

Revised: November 26, 2024

Thursday, November 28, 2024, 9:00AM to 10:20AM

Metro Vancouver Boardroom, 28th Floor, Metrotower III, 4515 Central Boulevard, Burnaby, BC and via Videoconference¹ (live streamed to the <u>Mayors' Council YouTube Channel</u>)

Chair: Mayor Brad West Vice-Chair: Mayor Malcolm Brodie

Note that times for each agenda item are estimates only. This meeting will be livestreamed and available afterwards at the <u>Mayors' Council YouTube Channel</u>.

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3.	PUBLIC DELEGATES
4.	REPORT OF THE CHAIRORAL
5.	REPORT OF TRANSLINK MANAGEMENT
6.	CONSENT AGENDA ²
	6.1. Report of the Joint Finance Committee
	6.1.1. 2025 Investment Plan: Zero emissions update
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	7.1. 2025 Investment Plan: Target Investment Plan Scope
8	OTHER BUSINESS
0.	8.1. Next Public Meeting – January 30, 2025 at 9AM (Metro Vancouver Boardroom,
	28th Floor, Metrotower III, 4515 Central Boulevard, Burnaby, BC and via
	videoconference)
	2. 3. 4. 5.

10:20AM 9. ADJOURN to closed session

Note 1: Members may participate in-person or via Zoom videoconferencing (connection details sent separately via e-mail). Members of the public are welcome to observe via the live stream on the <u>Mayors' Council YouTube</u> <u>Channel</u> or in-person. Public Delegates will be required to appear in person to present at this meeting.

Note 2: Members may adopt in one motion all recommendations appearing on the Consent Agenda or, prior to the vote, any member may request an item be removed from the Consent Agenda for debate or discussion, voting in opposition to a recommendation, or declaring a conflict of interest with an item.

MEETING OF THE MAYORS' COUNCIL ON REGIONAL TRANSPORTATION DRAFT PUBLIC MEETING MINUTES

Minutes of the Public Meeting of the Mayors' Council on Regional Transportation (Mayors' Council) held October 31, 2024 in the Metro Vancouver Boardroom, 28th Floor, Metrotower III, 4515 Central Boulevard, Burnaby, BC, and via videoconference.

PRESENT:

Mayor Brad West, Port Coquitlam, Chair Mayor Malcolm Brodie, Richmond, Vice-Chair Councillor Brent Asmundson, Coquitlam (alternate) Mayor Ken Berry, Lions Bay Mayor Linda Buchanan, North Vancouver City Mayor George Harvie, Delta Mayor George Harvie, Delta Mayor Mike Hurley, Burnaby Mayor Patrick Johnstone, New Westminster Councillor Sarah Kirby-Yung, Vancouver (alternate) Mayor Megan Knight, White Rock Mayor Andrew Leonard, Bowen Island

REGRETS:

Mayor Meghan Lahti, Port Moody

Mayor Mike Little, North Vancouver District Mayor Brenda Locke, Surrey Mayor Nicole MacDonald, Pitt Meadows Director Jen McCutcheon, Electoral Area A Mayor John McEwen, Anmore Mayor Nathan Pachal, Langley City Mayor Jamie Ross, Belcarra Mayor Dan Ruimy, Maple Ridge Mayor Mark Sager, West Vancouver Councillor Bryce Williams, Tsawwassen First Nation (alternate) Mayor Eric Woodward, Langley Township

ALSO PRESENT:

Michael Buda, Executive Director, Mayors' Council on Regional Transportation Secretariat Sarah Ross, Vice-President, Transportation Planning and Policy, TransLink Kevin Quinn, Chief Executive Officer, TransLink

PREPARATION OF MINUTES:

Carol Lee, Mosaic Writing Group

CALL TO ORDER

Vice-Chair Malcolm Brodie declared that a quorum was present and called the meeting to order at 9:02 a.m.

1. PRELIMINARY MATTERS

1.1. Adoption of the Agenda

Draft agenda for the October 31, 2024 Public Meeting, of the Mayors' Council on Regional Transportation, version dated October 25, 2024, was provided with the agenda material.

It was MOVED and SECONDED

That the agenda of the October 31, 2024 Public Meeting of the Mayors' Council on Regional Transportation be adopted, as presented.

CARRIED

1.2. Approval of Public Meeting Minutes (September 26, 2024)

Draft minutes of the September 26, 2024 Public Meeting of the Mayors' Council on Regional Transportation was provided with the agenda material.

It was MOVED and SECONDED

That the minutes of the September 26, 2024 Public Meeting of the Mayors' Council on Regional Transportation be adopted, as presented.

CARRIED

2. PUBLIC DELEGATIONS

2.1. Nathan Davidowicz

Mr. Davidowicz suggested that TransLink change its current funding plan before it meets with the newly elected provincial government.

3. **REPORT OF THE CHAIR**

Chair Brad West thanked all who stood, and congratulated those who were elected, in the October 19, 2024 provincial election. The Chair commented on the need for the provincial government and TransLink to work together to commence the roll out the *Access for Everyone* (*AfE*) by April 30, 2025.

The Chair reported on the recent meeting of transit agencies with the federal government.

The Chair recognized Rob Fleming, former Minister of Transportation and Infrastructure, who will be leaving public service.

4. **REPORT OF THE JOINT FINANCE COMMITEE**

4.1. Update on Canada Public Transit Fund

Report titled "ITEM 4.1 – 2025 Investment Plan: Canada Public Transit Fund Status Update", dated October 4, 2024, was provided with the agenda material.

Sarah Ross, Vice-President, Transportation Planning and Policy, TransLink, reviewed the presentation titled "2025 Investment Plan: Canada Public Transit Fund Status" that was provided with the agenda material and highlighted:

- The funding streams available through the Canada Public Transit Fund (CPTF):
 - 1. Baseline Capital Funding: Stable funding for transit agencies/municipalities
 - 2. Metro-Region Agreements: Long-term funding in metropolitan regions
 - 3. Targeted Funding: Direct funding based on federal priorities.
- The process to apply for CPTF funding.

Discussion ensued on:

- Concern that the CPTF funding envelope available to TransLink is insufficient to meet the region's needs:
 - This would result in the requirement for a greater share of the funding for transit growth to come from the regional and provincial share
- Concern that the CPTF does not provide a stable, predictable stream of funding:
 - This is a change from the previous Public Transit Fund (PTF)
 - Concern that the process to obtain funding will be cumbersome

• The need for a signed commitment for federal funding by February 2025 to move forward with the *AfE*.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation receive this report.

CARRIED

5. **REPORT OF THE EXECUTIVE DIRECTOR**

Confidential report re: "ITEM 5.1 – Report of Mayors' Council Provincial Election Strategy", dated October 24, 2024, was provided on-table.

Michael Buda, Executive Director, Mayors' Council on Regional Transportation Secretariat, reviewed the report provided with the agenda material and highlighted:

- Calls for provincial political parties to take action on transit during the election
- Public engagement
- Key commitments from the political parties:
 - New Democratic Party (NDP)
 - o All-party consensus
- The commitments from the political parties form a strong basis for the new government and the Legislature to move ahead with TransLink to address its structural deficit.

Discussion ensued on:

- Concern with the potential safety impacts of the Transit Police being integrated into other provincial responsibilities
- The need to obtain a commitment for operating funds.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation receive this report.

CARRIED

6. OTHER BUSINESS

6.1. Next Meeting

The next Public Meeting of the Mayors' Council will be held on November 28, 2024 in the Metro Vancouver Boardroom, 28th Floor, Metrotower III, 4515 Central Boulevard, Burnaby, BC, and via videoconference.

6. ADJOURNMENT

There being no further business, the October 31, 2024 Public Meeting of the Mayors' Council on Regional Transportation was adjourned to a Closed Session at 9:43 a.m.

Certified Correct:

Mayor Brad West, Chair

Carol Lee, Recording Secretary Mosaic Writing Group TO: Mayors' Council on Regional Transportation
 FROM: Mike Buda, Executive Director, Mayors' Council Secretariat
 DATE: November 20, 2024
 SUBJECT: ITEM 2 – Election of the 2025 Chair and Vice-Chair

RECOMMENDATIONS:

That the Mayors' Council on Regional Transportation receive this report.

PURPOSE:

To review the rules and process for electing the 2024 Chair and Vice-Chair of the Mayors' Council.

BACKGROUND:

Section 2 of the Mayors' Council's <u>Rules of Procedure for the Conduct of Meetings</u> applies to the election of Chair and Vice-Chair and Mayors' Council Designate to the TransLink Board of Directors ("Board Designate"):

2. ELECTION OF CHAIR, VICE-CHAIR AND BOARD DESIGNATE

- **2.1** The Chair, Vice-Chair and Board Designate are elected at the last meeting of each year of the Mayors' Council.
- **2.2** Any Council Member may be nominated for the positions of Chair, Vice-Chair and Board Designate at the Mayors' Council meeting where the election of the Chair, Vice-Chair and Board Designate is to be considered. The nomination must be seconded by another Council Member and must be accepted by the Council Member so nominated.
- **2.3** If more than one person is nominated for the position of Chair or Vice-Chair or Board Designate, a vote by secret ballot will be taken to determine the outcome at the meeting when the nominations are made. The person who receives the most votes, as determined by the Executive Director and Corporate Secretary, will be the Chair, Vice-Chair and Board Designate.
- **2.4** The election of Chair, Vice-Chair and Board Designate will be determined on the basis of one (1) vote per Council Member and Delegate present at the meeting.
- **2.5** The Chair, Vice-Chair and Board Designate will hold office for a one (1) year term, commencing on January 1 and ending on December 31 of the ensuing year.
- **2.6** The Chair, Vice-Chair and Board Designate should declare their intention to seek re-election by notifying the Council Members by email no later than November 15.
- **2.7** If the office of the Chair or Vice-Chair or Board Designate becomes vacant, the Mayors' Council will elect a new Chair or Vice-Chair or Board Designate at its next meeting, to hold office until December 31..

At the July 25, 2024 meeting, the Mayors' Council elected Mayor Brodie as the new Vice-Chair to replace Mayor Hurley who had earlier resigned the position. With Mayor Brodie's election to Vice-Chair for the remainder of 2024, his previous position as Board Designate became vacant. Following the election for Vice-Chair, the Mayors' Council elected Mayor MacDonald to the vacant Board Designate position, with a term to "conclude on April 30, 2025 or the completion of the 2025 Investment Plan, whichever is earlier," to match the terms of the other two Board Designates appointed at the April 4, 2024 meeting. Accordingly, only the elections for Chair and Vice-Chair must be held at this meeting as per Section 2.

DISCUSSION

On November 14 and 15, 2023, via emails sent to all members, the current Chair and Vice-Chair declared their intention to seek re-election, as per Section 2.6.

At the will of the body, the election of Chair is typically chaired by the Executive Director or the Recording Secretary, and the election of Vice-Chair is typically chaired by the newly elected Chair. Nominations are accepted from the floor during this item in the agenda, as per Section 2.2. As per Section 2.3, if more than one person is nominated for the position of Chair or Vice-Chair, a vote by secret ballot will be taken, and will follow the standard process outlined in *Robert's Rules of Order*.

Since the election of the 2024 Chair and Vice-Chair will occur at a hybrid meeting, with some members participating via videoconferencing, the secret ballot voting procedure adopted by the Mayors' Council in 2020 will be used to accommodate "virtual" balloting:

Secret Ballot Voting Procedure using the Zoom Polling Feature

The polling feature in Zoom is a simple, straightforward way to manage secret ballots elections. The results will be kept secret by changing the Zoom account settings to make the poll anonymous, which will keep the votes anonymous in the meeting and in any subsequent polling reports that are available to the Zoom account holder (for example if a report is requested by a scrutineer).

The Zoom polling feature will be created and launched by the Recording Secretary during the meeting to accommodate all those nominated for each election. The Recording Secretary can see the progress of the responses and will close the poll after all responses are received. The poll results will be calculated immediately, and the outcome shared with meeting participants by the Recording Secretary announcing the name of the person who received the majority of the votes.

This process is simple to use for members but allows for secret balloting for those participating by videoconference, is limited to Mayors' Council members, and can be audited by candidates' scrutineers. For those members participating in-person, paper ballots will be distributed by the Recording Secretary, and collected and counted by the Executive Director and Recording Secretary. The results of the paper ballots will then be combined with results from the Zoom polling to determine the final outcomes.

TO:	Mayors' Council on Regional Transportation
FROM:	Gemma Lawrence, Coordinator, Mayors' Council Secretariat
DATE:	November 20, 2024
SUBJECT:	ITEM 3 – Public Delegate Presentations

RECOMMENDATION:

That the Mayors' Council on Regional Transportation receive this report.

PURPOSE:

To introduce the objectives and process for hearing from public delegates.

BACKGROUND:

Public participation at meetings is valued by the Mayors' Council, and 30 minutes is set aside at each open meeting to receive public delegations. The Mayors' Council will only receive public delegations who intend to speak on matters that are within the authority of the Mayors' Council.

Individuals can apply to be a delegate by completing the online <u>Application Form</u> up until 8:00AM, two business days prior to the meeting. In situations where there isn't enough time to hear from everyone wishing to speak, the Mayors' Council encourages written submissions be sent to <u>mayorscouncil@translink.ca</u>.

The webpage for public delegates includes a Protocol for Public Delegates that notes:

- the Mayors' Council Chair will exercise discretion in maintaining a reasonable level of order and decorum;
- delegates and all meeting participants are reminded that different points of view are respected, and discussions are kept above the level of personal confrontation, disruptive behaviour and profanity.

DISCUSSION:

The deadline to apply to speak to the Mayors' Council is 8:00am two days prior to the meeting. At the time of this report, not all prospective speakers will have had a chance to complete applications. Accordingly, the **list of approved speakers, as well as any written submissions or presentations, will be provided on table**. Any presentations provided by delegates will also be provided to Mayors' Council members only, on table (up to 10-pages maximum). Each delegation will be given a maximum of <u>three minutes</u> to address the Mayors' Council. As a general rule, there are no questions or discussion between Council and delegates. The policy governing Public Delegates can be <u>found online</u>.

TO: Joint Finance Committee

FROM: Patrice Impey, CFO Ralf Nielsen, Director, Enterprise Sustainability

DATE: October 30, 2024

SUBJECT: ITEM 6.1.1 - 2025 Investment Plan - Zero-Emissions Update

RECOMMENDATION

That the Joint Finance Committee receive this report for information.

EXECUTIVE SUMMARY

In spring of 2021 TransLink launched the Low Carbon Fleet Strategy (LCFS) to determine how its bus fleet could meet corporate greenhouse gas reduction (GHG) goals endorsed by the Mayors' Council and set by the Board of Directors in 2018. In December 2021, the TransLink Board of Directors approved new, more aggressive climate and GHG reduction targets for its infrastructure and operations:

- An interim GHG reduction of 45 per cent by 2030 against a 2010 baseline;
- A zero-emissions bus (ZEB) fleet by 2040; and,
- Net-zero GHGs by 2050.

Based on current plans, TransLink's 2030 target will primarily be met by the purchase of renewable natural gas, continued roll-out of renewable diesel, and key infrastructure projects such as the electrification of the Hamilton Transit Centre, Port Coquitlam Transit Center and the new all-electric Marpole Transit Centre. Achieving a zero-emission bus fleet by 2040 however, poses the most uncertainty, with potential risk to core bus services continuity and impacts on financial plans. To understand how to achieve the 2040 target, within a rapidly evolving technology, regulatory, financial context, a full revision of the LCFS was required that wouldn't negatively affect TransLink's ability to implement service increases set out in the *Access for Everyone* plan.

In 2023 TransLink's Enterprise Sustainability, together with TransLink's Transit Planning, and Coast Mountain Bus Company's Low Carbon Fleet Program teams, began the development of the Zero-Emission Fleet Transition Playbook (ZEFTP). The ZEFTP is intended to provide a strategic and technical roadmap of the technologies, and projects (infrastructure and fleet) that would be required for TransLink to meet the goal of a zero-emission revenue bus fleet (bus, shuttle and HandyDART) by 2040. The ZEFTP supersedes the LCFS and provides a strategic roadmap used to develop Investment Plans, capital plans, and budgets, which in turn, authorize the specific scope and timing of the revenue bus fleet transition to zero emissions.

The ZEFTP determined that battery electric buses remain the preferred zero-emission technology for the medium and long term, and that a phased approach based on technology maturity, and bus replacement schedules, provides a financially prudent approach to achieve a zero-emission fleet by 2040. It also confirmed that renewable fuels are a critical, cost effective, "transition" strategy for decarbonizing the existing diesel and natural gas fleets. These strategies and implementation recommendations from the ZEFTP informed the identification of the next investments in zeroemissions, such as new bus depots, expansion, and electrification of existing depots, fleet, and charging infrastructure. These have been included in the 2025 Investment Plan Scope Development and the updated cost estimates for the *Access for Everyone* plan. Finally, current risks, opportunities and management actions associated with the transition to zero-emissions have been identified (e.g., supply chain, project delivery, electrical power).

PURPOSE

The purpose of this report is to provide information to the Joint Finance Committee on the development and findings of the Zero-Emission Fleet Transition Playbook (ZEFTP) and its integration into the scope development of the 2025 Investment Plan and updated *Access for Everyone* (AfE) plan cost estimates. The report is intended to inform discussion and future decision-making as part of developing the 2025 Investment Plan, which is an accountability of both the Board and the Mayors' Council.

BACKGROUND

TransLink's purpose under the *South Coast British Columbia Transportation Authority Act* is to support "provincial and regional environmental objectives, including air quality and greenhouse gas emission reduction objectives." Between 2018 and 2021 TransLink developed its first Low Carbon Fleet Strategy (LCFS) to determine how its bus fleet could meet corporate greenhouse gas reduction goals endorsed by the Mayors' Council and set by the Board of Directors in 2018. In 2022, TransLink's Regional Transportation Strategy – Transport 2050, set a goal of providing "Carbon-Free Transportation for Everyone." Efforts to achieve this goal are supported by the following:

- Metro Vancouver's Regional Growth Strategy: Metro 2050, the Regional Climate Strategy: Climate 2050;
- The Province of British Columbia's CleanBC Roadmap, climate change targets for transportation, and BC Low Carbon Fuel Standard; and
- The Government of Canada's Net Zero Accountability Act, 2020 Climate Change Plan, Clean Fuel Regulation and its commitment under the 2015 Paris Agreement.

To support Transport 2050's goal for "Carbon-Free Transportation for Everyone", the TransLink Board of Directors approved new climate and GHG reduction targets for its infrastructure and operations in December 2021: achieve net-zero greenhouse gas emissions (GHGs) by 2050; an interim reduction of 45 per cent by 2030 against a 2010 baseline; and a zero emissions bus (ZEB) fleet by 2040. To meet these targets, TransLink developed the Climate Action Strategy and Climate Action Plan in 2022. Action 1.5 within the Climate Action Plan committed TransLink to:

"Regularly (two-/three-year cycle) review and refine the Low Carbon Fleet Strategy (2021) to guide the transition to zero-emission buses, Community Shuttles, HandyDART, West Coast Express, SeaBus, and non-revenue fleet vehicles, along with associated investment planning."

In addition, the rapidly evolving zero emission technology, regulatory and economic landscape for TransLink, and the direction from the Mayors' Council in June 2023 to ensure that LCFS does not impede the ability of TransLink to implement transit service increases set out in the AfE plan, signaled the need to revise the LCFS in advance of the next two Investment Plans.

To fulfill this need, TransLink's Enterprise Sustainability, together with TransLink's Transit Planning team and Coast Mountain Bus Company's (CMBC) Low Carbon Fleet Program team, developed a Scope of Work (summary in Attachment 1) and engaged the Canadian Urban Transit Research and Innovation Consortium (CUTRIC) in partnership with Deloitte LLP as financial advisor, to create the Zero-Emission Fleet Transition Playbook (ZEFTP). CUTRIC secured \$1.5 million in funding to support the development of the ZEFTP from Infrastructure Canada's Zero Emission Transit Fund Planning Stream. To guide the ZEFTP's development, a Steering Committee was established with cross-enterprise expertise, including Fleet and Facility Planning, Finance, Operations, Fleet Maintenance, Infrastructure Engineering, Service Design and Fleet Technology Services.

DISCUSSION

The ZEFTP is designed to:

- 1. Understand the role of various technologies: battery electric buses (BEBs), hydrogen fuel cell electric buses (FCEBs), trolleys, and renewable fuels;
- Identify the medium- and long-term infrastructure and fleet projects that would be needed to achieve a zero-emission revenue bus fleet by 2040¹;
- 3. Develop order of magnitude capital and operating costs for 2024 through 2040 associated with the transition of existing fleet and facilities² and to inform future Investment Plans in support of the *Access for Everyone* Plan; and
- 4. Identify the main risks of transition to zero-emissions and how TransLink-CMBC can achieve success alongside other strategic business priorities.

Development of the ZEFTP involved six core Phases:

- 1. Project Charter, and Policy Scan
- 2. Technology, Market Scan, and Total Cost of Ownership Review
- 3. Service Evaluation, System Optimization, and Facilities Assessment
- 4. Scenario Analysis, and Transition Roadmap
- 5. Investment Roadmap
- 6. Operational Excellence, and Innovation Market Scan

The Scenario Analysis informed a Transition and Investment Roadmap that optimizes total capital costs, enables deployment of zero-emission technologies based on expected maturity, maximizes the time to secure funding, and to design, and construct the required infrastructure. The analysis and resulting roadmaps considered operational feasibility, technological maturity, and emissions reduction potential to outline a path for TransLink to achieve a zero-emission fleet by 2040 without impeding TransLink's ability to increase transit service as proposed in the AFE Plan. A GHG emissions forecast (Attachment 2) based on the Roadmaps indicate that TransLink can achieve its 45% by 2030 reduction target and a zero-emission bus fleet by 2040, by applying three key strategies:

1. Battery electric buses (BEBs) are currently the preferred, medium- and long-term zero-emission technology solution to achieve zero-emissions fleet. The ZEFTP confirmed the findings from the

¹ West Coast Express, SeaBus, and non-revenue fleet vehicles were excluded due to their unique needs, and small (seven per cent) contribution to enterprise GHG emissions.

² The ZEFTP also includes high level analysis on the *Access for Everyone Plan*. As details of the *Plan* are still being developed, they will be considered alongside the transition of existing fleet and facilities as the 2025 Investment Plan evolves.

LCFS that battery electric buses have the lowest projected cost of ownership per kilometer as compared to all other zero-emission propulsion types, such as trolley and fuel-cell electric (Attachment 3).

- 2. The transition to BEBs should be phased based on current technology constraints (energy on board and range, market availability), operational feasibility and financial feasibility. Charging infrastructure and system improvements are critical to have in place prior to fleet deployment, and throughout the system. Therefore, these projects will benefit from having a phased, program management approach with sufficient time to plan, design and construct.
- 3. Leverage renewable fuels as a bridging strategy to zero-emissions. The continued purchase and use of renewable fuels (renewable natural gas, renewable diesel) are needed to achieve the 2030 target of 45% reduction in GHG's. If renewable fuels continue to be cost-neutral compared to fossil fuels, they should be used to achieve GHG reductions for the existing hybrid-diesel, diesel, and natural gas fleets. However, they are not a long-term solution to achieve a zero-emission bus fleet by 2040, as regulations, funding and supply chain are expected to continue their shift towards zero-emissions.

Figure 1 illustrates the fleet technology mix for Transition of the existing fleet and facilities between 2025 and 2040. It illustrates a strategy of relatively modest, incremental investments in charging infrastructure and battery electric buses between 2029 and 2034 (after Port Coquitlam and Marpole Transit Centre projects are completed), and with increasing investment from 2035 through 2040. The magnitude and timing of these investments is primarily driven by the bus fleet replacement schedule and anticipated zero-emission technology development across different fleet types. This strategy enables TransLink and CMBC to learn from the real-world performance of BEBs (primarily 40-ft and 60-ft) and infrastructure operations at PTC and MTC and apply this knowledge in the planning of the next projects. It also allows other fleet types and technologies (shuttles, HandyDART, highway coaches, double deckers) to become operationally and financially feasible (i.e., battery technology, range) before they are adopted by TransLink.

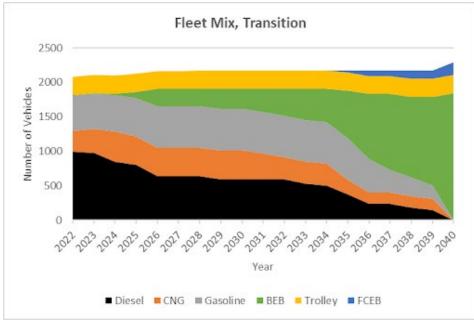


Figure 1. Current planned fleet propulsion mix of vehicles to deliver current service levels

This transition towards a primarily BEB fleet is highly dependent on TransLink's ability to plan, design and construct the necessary charging infrastructure at each of the transit centres across the system. In addition, the ZEFTP has identified locations where on-route chargers may be required. The chargers will allow BEBs to recharge as needed during recovery time in terminals (off-street exchanges and SkyTrain stations) without impacting service schedules. As implementation of the Transition continues, detailed service planning will optimize the number, and location of the on-route chargers required to balance the impact on customers, regional partners, and service schedules.

The ZEFTP and its roadmaps provide a set of key recommendations (Attachment 4) for continued implementation of the transition to zero-emissions. It is considered by CMBC and TransLink as a living document that continually informs annual fleet and facility plans and strategies. It also provides key inputs into TransLink's strategic planning activities related to service expansion under AfE, operations, infrastructure, facilities, fleet, procurement, and engineering activities. TransLink Planning and CMBC Transit Service Design are leading additional scenario analysis with support from groups across the Enterprise, including TransLink Finance and Engineering and CMBC Finance, Operations, and Maintenance. This analysis will update the 10-year rolling plan for our fleet (including zero-emissions), to ensure we can maintain and expand service in response to the impact of project delays, changes to available fleet technologies, and refinements of service plans. Depending on the funding for expansion under *Access for Everyone* and the outputs of the additional scenario analysis, the fleet propulsion mix shown in Figure 1 will change.

Integration of the ZEFTP into 2025 Investment Plan

Zero-emissions transition of the existing bus fleet is being partly enabled by the renovation of the Port Coquitlam Transit Centre (for over 100 BEBs) and the construction of the new Marpole Transit Centre (for ~340 BEBs), which are targeted for completion in 2027 and 2028 respectively. Beyond these alreadyfunded investments, the 2025 Investment Plan is crucial for triggering the next phase of investments in zero-emissions that will enable the organization to achieve its climate goals. The ZEFTP and AfE have informed the proposed bus component of the maximum transit expansion capital scope of the 2025 Investment Plan, which includes:

- New Depots at \$3,020 million, that includes:
 - Land and Construction of a New Zero-Emission Bus Depot at \$2,150 million, including charging infrastructure.
 - Land and Design for a Subsequent Zero-Emission Bus Depot at \$720 million.
 - Additional new depot capacity at \$150 million.
- Expansion and Electrification of Existing Depots, at \$3,500 million, including charging infrastructure at depots.
- Expanded Bus Infrastructure at \$220 million, including on-route charging infrastructure.
- Expansion Bus Fleet (up to 175 zero emission buses) at \$370 million.

Note: Cost estimates are based on high-level screening (Accuracy Range Percentage -50 to +100%) and shown as \$2024 without any escalation for year of actual spend.

These investments would enable zero-emissions fleet transition of existing service as well as enable zeroemissions expansion of the bus system. Specific locations of these investments and deployment of zeroemission bus fleet are being informed by the technical recommendations within the ZEFTP, by the geographic distribution of planned service, and by equity consideration.

RISKS AND CONSTRAINTS

Achieving a zero-emission fleet by 2040 is dependent upon TransLink successfully managing the risks and working within key constraints, including funding availability through the transition. This funding, the supply chain, infrastructure delivery and permitting/approvals are some of the key factors that will influence our ability to meet our climate and service goals. A limited number of the key risks and constraints unique to the transition and TransLink are discussed below. Attachment 5 provides more details on the risk categories and identified management strategies.

Bus OEM Supply Chain

Canada's two bus original equipment manufacturers (OEMs) (New Flyer, and Nova Bus) have begun eliminating the production of 40' and 60' diesel, hybrid diesel and natural gas buses:

- Currently, 60' hybrid diesel buses are no longer available at either supplier.
- Nova Bus will only be producing zero-emissions buses after 2024.
- New Flyer offers both zero-emissions and combustion technology.³

These OEM factors pose short-, medium- and long-term cost, supply, and operational risks to both TransLink and CMBC. Management of these risks will require working closely with OEMs around their future production, parts and service plans to minimize disruptions to service, inform fleet procurement, infrastructure project timing, and maintenance planning. With only two bus manufacturers producing and selling in Canada, there is a risk that TransLink will experience long procurement timelines and increasing prices. A European or Asian bus OEM (e.g., BYD) may establish a presence in North America, and sell to Canadian agencies, however this not likely in the short term.

Electricity

³ New Flyer recently decided TO reduce their product offering, but also redesign and re-tool to accept the Cummins' next generation of combustion engines launching in 2027.

The ZEFTP analysis indicates that the transition of the revenue bus fleet from fossil fuels (diesel, natural gas) to electricity, will reduce energy costs per vehicle kilometer travelled by 82 percent (Attachment 3). However, the continued deployment of battery electric buses is estimated to add 78 MW of load onto the BC Hydro grid between today and 2040. This is less than half a percent of BC Hydro's current capacity. TransLink's electrical power requirement forecasts have been provided to BC Hydro and it was determined that our power requirements can be met for:

- The transit centres transitioning before 2035; and,
- The on-route chargers required before 2030.

However, new distribution feeds will be required for:

- The transit centres transitioning after 2035;
- Any new transit centres (required for expansion); and,
- Seven on-route charging locations.

BC Hydro has indicated that future power cannot be reserved or guaranteed in advance. TransLink needs to continue to work closely with BC Hydro to plan for future power needs across the enterprise that encompass both fleet electrification, SkyTrain expansion, and infrastructure upgrades to proactively manage our load growth. A BC Hydro funded industrial energy manager at TransLink is already working on load growth management, and exploring innovative power solutions (e.g., batteries, energy recovery, solar) as we transition to zero-emissions. In addition, TransLink and BC Hydro have begun discussions on establishing a memorandum of understanding that will enable closer collaboration between the two organizations to secure power over the long term, and possibly lead to transit being treated/classified as an essential service to improve redundancy and resilience.

Capital Project Delivery and Infrastructure Costs

To put BEBs into service, charging infrastructure needs to be in place. The 6-8 years to develop and deliver charging infrastructure at the existing transit centres is a key constraint and poses a risk to achieving a zero-emission fleet by 2040. Ideally, the charging infrastructure needs to be in place 6-12 months in advance of BEB fleet deliveries to ensure operational readiness. TransLink recognizes that the procurement, delivery methods, timelines, and supply chain risks/forces are different between fleet and infrastructure, and that the schedules for infrastructure need to tightly align with those of the fleet transition.

Furthermore, as we've seen with the Marpole and Port Coquitlam Transit Centres, infrastructure costs are continuing to increase. While the ZEFTP estimates that charging infrastructure accounts for only 13 per cent, and zero-emission buses account for 87 per cent of the projected capital costs for the transition to zero-emissions from now to 2040, TransLink needs to ensure the funding and delivery of the charging infrastructure receive high priority to ensure BEBs can be charged and deployed upon their delivery and avoid impacts on service.

To manage cost risks, TransLink will need to explore new delivery models, including collaborative ones with the private sector in order to save time, reduce project delivery risks and manage capital and operational costs. TransLink is already conducting a business options analysis to identify the optimum model for the long-term design, construction, operation and maintenance of future charging infrastructure.

To manage schedule risks, TransLink will need to prioritize ensuring municipal planning approvals, and permitting are secured in a timely manner. At the same time TransLink needs to advocate for strong

project leadership (particularly for preliminary design) inside our municipal partners to champion and advance our infrastructure projects, including on-route charging.

NEXT STEPS

A key next step is the Mayors' Council and TransLink Board of Directors approval of funding for zeroemissions projects which will be included in the 2025 Investment Plan. This will continue to enable TransLink and the region to meet its climate and service goals. In addition, TransLink staff are undertaking the following:

- 1. Asset Management, Capital Planning and Fleet and facilities Planning will integrate the ZEFTP into the long-term capital plan to identify synergy, bundling with both new and SOGR projects, and use scenario models to make future trade-off decisions through the Investment and capital planning processes.
- 2. Finance and Engineering and Project Delivery, continue to identify new/innovative means of delivering projects and services that is more financially sustainable.
- 3. The CMBC GM and President, and TransLink Strategic Sourcing, together with other peer agencies, APTA and CUTA, continued liaison and tracking of the Canadian and foreign bus OEMS supply chain, pricing, and technology developments.
- 4. TransLink Enterprise Sustainability, Finance and CMBC Finance, conduct financial analysis and modelling on the cash flow, amortization, depreciation, and opportunities for O&M savings resulting from the transition to zero-emissions, elimination of diesel engine overhaul capabilities, and establishing a 12-year bus life cycle for BEBs.
- 5. CMBC and the Low Carbon Fleet Program team develop a change management strategy and plan for the transition of Operations and Maintenance Employees (i.e., processes, policies, etc.) alongside future iterations of the Playbook.
- 6. TransLink and CMBC leadership enhance the current (Low Carbon Fleet) Program structure and decision-making processes to align with other key bus transformation initiatives such as bus rapid transit and automation.
- 7. Publicly release the ZEFTP for the benefit of funders (governments, private investors), policy makers, and other agencies to support sustainability and Investment Planning communications.

CONCLUSION

The ZEFTP and its roadmaps provide strategic guidance to the organization on what is required for TransLink and CMBC to achieve a zero-emission fleet by 2040. As a strategic roadmap, the ZEFTP is being used to develop the 2025 Investment Plan, future capital plans, and budgets, which will then determine the actual scope and timing of the revenue bus fleet transition to zero emissions by 2040. TransLink's future expansion plans under *Access for Everyone*, including Bus Rapid Transit, as they are developed, will integrate with the transition to zero-emissions of the existing fleet and facilities.

It is acknowledged that many factors, including funding, are uncertain at this time and that these will influence our ability to meet our climate and service goals. The proactive management of supply chain, infrastructure projects, funding and other key risks during implementation are needed to ensure minimal impacts on transit service and customers.

ATTACHMENTS

Attachment 1: Zero Emission Fleet Transition Playbook Summary Scope of Work Attachment 2: GHG Analysis

Attachment 3: ZEFTP Implementation Recommendations and Future Opportunities Attachment 4: Total Cost of Ownership Summary Attachment 5: Risks and Management Actions

ATTACHMENT 1: Zero Emission Fleet Transition Playbook Summary Scope of Work

The development of the ZEFTP had six phases of work intended to tailor the Transition Playbook to the unique needs of TransLink and CMBC.

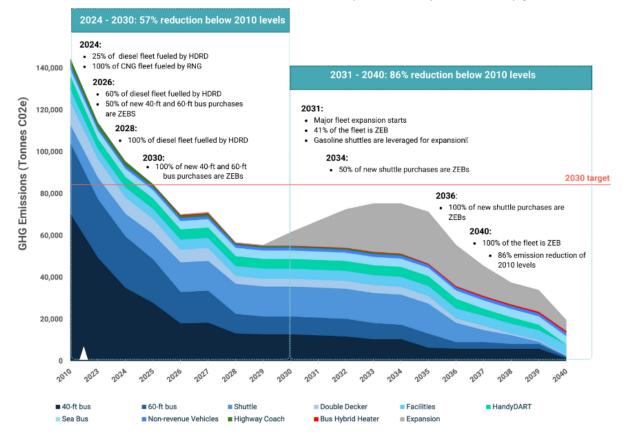
Market and Policy Context	
 Phase 1 Project Charter Policy Scan Phase 2 Technology and Market Scan Total Cost of Ownership Review 	 Scope Understand the zero-emissions bus market, policy and regulatory context, technology maturity, and constraints using a "technology agnostic" approach. Total cost of ownership review of low/zero emission technologies. Gain understanding of how these factors influence TransLink-CMBC.
Technical Analysis	
 Phase 3 Service Evaluation System Optimization Facilities Assessment 	 Scope Technical energy, route, block, and facility analysis of all revenue service (bus, shuttle & HandyDART), including 2,822 blocks, and all transit centres. Identify and assess various scenarios to achieve TransLink-CMBC climate targets. Identify which zero emissions technologies are optimal for existing and future operations (Access for Everyone).
Planning the Transformation	
Phase 4 • ZEFTP Executive Summary ⁴ • ZEFTP Method and Strategy Report • ZEFTP Action Plan Phase 5 • ZEFTP Investment Roadmap ⁵	 Scope Identify five scenario pathways, and select the optimum scenario Determine the sequence and prioritization of zero emissions projects (fleet and facility). Build an actionable and operationally feasible plan to carry out the ZEB transformation. Estimate capital and operating costs for 2024-2040.
Innovation and Excellence	
 Phase 6 Operational Excellence and Innovation Market Scan 	 Scope Research innovations and opportunities that can improve/enhance the business during the transition to zero-emissions.

⁴ The ZEFTP Executive Summary (Attachment 4) a brief on the findings and recommendations arising from Phases I through V, and the Transition Roadmap in Section 5.

⁵ The ZEFTP Investment Roadmap (Section 3 in Attachment 5) provides the financial analysis and estimates developed through Phases II through V.

ATTACHMENT 2: GHG Analysis

Based on the ZEFTP roadmap, an analysis of estimated greenhouse gas emissions (GHG) ⁶ illustrates (below) that the TransLink enterprise can exceed its 45% reduction by 2030 target. This is primarily from the planned roll-out of renewable diesel (2024-2028) for the diesel, hybrid-diesel fleet, and the continued purchasing of renewable natural gas for the natural gas fleet. The analysis indicates that with the continued use of renewable fuels, and investment in battery electric buses, TransLink could be one of the only public sector entities in British Columbia to exceed its 2030 GHG target. After 2029, GHG reductions are associated with the substantial investments in battery electric buses and charging infrastructure across all the fleet types. Note that the analysis shows emissions increasing again in 2029 before declining again in 2033. This is based on a modelling scenario where community shuttles (gasoline) are a key technology to achieve the service goals under the full *Access for Everyone Plan*. With adequate funding, the fleet can be 100 per cent zero emissions (tailpipe) by 2040, contributing to an 86 per cent reduction in TransLink's enterprise emissions against its 2010 baseline. After 2040, the remaining emissions from the revenue fleet are associated with the carbon intensity of the BC Hydro electricity grid.



⁶ Emissions from facilities, SeaBus operations, and non-revenue vehicles are included in the GHG roadmap for reference purposes but excluded from the scope of the ZEFTP.

ATTACHMENT 3: Total Cost of Ownership Summary

Phase 2 of the ZEFTP evaluated a range of low/zero-emission technologies and their total cost of ownership (TCO) and GHG emissions per kilometer travelled (VKT). The tables below summarize the findings based on data from TransLink-CMBC, peer agencies, and literature.

	Diesel	Hybrid	CNG	BEB	Trolley	FCEB
Maintenance Costs	1.34	1.01	1.93	1.94	3.59	2.05
Engine Overhauls	0.14	0.06	0.14	-	-	-
Fuel Cost	1.81	0.90	0.70	-	-	-
Electricity Costs	-	-	-	0.34	0.53	-
Hydrogen Costs	-	-	-	-	-	4.21
Total	\$3.30	\$1.97	\$2.77	\$2.28	\$4.12	\$6.26

Operating and Maintenance Costs per VKT

GHG emissions, grams CO2e per VKT

	Diesel	Hybrid	CNG	BEB	Trolley	FCEB	
GHG Emissions p	1580 perdiesel)	(fossil1420 diesel)	(fossil1350 (fossil I	NG)19 heate	(electric26 r)	57 (electr	olysis-
km ⁷	530 (ren diesel)	ewable480 (ren diesel)	ewable250 (RNG)	28 heate	(hybrid r)	produc 507 produc	(SMR-

⁷ Emissions per km based on VKT and GHG emissions from the TransLink fleet, based on BC Best Practice Methdology for Quantification of GHG Emissions for Public Sector Organizations.

ATTACHMENT 4: ZEFTP Implementation Recommendations and Future Opportunities

- 1. Infrastructure planning for the **transition of transit centres should integrate with state of good repair (SOGR), and existing long term capital plans** to identify project synergies, opportunity for bundling, cost savings, and un-locking space for more fleet.
- 2. The **40-ft fleet** should continue to transition to battery electric buses (BEBs) as originally planned under the LCFS.
- 3. Between now and 2030, BEBs with depot charging should be deployed on "lower energy blocks" identified through the service analysis, to align with vehicle capabilities, minimize the need to deploy on-route chargers, and thereby providing additional time to study performance, and allow for technology advancement.
- 4. The **60-ft fleet can begin transitioning before 2030,** starting with "lower energy blocks" identified through the service analysis, to align with vehicle capabilities, minimize the need to deploy on-route chargers, and thereby providing additional time to study performance, allow for technology advancement.
- 5. Medium- and long-term investments are required for on-route charging infrastructure at existing bus loops and transit exchanges. Planning and detailed studies are needed to optimize these investments in close coordination with the retrofit of existing facilities (in-depot chargers), to minimize the impact on customers and existing operations.
- 6. The **single-decker highway coach fleet** can begin transitioning to BEBs when they are due for replacement with a minimal need for on-route charging.
- 7. **The double-decker highway coach fleet** can begin transitioning to BEBs after 2030 to allow battery and vehicle technology to improve, and hydrogen fuel cell double deckers to be evaluated.
- 8. The community shuttle and HandyDART vehicles are not currently feasible to meet the service requirements for most blocks. These fleets can begin transitioning in the mid 2030s, which allows battery, vehicle and charging technology to develop.
- 9. **"Block splitting"⁸ should be considered later this decade or in the early 2030s** to allow for battery and technology improvements, as well as measurement and analysis of actual BEB fleet performance.
- 10. Auxiliary heating from **hybrid diesel electric heaters** should be specified for all BEBs to maximize range, and thereby minimize the need for additional fleet to meet service requirements.
- 11. Advocacy and market signals to original equipment manufacturers (OEMs), regulators and Tier 1 suppliers should be used to **encourage development of heat pumps** and other energy efficient methods of heating and cooling vehicles.
- 12. Set BEB lifecycle at 12 years to align to with current industry warranties and norms, with a review once significant operations and maintenance performance data is available from BEBs at Hamilton, Port Coquitlam and Marpole transit centres. Additional analysis should be conducted to determine the long term financial impact of this change to future budgets and plans.
- 13. The opportunities, financial impact and labour changes required for **phasing out/re-purposing of the diesel engine rebuilding and maintenance** portions of the Fleet Overhaul facility during and after the transition need to be analyzed and planned.
- 14. The transition to zero-emissions can be considered **as a foundation or catalyst for complete modernization of the bus business** over the next 16 years.

⁸ Block splitting refers to dividing the work currently requiring one vehicle to complete into multiple pieces of work due to the limited amount of energy on the vehicle. This typically results in needing more vehicles to complete the same amount of work.

Future Opportunities:

- 1. **The Port Coquitlam and Marpole Transit Centres** should be used to measure performance of battery electric buses, charging infrastructure (depot and on-route), establish efficient operational, planning and scheduling processes. This knowledge can then be used to inform the next phase of infrastructure projects and fleet procurements.
- 2. Hydrogen Fuel Cell Electric Buses (FCEB). The Richmond Transit Centre has been identified as a suitable candidate for FCEBs, due to the energy needs of its routes and blocks. However a successful FCEB pilot to test operational feasibility is needed in the next three years. In addition, significantly lower costs of hydrogen (competitive with electricity), a consistent market supply of hydrogen, and the low carbon production of hydrogen are required to validate the long-term opportunity for FCEBs within the bus fleet.
- 3. In-Motion Charged trolley technology are a potential alternative to BEBs and FCEBs, particularly for routes that support high-frequency, high-density urban areas, and require high energy consumption (e.g., Rapid Bus, Bus Rapid Transit). However, their operational and financial feasibility, particularly the upgrading and/or extension of the overhead system, route planning, load management and vehicle availability needs to be studied in the next few years to confirm their potential.

ATTACHMENT 5: Risk and Management Strategies

The transition to zero emissions will include major capital work and operational change in an environment where the technology, supply chain, and operations related to the battery electric buses, and charging infrastructure are still evolving. Seven key risk categories and initial management strategies have been developed and are discussed in the table below.

Key risk categories and initial management strategies.

Risk Category	Description	Management Strategies	
Operations	Overall enterprise operational cost and/or service level increases may put pressure on operating funding to sustain the transition. Phased approach impacts the uniformity of the fleet, potentially restricting flexibility to reassign buses in response to service needs or disruptions.	 Setting adaptable service levels in service delivery planning, and operational budgeting. Monitoring performance, adapting scheduling and recovery time to ensure on-route charging is adequately accounted for. Establish uniform standards and operational procedures for bus-charger interoperability, 	
Funding	Sources of funding are below expectation or slow to come to fruition.	Continued pursuit of large capital and operational funding sources, ensure sufficient resources are assigned for securing and advocating for long term capital and operational funding. Build link between zero emissions transition, and climate, human health, and the community benefits of Access for Everyone.	
Project Execution and Governance	Project execution and/or decision- making timelines are delayed or unaligned between facility retrofits, in-route charging infrastructure and fleet procurement.	Early, proactive planning for: retrofit of existing facilities, in-route charging infrastructure, and fleet procurement. Establish a governance model with clear accountabilities, responsibilities, and dedicated resources (financial and human) for implementation.	
Regulation	Aggressive stock and fleet targets are imposed on TransLink, and our commitment to specific technologies is no longer acceptable.	Active engagement and advocacy with provincial regulators to create policy that enables transition and is a "made in BC" solution. Designing resilient infrastructure, monitoring and adapting strategies.	

	- 1 1 1 1 1	
Technology	Technology advancement does not meet expectations (i.e., increase in battery density in shuttles, limited access to hydrogen, limitations on vehicle life or capacity) or technologies modelled do not operate as expected (i.e., higher energy consumption rate resulting in higher replacement ratio).	Frequently monitor battery technology, the hydrogen market, vehicle advancements and operational constraints. Build RFP specifications that limit risks and meet plan and operational requirements. Create a zero-emission fleet transition "playbook" that is regularly updated in order to plan, test and prioritize other solutions as necessary.
Utilities and Fuels	BC Hydro or fuel providers cannot provide adequate power or energy needs to some or all facilities as transition occurs. Hydrogen, and renewable fuels (HDRD or RNG) are not available.	Pay to secure electrical distribution capacity earlier in the project lifecycle, where possible/ necessary. Develop renewable fuel procurement strategies, including forward contracts, advance price fixing to proactively manage cost, ability to supply, and the environmental attributes (e.g., carbon intensity) of the fuels. Clearly communicate with BC Hydro, FortisBC and others future demand needs to ensure adequate supply and utilities. Continue development of Strategic Energy Management Plan, to evaluate options for increasing facility power/energy capacity. Conduct hydrogen pilot to anticipate and address potential hydrogen supply issues.
Supply Chain	Cost overruns, escalation, and availability. OEM or fuel providers stop providing combustion technology (diesel, gas, CNG) earlier than expected.	Cost management, value engineering, alternative procurement strategies. Program level contingency. Improve cost estimating practices. Continue to work with OEMs on their planned production line shifts, particularly for 2027 and beyond. Monitor medium- and long-term parts and service availability for the existing combustion fleet to anticipate/plan for increased operations and maintenance costs.

TO:Mayors' Council on Regional TransportationFROM:Sarah Ross, VP, Transportation Planning & Policy
Andrew McCurran, Director, Strategic Planning and PolicyDATE:November 25, 2024

SUBJECT:LATE ITEM 7.1 – 2025 Investment Plan: Proposed Scope of Access for Everyone Phase 1

RECOMMENDATIONS:

The Joint Planning Committee recommends that the Mayors' Council:

- 1. Request staff to continue advancing the development of the 2025 Investment Plan based on the proposed scope outlined in this report; and
- 2. Receive this report.

EXECUTIVE SUMMARY

A new investment plan will need to be adopted in 2025 to fix the structural deficit and begin funding investments from the *Access for Everyone* plan. Staff have identified the scope to deliver roughly one third of the *Access for Everyone* plan or the maximum operationally feasible scope (whichever is less).

The purpose of this item is to confirm that this scope – as was included in the Mayors' Council's election platform – should be advanced for consideration in overall discussions on funding for the next investment plan. As funding discussions with the provincial government progress through Winter 2025, the scope of expansion investments may be further iterated, leading to the final scope for the 2025 Investment Plan.

PURPOSE

The purpose of this report is to provide an overview of the maximum operationally feasible scope that will keep the region on track to delivering *Access for Everyone* and to seek the Board and the Mayors' Council's confirmation that this scope continues to be the basis for developing the 2025 Investment Plan.

BACKGROUND

In June 2024, the Mayors' Council and TransLink Board of Directors endorsed the work program to develop a 2025 Investment Plan for approval in spring 2025. T

DISCUSSION

The 2025 Investment Plan has two objectives:

- 1. Address the structural deficit; and
- 2. Advance the first phase of the Access for Everyone plan

Addressing the structural deficit is an essential first step to ensure that current services are funded, that the existing system remains in a state of good repair, and that projects that are underway or previously committed are funded through to completion.

We have outlined the maximum operationally feasible scope to stay on track to deliver the *Access for Everyone* plan within a 10-year time horizon as contemplated in the plan. Management recommends, and the Board and Mayors' Council has previously supported, that this maximum scope should be the basis for the development of the 2025 Investment Plan.

Overview of the proposed scope for inclusion in the 2025 Investment Plan

Attachment 1 outlines the proposed investments for consideration in the 2025 Investment Plan, which is approximately 1/3 of the investments committed in the *Access for Everyone* plan or the maximum that is operationally feasible to deliver (whichever is less). Resolving the structural deficit and funding this proposed scope would require \$810M in operating revenue starting in 2026, growing by 4% annually to an average of \$930M/year. This assumes previous practice of 80% senior government capital contribution (to the \$12.3B in capital).

CONCLUSION

This report outlines the proposed scope for the 2025 Investment Plan, based on advancing 1/3 of *Access for Everyone* within the constraints of operational feasibility. By re-confirming the recommendations provided in this report, the Board and Mayors' Council will be providing clear direction to staff to proceed with the more detailed work involved in preparing an Investment Plan.

ATTACHMENTS

- Attachment 1: Overview of Proposed Scope of Investments for the 2025 Investment Plan
- Attachment 2: Slides: 2025 Investment Plan: Presentation

Investment		Description
Transit service	Bus & SeaBus Service	 Bus: 15% increase in service levels to deliver: New service for 3 BRTs; Address overcrowding; New service areas to industrial areas, parks, and equity deserving communities. SeaBus: Increase to 15-minute frequency in evenings, and longer hours of operation on Sunday evenings.
	Rail Service	 Expo-Millennium Line: Increase peak frequencies to address forecasted ridership growth. Canada Line: Increase peak frequencies to address forecasted ridership growth. West Coast Express: Add cars to address ridership growth.
	Paratransit & Flexible Services	 Additional HandyDART trips to respond to growing ridership. Support for shared micromobility services.

ATTACHMENT 1

Overview of Proposed Scope of Investments for the 2025 Investment Plan

Investment		Description
Major Transit Projects	Bus Rapid Transit Burnaby Mountain Gondola Burrard Inlet Rapid Transit Study	 Construct 3 BRTs: King George Blvd; Langley – Haney Place; R2 Extension, followed by Metrotown to North Shore BRT. Construct Burnaby Mountain Gondola Burrard Inlet Rapid Transit Program: Full and refined business case to continue work on the ultimate rapid transit alignment for the North Shore.
Transit Depots, Infrastructure, and Fleet	Depots	Depots: Fund electrification and capacity expansion of existing depots, purchasing land for two new depots, and building one new bus depot, one new HandyDART depot, and two new community shuttle depots.
	Fleet	 Up to 175 new zero emission buses for future service increases to the bus network. Up to 110 new rail cars to deliver more service on SkyTrain. Replacement SeaBus.
	Infrastructure	 Additional exchange bays, roadway infrastructure to support future service.
Streets 9	Other Transit Customer Facility Improvements	 Station Upgrades: SkyTrain Station Capacity Upgrades, including Columbia Station Design for future SkyTrain upgrades, WCE Waterfront upgrades SeaBus terminal upgrades Bus Customer Amenities Program: Upgrade Metrotown Exchange in preparation for future capacity needs with BRT Amenity upgrades at 3-5 exchanges Design of Coquitlam Central Exchange System-wide & Customer Experience: Customer Washrooms continued roll-out On-street Bus Shelter Program Safety Program Real-time Transit Information System upgrades Station Area Planning Program Other Customer Experience Initiatives
Streets & Roads	Bikeways	 Local government funding of \$53M/year for 2026-2028 (up from ~\$18M/year in 2025). Address gaps on key corridors on the Major Bikeway Network and Regional City Centres.
	Walkways	 Local government funding of \$43M in 2026, increasing to \$103M/year in 2028 (up from ~\$8M/year in 2025). Build out 66% of missing sidewalks next to transit in urban centres.

Investment		Description
	Safety and People- First Streets	 Expand MRN-B to focus on pedestrian safety and design of people-first streets Local government funding of \$47M/year from 2026-2028 (up from ~\$27M/y 2025).
	Bike Connections to Transit	 Upgrade 6.2km of the BC Parkway multi-use path, and ongoing operation and maintenance. Up to 100 bike lockers, improved bike parkade security at stations.
	Bus Speed and Reliability	 \$12M/year in bus priority improvements from 2026-2028 (similar funding levels as delivered in 2025), resulting in operating efficiencies of approximately 22,000 annual service hours per year. Improvements to targeted high-delay corridors, bus stop balancing, and local government funding for hot spot improvements.
	Major Road Network (MRN)	 Operations, Maintenance and Pavement Rehabilitation (OMR) Program: Increase rate per kilometre to local governments by 70%. (\$20M/year in capital expenditures, and \$30M/year in operating expenditures from 2025-2034). Expand the MRN: increase lane-kilometres of designated MRN by 3.3%. MRN-Structures: extend funding through 2028 at \$25M/year
	Golden Ears Way Improvements	 Road improvements along Golden Ears Way to support goods movement. Golden Ears way is owned by TransLink and is part of the Major Road Network.
Reconciliation, Resilience & Transformation	Enterprise Resilience Program	 Identify, monitor, and address key risks (including seismic and climate risks). Fulfills TransLink's role in regional emergency preparedness and seeks to avoid failure of TransLink assets (which would have larger costs).
	First Nations Transportation Infrastructure	 Funding for transportation infrastructure on reserve lands to begin to address gaps. Supports rollout of previously funded bus service.
	Indigenous Relations	 Funding to support TransLink's Indigenous Relations program, including funding for capacity building, engagement, and other initiatives.
	Digital Infrastructure	Support core digital infrastructure across the Enterprise to improve resiliency and cost-effectiveness.

Item 7.1 - Attachment 2 2025-2034 Investment Plan Proposed Scope

Sarah Ross, VP Transportation Planning and Policy | TransLink

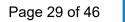
November 25, 2024

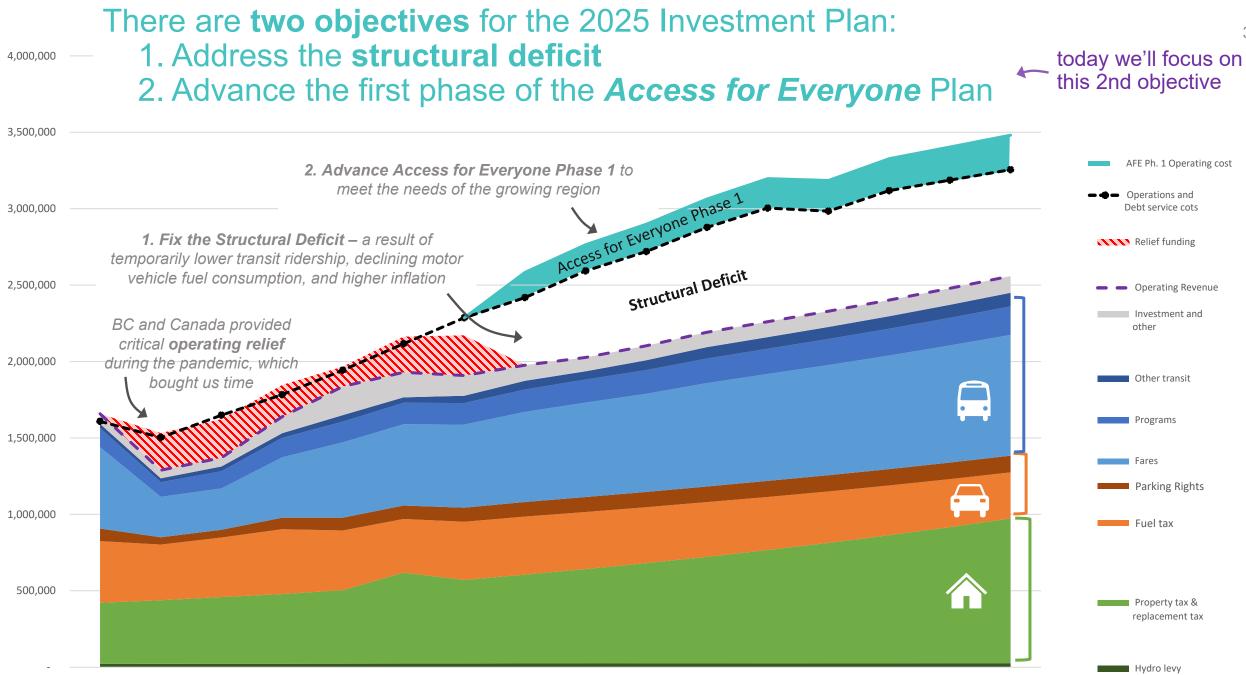






1. Purpose and Background





Recommendation:

That the Mayors' Council:

1.Request staff to continue advancing the development of the 2025 Investment Plan based on the proposed scope outlined in this report; and **2.Receive** this report.

To stay on track, the 2025 Investment Plan would need to deliver about 1/3 of Access for Everyone

ENTIRE ACCESS FOI	REVERYONE	PHASE 1 (2025 Investment Plan)	PHASE 2 (2028 Investment Plan)	PHASE 3 (2031 Investment Plan)			
RAPID TRANSIT PROJECTS	 Burnaby Mountain Gondola Up to 9 Bus Rapid Transit routes UBCx 11 RapidBuses 	 Burnaby Mountain Gondola R2 Extension → Metrotown-North Shore BRT Langley-Haney Place BRT King George Blvd BRT 	3 BRT5 RapidBus	3 BRT5 RapidBusUBCx			
TRANSIT SERVICE,	 Bus and SeaBus Up to 150% bus service increase Up to 40 new service areas Regional and Inter-regional Express 25% SeaBus service increase New and Expanded Bus Depots 	 15% bus service increase ~16 new service areas 10% increase to SeaBus New Bus Depot and Existing Depot Expansion Expansion fleet 	 Bus service increases New service areas SeaBus service increase Additional Bus Depot Expansion Fleet 	 Bus service increase New service areas SeaBus service increase 			
INFRASTRUCTURE &FLEET	 Rail Service 10% increase in SkyTrain 65% increase to Canada Line Study WCE capacity 	 6% increase in SkyTrain 8% increase in Canada Line Expansion Fleet 	increase in SkyTrainincrease in Canada Line	 increase in SkyTrain increase in Canada Line 			
	Paratransit & Flexible Services 60% increase in HandyDART trips Expanded shared micromobility 	 4% increase to HandyDART New HandyDART Depot Fund shared micromobility from 2026-2028 	 Increase to HandyDART Fund shared micromobility 2029-2031 	Fund shared micromobility 2032-2034			
TRANSIT CUSTOMER FACILITIES AND EXPERIENCE	 3 Transit Exchange Upgrades 2 SkyTrain Station Upgrades 1 WCE Waterfront Station Upgrade Amenities and Customer Experience BC Parkway Upgrades and Bike Storage 	 1 SkyTrain Station Upgrade (Columbia) 1 Exchange Upgrade (Metrotown) SeaBus Terminal Upgrades Amenities and Customer Experience \$47M BC Parkway and Bike Storage, plus O&M 	 2 Transit Exchange Upgrades 1 SkyTrain Upgrade WCE Waterfront Upgrade Amenities and Customer Experience 	Continued investment			
	Local Government Streets Programs \$530M for Bikeways \$920M for Walking \$500M for Safety 	• Fund programs from 2026-2028	• Fund programs from 2029-2031	Fund programs from 2032-2034			
STREETS & ROADS	Bus Speed and Reliability	Fund program from 2026-2028	• Fund program from 2029-2031	• Fund program from 2032-2034			
	 Major Road Network 30% increase O&M and Rehab rate 10% increase in MRN lane-km Extend MRN Structures Golden Ears Way modifications 	 70% increase O&M and Rehab rate 3.3% increase in lane-kms Extend MRN-Structures from 2026-2028 Golden Ears Way goods movement changes 	 3.3% increase in lane-kms Fund MRN-Structures from 2029-2031 	 3.3% increase in lane-kms Fund MRN-Structures from 2032- 2034 			
TECHNOLOGY	Core Digital Infrastructure	Fund program from 2026-2028	Fund program from 2029-2031	 Page 32 of 46 Fund program from 2032-2034 			
		- i ulu piografii ilofii 2020-2020	Fund program nom 2029-2031	Fund program nom 2052-2034			

The **expansion** proposed is **on top of the funding** required to address the **structural deficit**.

- New revenue is required annually to address the structural deficit and maintain our existing services
- "Maintaining our existing services" includes:
 - Addressing cost escalations of previously committed major projects
 - Maintaining 2024 IP service levels through 2034
 - Funding previously planned capital state of good repair projects, fleet replacements, and other projects

Provincial Election Campaign – Mayors' Council Asks (1/2)

The Mayors' Council is calling on the next provincial government to commit to the following fast-action items to begin rolling out TransLink's *Access for Everyone Plan* in April 2025:

Action 1: Commit to begin increasing transit service immediately to address overcrowding and record-setting population growth in Metro Vancouver, by funding the first phase of the *Access for Everyone Plan* in April 2025, in partnership with the Mayors' Council and TransLink.

Provincial leadership is needed to help ensure the region can catch up with population growth, address growing congestion on transit and roads, support transit-oriented housing legislation, meet 2030 climate target and make life better and more affordable for residents and businesses.



Provincial Election Campaign – Mayors' Council Asks (2/2)

(con't) The Mayors' Council is calling on the next provincial government to commit to the following fast-action items to begin rolling out TransLink's *Access for Everyone Plan* in April 2025 (2/2):

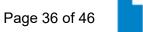
Action 2: Create a permanent, *\$3.4-billion per year (exact figure TBC) Access for Everyone Fund, indexed to population growth and inflation,* to deliver the Access for Everyone Plan over the next decade by:

- a. Ensuring that TransLink has access to \$500 million in new annual operating funding to sustainably deliver current service levels as well as the transit service increases proposed in AFE;
- b. Increasing **senior government funding contributions towards capital projects** in the AFE Plan to **95%** (from the current 70-80%), including by accelerating and expanding the federal Permanent Transit Fund;
- c. Creating a provincial program to provide transit fare discounts for low-income youth, adults and seniors in BC as a targeted measure to improve affordability and equity for those most dependent on transit.
- d. Reviewing **TransLink's governance structure** to ensure that elected regional mayors are accountable to the public for decision-making at the agency commensurate with its growing responsibilities and revenues.



2. Overview of the scope to keep Access for Everyone on track

One-third of the Access for Everyone Plan, or the maximum operationally feasible scope (whichever is less).

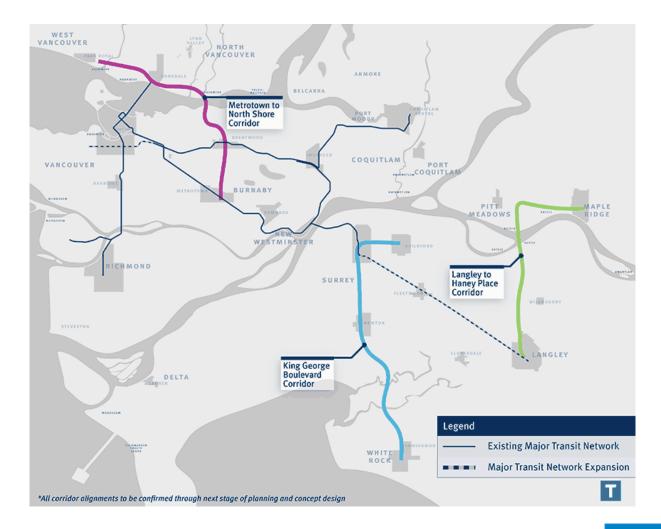


Deliver the first three of nine **Bus Rapid Transit** lines.

- King George Blvd
 - 23 kilometres
 - Improve access to SkyTrain and connect key town centres
- Langley-Haney Place
 - 22 kilometres
 - Connect to future SkyTrain and improve access to areas experiencing fastest rates of population and job growth

Metrotown-North Shore

- 21 kilometres
- Connect major destinations and improve connections to SkyTrain
- First extend the R2 RapidBus from Phibbs Exchange to Metrotown; Bus Rapid Transit in the near-term; ultimate rapid transit connection determined through Burrard Inlet Rapid Transit Program



Deliver the Burnaby Mountain Gondola.

- 2.7 km extension of the rapid transit network – moving 30,000+ people daily
- Short design and construction timeline (2-3 years)
- Benefits*
 - Doubles the people moving capacity, while cutting travel time in half
 - Reduces total travel time between 8-38 minutes
 - Reduces GHG emissions by 99%
 - 40% lower annual operating costs over 25 years



Approach to **increasing transit service** will deliver on the following *Access for Everyone's* objectives.



Make transit a **convenient alternative** by

- Introducing new Bus Rapid Transit routes and RapidBuses
- Addressing overcrowding
- Enhancing the Frequent Transit Network
- Better serving Transit-Oriented Communities



Improve **social equity** and advance **reconciliation** by providing better access for

- First Nations treaty/reserves and urban Indigenous people
- Equity-deserving communities
- Industrial workers



Improve access to nature by providing better access to

• Regionally significant parks and beaches

Increase bus service by 15% (the maximum operationally feasible until we expand depot capacity).

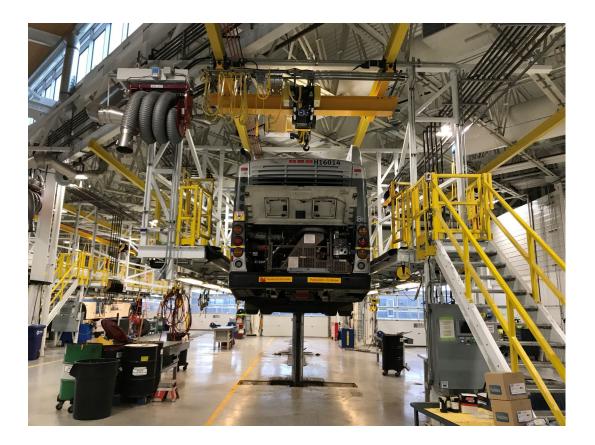
	Investment	% of total hours
Y	Make transit a convenient alternative	80%
	Introduce 3 new Bus Rapid Transit routes	23%
	Address overcrowding60% of overcrowding through 2028	33%
	Enhance the Frequent Transit Network	15%
	 Better serve Transit-Oriented Communities 3 new routes and 1 all-day route extension 	9%
	Improve service to unserved and underserved areas	18%
	 Better serve industrial workers and lands 4 new service areas and improvements to approximately 10 existing routes 	9%
	Better serve underserved communities, First Nations reserves, treaty lands, and urban Indigenous people • 3 new service areas and improvements to approximately 30 existing routes	9%
	Improve access to nature	2%
	 Provide better access to regionally significant parks and beaches 9 new seasonal service areas and 1 new specialized service; improvements to approximately 10 existing routes 	2%

Fund increases to all other services.

		Improvements	% Increase
Bus & SeaBus			
	BUS	 Service on BRT, address overcrowding and new service areas to parks and industrial employment areas 	+15%
	SEABUS	 Increase to 15-minute frequency in evenings Extend hours of service on Sunday evenings 	+10%
Rail			
	EXPO-MILL LINES	 Increase peak frequencies to address forecasted ridership through 2028 	+6%
	CANADA LINE	 Increase peak frequencies to address forecasted ridership through 2028 	+8%
	WEST COAST EXPRESS	 Add cars to address forecasted ridership through 2028 up to pre-COVID levels 	+14%
Pa	iratransit		
છે	HANDYDART	 Fund additional trips to respond to growing ridership through 2028 	+4%
Shared Micromobility			
	SHARED MICROMOBILITY	Support to expand shared micromobility across region	 Page

Deliver new and expanded **depots** to enable future increases to **bus** and **HandyDART** service.

- Our current and planned depots are already at capacity.
- The following investments enable future service increases:
 - Land and Construction of a New Zero-Emission Bus Depot
 - Land and Design for a Subsequent
 Zero-Emission Bus Depot
 - Two Community Shuttle Depots
 - Expansion and electrification of existing depots
 - New HandyDART Depot





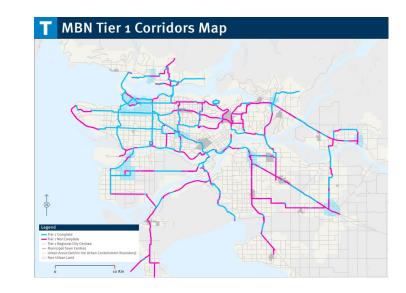
Deliver **new transit fleet and infrastructure** upgrades to support electrification, service expansion and greater resilience.

- Up to 175 expansion zero emission buses
- HandyDART vehicles
- Up to 110 expansion SkyTrain cars
- On-route chargers and other infrastructure
- Additional bus exchange capacity
- Ensure infrastructure more resilient to seismic, climate change and other risks
- One replacement SeaBus and associated infrastructure



Fund the first phase of the **Streets Program** investments envisioned in *Access for Everyone*.

- Deliver the first three years of AfE funding to help local governments and First Nations address walkway, bikeway, transit priority and road safety gaps.
 - Build missing sidewalks around transit in Urban Centres.
 - Fill key bikeway gaps in Major Bikeway Network and Regional City Centres.
 - Fund bus priority infrastructure focusing on high-delay corridors.
 - Fund broader road safety improvements to reduce injuries and fatalities.
 - Support First Nations communities to address walkway, bikeway, road safety gaps.
 - Fund maintenance of structures on the Major Road Network.



- Increase operations, maintenance and rehabilitation (OMR) funding for the Major Road Network.
 - 70% increase in per-km rate (to reflect rising costs to local road authorities)
 - 3.3% increase to Major Road Network lane-kms
- Deliver Golden Ears Way modifications to support goods movement and access.
 - Modifications to Airport Way/113b Avenue Interchange, and between the Highway 7 Interchange & 210 Street in Maple Ridge
 - Improves goods movement access generally and especially economic development for Katzie First Nation.

Next Steps

- Re-confirm proposed scope to keep us on track to deliver Access for Everyone by 2035 (today)
- Refine scope and funding for a 2025 Investment Plan (Jan-Feb 2025)
- 3. Confirm draft 2025 Investment Plan for consultation (late February)
- 4. Consult on draft 2025 Investment Plan (March)
- 5. Seek approval of 2025 Investment Plan (April)



That the Mayors' Council:

- **1.Request** staff continue advancing the 2025 Investment Plan based on the proposed scope outlined in this report; and
- 2. Receive this report.

