	2026	2027	2024 to 2027 Total	2028 to 2033 Total
Expenditure	\$6,783	\$8,260	\$21,824	\$22,460	\$59,327	\$128,743
Capital Levy	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0
Debenture ¹	-\$6,783	-\$8,260	-\$21,824	-\$22,460	-\$59,327	-\$128,743
Reserve Fund	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0
Other	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0
Non-Tax Supported	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0

Subject to rounding.

Notes:

1. At this time, funding for this program is 100% tax supported debt. In 2024 and 2025, the business case proposes purchasing hybrid (diesel/electric buses) that do not qualify for any current funding program. In 2026 and beyond, the current Federal Zero Emission Transit Fund will no longer be available. Some funding should be available from the new Permanent Transit Fund but program details are not available at this time. See further discussion under Additional Details below.

The total debt servicing for the 2028 to 2033 forecast period is \$84.9 million which includes principal and interest; this is an average annual debt servicing requirement of \$14.2 million that lives beyond the 2024 to 2027 Multi-Year Budget.

Environmental, Socio-economic Equity and Governance (ESG) Considerations

Environmental, Socio-economic Equity and Governance Relevance Profile for this Business Case:



Environmental:

This business case includes the reduction of greenhouse gas emissions from existing sources or avoids increased emissions from a new source or asset by transitioning to zero emission technology for transit buses.

This business case is expected to avoid, reduce, or help reduce greenhouse gas emissions in the community.

This business case is expected to improve or increase community adaptation and resilience in the community.

The transition away from diesel powered buses to zero-emission buses will reduce the greenhouse gas emissions resulting from the transit fleet incrementally each year during the transition.

Socio-economic Equity:

Zero-emission transit buses will reduce the noise and greenhouse gas emissions which will improve air quality and wellbeing of citizens. This business case has no change to service hours and is to transition to a different technology that doesn't directly affect socio-economic seeking citizens.

Governance:

Delays in transitioning the transit fleet to zero-emission bus technology will result in delays in achieving the climate reduction targets included in the Climate Emergency Action Plan. Reporting of this project will be done with staff report to Commission and via capital monitoring report.

Additional Details

London Transit capital ten-year capital program for bus replacement, expansion, and electric transition.

Capital Program / 2024-2027 MYB Business Case	2024	2025	2026	2027	2028-2033
Bus Replacement Program (MU1044 Base Budget)					
Number of buses	17	17	17	17	102
Average cost per bus ¹	\$877,547	\$908,341	\$940,194	\$973,118	\$1,048,166
Bus Expansion Program (MU1176 Base Budget)					
Number of buses	10	3	5	5	18
Average cost per bus ¹	\$849,500	\$879,300	\$910,100	\$922,800	\$1,064,350
Zero Emission Bus Transition (2024-2027 MYB Case)					
Number of buses	17	20	22	22	120
Average incremental cost per bus for hybrid/electric ²	\$399,000	\$413,000	\$991,991	\$1,020,927	\$1,072,858

Procurement Phasing	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Zero Emission Buses Purchased	10	0	22	22	20	20	20	20	20	20
Zero Emission Buses Received	0	10	0	22	22	20	20	20	20	0
Cumulative Zero Emission Buses Received	0	10	10	32	54	74	94	114	134	154

Notes:

- 1) The Bus Replacement Program from 2024 to 2028 includes 15 - 40-foot buses and 2 – 60-foot buses. The Bus Expansion Program only includes 40-foot buses. This mix impacts the average cost per bus by program.
- 2) The Zero Emission Bus Transition 2024-2027 MYB Business Case does not purchase any additional buses. The funding only supports the incremental cost of buses purchased under the Bus Replacement Program (MU1044 - Life Cycle Renewal) and the Bus Expansion Program (MU1776 - Growth). In 2024 and 2025, the buses are hybrid (diesel/electric). In 2026 and beyond, the buses are electric.
- 3) The Zero Emission Transit Fund (Federal) program expires in 2025, so it is not an eligible funding source for this business case. It could be eligible for funding through the new Permanent Transit Fund (Federal), but program details are not available at this time.

(continued)

Notes (continued)

- 4) The 2022 Annual Budget Update budget amendment for the Zero Emission Bus Implementation Strategy (Pilot) (MU1101) has a life-to-date budget of \$25,960,000 to purchase ten Zero Emission Buses plus charging infrastructure. It is funded 50% from the Zero Emission Transit Fund (Federal). The estimated timeline for this project is:
 - Early 2024 - Release Request for Proposal for 10 buses.
 - Spring 2024 - Award contract (assume 12 - 18 months to receive).
 - Fall 2025 - Receive buses, begin pilot.
 - Fall 2026 - End Pilot, begin purchasing electric buses for Bus Replacement and Bus Expansion.
- 5) The Highbury Avenue transit facility cannot accommodate zero emission buses until facility replacement projects are complete. The Wonderland Road facility can house up to 100 buses and could accommodate zero emission buses with the installation of charging infrastructure.
- 6) Timeline and impact of the Highbury Avenue transit facility replacement projects (see separate 2024-2027 MYB Business Case – LTC Highbury Facility Project 2 for more information).
 - Project 1 - \$199,500,000 and is scheduled to be completed in 2028, subject to approval of funding from the Federal/Provincial Investing in Canada Infrastructure Program - Public Transit Stream (ICIP-PTS). This project includes the fleet maintenance area, storage for 72 buses and administration and operations offices.
 - Project 2 - \$133,000,000 and is scheduled to be completed in 2030 with storage for 180 buses.



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Business Case #P-53 - Road Safety Enhancements

Primary Strategic Area of Focus:	Mobility and Transportation
Primary Outcome:	Londoners of all identities, abilities and means can move throughout the city safely and efficiently.
Primary Strategy:	Build infrastructure that provides safe, integrated, connected, reliable, and efficient transportation choices.
Business Case Type:	Additional Investment
Description:	Improved road safety through: <ol style="list-style-type: none">1. More targeted road safety projects and programs.2. Improved on-road pavement markings.3. Maintenance of boulevard bike lanes.
Service(s):	Roadways Maintenance, Roadways Planning and Design, Winter Maintenance, Traffic Control and Street Lights
Lead:	Kelly Scherr, Deputy City Manager, Environment and Infrastructure