COUNCIL REPORT

EDMONTON TRANSIT SERVICE CONVENTIONAL BUS RENEWAL NEEDS

Requested Action		Information only	
ConnectEdmonton's Guiding Principle		**ConnectEdmonton Strategic Goals**	
CONNECTED This unifies our work to achieve our strategic goals.		**Urban Places**	
City Plan Values	ACCESS.		
City Plan Big City Move(s)	A community of communities	**Relationship to Council's Strategic Priorities**	Mobility Network
Corporate Business Plan	Serving Edmontonians		
Council Policy, Program or Project Relationships	• City Policy C598 - Infrastructure Asset Management		
Related Council Discussions	• February 15, 2022, Integrated Infrastructure Services report IIS00426, ETS Fleet Storage and Maintenance Facility Strategy • August 28, 2023, City Operations report CO01337, Transit Service to Newer Developing/Developed Neighbourhoods • March 19, 2024, City Operations report CO2086, Edmonton Transit Service Bus Fleet Replacement Plan • October 9, 2024, City Operations report CO02481, Transit Service Needs to Meet Population Growth • September 16, 2025, City Operations report CO03139, Canada Public Transit Fund Update • January 27, 2026, Financial and Corporate Services report FCS03223, 2027-2036 Capital Investment Outlook Council • April 8, 2026, Integrated Infrastructure Services report IIS03404, Southeast Transit Garage - Project Update		

Previous Council/Committee Action

At the January 27, 2026, City Council meeting, the following motion was passed:

EDMONTON TRANSIT SERVICE CONVENTIONAL BUS RENEWAL NEEDS

That Administration provide a report with an update on Edmonton Transit Service conventional bus renewal needs, further to the March 19, 2024, City Operations report CO02086, to maintain current transit service levels through to 2030, outlining the service impacts of not meeting minimum requirements.

Executive Summary

- For more than 15 years, Edmonton Transit Service (ETS) consistently replaced an average of 48 conventional buses per year. In the 2023-2026 capital budget, the approved funding was below the ideal level, resulting in a gap of 181 buses needing replacement. In response to the March 19, 2024, City Operations report CO02086 - Edmonton Transit Service Bus Fleet Replacement Plan, in the spring 2024 Supplemental Capital Budget Adjustment, Council approved an additional $37 million, which facilitated the purchase of an additional 41 replacement buses, reducing the renewal gap to 140 buses.
- Administration has developed three scenarios for bus fleet renewal investment for the 2027-2030 capital budget cycle to illustrate what can be achieved with different levels of renewal. Some of these scenarios will require transit service level reductions due to the fleet age.
- Even with a moderate level of replacement, more than half of the ETS conventional bus fleet will exceed 20 years of age in the 2027-30 budget cycle.
- Fleet renewal directly impacts fleet reliability and results in a higher frequency of failures. A less reliable fleet means buses may encounter failures when in service, which directly impacts riders and on-time performance goals.

REPORT

Transit Fleet Renewal Context

Renewal of all City assets is supported by City Policy C598 - Infrastructure Asset Management Policy, and is pivotal to support service delivery to Edmontonians and ensure long-term sustainability and resiliency. ETS is committed to providing safe, convenient, reliable, accessible, and inclusive service, with fleet renewal standing out as a key element in ensuring service reliability.

ETS currently owns and operates a fleet of 984 conventional transit buses, broken down into three vehicle types as follows:

Bus type	**Fleet size** (December 31, 2025)
40-foot	879
30-foot	49
60-foot articulated	55
Total	**983**

EDMONTON TRANSIT SERVICE CONVENTIONAL BUS RENEWAL NEEDS

The City of Edmonton plans for conventional 40-foot buses to have a midlife refurbishment typically scheduled around the 10-year mark to enable longer useful life. The North American average for retiring 40-foot buses is 15.1 years[1] with 81 per cent of these buses being retired at 12 years; currently, Edmonton is retiring 40-foot buses at 24 years. Ideally, buses would retire at 18 years old, following the midlife refurbishment.

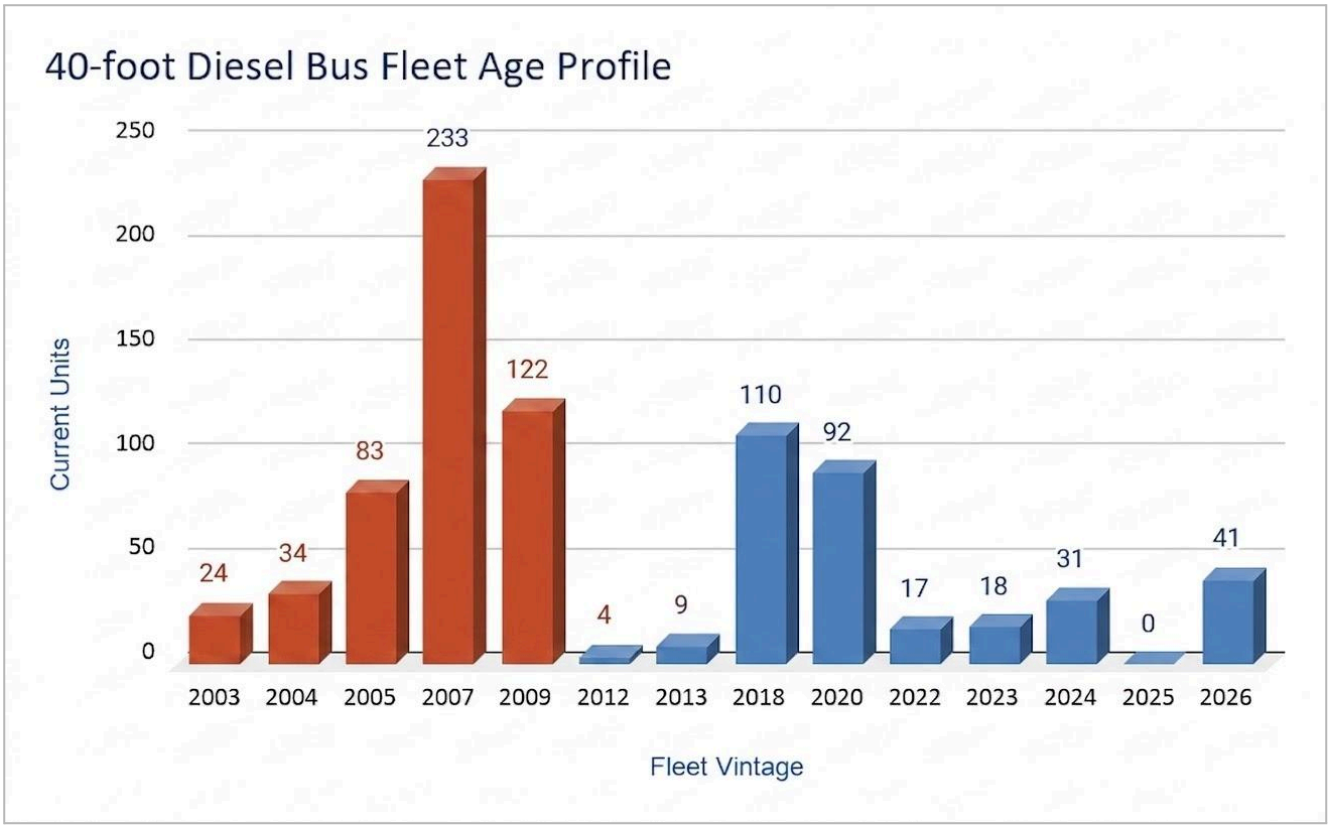
The 30-foot bus fleet was procured in 2017, and the expected useful life from this fleet is 12 years. This fleet primarily serves routes inaccessible by larger buses, such as seniors' facilities and shopping centres. Due to the age of the fleet and the limited availability of parts for these buses, it is not possible to pursue a midlife refurbishment program for this fleet and the entire 30-foot bus fleet will need to be replaced by 2029. The 60-foot bus fleet includes a mix of vintages, with 20 buses due for renewal in 2031.

Transit fleet renewal is supported by composite capital profile CM-66-3600 Bus Fleet & Equipment Rehab and Replacement. For more than 15 years prior to the current 2023-2026 budget cycle, ETS consistently replaced an average of 48 conventional buses per year (192 over four years). For the period of 2023-2026, the ideal renewal investment for the transit fleet was $167.2 million, which included the replacement of 210 conventional buses (or 52 buses per year). In the 2023-2026 capital budget, the approved funding in this profile was $40.7 million funding or approximately 24 per cent of the ideal level. Over the four-year cycle this funded the replacement of 29 conventional buses, four paratransit buses, and 132 midlife refurbishments. This resulted in 181 unfunded conventional bus replacements. In response to CO02086 Edmonton Transit Service Bus Fleet Replacement Plan, in the spring 2024 Supplemental Capital Budget Adjustment, Council approved an additional $37 million, which facilitated the purchase of an additional 41 replacement buses. This increased the approved funding to approximately 46 per cent of the ideal level, and reduced the unfunded replacements to 140 conventional buses.

At the end of 2026, the 40-foot diesel bus fleet age is forecasted to look as follows:

[1] U.S. Department of Transportation Federal Transit Administration (2017). Useful Life of Transit Buses and Vans. Report No. FTE VA-26-7229-07.1

EDMONTON TRANSIT SERVICE CONVENTIONAL BUS RENEWAL NEEDS



**Years in orange will reach 20 years old in the 2027-2030 budget cycle.*

As illustrated in this chart, there is a large volume of 40-foot buses that were purchased from 2005-2009. These buses began exceeding the 18-year retirement age in 2023.

The Midlife Refurbishment Program

The City has conducted a midlife bus refurbishment program for many years to extend the useful life of buses beyond the manufacturer's 12-year standard. During the 2023-2026 budget cycle, to mitigate the impact of a lower level of renewal and manage an aging bus fleet, many buses are undergoing a second refurbishment to try to enable a longer useful life. This approach is not common in the transit sector.

As discussed in the January 27, 2026, Financial and Corporate Services report FCS03223 2027-2036 Capital Investment Outlook, a persistent renewal deficit means the City is not keeping up with maintaining and replacing aging infrastructure. This can result in the deterioration of assets that need costly emergency repairs instead of cost-effective planned upgrades. This leads to inefficiencies in how assets are managed and puts extra pressure on both the City's operating and capital budgets.

In addition to the impacts of major mechanical issues resulting in breakdowns, there are components that are not part of the refurbishment program. These components, such as electrical systems and fuel tanks, have very unpredictable failure rates for older vehicles. These vehicles also have non-standard parts, which are more difficult to procure or repair upon failure. Since these repairs are not part of planned maintenance, the failures directly result in vehicles

being removed from service. Parts also become harder to source as manufacturers and vendors stop making parts for older models, which creates additional challenges for refurbishment.

Bus Fleet Renewal Scenarios to 2030

The 2027-2036 Capital Investment Outlook noted that a growing and aging number of City assets, combined with limitations to available capital funding, results in significant challenges for the City to maintain its existing infrastructure. As a result, City Administration has proposed that nearly all unconstrained funding will need to be directed to the City's renewal program over the next 10 years.

As discussed in the 2027-2036 Capital Investment Outlook, historically, renewal allocations have been prioritized based on the Risk-based Infrastructure Management System (RIMS) asset management criteria, which identifies an "ideal renewal investment" for each asset type. For the 2027-2030 budget cycle, unconstrained funding is first directed toward assets where failure would have significant impacts (e.g., bridges), which are fully funded to their ideal level, and then prioritize critical (legislated or safety-related) renewal projects. This strategic allocation provides each renewal profile with a percentage of its ideal investment. The ideal renewal investment produced by RIMS for the bus renewal profile for 2027-2030 included a total estimate of $261 million, broken down as follows:

- $192 million for 40-foot buses, (approximately 192 buses)
- $30 million for 60-foot buses (approximately 23 buses)
- $20 million for 30-foot buses (approximately 25 buses)
- $19 million for DATS buses (approximately 68 buses)[2]

Administration has developed three scenarios for bus fleet renewal for the 2027-2030 capital budget cycle to illustrate what can be achieved with different levels of renewal and the related service impacts. The fleet plans and the capital costs of each scenario are detailed in Attachment 1. Scenarios 2 and 3 have assumed the 30-foot buses would be replaced in 2027 for a cost of $39.2 million, and 19 DATS buses would be replaced in 2027 for a cost of $5.3 million. Due to the age of the ETS fleet, some level of midlife refurbishment is required under all scenarios.

Scenario 1 - No Replacement

Represents funding to support only midlife refurbishments with no bus replacements. The maximum number of midlife refurbishments that can be completed over four years is 156 midlife refurbishments and 132 second midlife life extensions. With this funding, there remains 25 40-foot buses per year that are unfunded for midlife refurbishment, or 100 buses over the four years. These buses would need to be removed from service as they would be unsafe to operate, which results in a reduction of 250,000 annual service hours, The 30-foot bus fleet would also need to be retired in 2029, resulting in a reduction of approximately 81,000 annual service hours, including cancellation of the community bus routes. This reduction of 331,000 annual service hours results in a reduction of approximately 13 per cent of all conventional transit service.

Scenario 2 - Minimum Renewal

[2] Bus costs are estimates informed by previous purchases, and subject to change.

Assumes the same level of midlife refurbishment and adds the replacement of 25 buses per year or 100 buses over the four-year cycle. This level of replacement is the minimum required to avoid planned service reductions. Half of the fleet remains over 20 years old, and there will continue to be a risk of failures and service impacts for daily operations. This scenario effectively would require continuing to replace 25 buses annually in 2031 and 2032, and increase to 50 buses annually for 2033 through 2036 to avoid service reductions.

Scenario 3 - Targeted Renewal

Represents a plan to address bus renewal pressure in the upcoming budget cycle. In this scenario, 75 buses are replaced annually, or 300 over the four-year cycle. This scenario allows for the elimination of the second midlife life extension program. At the start of the 2031-2034 budget cycle, there would be 191 buses over 20 years old. If 50 buses are replaced annually between 2031-2034, the City could achieve an 18- year retirement age by 2036.

Budget/Financial Implications

In alignment with the 2027-2030 Capital Investment Outlook and the strategy approved by Council on June 10, 2025, in report FCS02696 - Prioritization of Renewal in 2027-2030 Capital Budget, Administration has prioritized the renewal of existing infrastructure over new growth projects for the upcoming cycle. This approach focuses on maintaining current City assets before committing to new builds, with specific exceptions for growth projects required for safety, mandated by legislation, or those deemed high priority and eligible for external government funding.

Any remaining unconstrained funding will be prioritized to address the renewal funding gap. Despite this prioritization, most asset classes are expected to be funded at a low percentage of their ideal requirements, consistent with the 2023-2026 budget cycle which saw most classes funded at only 24 per cent of the ideal investment amount. Given the finite corporate funding pool, any decision to increase funding for one specific asset class results in a direct reduction in available funding for all others, representing a zero-sum allocation environment.

Tax-supported debt can be used for bus replacement. However, the term of the borrowing cannot be greater than the useful life of the asset. Buses have a shorter useful life than other infrastructure, and the City is required to borrow on 10-year terms. This consumes more debt room because 10-year borrowing has a more significant and immediate impact than 25-year borrowing we assume when calculating the City's available debt room.

The use of tax-supported debt must be carefully evaluated against its impact on the City's remaining debt room, which is required for future significant projects and the ability to match grant opportunities from other levels of government. Should Council wish to proceed with an option listed in this report, Council may direct Administration to bring forward an unfunded capital profile for formal consideration during the 2027-2030 Capital Budget deliberations.

The Canada Public Transit Fund (CPTF) provides opportunities to access federal grant funding to support the state of good repair and growth needs of public transit across Canada. The baseline stream of the fund, as an example, provides a direct allocation to the City and may be considered

for funding up to 40 per cent of eligible items. Administration is waiting for information from the Government of Canada about updated guidelines for the Metro Region Agreement stream.

Community Insight

Rider perceptions of reliability and timeliness can be impacted by service disruptions which are sometimes caused by bus condition and maintenance-related issues. Older buses can also influence perceptions of onboard comfort and vehicle cleanliness due to the condition of seating, availability of adequate heating and air conditioning, level of noise and upkeep of the buses.

ETS regularly collects feedback from Edmontonians through various channels, including the ETS Rider Research Program, public engagement, rider outreach, 311, engagement with advisory boards to Council, community groups like Edmonton Transit Riders and direct correspondence with City Council.

The online monthly Transit Rider Satisfaction Survey assesses satisfaction with various aspects of service provided, including several aspects influenced by the condition of the bus fleet, such as on-time performance (reliability), reaching the destination on time, level of onboard comfort and vehicle cleanliness. Over 3,000 responses were collected from bus and LRT riders in 2025 and 3,000 responses were collected in 2024. During this period, key findings were as follows:

- Seventy-three per cent riders were satisfied with on-time reliability (76 per cent in 2024);
- Seventy-seven per cent of riders were satisfied with reaching their destination on time (80 per cent in 2024);
- Sixty-five per cent of riders were satisfied with comfort onboard (67 per cent in 2024); and
- Sixty-one per cent of riders were satisfied with the cleanliness of the vehicle (64 per cent in 2024).

Additionally, in fall 2025, ETS conducted a post-secondary student survey in collaboration with the Edmonton Student Alliance. The survey was shared with the broad student community via an open survey link and gathered feedback from over 2,500 students across post-secondary institutions in Edmonton, including over 2,200 students who used bus service in three months prior to data collection. Among bus riders, satisfaction with on-time reliability was 38 per cent; satisfaction with comfort on-board buses was 42 per cent; and satisfaction with vehicle cleanliness was 38 per cent. When asked about the impact of potential enhancements that would motivate students to ride transit more frequently, the majority (over 60 per cent) indicated improved reliable service would have a significant impact on their transit use. Other enhancements selected by more than half of respondents included increased frequency (59 per cent), faster service (56 per cent); improved safety measures (54 per cent); extended geographical coverage (53 per cent); and reduced overcrowding (51 per cent).

GBA+

Public transit is used by a diverse representation of riders, including those with varying income levels, economic situations, genders, ages, abilities, family sizes, ethnic and Indigenous backgrounds, and other intersecting identities. ETS Rider Research shows some population groups, such as youth, those earning lower incomes, and newcomers are more likely to be frequent riders relying on transit for a variety of purposes, ranging from employment to

recreation to medical needs. Service factors such as reliability, frequency, and availability of shelters are often key barriers to accessing transit for these groups. Some of these are the most suggested areas of improvement by riders in addition to safety.

Data from the 2025 Transit Rider Satisfaction Survey shows very frequent riders tend to have lower satisfaction levels with most transit aspects. In comparison with satisfaction levels for overall riders outlined above, respondents who reported completing 50 or more transit trips in a month were 59 per cent for reliability; 62 per cent for reaching their destination on time; 59 per cent for onboard comfort; and 50 per cent for vehicle cleanliness. As reported in the Community Insights section above, students, who are also equity-deserving groups, also have lower satisfaction levels compared to overall riders.

Ensuring availability and reliability of transit service are critical factors in reducing transportation barriers for riders who rely on transit the most. Academic and industry-led studies[3] show in many cases, diminished service reliability and unpredictable wait times hinder participation in civic life. Reducing the overall bus fleet age means there will be a lower likelihood of service disruptions caused by technical fleet issues, enhancing overall service reliability and availability. In addition to better service, increasing the number of newer, more comfortable buses with cleaner seating, heating, air conditioning and noise levels will improve the attractiveness of transit as an affordable mobility choice for Edmontonians. This will eventually lead to greater mode-shift to transit, especially among equity-deserving rider groups who resort to other transportation choices due to lower perceived comfort and convenience of transit.

Lastly, lowering the overall fleet age, and therefore decreasing spare ratio, means there will be more active vehicles available for service growth. This will help close the service gaps and enhance transit access for equity-deserving population groups by allowing more vehicles for increasing frequency, enhancing routes and access to service.

Environment and Climate Review

As of 2023, the transportation sector represents over a quarter of Canada's greenhouse gas emissions[4], with most of these coming from private vehicles. Public transit can help reduce emissions by attracting ridership and contributing to mode shift, as well through fleet replacements. Regardless of fuel technology, newer buses are more fuel efficient due to recent advancements in engine technology and better compliance with emission standards. For example, emissions from new diesel buses are 90 per cent cleaner than they were 20 years ago. Modern engine technology and advanced particulate filters have significantly reduced emissions from diesel buses over the last several years. Overall, replacing more buses and reducing the fleet age will reduce the City's emissions from both the public transit fleet, as well as by supporting mode-shift to a more sustainable transportation mode by enabling a more reliable and accessible service.

[3] O. Linovski, H. Dorries, S. Simpson. Public Transit and Equity-Deserving Groups: Understanding Lived Experiences. December 2021.
[4] Government of Canada. Canada's Preliminary Greenhouse Gas Emissions (1990-2023)

Attachments

1. ETS Bus Fleet Renewal Scenarios