metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

METRO VANCOUVER REGIONAL DISTRICT
FINANCE AND INTERGOVERNMENT COMMITTEE

REGULAR MEETING

Wednesday January 20, 2021
1:00 pm
28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

A G E N D A[1]

OPENING REMARKS
Director Sav Dhaliwal, Board Chair

1. ADOPTION OF THE AGENDA

1.1 January 20, 2021 Regular Meeting Agenda
That the Finance and Intergovernment Committee adopt the agenda for its regular meeting scheduled for January 20, 2021 as circulated.

2. ADOPTION OF THE MINUTES

2.1 November 18, 2020 Regular Meeting Minutes
That the Finance and Intergovernment Committee adopt the minutes of its regular meeting held November 18, 2020 as circulated.

3. DELEGATIONS

4. INVITED PRESENTATIONS

4.1 Olga Kuznetsova, Vice President, Financial Services and Josh Ward, Supervisor, Capital Assets and Government Funding, TransLink
Subject: 2021 Application for Federal Gas Tax Funding from the Greater Vancouver Regional Fund

5. REPORTS FROM COMMITTEE OR STAFF

5.1 TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure
That the MVRD Board approve $154.13 million in funding from the Greater Vancouver Regional Fund for the following transit projects proposed by TransLink in its 2021

[1] *Note: Recommendation is shown under each item, where applicable.*

Application for Federal Gas Tax Funding as attached to the report dated January 8, 2021, titled "TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure":

1. 2022 HandyDART Vehicle Purchase – Replacement
2. 2022 Community Shuttle Purchase – Replacement
3. 2021 CMBC Service Support Vehicles – Replacement
4. 2021 BCRTC Service Support Vehicles – Replacement
5. BCRTC Elevating Devices – Elevators
6. BCRTC Elevating Devices – Escalators
7. 2023 Conventional Bus – Replacement
8. Port Coquitlam Transit Centre Facility Improvements for Phase 2 Expansion

5.2 2021 Finance and Intergovernment Committee Priorities and Work Plan

That the Finance and Intergovernment Committee endorse the work plan as presented in the report dated December 15, 2020 titled "2021 Finance and Intergovernment Committee Priorities and Work Plan".

5.3 Authorization to Attend Virtual 2021 Standing Committee Events

That the Finance and Intergovernment Committee approve virtual attendance at the following events within the 2021 Leadership and Engagement program:

- Air and Waste Management Association Conference
- Air Quality and Health Workshop
- APA National Planning Conference
- American Water Works Association Annual Conference
- BC Recreation and Parks Association Symposium
- BioCycle Conference
- Canadian Housing and Renewal Association National Congress
- Canadian Institute for the Administration of Justice Annual Conference
- Canadian Institute of Planners
- Housing Central Conference
- National Recreation and Parks Association Annual Conference
- Rail~Volution
- Recycling Council of BC Conference and Trade Show
- Renewable Cities Conference
- Solid Waste Association of North America Conference and Trade Show
- Special Parks District Forum
- Water Environment Federation Technical Exhibition and Conference
- Additional events approved by the Board Chair that align with the priorities of the appropriate standing committee.

5.4 Manager's Report

That the Finance and Intergovernment Committee receive for information the report dated, January 4, 2021, titled "Manager's Report".

6. INFORMATION ITEMS

7. OTHER BUSINESS

8. BUSINESS ARISING FROM DELEGATIONS

9. RESOLUTION TO CLOSE MEETING

Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

That the Finance and Intergovernment Committee close its regular meeting scheduled for January 20, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (c), (m) and 90 (2) (b) as follows:

"90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(c) labour relations or other employee relations;

(m) a matter that, under another enactment, is such that the public may be excluded from the meeting; and,

90 (2) A part of a meeting must be closed to the public if the subject matter being considered relates to one or more of the following:

(b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both and a third party."

10. ADJOURNMENT/CONCLUSION

That the Finance and Intergovernment Committee adjourn/conclude its regular meeting of January 20, 2021.

Membership:

Buchanan, Linda (C) - North Vancouver City
Dhaliwal, Sav (VC) - Burnaby
Booth, Mary-Ann - West Vancouver
Brodie, Malcolm - Richmond
Coté, Jonathan - New Westminster
Froese, Jack - Langley Township
Hurley, Mike - Burnaby
McCallum, Doug - Surrey
McCutcheon, Jen - Electoral Area A
McEwen, John - Anmore
Stewart, Kennedy - Vancouver
Stewart, Richard - Coquitlam
West, Brad - Port Coquitlam

METRO VANCOUVER REGIONAL DISTRICT
FINANCE AND INTERGOVERNMENT COMMITTEE

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Finance and Intergovernment Committee held at 1:02 p.m. on Wednesday, November 18, 2020 in the 28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Mayor Linda Buchanan*, North Vancouver City
Vice Chair, Councillor Sav Dhaliwal*, Burnaby
Mayor Mary-Ann Booth*, West Vancouver
Mayor Malcolm Brodie*, Richmond
Mayor Jonathan Coté*, New Westminster
Mayor Jack Froese*, Langley Township
Mayor Mike Hurley*, Burnaby
Mayor Doug McCallum*, Surrey
Director Jen McCutcheon*, Electoral Area A
Mayor John McEwen*, Anmore
Mayor Richard Stewart*, Coquitlam

MEMBERS ABSENT:
Mayor Kennedy Stewart, Vancouver

OTHERS PRESENT:
Mayor Val van den Broek*, Langley City

STAFF PRESENT:
Jerry W. Dobrovolny, Chief Administrative Officer
Lauren Cichon, Legislative Services Coordinator, Board and Information Services

1. ADOPTION OF THE AGENDA

1.1 November 18, 2020 Regular Meeting Agenda

It was MOVED and SECONDED
That the Finance and Intergovernment Committee adopt the agenda for its regular meeting scheduled for November 18, 2020 as circulated.

CARRIED

In accordance with the *Non-Member Attendance at Board and Committee Meetings Policy*, the Chair acknowledged attendance by Mayor Val van den Broek, Metro Vancouver's appointed representative to the Fraser Basin Council, in relation to items 4.2 and 5.1.

*denotes electronic meeting participation as authorized by Section 3.6.2 of the *Procedure Bylaw*

2. ADOPTION OF THE MINUTES

2.1 October 14, 2020 Regular Meeting Minutes

It was MOVED and SECONDED
That the Finance and Intergovernment Committee adopt the minutes of its regular meeting held October 14, 2020 as circulated.

CARRIED

3. DELEGATIONS

No items presented.

4. INVITED PRESENTATIONS

4.1 Evi Mustel, Principal, Mustel Group

Evi Mustel, Principal, Mustel Group, provided members with a presentation outlining the results of the public survey on Metro Vancouver Infrastructure projects and funding noting support for infrastructure investments and spending, and for senior levels of government funding support for regional projects.

Presentation material titled "Public Opinion of Metro Vancouver Infrastructure Projects and Funding" is retained with the November 18, 2020 Finance and Intergovernment Committee agenda.

Members expressed interest in the full report and the data related to the public opinion of Metro Vancouver Infrastructure projects and funding.

Request of Staff

Staff were requested to provide a copy of the PowerPoint presentation titled "Public Opinion of Metro Vancouver Infrastructure Projects and Funding", together with the companion report, to members for information.

4.2 David Marshall, Chief Executive Officer, Fraser Basin Council and Bob Purdy, Executive Vice President, Fraser Basin Council

David Marshall, Chief Executive Officer, Fraser Basin Council (FBC) and Bob Purdy, Executive Vice President, Fraser Basin Council, provided members with a presentation on Metro Vancouver and Fraser Basin Council's partnership highlighting FBC's strategic priorities, initiatives and programs.

Mayor Val van den Broek, Metro Vancouver Board-appointed FBC representative, was present at the meeting, and spoke to the importance of Metro Vancouver's long standing relationship with FBC.

Presentation material titled "Fraser Basin Council – Metro Vancouver Partnership" is retained with the November 18, 2020 Finance and Intergovernment Committee agenda.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Fraser Basin Council – Contribution Agreement 2021-2023

Report dated October 19, 2020, from Neal Carley, General Manager, Parks and Environment, seeking MVRD Board approval of an additional three-year Contribution Agreement with the Fraser Basin Council.

It was MOVED and SECONDED

That the MVRD Board approve a three-year Contribution Agreement with the Fraser Basin Council for an annual amount of $300,000 for the term January 1, 2021 to December 31, 2023, as presented in the report dated October 19, 2020, titled "Fraser Basin Council – Contribution Agreement 2021 - 2023".

CARRIED

5.2 Project Delivery Best Practice Response – Project Estimating Framework

Report dated November 6, 2020, from Cheryl Nelms, General Manager, Project Delivery, providing an update on the work of the Project Delivery Department regarding the development and deployment of Project Delivery Best Practice in the area of project cost estimating.

Members were provided with a presentation on Project Estimating Framework highlighting cost estimating and its impacts, best practices, and next steps.

Presentation material titled "Project Delivery Best Practice Response – Project Estimating Framework" is retained with the November 18, 2020 Finance and Intergovernment Committee agenda.

Members expressed interest in seeing the previous two presentations on the project delivery best practices.

Request of Staff

Staff were requested to provide a copy of the three presentations (as one package) that had been provided to Committee on project delivery best practices to members for information.

It was MOVED and SECONDED

That the GVWD/GVS&DD Board receive for information the report dated November 6, 2020, titled "Project Delivery Best Practice Response – Project Estimating Framework".

CARRIED

5.3 Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy

Report dated October 30, 2020, from the Performance and Audit Committee, together with report dated October 1, 2020, from Joe Sass, Director, Financial Planning and Operations, Financial Services, providing for the Committee's

consideration to discuss ESG/SRI investing considerations, and provide options for implementing ESG/SRI practices in Metro Vancouver's investment portfolio.

Members were provided with a presentation on the ESG and SRI Strategy highlighting the objectives, considerations, current ESG and SRI environments, strategy options, portfolio scenarios, and next steps.

Presentation material titled "Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy" is retained with the November 18, 2020 Finance and Intergovernment Committee agenda.

Main Motion
It was MOVED and SECONDED
That the MVRD Board:

a) endorse the recommended strategy as presented in the report dated October 1, 2020, titled "Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy", and direct staff to gradually implement ESG/SRI practices in Metro Vancouver's investments; and

b) approve the proposed update to the Corporate Investment Policy to reflect exclusion of investments in Fossil Fuel as presented in the report dated October 1,2020, titled "Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy".

Discussion ensued on including the term "gradually" in the *Corporate Investment Policy.*

Amendment to the Main Motion
It was MOVED and SECONDED
That the Finance and Intergovernment Committee amend the Main Motion in part b), at the end of the motion, by adding the following phrase:
"and further to reflect inclusion of the term "gradually" in the policy"

CARRIED

Question on the Main Motion as Amended
Question was then called on the Main Motion as amended and it was

CARRIED

The Main Motion as amended now reads as follows:
That the MVRD Board:

a) endorse the recommended strategy as presented in the report dated October 1, 2020, titled "Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy", and direct staff to gradually implement ESG/SRI practices in Metro Vancouver's investments; and

b) approve the proposed update to the Corporate Investment Policy to reflect exclusion of investments in Fossil Fuel as presented in the report dated October 1, 2020, titled "Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy", and further to reflect inclusion of the term "gradually" in the policy.

The proposed change to the policy will be included in the MVRD Board agenda for its November 27, 2020 Board meeting.

5.4 School and Youth Leadership Program: Engaging K-12 Audiences Through Curriculum and Leadership Programs

Report dated October 19, 2020, from Bruce Ford, Communications and Education Coordinator, External Relations, and Larina Lopez, Division Manager, Corporate Communications, External Relations, updating the Committee on the Metro Vancouver School and Youth Leadership Programs for K-12 students and teachers.

Members were provided with a presentation highlighting engaging K-12 students through curriculum and leadership programs, and shifting to virtual events due to the novel coronavirus (COVID-19 pandemic), and a video presentation providing an overview of the school and youth leadership programs. Presentation material titled "Metro Vancouver K-12 Education – School and Youth Leadership Programs" is retained with the November 18, 2020 Finance and Intergovernment Committee agenda; however, the video presentation material is not retained with the agenda.

It was MOVED and SECONDED

That the Finance and Intergovernment Committee receive for information the report dated October 19, 2020, titled "School and Youth Leadership Program: Engaging K-12 Audiences Through Curriculum and Leadership Programs".

CARRIED

5.5 2020 Budget - Status of Reserves

Report dated October 27, 2020, from Joe Sass, Director, Financial Planning and Operations, Financial Services, presenting for approval, additional reserve applications and transfers to those previously approved by the Board in November 1, 2019 and projecting the reserve balances of operating, discretionary and statutory reserves for 2020.

It was MOVED and SECONDED

That the MVRD/MVHC/GVWD/GVS&DD Board approve the application and transfer of reserves related to the expenditures and provisions as set out in Schedule 1 of the report dated October 27, 2020 titled "2020 Budget - Status of Reserves".

CARRIED

5.6 Establishment of a Task Force to Consider Reinstatement of Burrard Inlet Environmental Action Program – Fraser River Estuary Management Program (BIEAP – FREMP) Partnership

Report dated November 5, 2020, from Andjela Knezevic-Stevanovic, Director, Environmental Management and Quality Control, Liquid Waste Services, providing the Committee with an overview of the benefits of the coordinated environmental management in the region, and seeking the GVS&DD Board endorsement to invite senior government agencies' participation in a multi- stakeholder task force to consider feasibility and merits of reinstating the regional environmental collaboration partnership.

It was MOVED and SECONDED

That the GVS&DD Board write letters to the provincial Ministers of: (i) Environment and Climate Change Strategy; and (ii) Forests, Lands, Natural Resource Operations and Rural Development; the federal Ministers of: (iii) Environment and Climate Change Canada; (iv) Fisheries and Oceans Canada; and (v) Vancouver Fraser Port Authority to request their participation in a task force to consider feasibility of reinstating the Burrard Inlet Environmental Action Program – Fraser River Estuary Management Program Partnership, or establishment of an equivalent multi-stakeholder partnership for coordinated environmental management in the Metro Vancouver region.

CARRIED

5.7 Manager's Report

Report dated November 4, 2020, from Jerry Dobrovolny, Commissioner/Chief Administrative Officer, provided members with an update on the following:

- Finance and Intergovernment Committee Work Plan
- Resilient Region Strategic Framework
- Metro Vancouver's Forums on Systemic Racism taking place every Saturday in November, 2020.

It was MOVED and SECONDED

That the Finance and Intergovernment Committee receive for information the report dated November 4, 2020, titled "Manager's Report".

CARRIED

6. INFORMATION ITEMS

No items presented.

7. OTHER BUSINESS

No items presented.

8. BUSINESS ARISING FROM DELEGATIONS

No items presented.

9. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the Finance and Intergovernment Committee close its regular meeting scheduled for November 18, 2020 pursuant to the *Community Charter* provisions, 90 (1) (c), (g), and (i) as follows:

"90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(c) labour relations or other employee relations;

(g) litigation or potential litigation affecting the regional district; and,

(i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose."

CARRIED

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the Finance and Intergovernment Committee adjourn its regular meeting of November 18, 2020.

CARRIED

(Time: 2:47 p.m.)

_____ _____

Lauren Cichon, Linda Buchanan, Chair

Legislative Services Coordinator

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Mark Seinen, Senior Planner, Regional Planning and Housing Services

Date: January 8, 2021 Meeting Date: January 20, 2021

Subject: **TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure**

RECOMMENDATION

That the MVRD Board approve $154.13 million in funding from the Greater Vancouver Regional Fund for the following transit projects proposed by TransLink in its 2021 Application for Federal Gas Tax Funding as attached to the report dated January 8, 2021, titled "TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure":

1. 2022 HandyDART Vehicle Purchase – Replacement
2. 2022 Community Shuttle Purchase – Replacement
3. 2021 CMBC Service Support Vehicles – Replacement
4. 2021 BCRTC Service Support Vehicles – Replacement
5. BCRTC Elevating Devices – Elevators
6. BCRTC Elevating Devices – Escalators
7. 2023 Conventional Bus – Replacement
8. Port Coquitlam Transit Centre Facility Improvements for Phase 2 Expansion

EXECUTIVE SUMMARY

TransLink is requesting the approval of eight projects for funding from the Greater Vancouver Regional Fund totaling $154.13 million. The projects are drawn from TransLink's *2018-2027 Investment Plan* and *Low Carbon Fleet Strategy* and include: replacing 57 diesel buses with battery-electric buses; like-for-like replacement of 136 HandyDART, Community Shuttle and service vehicles; and upgrades to escalators and/or elevators at six SkyTrain stations. The eighth project involves upgrading electrification infrastructure at the Port Coquitlam Transit Centre, which is required to deploy the 57 battery-electric buses.

Staff recommend that the MVRD Board approve the gas tax funding, as the application is broadly consistent with the MVRD Board's policies on regional growth management, improving air quality, and climate protection, as well as the Board's interest in supporting economic prosperity.

PURPOSE

To present for MVRD Board consideration TransLink's 2021 application for funding from the Greater Vancouver Regional Fund (GVRF) in accordance with Metro Vancouver's Federal Gas Tax Fund Expenditures Policy (*GVRF Policy*) (Reference 1).

BACKGROUND

On December 22, 2020, Metro Vancouver received TransLink's 2021 GVRF application for $154.13 million (Attachment 1). With this application, TransLink is seeking approval of eight projects for

federal gas tax funding from the GVRF for transit fleet replacement, elevating devices and charging infrastructure.

The MVRD Board has approval authority over requests for GVRF funding. The Union of British Columbia Municipalities (UBCM) holds the federal gas tax funds and transfers the funds to TransLink upon formal notification by the MVRD Board of its approval of any applications per the *GVRF Policy*. Continuous investment in the expansion and modernization of the region's transit system is critical to achieving the MVRD Board's regional growth management, environmental, and economic strategic objectives. Since the program's inception in 2005, TransLink has received $1.457 billion from the GVRF, $685 million of which has been approved after the 2016 adoption of the *GVRF Policy* by the MVRD Board.

New Greater Vancouver Regional Fund Policy Requirements

The *GVRF Policy* sets out the application process, information requirements, and evaluation criteria that are to be used to evaluate and respond to TransLink's applications for GVRF funding. The *GVRF Policy* was revised in February 2020 with new requirements for TransLink to quantify emissions reduction benefits and integrate with *Metro 2040* (Reference 2). This is the first gas tax application reviewed under the revised *GVRF Policy* and its associated application guide.

TransLink has responded effectively to the new requirements in the *GVRF Policy* by:

- Adopting Metro Vancouver's target of a carbon neutral region by 2050; and
- Quantifying greenhouse gas (GHG) benefits through quantitative comparisons with baseline vehicles. For example, the 57 battery-electric buses in Project 7 will reduce emissions by 94 percent relative to diesel buses.

Additional information about the *GVRF Policy* and overarching Federal Gas Tax Administrative Agreement can be found in Attachment 2, and summaries of recently-approved GVRF applications in Attachment 3.

Impact of COVID-19 Pandemic

TransLink's application has been received during the COVID-19 pandemic amidst uncertainty about the future of transit expansion. Although the projects were identified prior to the pandemic, they remain essential despite today's lower transit ridership. This is because the projects focus exclusively on asset replacement and upgrades, rather than expansion. These "state of good repair" projects address the safety, accessibility and energy efficiency of the transit system, and are not readily deferred as a result of lower ridership. For example, a transit fleet cannot be operated safely after it has reached the end of its service life.

PROPOSED PROJECTS

TransLink is seeking approval for GVRF funding for eight projects totaling $154.13 million. Project descriptions, including costs and funding requests, are set out in Table 1. Seven of the eight projects involve replacement of existing assets, including transit vehicles (Projects 1, 2 and 7), support vehicles (Projects 3 and 4) and elevating devices (Projects 5 and 7). The eighth project is for electric infrastructure at Port Coquitlam Transit Centre (PTC) to support the deployment of battery-electric

buses. The projects are identified in TransLink's *2018-2027 Investment Plan* and *Low Carbon Fleet Strategy*.

Table 1 – 2021 GVRF Application Project Descriptions

Project	Scope	Units	($ millions)		
			Total Cost	Prior GVRF Funding	GVRF Funding Request
1. 2022 HandyDART Vehicle Purchase – Replacement	HandyDART vehicles	44	6.72	0.00	6.54
2. 2022 Community Shuttle Vehicle Purchase – Replacement	Community Shuttle vehicles	64	15.90	0.00	15.30
3. 2021 CMBC Service Support Vehicles – Replacement	Service vehicles	22	1.40	0.00	1.37
4. 2021 BCRTC Service Support Vehicles – Replacement	Service vehicles	6	0.41	0.00	0.39
5. BCRTC Elevating Devices – Elevators – Replacement	Elevators	7	11.81	0.00	11.22
6. BCRTC Elevating Devices – Escalators – Replacement	Escalators	3	6.68	0.00	5.47
7. 2023 Conventional Bus – Replacement	Battery-electric buses	57	88.74	0.00	86.09
8. PTC Infrastructure to Support Battery Electric Buses	Facility improvement	1	30.60	0.00	27.75
Total			**162.26**	**0.00**	**154.13**

Project Locations

The projects are to be deployed in the following locations:

- Upgrades to the Port Coquitlam Transit Centre and the associated purchase of 57 battery-electric buses will improve transit services operating out of PTC and contribute to reduced GHGs region-wide.
- Four of the proposed projects (i.e. the replacement of HandyDART, Community Shuttle and service vehicles) will be deployed throughout the region.
- Elevators will be replaced at the 29th Avenue, Patterson, Edmonds, Columbia and Waterfront SkyTrain Stations.
- Escalators will be replaced at Commercial-Broadway SkyTrain Station.

Project Timelines

TransLink's applications for federal gas tax funding are typically made about two years in advance of project initiation. For example, the most recent application, considered by the MVRD Board in 2019, contained projects scheduled for 2021. The current application includes projects from 2021 through 2023. TransLink has noted that this is due to the need to coordinate infrastructure and vehicle

projects to avoid gaps in service. In particular, there are long lead times in procuring the battery-electric buses and electrification infrastructure associated with Projects 7 and 8.

METRO VANCOUVER STAFF ANALYSIS

A summary of staff's analysis based on the evaluation criteria is presented below.

Screening Criteria. TransLink's application is complete and meets the screening criteria for eligibility, consistency with regional plans and alignment with TransLink's corporate policies. The projects represent a significant contribution towards the transit service expansion, state of good repair and electrification commitments set out in the *2018-2027 Investment Plan* and the *Low Carbon Fleet Strategy.*

Integrated Criteria. The projects score "Good" or better on integrated criteria relating to the Regional Growth Strategy, Transportation Performance, Regional Environmental Objectives and Economic Development.

Evaluation of Screening and Integrated Criteria

Table 2 assesses all eight projects in TransLink's application as a whole. Individual projects might score higher or lower if they were assessed separately. For example, Project 7 and 8 will significantly reduce GHGs by procuring battery-electric buses and upgrading the depot infrastructure to house this fleet, while Projects 1 and 2 will have negligible emissions benefits since they are like-for-like replacements of existing gasoline-powered vehicles.

Table 2 – Evaluation of Screening and Integrated Criteria

Criterion	Description	MV Staff Assessment
Screening Criteria		
Eligible Project Category	Local roads and bridges, including active transportation, OR public transit.	**Meets criterion.** All public transit infrastructure, including elevating devices, service vehicles and depot improvements, are eligible.
Eligible Expenses	As set out in the 2014 Administrative Agreement.	**Meets criterion.**
Plan Consistency	Projects **must be consistent** with TransLink's Capital Plan, *10-Year Investment Plan, the Regional Growth Strategy, and the Regional Transportation Strategy.*	**Meets criterion.** The projects are identified in TransLink's 2018-2027 Investment Plan and Low Carbon Fleet Strategy and are consistent with long-range regional plans.
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions, and infrastructure.	**Meets criterion.** The projects are identified in TransLink's 2018-2027 Investment Plan and Low Carbon Fleet Strategy.
Integrated Criteria: Regional Growth Strategy		
Supports the Regional Growth Strategy	The degree to which the project assists in achieving the goals in	**Good.** The projects will support mode shift and GHG reductions. However,

	the *Regional Growth Strategy* and directions set out in the *Metro Vancouver Board Strategic Plan.*	fleet replacement projects do not support the Regional Growth Strategy to the same extent as fleet expansion projects.
Urban Centres and Frequent Transit Development Areas	Where applicable, the project is located in, or demonstrates tangible benefits to, the overall performance of Urban Centres and Frequent Transit Development Areas.	**Excellent.** Battery-electric buses will improve connections between Urban Centres in the Northeast Sector; elevating devices will enhance accessibility at several SkyTrain stations in Urban Centres.
Integrated Criteria: Transportation Performance		
Headline Targets	Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/ cycle/ transit/ multiple occupancy vehicle mode share.	**Good.** Elevating devices improve accessibility, service vehicles support a state of good repair, and fleet upgrades improve customer experience – all of which support mode shift toward transit.
Other Transportation Outcomes	Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.	**Good.** These projects emphasize safety and passenger experience by enhancing universal accessibility and service reliability.
Project Type	Demonstrated value of the project type.	**Excellent.** Seven of the eight projects involve replacement of existing assets. Upgrading assets at the end of their service life is an essential investment in safety and system cost-effectiveness.
Integrated Criteria: Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	Contributes to the achievement of regional climate action and air quality goals, including directions set out in the *Metro Vancouver Board Strategic Plan*, the *Regional Growth* Strategy, *Climate 2050,* and the *Integrated Air Quality and Greenhouse Gas Management Plan.*	**Good.** The projects generally encourage mode shift away from private vehicles, and the replacement of 57 diesel buses with battery-electric buses will support regional air quality and emissions reduction objectives by reducing net GHG emissions by 7,239 tonnes of CO_2e per year, and emissions of harmful diesel particulate matter.
Quantifiable Emissions Impacts	Achieves quantifiable beneficial impacts on GHG and common air contaminant emissions relative to baseline transit vehicles, and lowers the emissions profile of the transit fleet.	**Good.** The replacement of 57 diesel buses with battery-electric buses will support regional air quality and emissions reduction objectives. Elevating device upgrades will improve energy efficiency. However, the conventional gasoline engine vehicle replacement projects will not have

		quantifiable emissions benefits. TransLink should continue to monitor opportunities to electrify the HandyDART, Community Shuttle and support vehicle fleet as these technologies become available, and consider focusing future gas tax applications on vehicle types that support battery-electric engines.
Integrated Criteria: Economic Development		
Supports Regional Prosperity	Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.	**Good**. The projects modernize the transit system to encourage mode shift and enhance safety.

ALTERNATIVES

1. That the MVRD Board approve $154.13 million in funding from the Greater Vancouver Regional Fund for the following transit projects proposed by TransLink in its 2021 Application for Federal Gas Tax Funding as attached to the report dated January 8, 2021, titled "TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure":
    1. 2022 HandyDART Vehicle Purchase – Replacement
    2. 2022 Community Shuttle Purchase – Replacement
    3. 2021 CMBC Service Support Vehicles – Replacement
    4. 2021 BCRTC Service Support Vehicles – Replacement
    5. BCRTC Elevating Devices – Elevators
    6. BCRTC Elevating Devices – Escalators
    7. 2023 Conventional Bus – Replacement
    8. Port Coquitlam Transit Centre Facility Improvements for Phase 2 Expansion

2. That the MVRD Board endorse in principle the report dated January 8, 2021, titled "TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure" and refer it to the Mayors' Council on Regional Transportation for comment prior to final consideration by the MVRD Board.

FINANCIAL IMPLICATIONS

If the MVRD Board approves alternative one, the UBCM will be notified within seven business days of the Board's decision to approve $154.13 million in GVRF funding for all of the projects in TransLink's application.

If the MVRD Board approves alternative two, the Metro Vancouver staff report and recommendations, along with the TransLink funding application, would be forwarded to the Mayors' council for comment prior to final consideration by the Board.

CONCLUSION

TransLink is requesting funding approval of $154.13 million from the Greater Vancouver Regional Fund to support eight projects to be completed over the next two years (2021-2023). TransLink proposes seven replacement projects, including replacement of 57 diesel buses with battery-electric buses and like-for-like replacement of 136 HandyDART, Community Shuttle, and service vehicles, along with replacement of escalators and/or elevators at six SkyTrain stations. The eighth project involves upgrading electrification infrastructure, which is required to deploy 57 new battery-electric buses. The application is broadly consistent with the MVRD Board's policies on regional growth management, air quality, and climate protection, as well as the Board's interest in supporting economic prosperity. Staff recommend alternative one.

Attachments: *(Doc# 43101523)*

1. TransLink's 2021 Application for Federal Gas Tax Funding, dated December 22, 2020.
2. Background on the Federal Gas Tax Administrative Agreement and Greater Vancouver Regional Fund Policy.
3. Summary of recent GVRF applications approved by the MVRD Board.

References

1. Metro Vancouver's Federal Gas Tax Fund Expenditures Policy.
2. Finance and Intergovernment Committee report, "Federal Gas Tax Fund Expenditures Policy Amendments," dated December 18, 2019.

43105149

Attachment 1

To: Jerry Dobrovolny, Chief Administrative Officer, Metro Vancouver

From: Christine Dacre, Chief Financial Officer, TransLink
Geoff Cross, Vice president, Transportation Planning and Policy, TransLink

Date: December 22, 2020

Subject: 2021 Application for Federal Gas Tax Funding from the Greater Vancouver Regional Fund

PURPOSE

TransLink is requesting the Metro Vancouver Regional District (Metro Vancouver) approve $154.13 million in Federal Gas Tax Funds (FGTF) from Greater Vancouver Regional Fund (GVRF). The two largest projects funded in the 2021 application will support the purchase of 57 zero emission battery-electric on-route charged buses, replacing 57 diesel engine buses and will also allow for the installation of battery-electric bus charging infrastructure and depot upgrades required to operate these replacement battery-electric on-route charged buses from Port Coquitlam Transit Center. This supports TransLink's Low Carbon Fleet Strategy (LCFS) and two significant Board approved sustainability targets: to reduce GHG emissions by 80 per cent by 2050, and to utilize 100 percent renewable energy in all operations by 2050.

In addition, this application incudes the replacement of 44 HandyDART vehicles, 64 community shuttles, 28 service support vehicles and 10 elevating devices at SkyTrain stations. These vehicles and devices are critical to ensuring the transit fleet and SkyTrain infrastructure remains in a state of good repair and the reliability of the transit system is maintained.

The funding requests detailed in this application are consistent with the 2018 Investment Plan (2018 Plan), approved by the TransLink Board and Mayors' Council in June 2018. Further, the change to electric buses and related infrastructure are consistent with TransLink's Low Carbon Fleet Strategy (LCFS). Both the 2018 Plan and the LCFS were approved by TransLink's Board of Directors and endorsed by the Mayors' Council in 2020. The 2018 Plan and LCFS advance the goals identified in TransLink's Regional Transportation Strategy, Metro Vancouver's Regional Growth Strategy and Metro Vancouver's new Climate 2050 goals.

This application is the administrative process to access the funding outlined and approved in the 2018 Investment Plan.

This request, will support the region's environmental policies, specifically:

- Metro Vancouver's *Integrated Air Quality and Greenhouse Gas Management Plan* (*IAQGGMP*) strategies:
    - Strategy 1.4 – Reduce air contaminant emissions from cars, trucks, and buses; and
    - Strategy 3.3 – Reduce the carbon footprint of the region's transportation system.
- *Metro Vancouver 2040: Shaping Our Future* (*Metro 2040*) actions to encourage transportation infrastructure that reduces energy consumption and greenhouse gas emissions and improves air quality:

- Action 3.3.6 – That TransLink pursue reductions of common air contaminants and greenhouse gas emissions from on-road transportation sources in support of regional air quality objectives and greenhouse gas reduction targets; and
- Action 3.3.7 – That TransLink manage its transit fleet and operations with the goal of increasing fuel efficiency and reducing common air contaminants and greenhouse gas emissions over time, in support of the Regional Growth Strategy and Air Quality Management Plan.
- The application will also support Climate 2050 Strategic Framework - most notably, the target of a carbon neutral region by 2050.

BACKGROUND

Since the GVRF program began in 2005, TransLink has received $1,457.72 million in funding to expand and modernise the transit network. Interest earned on funds received, which must be used for approved GVRF projects, totalled $51.49 million at December 31, 2019. Currently, there is $314.50 million in GVRF funds available to TransLink. Metro Vancouver Regional District and its member municipalities have specified that their portion of GVRF funding has to be allocated to public transportation, with a small amount allocated to the Community Works Fund. A summary of the funds and usage is provided below:

Greater Vancouver Regional Fund
(as of December 31, 2019)
In millions

Approved GVRF Funds	$1,457.72
Interest earned on funds received	51.49
Unapproved GVRF Funds	275.72
Total Gas Tax Funds	**$1,784.94**
Less	
Funds applied to completed projects	$(479.58)
[1]Approved funds for active projects	(819.68)
[2]Proposed AIP project funding	(156.69)
Interest allocated to completed projects	(14.49)
Funds Available for use	**$314.50**
[3]Proposed project Funding	**(154.13)**
Funds Remaining	**$160.37**

1. See table 1a of active projects with GVRF funding below. Excludes interest allocated to active projects
2. See table 1b of approved in principle projects with GVRF funding below.
3. See table 2 of proposed GVRF projects below

As required in this application process, Appendix A includes a summary of TransLink's strategic plan, the 2018 Investment Plan, including the projects funded or anticipated to be funded by the GVRF as well as other funding anticipated in the 2018 Plan. Additionally, Appendix B provides a short description of the categories listed in the 2018 Investment Plan (Appendix A).

Active Projects

Table 1a below shows the status of active projects with GVRF funding. The total forecasted project cost for active projects is $921.90 million, with $819.68 million in GVRF funds approved for these projects. At December 31, 2019, project costs totalled $742.05 million, with $629.93 million in GVRF funds spent.

Table 1a: Active Projects

Active Projects with GVRF Funding	# of Vehicles	Forecast Final Cost	Approved Funding	Costs to Date	Funds Spent	Unspent Funds
Metrotown - Trolley Overhead Rectifier Replacement	N/A	4.67	4.73	3.53	3.39	1.34
2016 Conventional Bus Replacement - 40'	85	61.28	57.26	57.93	53.50	3.77
2016 Conventional Bus Replacement - 60'	26	33.26	25.36	31.44	25.36	-
Surrey Transit Centre - CNG Facility Retrofit	N/A	15.80	4.00	15.80	4.00	-
Automated Train Control Equipment Replacement	N/A	4.75	4.50	4.35	4.27	0.23
2nd SeaBus Replacement	1	21.18	19.70	20.12	19.29	0.41
Hamilton Transit Centre	N/A	135.03	84.98	135.03	84.98	-
2016 Community Shuttle Vehicle Replacement	20	3.11	3.56	3.11	3.08	0.49
2017 HandyDART Vehicle Replacement	35	4.41	5.01	4.28	4.00	1.02
2017 Conventional Bus Replacement	106	110.93	105.99	110.50	103.80	2.18
SkyTrain Mark I Vehicle Refurbishment	N/A	28.49	24.36	24.79	13.99	10.37
2014 Conventional Bus	45	25.04	24.39	25.04	24.39	0.00

Active Projects with GVRF Funding	# of Vehicles	Forecast Final Cost	Approved Funding	Costs to Date	Funds Spent	Unspent Funds
2014 HandyDART Vehicle	65	7.59	7.52	7.59	7.52	0.00
2018 HandyDART Vehicle Replacement	40	5.17	5.61	5.10	4.80	0.81
2018 Conventional Bus Replacement	92	65.62	61.93	64.91	61.03	0.90
2018 Community Shuttle Vehicle Replacement	20	3.75	3.83	2.93	2.73	1.10
2018 40’ Conventional Bus Purchases - Expansion	94	91.76	85.58	91.36	85.58	-
2018 60’ Conventional Bus Purchases - Expansion	11	16.18	17.32	15.57	14.64	2.67
Equipment for Deferred Retirement Program	N/A	0.78	6.12	0.78	0.75	5.38
Electric Battery Bus Purchases - Pilot	4	9.12	6.89	8.40	6.89	0.01
2018 HandyDART Vehicle Purchases - Expansion	13	1.80	2.19	1.80	1.69	0.50
2018 Community Shuttle Vehicle Purchases - Expansion	12	2.01	3.18	2.01	1.88	1.30
2019 Conventional Bus Expansion - double decker	5	6.52	5.67	5.60	5.20	0.47
2019 Conventional Bus Expansion - 60' hybrid	47	75.86	68.13	65.18	60.52	7.61
2019 HandyDART Vehicle Purchase – Expansion	10	1.44	1.35	1.38	1.28	0.07
2019 Double Decker Bus Purchase – Replacement	27	33.81	30.00	24.15	22.70	7.30

Active Projects with GVRF Funding	# of Vehicles	Forecast Final Cost	Approved Funding	Costs to Date	Funds Spent	Unspent Funds
2019 HandyDART Vehicle Purchase – Replacement	40	5.47	5.20	5.37	4.99	0.21
2019 Community Shuttle Purchase – Replacement	49	11.41	10.80	4.00	3.70	7.10
2020 Conventional - Replacement	25	32.44	29.08	-	-	29.08
2020 Conventional - Expansion	61	100.74	103.45	-	-	103.45
2020 Community Shuttle	9	2.47	2.00	-	-	2.00
Total	**942**	**921.90**	**819.68**	**742.05**	**629.93**	**189.75**

Approved in Principle Projects

Table 1b below shows the projects with GVRF funding which are approved in principle ("AIP") as at December 31, 2019 for a total of $156.69 million. GVRF funding for these projects was approved by the Board of Directors of Metro Vancouver Regional District on October 26, 2018 and November 1, 2019.

Table 1b: Approved in principle projects

AIP Projects with GVRF Funding	# of Vehicles	Approved Funding
2020 HandyDART - Replacement	42	6.13
2020 HandyDART - Expansion	10	1.44
2021 Conventional 60-ft and 40-ft Bus Purchase – Expansion	78	107.82
2021 HandyDART Vehicle Purchase – Replacement	42	6.38
2021 HandyDART Vehicle Purchase – Expansion	10	1.56
2021 Community Shuttle Vehicle Purchase – Replacement	62	13.69
2021 Community Shuttle Vehicle Purchase – Expansion	9	2.44
Mark 1 500-800 Refurbishment	N/A	17.23
Total	**253**	**156.69**

PROPOSED PROJECTS AND FUNDING

This application is requesting $154.13 million for seven projects, as shown in Table 2. The projects are consistent with the 2018 Plan and the 10-Year Mayors' Vision. Detailed project descriptions are included in Appendix C.

Table 2: Summary of Projects, Total Costs, and Gas Tax Funding Request

Projects	Scope	($ millions)	
		Total Project Budget	Requested Gas Tax Funding
2022 HandyDART Vehicle Purchase - Replacement	44 HandyDART Vehicles	6.72	6.54
2022 Community Shuttle Vehicle Purchase - Replacement	64 Community Shuttle Vehicles	15.90	15.30
2021 CMBC Service Support Vehicles - Replacement	22 Service Vehicles	1.40	1.37
2021 BCRTC Service Support Vehicles - Replacement	6 Service Vehicles	0.41	0.39
BCRTC Elevating Devices - Elevators Replacement	7 Elevators	11.81	11.22
BCRTC Elevating Devices Escalators Replacement	3 Escalators	6.68	5.47
2023 Conventional Bus - Replacement	57 Battery-Electric Buses	88.74	86.09
PTC Infrastructure to Support Battery Electric Buses	Facility Improvement	30.60	27.75
Total		**162.26**	**154.13**

Fleet Propulsion Selection

All vehicle projects are evaluated based on vehicle purchase cost, fuel and maintenance cost, life-cycle cost, emissions of GHG, NOx, Hydrocarbon and particulate matter (PM), and aspects of vehicle performance and customer and driver environment such as noise and ride quality. Route characteristics such as topography and average route speed (based on bus stop spacing and traffic conditions) can affect the performance of different technologies. Fuel infrastructure and depot space are considerations in fleet deployment. TransLink considers all these factors in identifying the most advantageous propulsion technology for different vehicle projects, consistent with financial and environmental goals and policies. Based upon the most current information and policy direction, diesel propulsion is no longer a preferred option for any of our operations compared to CNG, hybrid-electric or full zero emission battery-electric, except for highway routes. Diesel propulsion is still the preferred option for highway routes as CNG or diesel-hybrid have higher capital cost and marginal emissions reduction due to higher operating speeds.

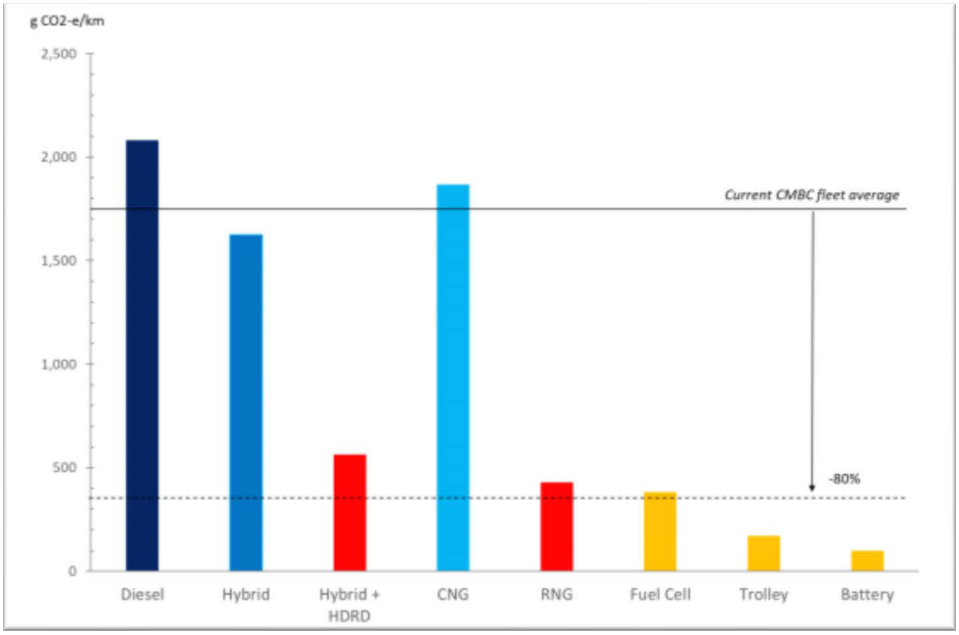
Fleet procurement projects are brought to an internal steering committee to ensure alignment with the Investment Plan and Regional Transportation Strategy, consider operational aspects to fleet deployment, prioritize the projects, and submit the business cases and project financials. Projects are then reviewed by TransLink's Senior Executive to ensure that the business case and financials are sound, and to evaluate the project against TransLink's affordability criteria. The final list of recommended capital projects is submitted to TransLink's Board of Directors for approval within the Annual Capital Budget.

Selection of propulsion technology for vehicle replacement projects in this application also considers the following:

- Hybrid and battery-electric propulsion HandyDART and Community Shuttle vehicles are not currently market ready or suitable for the service needs. TransLink's team consistently does market scans for these options and will recommend these when deemed viable.
- Replacing the 40' diesel conventional buses with battery-electric buses result in zero tailpipe greenhouse gas and criteria air contaminant emissions. Emissions from battery-electric buses are based on projected electricity use (kWh/km) and current average electric generation emissions (g/kWh) in British Columbia, of which approximately 90 percent is from zero-carbon hydro sources. TransLink assessed bus fleet emissions through the Low Carbon Fleet Strategy[1] work, and the results indicate that tailpipe and upstream (lifecycle) emissions are reduced by over 90 per cent through battery-bus electrification.

[1] Low Carbon Fleet Transition Plan: https://www.translink.ca/-/media/translink/documents/about-translink/policies/translink_low_carbon_fleet_transition_plan_20200224.pdf

Figure 1: Emission profiles of various propulsion types[2]



Project Summaries

2022 HandyDART Vehicle Purchase - Replacement: This project procures forty-four (44) HandyDART vehicles to retire vehicles that have reached the end of useful life. These new vehicles will support maintaining transit system reliability for HandyDART trips. The replacement vehicles are gasoline vehicles replacing gasoline vehicles.

2022 Community Shuttle Purchase - Replacement: This project will procure sixty-four (64) community shuttles to retire vehicles that have reached the end of useful life and to modernize the vehicle fleet.

2021 CMBC Service Support Vehicles - Replacement: This project will procure twenty-two (22) service vehicles to retire vehicles that have reached the end of useful life. The replacement support service vehicles include four (4) transit security vehicles, four (4) transit supervisor vehicles, three (3) cargo vans for facilities maintenance, five (5) administrative vehicles and, six (6) utility vehicles.

2021 BCRTC Service Support Vehicles - Replacement: This project will procure a total of six (6) service vehicles in the fleet to retire vehicles that have reached the end of useful life. The replacement support service vehicles include three (3) road-going vehicles, two (2) utility vehicles, one (1) tractor pusher.

BCRTC Elevating Devices - Elevators: This project will procure and install a total of seven (7) Expo Line elevators to replace elevators at the stations located at 29th Avenue, Paterson, Edmonds (2), Columbia (2), West Coast Express.

[2]Low Carbon Fleet Transition Plan: https://www.translink.ca/-/media/translink/documents/about-translink/policies/translink_low_carbon_fleet_transition_plan_20200224.pdf

BCRTC Elevating Devices - Escalators: This project will procure and install a total of three (3) APTA / Transit grade escalators at the Commercial-Broadway station servicing both the Expo and Millennium Lines.

2023 Conventional Bus Replacement: This project will procure fifty-seven (57) 40' battery-electric buses to replace diesel buses which have reach the end of useful life.

PTC Facility Improvement for Phase 2 Expansion: This project will design, procure and install the charging infrastructure required to operate and maintain on-route charged battery-electric buses out of the Port Coquitlam Transit Centre.

Deployment of Proposed Projects
Replacement vehicles will service areas as set out in Table 3 below.

Table 3. Deployment of proposed replacement vehicle projects

Project Type	# of Replacement Vehicles for 2022/23 (Current Application)	Service Areas for 2022/23 Vehicles
Community Shuttle Purchase – Replacement	64	Region-wide
HandyDART Vehicle Purchase – Replacement	44	Region-wide
Conventional Battery-Electric Bus Purchase - Replacement	57	NE Sector

BENEFITS

Improving Accessibility
The continued transition to step less low-floor community shuttles across the system will improve accessibility with a front door deployable ramp and kneeling feature that is presently not available with existing high-floor shuttle vehicles.

Emissions Reduction

Table 4: Emissions reductions from vehicles relative to baseline diesel projects

Projects	Propulsion	GHG Approx. Impact	NOx Approx. Impact	PM Approx. Impact
2022 HandyDART Vehicle Purchase – Replacement[1]	Gasoline	No change for gasoline to gasoline No zero emission vehicles on the market	No change as gasoline to gasoline	No change as gasoline to gasoline
2021 Community Shuttle Vehicle Purchase – Replacement	Gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline
2021 CMBC Service Support Vehicle - Replacement	Gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline
2021 BCRTC Service Support Vehicle - Replacement	Gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline	No change as gasoline to gasoline
2023 40'Conventional Battery-Electric Bus - Replacement	Battery-Electric	100 per cent (tailpipe)	100 per cent (tailpipe)	100 per cent reduction (tailpipe)

RISKS

This request for GVRF funding will allow TransLink to begin procurement of these vehicles by early 2021 to ensure deliveries in 2021, 2022 and 2023. If funding is not received in time, TransLink will have to continue to rely on deferred retirement vehicles. Continued use of deferred retirement vehicles pose a risk to reliability, as well as further cost in terms of continued maintenance and additional equipment costs to keep them in service. Furthermore, this would result in higher GHG and criteria air contaminant (CAC) emissions than new vehicles.

CONCLUSION

TransLink relies on the FGTF, made available through the GVRF, to be able to modernize vehicles and devices that have reached the end of their useful life and are ready for replacement. Further, the approval of the requested application will allow TransLink to procure the vehicles necessary to ensure TransLink's revenue vehicle fleets, service support vehicles and escalating devices are in a state of good repair, avoiding increased maintenance costs and protecting the reliability of the transit system. The application supports Metro Vancouver's *Metro 2040* in supporting urban centres and frequent transit development areas and encouraging transportation choices. Finally, reduction of GHG and CAC emission supports the environmental goals of Metro Vancouver's *IAQGGMP* and *Metro 2040, Climate 2050 goals,* and TransLink's LCFS.

Appendix A

TransLink 2018-2027 Investment Plan Capital Program and Funding Sources

	Project Budget	Project Expenditure prior to 2017	2017 Project Expenditure	Final Forecast Cost	Forecast Cost to Complete	Other Funding	Approved GVRF Funding	Requested GVRF Funding	Planned future GVRF Funding	Total GVRF Funding
Bus										
Equipment	**20,698**	**732**	**998**	**36,084**	**34,354**	**(9,122)**	**-**		**-**	**-**
Facilities	**23,365**	**246**	**8,801**	**93,479**	**84,432**	**(16,313)**	**-**		**-**	**-**
Infrastructure										
Depots	256,435	8,238	16,414	257,834	233,182	(77,091)	(4,000)		-	(4,000)
Exchanges	69,703	771	20,416	120,495	99,309	(46,657)	-		-	-
Other	75,406	3,646	15,777	112,405	92,983	(22,588)	-		-	-
Trolley Overhead	20,676	918	4,353	103,083	97,812	(10,439)	(4,725)		(0)	(4,725)
Technology	**7,216**	**311**	**1,918**	**9,547**	**7,318**	**-**	**-**		**-**	**-**
Vehicle Non-Revenue	**488,890**	**(14)**	**1,884**	**21,642**	**19,773**	**-**	**-**		**-**	**-**
Vehicle - Revenue										
Conventional Buses	513,420	59,777	21,437	1,960,466	1,879,252	-	(530,413)	(132,584)	(1,173,084)	(1,836,081)
Community Shuttles	27,106	1,105	12,627	129,410	115,678	-	(35,714)	(2,000)	(84,279)	(121,993)
Handy Darts	34,323	285	163	109,735	109,287	-	(17,168)	(7,528)	(64,340)	(89,037)
Sea Bus	37,356	1,486	13,051	35,927	21,390	(17,001)	(19,697)		-	(19,697)
Corporate										
Equipment	**1,511**	**379**	**1,121**	**1,725**	**225**	**-**	**-**		**-**	**-**
Facilities	**17,620**	**2,235**	**33**	**8,220**	**5,952**	**-**	**-**		**-**	**-**
Infrastructure										
Bridges	27,310	1,362	3,738	27,546	22,446	-	-		-	-
Depots	1,201	18	844	862	-	-	-		-	-
Other	4,352	660	1,621	17,141	14,861	(3,241)	-		-	-
Major Construction	**23,754**	**(1,373)**	**20,874**	**19,501**	**-**	**-**	**-**		**-**	**-**
Technology	**54,204**	**3,985**	**25,220**	**230,621**	**201,416**	**-**	**-**		**-**	**-**
Vehicle Non-Revenue	**9,988**	**-**	**1,238**	**5,811**	**4,573**	**-**	**-**		**-**	**-**
Rail										
Equipment	**84,883**	**6,121**	**20,586**	**155,799**	**129,091**	**(35,975)**	**(4,500)**		**0**	**(4,500)**
Facilities	**666,465**	**1,444**	**2,623**	**593,455**	**589,388**	**(600,518)**	**-**		**-**	**-**
Infrastructure										
Other	4,696,180	8,473	57,387	4,832,043	4,766,183	(3,548,008)	-		-	-
Stations	416,437	63,998	72,265	422,658	286,395	(128,683)	-		-	-
Wayside	18,470	888	10,996	46,646	34,761	(7,128)	-		-	-
Technology	**48,869**	**2,412**	**3,246**	**52,743**	**47,084**	**(0)**	**-**		**-**	**-**
Vehicle Non-Revenue	**718**	**5**	**669**	**3,096**	**2,421**	**-**	**-**		**-**	**-**
Vehicle - Revenue										
Canada Line	88,000	-	44,000	88,000	44,000	(79,853)	-		-	-
Sky Train	1,064,925	54,428	43,907	1,230,239	1,131,904	(939,213)	(24,360)		(40,055)	(64,415)
West Coast Express	21,000	-	-	23,235	23,235	(20,750)	-		-	-
Roads and Bridges										
Infrastructure										
Bike	13,410	47	2,504	35,382	32,831	-	-		-	-
Bridges	37,192	14,373	6,477	56,350	35,501	(150,000)	-		-	-
Road Network										
Infrastructure										
Bicycle Infrastructure	58,722	155	33	93,396	93,208	-	-		-	-
Major Road Network	255,895	140	1,419	165,611	164,053	-	-		-	-
MRNB Pavement rehab and BICCS	53,013	-	31,936	293,505	261,569	-	-		-	-
Transit Priority Implementation Program	10,062	-	-	486	486	-	-		-	-
Grand Total	**9,248,774**	**237,252**	**470,576**	**11,394,180**	**10,686,353**	**(5,712,579)**	**(640,579)**	**(142,112)**	**(1,361,759)**	**(2,144,449)**

Note: The above summary has been updated since the release of TransLink's Phase Two Investment Plan for the following:

- Some Projects categorized as "Corporate" were reclassified as "Rail" to better align with those projects' scope

Appendix B

Descriptions of items in the Capital Program

TransLink 2018-2027 Investment Plan Project Summary	Project Descriptions
Bus	
Equipment	A wide variety of equipment required to maintain and manage TransLink's systems related to the bus network. Examples include communication on system and camera equipment replacement and SeaBus terminal elevator/escalator replacement.
Facilities	Includes improvement projects such as garage roof replacements, hoist replacements, SeaBus Maintenance Dock Expansion; and other projects related to mechanical and civil retrofits to facilities. Also includes PowerSmart upgrades partially funded by BC Hydro.
Infrastructure	
Depots	Includes the new bus depot expansion and improvement to existing depot such as the Hamilton Transit Centre.
Exchanges/Bus loops	Various repairs, replacements and upgrades to keep the exchanges/bus loops in a state of good repair. For example, replacement of lighting and security equipment, shelters and crew washroom facilities. Also includes projects related to priority B-Line corridors.
Other	Includes general projects related to bus infrastructure such as maintenance and rehabilitation of SeaBus Infrastructure and other facilities and paving replacement.
Trolley Overhead (TOH)	Includes projects related to maintenance of infrastructure related to the trolley buses such as cables, poles and rectifier buildings and equipment.
Technology	Includes replacement of the Bus Daily Operations Management System as well as other projects related to software modernization and replacement.
Non-Revenue Vehicles	Includes modernization of non-revenue generating vehicles used by Transit supervisors, security and maintenance staff.
Revenue Vehicles	
Conventional Buses	Fleet expansion and modernization of conventional buses to support maintenance of the transit system and realize benefits such as reduced congestion and emissions.
Community Shuttle	Fleet expansion and modernization of community shuttle vehicles to support maintenance of the transit system and realize benefits such as reduced congestion and emissions.
HandyDART	Fleet expansion and modernization of HandyDART vehicles to support maintenance of the transit system and provide mobility to those with accessibility issues.
SeaBus	Procurement of one additional SeaBus vessel, retrofit of an older SeaBus vessel and projects related to ensuring TransLink continues to meet Transport Canada safety standards and also to reduce maintenance and repair costs associated with ageing assets.

TransLink 2018-2027 Investment Plan Project Summary	Project Descriptions
Corporate	
Equipment	A wide variety of equipment such as Ad Panels and radios for Transit Police.
Facilities	Includes renovation and upgrades to offices and related facilities.
Infrastructure	
Bridges	Includes Pattullo Bridge Rehabilitation Construction
Depots	Infrastructure being built at the UBC Bus Terminal
Other	Includes various general projects related to corporate infrastructure such as efficiency improvement and compliance.
Technology	Includes projects related to upgrades of various IT applications and systems, security programs, data warehousing etc.
Vehicles Non-Revenue	Includes projects related to non-revenue generating vehicles such as TransLink Police cars and administration vehicles.
Rail	
Equipment	A wide variety of equipment required to maintain and manage the SkyTrain lines. Examples include power supply installations, automatic train control equipment, station equipment, passenger address systems etc.
Facilities	Includes projects related to maintaining and upgrading facilities such as the operations maintenance and control centre. Examples include space modernization, safety upgrades, yard track reconditioning, seismic upgrades and land improvement cost for the Expo and Millennium Upgrade Program.
Infrastructure	
Other	Includes other rail infrastructure projects related to station escalator replacements, upgrades of guideway and running rail infrastructure, seismic upgrades, and various projects related to the Millennium Line Broadway Extension and Surrey - Langley Light Rail Train.
Stations	Includes projects related to upgrading SkyTrain stations consisting of station upgrades such as the Burrard, Surrey Central and Joyce Collingwood stations as well as minor equipment upgrades such as roof replacements to ensure assets are maintained in a state of good repair.
Wayside	Includes projects related to the propulsion power system for SkyTrain.
Technology	Includes projects related to the upgrade of various software and systems related to the smooth running of the train system.
Non-Revenue Vehicles	Includes projects related to non-revenue generating vehicles used by SkyTrain staff to respond to emergency and routine maintenance.
Revenue Vehicles	
Canada Line	Includes projects related to fleet expansion of the Canada Line cars.
SkyTrain	Includes acquisition of additional SkyTrain cars for Expo and Millennium Line fleet expansion, the refurbishment, mid-life overhaul or replacement of older SkyTrain cars.
WCE	Includes fleet expansion of the West Coast Express cars and refurbishment of 6 locomotives.

TransLink 2018-2027 Investment Plan Project Summary	Project Descriptions
Roads and Bridges	
Infrastructure	
Bikes	Includes projects related to the TransLink owned bicycle infrastructure.
Bridges	Includes rehabilitation of the Pattullo Bridge, rehabilitation of the Knight Street Bridge as well as other projects related to the Westham Island Bridge.
Roads Network	
Infrastructure	
Bike Infrastructure	Includes TransLink's contribution to bicycle infrastructure programs for municipal owned pathways.
MRN	Consists of TransLink's contributions to municipalities for rehabilitation of the Major Road Network (MRN).
MRNB pavement rehab and Bicycle Infrastructure Capital Cost Sharing Program	Consists of projects in three major categories: 1) TransLink's contribution to the MRN Pavement rehabilitation, 2) Minor capital funding to complete and improve as well as encourage construction of more bicycle routes and remove existing barriers to cyclists, and 3) Funding for bicycle infrastructure improvements across the region

Appendix C

Project Applications for the Greater Vancouver Regional Fund Cover Page

The Mayors' Council 10-Year Vision (10-Year Vision) on regional transportation outlines a long-term, region-wide, integrated, multi-modal transportation vision to fight congestion, reduce greenhouse gas (GHG) emissions and to keep a fast-growing gateway economy, of almost 2.5 million residents, moving. The 10-Year Vision is built on 3 key strategies to achieve necessary improvements: **invest** in the most urgent and effective investments, **manage** the system more effectively and **partner** to ensure that supportive conditions are in place for these investments to succeed. Following adoption by the Mayors' Council, in June 2014, the 10-Year Vision was subsequently endorsed by the TransLink Board, as the implementation blueprint for the Regional Transportation Strategy (RTS). The 10-Year Vision includes a package of investments aimed at addressing the most basic needs for enhancements to the regional transportation network, allowing the network to keep up with growth in population and employment. It outlines the following transportation priorities related to bus service in the region:

- 25% increase in bus service across the region
- 200 more kilometres of B-Line or Better routes
- More frequent all-day service
- More frequent peak hour service
- Service to new and growing lower density neighbourhoods
- 80% more NightBus service

On June 28, 2018, the TransLink Board and Mayors' Council approved the 2018-2027 Investment Plan (2018 Investment Plan), building on top of the 2017-2026 Investment Plan. The 2018 Investment Plan delivers the year of 2021 and 2022 of the 10-Year Vision, specifying new services and infrastructure, as well as strategies to make the transportation system more efficient, innovative and sustainable. The 2018 Investment Plan expands transit service across the region to increase system capacity, reduce overcrowding, and introduce new bus service to new areas. The 2018 Investment Plan outlines actions and policies to advance the goals identified in TransLink's long-term Regional Transportation Strategy and to support the goals identified in Metro Vancouver's Regional Growth Strategy, *Metro Vancouver 2040: Shaping Our Future* (*Metro 2040*) and the new Climate 2050 goals. Some of the highlights for bus service included in the 2018 Investment Plan are:

- 7% increase in HandyDART service, 8% increase in bus service;
- Improved service on at least 75 different bus routes;
- Two new B-Line routes in 2020 and 2021; and
- New bus service to four new service areas and restructure

These projects support the 10-Year Vision through its strategy to invest in urgent and effective investments. Through expansion and modernization of its fleet, TransLink will be able to increase bus service, and provide more frequent and new service, and in the process meet a number of 10-Year Vision priorities. This project will also support desired outcomes from the 10-Year Vision, such as reducing transit

overcrowding as well as supporting Metro Vancouver's *Integrated Air Quality and Greenhouse Gas Management Plan (IAQGGMP)*.

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 1 2022 HandyDART Vehicle Purchase – Replacement
(Ref# 212140)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan.

This is a state of good repair project identified for GVRF funding in the 2018 Investment Plan

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

HandyDART vehicles are operated and maintained by TransLink's contractors First Canada ULC and Nat's Repair. These vehicles provide a valuable service to people with disabilities and are booked through a reservation system, with each vehicle being able to accommodate up to 2 wheelchairs.

Criteria for identifying vehicles due for retirement are based on a number of factors including:

- Age (life expectancy of 7 years for microbuses and midibuses);
- Mileage (generally 250,000 km);
- State of repair/condition; and
- Severity of service duty cycle.

These vehicles must be replaced when they reach end of service life, because maintenance costs and downtime will increase substantially, affecting passenger service reliability. By 2021, major components (e.g. engine, transmission), minor components (e.g. air conditioning, wheelchair lift), and chassis and body (e.g. cracked frames, rusted doorframes, rotting floors) will be worn out.

This project is to replace forty-four (44) HandyDART vehicles that have reached the end of service life and meet criteria for replacement, with 44 new vehicles consisting of 38 microbuses and 6 midibuses. This project is consistent with the 2018 Investment Plan, approved in June 2018 by the Mayors' Council and the TransLink Board.

The vehicles due to retire were acquired in 2014 and 2015, have a median age of 7-8 years and median mileage of 250,000 km. The new vehicles will have a capacity of 8 passengers for microbuses and 12 passengers for midibuses.

TransLink strives to optimize its resource allocation by matching service to passenger demand, which includes allocating vehicles of an appropriate size to serve the demand on a route. Optimization is achieved through continuous review and process planning to allocate resources where they are most needed. This process is informed by ridership data, which has been substantially enhanced with the deployment of Compass Card. TransLink has also undertaken recent work to determine optimal fleet propulsion technology on each route, which is interdependent with vehicle size.

The fleet propulsion technologies currently available to TransLink consist of only conventional gasoline engines, as hybrid gasoline, hybrid diesel or battery-electric propulsion are not available for these vehicles. Although diesel engines are available for the 38 microbuses being acquired, they are not considered due to the high maintenance costs. Choices of vehicle size and propulsion types will continue to be optimized, as determined by the ongoing monitoring of ridership and propulsion technologies. This may result in the vehicle technology mix changing if it is subsequently determined that a different mix better optimizes our resource allocation.

Tangible Benefits and Outcomes

The new vehicles will allow CMBC to maintain existing service, reduce downtime, and avoid incremental operating and maintenance costs.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $6,720,000 with a GVRF funding request of $6,533,000. Expenses covered by this budget primarily include vehicle procurement, ancillary onboard equipment and labour, and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the application.

This project was identified for GVRF funding in the 2018 Investment Plan (Appendix A, Table 8) and is a state of good repair project. State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications. This state of good repair project ensures that TransLink can deliver the HandyDART service outlined in the 2018 Plan.

2. Project Name

2022 HandyDART Vehicle Purchase – Replacement (Ref# 212140)

3. Project Need and Location

The objective is to maintain high quality customer service while reducing maintenance and operating costs and continuing to provide reliable, fully accessible transit vehicles.

The criteria for achieving these objectives are avoidance of incremental maintenance and operating costs, reduced vehicle breakdowns and vehicle downtime, improved accessibility and fewer reservation cancellations.

HandyDarts are a demand responsive service throughout the region; as such, they do not operate on specific routes.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.
☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2022	**2022**	**2022**	**N/A**	**2029**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$6,720,000	$0	$6,720,000	$6,720,000	$0

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	$6,533,000	N/A

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget		$5,997,100	$535,900			
Total Project Budget		$6,151,190	$568,810			

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project ensures TransLink's assets are maintained in a state of good repair, to allow TransLink to efficiently and effectively provide transit service to those who have accessibility challenges.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding for replacement of its revenue vehicle fleets and plans its annual budgets accordingly. The other sources of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The

projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

TransLink requires these vehicles to be in service for 2022 in order to retire vehicles reaching the end of their useful service lives. There is an approximate lead time of 12 to 18 months between TransLink ordering the vehicles and those vehicles entering service. As such, it is important to have the funding in place to ensure the timely retirement of vehicles before they reach the end of their useful service lives.

If funding is not received in time, TransLink will have to rely on deferred retirement vehicles to deliver transit service. Continued use of deferred retirement vehicles poses a risk to reliability, as well as increases incremental maintenance costs to keep them in service. This may result in lost opportunities to realize goals of reduced congestion, improved peak hour service and frequency. Further, use of deferred retirement vehicles could also result in higher CAC and GHG emissions than new vehicles.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rates fluctuations (as parts are procured from the USA) and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers are experiencing larger demands to order vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

This application is based on the new vehicles being powered by conventional gasoline engines. TransLink needs to consider that these vehicles are operated and maintained by contractors who may not be able to support fueling or maintenance for a change in propulsion technology.

TransLink does not anticipate vendors providing alternative fuel/propulsion options for HandyDART vehicles that meet our needs to deliver reliable and cost-effective service to customers in the immediate future. TransLink continues to monitor the vehicle technology industry very closely to identify what options are available in the market, and to evaluate their suitability for its fleet.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time for vehicle delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to manufacture the vehicles if shutdowns occur. Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

This is a like-for-like replacement. TransLink is currently focusing the Low Carbon Fleet Strategy (LCFS) (with support from the Mayors' Council) on the conventional bus fleet which make up more than 80 per cent of fleet emissions. The conventional bus fleet transition to battery-electric buses is the biggest opportunity for GHG reductions, and the main focus of the LCFS. Currently there are no suitable market ready battery-electric vehicles that meet the HandyDART service needs. We consistently conduct market scans for readiness of battery-electric shuttles. When suitable battery-electric vehicles for this service are available, the LCFS working team will develop a plan to transition away from gasoline vehicles. The baseline comparison is also gasoline vehicles as this is the only propulsion technology available that is suitable for this service. The 2019 HandyDART emissions from gasoline vehicles of 4,500 tonnes are expected to stay the same. This represents 3 percent of TransLink's fleet emissions.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
SCREENING CRITERIA		
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C)	Required

Criterion	Description	Assessment
	Eligible Item — Expenditure[1] HandyDART vehicles (44) — $6,467,000 On-board equipment — 66,000 Total — $6,533,000 [1] *Per Schedule C, Section 1.1, Part a)*	
Plan Consistency	*Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, Regional Growth Strategy and the Regional Transportation Strategy.* ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	*Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure.* ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* HandyDART vehicles provide a valuable service to the community for people with disabilities. The service promotes greater mobility for social connectivity, running errands, attending appointments and improving quality of life. The vehicles also connect disabled people to the current transit network of train stations and bus	Poor/Good/ Excellent

Criterion	Description	Assessment
	hubs. HandyDART service operates throughout TransLink's service area.	
	Transportation Performance	
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* This is a like-for-like vehicle fleet replacement project with no change in service provided (i.e. incremental vehicle kilometers travelled or shift to walk/cycle/transit mode share).	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.* This is a like-for-like vehicle fleet replacement project with no change in service provided. As such, there are no incremental benefits to vehicle congestion, transit passenger congestion, transit ridership and/or transportation safety.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, vehicles will have fewer breakdowns and service disruptions, and operating costs will not increase.	Poor/Good/ Excellent
	Regional Environmental Objectives	
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* This is a like-for-like replacement and the baseline vehicles are gasoline, as this is the technology that is currently available to TransLink. It is expected the 2019 emissions of 4,500 tonnes CO2e will remain consistent.	Poor/Good/ Excellent
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile*	Poor/Good/ Excellent

Criterion	Description	Assessment
	of the transit fleet. The information requirement for this criterion is fulfilled as follows: 1. *For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* 2. *For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* Like-for-like replacement, however it supports IAQGGMP strategies 1.1 "Reduce emissions of and public exposure to diesel particulate matter". This is a like-for-like replacement and the baseline vehicles are gasoline as this is the technology that is currently available to TransLink. It is expected the 2019 emissions of 4,500 tonnes CO2e will remain consistent.	
	Economic Development	
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* Replacement of HandyDART vehicles will provide improved reliability to the regional transportation system, resulting in improved service reliability to people with disabilities. Passengers will have better access to conventional bus routes and hubs, train stations, healthcare providers, and social functions. Passengers will enjoy a better quality of life and benefit from greater independence.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 2 2022 Community Shuttle Purchase – Replacement
(Ref# 212150)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This project is a state of good repair project included in the 2018 Investment Plan

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

TransLink's Community Shuttle service began in 2001 and has expanded steadily. Currently, the shuttle fleet comprises approximately 13% of TransLink's rubber-tired revenue vehicle fleet and totals 206 vehicles. Approximately 79% of the Community Shuttle fleet is operated by CMBC with the remaining 21% operated by private contractors.

This project will replace sixty-four (64) conventional gasoline powered community shuttles in the community shuttle fleet. The shuttles to be retired were purchased in 2017 with a life expectancy of five (5) years. The new low floor shuttles would improve accessibility over the existing high floor shuttle fleet and would allow the retirement of shuttles that have reached the end of their useful life thereby maintaining transit system reliability. The new vehicles will have a person and seat capacity of 21. This project is consistent with the 2018 Investment Plan, approved in June 2018 by the Mayors' Council and the TransLink Board.

TransLink strives to optimize its resource allocation by matching service to passenger demand, including allocating vehicles of an appropriate size to serve the demand on a route. This allocation is optimized through continuous review and planning processes that allocates resources where they are most needed. This process is informed by ridership data, which has been substantially enhanced with the deployment of Compass Card. TransLink has also undertaken recent work to determine optimal fleet propulsion technology on each route, which is interdependent with vehicle size.

The fleet propulsion technologies currently available to TransLink consist of only conventional gasoline engines, as hybrid gasoline, hybrid diesel or battery-electric propulsion are not available for these vehicles. Choices of vehicle size and propulsion types will continue to be optimized, as determined by the ongoing monitoring of ridership and propulsion technologies. This may result in the vehicle technology mix changing, if it is subsequently determined that a different mix will better optimize our resource allocation.

Tangible Benefits and Outcomes

The new vehicles will allow CMBC to maintain existing service, reduce downtime, avoid incremental operating and maintenance costs.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $15,900,000 with a GVRF request of $15,304,790. Expenses covered by this budget primarily include vehicle procurement, ancillary on-board equipment and labour, and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application

This project was identified for GVRF funding in the 2018 Investment Plan (Appendix A, Table 8). State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications. This state of good repair project ensures that TransLink can continue to deliver the Community Shuttle service outlined in the 2018 Plan.

2. Project Name

2022 Community Shuttle – Replacement (Ref# 212150)

3. Project Need and Location

The objectives are to maintain high quality customer service, minimizing maintenance and operating costs and continuing to provide reliable, fully accessible transit vehicles that are appropriate for routes on which they operate. Community shuttles operate throughout the region.

The criteria for achieving these objectives are avoidance of incremental maintenance and operating costs, reduced vehicle breakdowns and vehicle downtime, improved accessibility.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**

☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.

☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.

☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.

☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.

☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2022	**2023**	**2023**	**N/A**	**2027**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$15,900,000	**$0**	**$15,900,000**	**$15,900,000**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**$15,304,790**	**N/A**

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget			**$15,023,190**	**$281,600**		
Total Project Budget			**$15,612,770**	**$287,230**		

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project ensures TransLink's assets are maintained in a state of good repair, so as to allow TransLink to efficiently and effectively provide transit service to the general public.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding for expansion of its revenue vehicle fleets and plans its annual budgets accordingly. The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement related to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

TransLink requires these vehicles to be in service for 2022 in order to retire vehicles reaching the end of their useful service lives. There is an approximate lead time of 12 to 18 months between TransLink ordering the vehicles and those vehicles entering service. As such, it is important to have the funding in place to ensure the timely retirement of vehicles before they reach the end of their useful service lives.

If funding is not received in time, TransLink will have to rely on deferred retirement vehicles to deliver transit service. Continued use of deferred retirement vehicles poses a risk to reliability, as well as likely to result in incremental maintenance costs to keep them in service. This may result in lost opportunities to realize goals of reduced congestion, improved peak hour service and

frequency. TransLink may lose credibility among the general public if service is not reliable. Further, use of deferred retirement vehicles could also result in higher CAC and GHG emissions than new vehicles as engines deteriorate.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations (as parts are procured from the USA) and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers are experiencing larger demands to order vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

This application is based on the new vehicles being powered by conventional gasoline engines. TransLink also has to consider that a number of these vehicles are operated and maintained by contractors who may not be able to support fueling or maintenance for a change in propulsion technology.

TransLink does not anticipate vendors coming out with alternative fuels for community shuttles that meet our needs to deliver reliable and cost-effective service to customers in the immediate future. TransLink continues to monitor the vehicle technology industry very closely to identify what options are available in the market, and to evaluate their suitability for its fleet.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time for vehicle delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to manufacture the shuttles (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

This is a like-for-like replacement. TransLink is currently focusing the Low Carbon Fleet Strategy (with support from the Mayors' Council), on the conventional bus fleet which makes up more than 80 per cent of fleet emissions. The conventional bus fleet transition to battery-electric buses is the biggest opportunity for GHG reductions, the main focus of the LCFS. Currently there are no suitable market ready battery-electric vehicles that meet the Community Shuttle needs. We

consistently conduct market scans for readiness of battery-electric shuttles. When suitable battery-electric vehicles for this service are available, the LCFS working team will develop a transition plan away from gasoline vehicles. The baseline comparison is also gasoline vehicles as this is the only propulsion technology available that is suitable for this service. The 2019 Community Shuttle emissions from gasoline vehicles of 2,00 tonnes is expected to stay the same. This represents 1.5 per cent of TransLink's fleet emissions. It is expected that, when appropriate models are market ready, they will be incorporated into the fleet as part of the broader Low Carbon Fleet Strategy.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Community Shuttles (62) — $14,767,190 On-board equipment — 537,600 Total — $15,304,790 [1] *Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required

Criterion	Description	Assessment
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☒ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* Community shuttles provide service to communities located outside of major bus routes and hubs and offer an environmentally responsible and sustainable transportation choice to single occupant vehicle travel. These vehicles transport passengers to Urban Centres and Frequent Transit Network (FTNs) to connect remote communities with populous destinations.	Poor/Good/ Excellent
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* This is a like-for-like vehicle fleet replacement project with no change in service provided (i.e. incremental vehicle kilometers travelled or shift to walk/cycle/transit/multiple occupancy vehicle mode share).	Poor/Good/ Excellent

Criterion	Description	Assessment
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.* The replacement shuttles will be low-floor vehicles which will contribute to safety and accessibility.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in a State of Good Repair, vehicles will have fewer breakdowns and service disruptions and operating costs will not increase.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* New vehicles built with year 2020 compliant gasoline engines will have lower GHG, NOx, thus reducing the emissions impact of the service provided by the project. As such, this project supports IAQGGMP strategies 1.1 "Reduce emissions of and public exposure to diesel particulate matter", 1.4 "Reduce air contaminant emissions from cars, trucks, and buses".	Poor/Good/ Excellent

Criterion	Description	Assessment
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* 1. *For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* 2. *For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* This is a like-for-like replacement. TransLink is currently focusing the Low Carbon Fleet Strategy (with support from the Mayors' Council) on the conventional bus fleet which make up more than 80 % of fleet emissions. Currently there are no suitable market ready battery-electric vehicles that meet the Community Shuttle needs. We consistently conduct market scans for readiness of battery-electric shuttles. The baseline comparison is also gasoline vehicles as this is the only propulsion technology available that is suitable for this service. The 2019 Community Shuttle emissions from gasoline vehicles of 2,00 tonnes are expected to stay the same. This represents 1.5 % of TransLink's fleet emissions.	Poor/Good/ Excellent
Economic Development		
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* Replacement of community shuttles will provide improved reliability of the Community Shuttle fleet, resulting in improved reliability to the regional transportation system, by offering reliable service to more remote communities not close to conventional bus routes and/or hubs. Passengers will have better access to populous destinations for work and/or leisure activities, reducing the use of single occupant vehicle travel. Further, low-floor shuttles will improve passenger safety and accessibility.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 3 2021 CMBC Service Support Vehicles – Replacement
(Ref#212101)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the Investment Plan

This project is a state of good repair project included in the 2018 Investment Plan.

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

CMBC operates a service support vehicle fleet of 275 vehicles. These vehicles are used for on the road operations, maintenance support and repair, facilities and fleet maintenance, trolley maintenance, transit supervisory and security, administrative support and materials handling, and yard support.

This project will replace a total of twenty-two (22) service support vehicles in the fleet. The replacement service support vehicles include four (4) transit security vehicles, four (4) transit supervisor vehicles, three (3) cargo vans for facilities maintenance, five (5) administrative vehicles and six (6) utility vehicles. CMBC replaces service support vehicles as they reach the end of their useful life. Vehicles are selected for replacement based on the combination of age, condition and mileage. Specific replacement targets vary by type and application. The project is consistent with the 2018 Investment Plan, approved in June 2018 by the Mayors' Council and the TransLink Board.

Tangible Benefits and Outcomes

The new vehicles will allow CMBC to maintain reliability of the service support vehicle fleet and the ability of the organization to support existing service. Further, these replacement vehicles will minimize maintenance costs and reduce the likelihood of business disruption and service cancellations due to vehicle availability.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $1,395,000 with a GVRF request of $1,373,000. Expenses covered by this budget primarily include vehicle procurement and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

This project was included in the 2018 Investment Plan. State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications.

2. Project Name

2021 CMBC Service Support Vehicle – Replacement

3. Project Need and Location

The objectives are to maintain high quality customer service while minimizing maintenance and operating costs. The criteria for achieving these objectives are: avoidance of incremental maintenance and operating costs, reduced vehicle breakdowns and less vehicle downtime.

Service vehicles will be used throughout the region where required.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.
☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2021	**2022**	**2022**	**N/A**	**2029**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$1,395,000	**$0**	**$1,395,000**	**$1,395,000**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**1,373,000**	**N/A**

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded		**84,000**	**1,289,000**			

Item	2020	2021	2022	2023	2024	2025
Project Budget						
Total Project Budget		**84,000**	**$1,311,000**			

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project ensures TransLink's assets are maintained in a state of good repair, allowing TransLink to efficiently and effectively provide transit service to the general public.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding and plans its annual budgets accordingly.

The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

TransLink requires these vehicles to be in service for 2022 in order to retire vehicles reaching the end of their useful service lives. There is an approximate lead time between TransLink ordering the vehicles and those vehicles entering service. As such, it is important to have the funding in place to ensure the timely retirement of vehicles before they reach the end of their useful service lives.

If funding is not received in time, TransLink will have to rely on deferred retirement vehicles to deliver support service. Continued use of deferred retirement vehicles poses a risk to reliability, as well as likely results in incremental maintenance costs to keep them in service. TransLink may lose credibility among the general public if service is not reliable. Further, use of deferred retirement vehicles could also result in higher CAC and GHG emissions than new vehicles as engines deteriorate.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations (as parts are procured from the USA) and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers are experiencing larger demands to order vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

TransLink does not anticipate vendors coming out with alternative fuels for these service support vehicles in the immediate future. TransLink continues to monitor the vehicle technology industry very closely to identify what options are available in the market.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturers' capacity and schedules, availability of parts and/or time for vehicle delivery from the manufacturers. The global COVID-19 pandemic may also affect supply chains needed to manufacture the vehicles (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

Service support vehicles contribute toward maintaining the fleet in a good operating order. This, in turn, contributes to a better customer experience resulting in an increase in ridership.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives

that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Support Service Vehicles — $1,373,000 Total — $1,373,000 [1] *Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
	INTEGRATED CRITERIA	
	Regional Growth Strategy	
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent

Criterion	Description	Assessment
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* Support vehicles contribute toward maintaining the fleet, which services Urban Centres and Frequent Transit Development Areas, in good operating order.	Poor/Good/ Excellent
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* This project procures service support vehicles which maintains the existing fleet in good operating order.	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.* This project procures service support vehicles which maintains the existing fleet in good operating order.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, vehicles will have fewer breakdowns and be reliable to service and support existing fleet.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* Maintenance vehicles ensure reliability and state of good repair of the transit system. This in turn provides an alternative to single occupancy vehicles. In doing so supports Metro Vancouver's GHG emission targets of 45 percent reduction by 2030 and carbon neutral by 2050.	Poor/Good/ Excellent
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile*	Poor/Good/ Excellent

Criterion	Description	Assessment
	of the transit fleet. The information requirement for this criterion is fulfilled as follows: 1. *For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* 2. *For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* Like-for-like replacement, therefore, there is no change to GHG emissions.	
Economic Development		
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* Replacement of vehicles will provide improved reliability to service and support the regional transportation system.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 4 2021 BCRTC Service Support Vehicle – Replacement
(Ref#213003)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This project is a state of good repair project included in the 2018 Investment Plan.

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

Replacement of the BCRTC Service Support Vehicles will provide improved reliability, and reduced maintenance costs compared to the fleet average. In addition to restoring maintenance costs to normal or below average levels, the frequency of unscheduled maintenance events will almost certainly be dramatically lower than the status quo. That translates to near 100% availability of the asset for performing the job when needed.

This project will replace a total of six (6) service vehicles in the fleet. The replacement support service vehicles include three (3) road-going vehicles, two (2) utility vehicles, one (1) tractor pusher. BCRTC replaces service support vehicles as they reach the end of their useful life. Vehicles are selected for replacement based on the combination of age, condition and mileage. Specific replacement targets vary by type and application. The project is consistent with the 2018 Investment Plan, approved in June 2018 by the Mayors' Council and the TransLink Board.

Tangible Benefits and Outcomes

The new vehicles will allow BCRTC to maintain reliability of the service support vehicle fleet and the ability of the organization to support existing service. Further, these replacement vehicles will minimize maintenance costs and reduce the likelihood of business disruption and service cancellations due to vehicle availability.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $411,000 with a GVRF request of $387,410. Expenses covered by this budget primarily include vehicle procurement and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

This project was identified in the 2018 Investment Plan (Appendix A, Table 8). State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications.

2. Project Name

2021 BCRTC Service Support Vehicle – Replacement

3. Project Need and Location

The objectives are to maintain high quality customer service and reduce maintenance and operating costs. The criteria for achieving these objectives are avoidance of incremental maintenance and operating costs, reduced vehicle breakdowns and less vehicle downtime.

These service vehicles will be used throughout the region where required.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.
☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2021	**2021**	**2021**	**N/A**	**2033**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$411,000	**$0**	**$411,000**	**$411,000**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**$387,410**	**N/A**

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget		**$387,410**				
Total Project Budget		**$411,000**				

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project ensures TransLink's assets are maintained in a state of good repair, allowing TransLink to efficiently and effectively provide transit service to the general public.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding and plans its annual budgets accordingly.

The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

TransLink requires these vehicles to be in service for 2022 in order to retire vehicles reaching the end of their useful service lives. There is an approximate lead time between TransLink ordering the vehicles and those vehicles entering service. As such, it is important to have the funding in place to ensure the timely retirement of vehicles before they reach the end of their useful service lives.

If funding is not received in time, TransLink will have to rely on deferred retirement vehicles to deliver support service. Continued use of deferred retirement vehicles poses a risk to reliability, as well as likely results in incremental maintenance costs to keep them in service. TransLink may lose credibility among the general public if service is not reliable. Further, use of deferred

retirement vehicles could also result in higher CAC and GHG emissions than new vehicles as engines deteriorate.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations (as parts are procured from the USA) and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers are experiencing larger demands to order vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

TransLink does not anticipate vendors coming out with alternative fuels for vehicles that meet our needs to deliver reliable and cost-effectively service to customers in the immediate future. TransLink continues to monitor the vehicle technology industry very closely to identify what options are available in the market, and to evaluate their suitability for its fleet.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturers' capacity and schedules, availability of parts and/or time for vehicle delivery from the manufacturers. The global COVID-19 pandemic may also affect supply chains needed to manufacture the vehicles (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

Service support vehicles contribute toward maintaining the fleet in a good operating order. This, in turn, contributes to a better customer experience resulting in an increase in ridership.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Support Service Vehicles — $387,410 Total — $387,410 [1] *Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required

Criterion	Description	Assessment
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* Support vehicles contribute toward maintaining the fleet, which services Urban Centres and Frequent Transit Development Areas, in good operating order.	Poor/Good/ Excellent
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* This project procures service support vehicles which maintain the existing fleet in good operating order.	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, and/or transportation safety for the duration of the project.* This project procures service support vehicles which maintain the existing fleet in good operating order.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, vehicles will have fewer breakdowns and be reliable to service and support existing fleet.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate	*Contributes to the achievement of regional climate action and air quality goals, including directions set out*	Poor/Good/ Excellent

Criterion	Description	Assessment
2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* Maintenance vehicles ensure reliability and State of Good Repair of the transit system. This in turn provides an alternative to single occupancy vehicles. In doing so supports Metro Vancouver's GHG emission targets of 45% reduction by 2030 and carbon neutral by 2050.	
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* *1. For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* *2. For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* Like-for-like replacement, therefore, there is no change GHG emissions.	Poor/Good/ Excellent
Economic Development		
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* Replacement of vehicles will provide improved reliability to service and support the regional transportation system.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 5 BCRTC Elevating Devices ARPg
(Ref#213008)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This is a state of good repair project included in the 2018 Investment Plan

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

This project will procure and install a total of seven (7) Expo Line elevators to replace elevators at the stations located at 29th Avenue, Patterson, Edmonds (2), Columbia (2) and West Coast Express.

Tangible Benefits and Outcomes

Elevating devices are public facing assets which provide universal accessibility for customers with wheelchairs and strollers. Maintaining these in good condition impacts customer experience.

There are primary energy efficiency benefits in operating these new devices (e.g. using less electrical energy per hour to operate). Further benefit is the expected reduced maintenance intervals, which saves trips for crews sent out to repair and, thus, reduces GHG emissions from vehicle trips.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $11,805,000 with a GVRF funding request of $11,217,810. Expenses covered by this budget primarily include equipment procurement, installation and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications. Projects for GVRF funding are identified in the Investment Plan in advance or otherwise identified in the annual capital planning process.

2. **Project Name**

BCRTC Elevating Devices ARPg

3. Project Need and Location

A condition assessment of 55 elevators across the Expo and Millennium Line stations (including WCE and OMC Yard) was completed in February 2018, and detailed the condition of the equipment, remaining service life and any maintenance issues. Specific units were identified as due for replacement in the next 3 years.

The locations of the replacement elevating devices are at the 29th Avenue, Patterson, Edmonds, Columbia and Waterfront SkyTrain stations.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment: Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.**
☐
☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2022	**2023**	**2023**	**N/A**	**2043**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$11,805,000	**$0**	**$11,805,000**	**$11,805,000**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**$11,217,810**	**N/A**

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget			**$6,326,398**	**$4,891,412**		
Total Project Budget			**$6,608,218**	**$5,196,782**		

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

Due to energy efficiencies achieved by replacing older models, this project contributes to the region's objectives of cleaner air, cleaner water and reduced greenhouse gas emissions. Further,

this project will result in performance improvements that allows for more commuter flow compared to prior models.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding and plans its annual budgets accordingly. The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

Should the project not proceed, unacceptable customer impact will occur if elevators fail, eliminating station accessibility options, and causing higher costs for upgrade or replacement.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rates fluctuations and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

This project would not be affected by changes in investment, regulation or policies from other orders of government.

f. How may foreseeable changes in technology affect the project?

There are no foreseeable changes in technology that would affect this project.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time for delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to manufacture the elevators (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

Elevating devices contribute to the customer experience at the SkyTrain and West Coast Express stations which, in turn, contributes towards an increase in ridership.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Equipment — $7,000,000 Installation Costs — 4,217,810 Total — $11,217,810 [1] *Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required

Criterion	Description	Assessment
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* The project will improve elevating device performance resulting in better customer flow at SkyTrain and West Coast Express stations which are located in Urban Centers.	Poor/Good/ Excellent
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* The project will improve elevating device performance resulting in better customer flow at SkyTrain and West Coast Express stations.	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.* The project will improve elevating device performance resulting in better customer flow at SkyTrain and West Coast Express stations.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, elevating devices will have fewer breakdowns, and service disruptions and operating costs will not increase.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the*	Poor/Good/ Excellent

Criterion	Description	Assessment
Integrated Air Quality and Greenhouse Gas Management Plan	*Integrated Air Quality and Greenhouse Gas Management Plan.* This is a like-for-like elevating device replacement project with no change to regional environmental objectives.	
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* 1. *For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* 2. *For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* This is a like-for-like elevating device replacement project with no change to regional environmental objectives.	Poor/Good/ Excellent
	Economic Development	
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* The project will improve elevating device performance resulting in better customer flow at SkyTrain and West Coast Express stations.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 6 Elevating Devices Asset Renewal Program - Escalators
(Ref#213009)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This is a state of good repair project included in the 2018 Investment Plan

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. Executive Summary (not to exceed two pages)

Project Overview

This project will supply and install a total of three (3) APTA / Transit grade escalators at the Commercial Broadway station servicing both the Expo and Millennium Lines.

Tangible Benefits and Outcomes

Increase in the availability of the escalators to customers as a result of less frequent unscheduled maintenance events. Reduction in the amount BCRTC spends on unscheduled maintenance events on Millennium and Expo Line Station escalators. Improvements of safety systems associated with the escalators in stations, compliance with current code and accessibility requirements, improvements to customer safety and reduced breakdowns.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $6,682,820 with a GVRF funding request of $5,465,014. Expenses covered by this budget primarily include equipment procurement, installation and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications. Projects for GVRF funding are identified in the Investment Plan in advance or otherwise identified in the annual capital planning process.

2. Project Name

Elevating Devices Asset Renewal Program - Escalators

3. Project Need and Location

The following problems are arising with the original escalators installed at Commercial Broadway SkyTrain station which services both the Millennium & Expo Lines:

- increasing costs associated with reactive maintenance

- escalators are now beyond their useful design life

- key components are now obsolete

- escalators do not meet current code requirements

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system**.**
☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**
☐ **Upgrade**
☐ **Risk (Resilience)**
☒ **Maintenance**
☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2022	**2023**	**2023**	**N/A**	**2048**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$6,682,820	**$0**	**$6,682,820**	**$6,682,820**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**$5,465,014**	**N/A**

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget		**$3,180,957**	**$2,284,057**			
Total Project Budget		**$4,005,013**	**$2,677,807**			

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

Due to energy efficiencies achieved by replacing older models, this project contributes to the region's objectives of cleaner air, cleaner water and reduced greenhouse gas emissions. Further, this project will result in performance improvements that allow for more commuter flow compared to prior models.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding and plans its annual budgets accordingly.The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

Should the project not proceed, unacceptable customer impact will occur if escalators fail, eliminating station accessibility options, and causing higher costs for upgrade or replacement.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

The project would not be affected by changes in investment, regulation, or policies from other orders of government.

f. How may foreseeable changes in technology affect the project?

There are no foreseeable changes in technology that would affect this project.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time for delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to manufacture the escalators (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

Escalators contribute to the customer experience at the SkyTrain stations which in turn contributes toward an increase in ridership.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Equipment — $3,450,000 Installation Costs — 2,015,014 Total — $5,465,014 [1] *Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy.	Required

Criterion	Description	Assessment
	☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* The project will improve escalator performance resulting in better customer flow at SkyTrain station located in Urban Center.	Poor/Good/ Excellent
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* This is a like-for-like escalator replacement project with no change in service provided.	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety and/or goods movement for the duration of the project.*	Poor/Good/ Excellent

Criterion	Description	Assessment
	The project will improve escalator performance resulting in better customer flow at SkyTrain station located in Urban Center.	
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, escalators will have fewer breakdowns and service disruptions, and operating costs will not increase.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* TransLink is purchasing EcoMod escalators with the following benefits: • Reduce escalator energy consumption between 20% to 40% from standard models • Achieve 96% efficiency (compared to 85% or less of standard escalators) • Reduce maintenance oil consumption by 97% • Utilize LED lighting, improving lighting efficiency Energy consumption at each escalator is not individually metered, thus emission data is not available.	Poor/Good/ Excellent
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* *1. For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* *2. For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.*	Poor/Good/ Excellent

Criterion	Description	Assessment
	Escalator energy consumption is not individually metered; however, it can be expected that emissions would be reduced in alignment to EcoMod escalator energy efficiency improvements.	
	Economic Development	
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* This is a like-for-like elevating device replacement project with no change to economic development.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 7 2023 Conventional Bus Replacement
(Ref# 212130)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This is a state of good repair project identified for GVRF funding in the 2018 Investment Plan.

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

This project replaces fifty-seven (57) diesel-buses with fifty-seven (57) 40' battery-electric buses. Conventional buses have a life expectancy of 17 years/1,000,000 km. For this reason, the retiring 2006 model year 40' conventional diesel buses will be replaced on a one-for-one basis in 2023.

This is the first major project under TransLink's Low Carbon Fleet Transition Plan: funding for the replacement of 57 40' 2006 diesel buses with on-route charged battery-electric buses operating out of Port Coquitlam Transit Centre (PTC).

Criteria for identifying vehicles due for retirement are based on a number of factors, including:

- Age (life expectancy of 17 years);
- Mileage (generally 1,000,000 km);
- State of repair/condition;
- Severity of service duty cycle; and
- Greenhouse gas and air emission reductions

This project is consistent with the 2018 Investment Plan, approved in June 2018 by the Mayors' Council and the TransLink Board.

TransLink strives to optimize resources by matching service to passenger demand, including allocating vehicles of an appropriate size to serve the demand on a route. This allocation is optimized through continuous review and planning to distribute resources where they are most needed. This process is determined by ridership data, which has been substantially enhanced with the deployment of Compass Card. TransLink has also undertaken recent work to determine optimal fleet propulsion technology on each route, which is interdependent with vehicle size.

Tangible Benefits and Outcomes

The choice of zero emission battery-electric buses supports the Metro Vancouver *Integrated Air Quality and Greenhouse Gas Management Plan* and TransLink's efforts to reduce emissions under the LCFS.

These battery-electric buses will replace buses from PTC, which currently average 314 kilometers per day, and 78,000 kilometers per year. Analysis conducted during development of the TransLink Low Carbon Fleet Transition Plan indicates that 40' electric buses operating on PTC routes would annually average 1.51 kWh/km energy use. Total annual electricity required to charge the proposed 57 battery-electric buses would therefore be 6,713 MWh. While the buses to be retired and replaced with battery buses are diesel, TransLink already has a policy to replace retiring diesel buses with hybrid-electric buses, so the relevant comparison for new battery buses is to new hybrid-electric buses. Fuel use for current CMBC 40' hybrid-electric buses averages 47.4 liters/100 km. The electricity used to charge the 57 electric buses slated to operate from PTC will therefore displace 2.1 million liters of diesel fuel annually.

The associated life cycle GHG emissions of the battery-electric buses is 478[1] metric tons CO_2e. Absent the purchase of the battery-electric buses, 57 hybrid-electric buses operating over the same routes would be expected to use 2.107 million liters of diesel fuel with associated life cycle GHG emissions of 7,717[2] metric tons CO_2e. Per unit of transit service provided, the fuel (electricity) used to operate the electric buses has 94 per cent lower carbon intensity (g CO_2e/bus-km) than the fuel (diesel) that would otherwise be used to operate hybrid-electric buses. This project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239[3] tonnes of CO_2e per year.

[1] 6,713 MWh x 1,000 kWh/MWh x 71.21 g CO_2e/kWh ÷ 1,000,000 g/MT = 478 MT CO_2e

[2] 2,107,000 liters x 3,662.47g CO_2e/liter ÷ 1,000,000 g/MT = 7,717 MT CO_2e

[3] 7,717 MT CO_2e - 478 MT CO_2e =7,239 MT CO_2e

Project Budget, Expenses, and GVRF Funding Request

The project budget is $88,740,000 with a GVRF request of $86,090,000. Expenses covered by this budget primarily include vehicle procurement, ancillary on-board equipment, labour and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement dated April 2014.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

This project was identified for GVRF funding in the 2018 Investment Plan (Appendix A, Table 8). State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications.

2. Project Name

2023 Conventional Bus Replacement (Ref# 212130)

3. Project Need and Location

The objectives are to maintain high quality customer service, reduce maintenance and operating costs while continuing to provide reliable, fully-accessible transit vehicles that are appropriate for routes on which they operate.

The criteria for achieving these objectives are: avoidance of incremental maintenance and operating costs, reduced vehicle breakdowns and vehicle downtime and improved accessibility.

Further, in October 2018, TransLink adopted two significant environmental targets: an 80 per cent reduction of GHG emissions by 2050, and utilization of 100 per cent renewable energy in all operations by 2050. Although ambitious, our analysis indicates that meeting these targets is possible with zero and low-carbon fuels and technologies, but it means that bold action is required through policy decisions, investment planning, and funding support.

The LCFS assumed that Marpole Transit Centre (MTC) would be complete by 2023 and ready to house the 2023 replacement buses. With MTC now expected to be complete in late 2024, this is no longer an option. However, the electrification of PTC is part of the original LCFS plan, and the timeline has been accelerated to support electrifying these 57 buses.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**
☒ **Public Transit**

5. Project Purpose (check one):

☒ **Expansion:** Expands the carrying capacity of people and/or goods movement.
☒ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.
☐ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.
☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.
☐ **Other (please specify :_____)**

6. Project Type (check one):

- ☐ **Growth**
- ☒ **Upgrade**
- ☐ **Risk (Resilience)**
- ☒ **Maintenance**
- ☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2022	**2024**	**2024**	**N/A**	**2041**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$88,740,000	**$0**	**$88,740,000**	**$88,740,000**	**$0**

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	**$86,090,000**	**N/A**

11.c Project Budget Schedule

Item	2021	2022	2023	2024	2025	2026
GVRF-funded Project Budget		**$1,520,000**	**$84,070,000**	**$500,000**		
Total Project Budget		**$1,563,470**	**$86,520,670**	**$655,860**		

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project ensures TransLink's assets are maintained in a state of good repair, allowing TransLink to efficiently and effectively provide transit service to the general public. Replacing diesel buses with battery-electric contributes to lowering the fleet's GHG emissions, NOx and diesel particulate matter which aligns with Metro Vancouver's IAQGGMP goals.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding for expansion of its revenue vehicle fleets and plans its annual budgets accordingly. The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

If funding is not received in time, TransLink will have to rely on deferred retirement vehicles. Continued use of deferred retirement vehicles poses a risk to reliability, as well as likely increase incremental maintenance costs to keep them in service. This may result in lost opportunities to realize goals of reduced congestion, improved peak hour service and frequency.

Further, if diesel buses are not replaced by battery-electric buses, achievement of TransLink's internal GHG targets, along with actions supporting Metro Vancouver GHG and air quality efforts will be delayed. This project is the first project planned under TransLink's LCFS, which has received Executive, Board and Mayors' support.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations (as parts are procured from the USA) and vendor pricing. These uncertainties are mitigated with sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers are experiencing larger demands to order vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

This application is based on the new vehicles being zero emission battery-electric powered. TransLink has taken into account its existing infrastructure, as well as the opportunity to transition to zero emissions vehicles, in arriving at a decision on zero emission battery-electric technology.

Changes in battery-electric bus and charging technology are expected and will continually improve. Current technology is proven (TransLink current operates 4 battery-electric buses, with 15 more expected to be operational by 2022), however innovation in battery and charging technology is expected to be beneficial.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time for vehicle delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to manufacture the vehicles (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

As discussed above, the proposed 57 battery-electric buses are projected to use 6,713 MWh of electricity annually, with associated life cycle GHG emissions of 478 metric tons CO_2e. Absent the purchase of the battery-electric buses, 57 hybrid-electric buses operating over the same routes would be expected to use 2.107 million liters of diesel fuel with associated life cycle GHG emissions of 7,717 metric tons CO_2e. Per unit of transit service provided, the fuel (electricity) used to operate the electric buses has 94 per cent lower carbon intensity (g CO_2e/bus-km) than the fuel (diesel) that would otherwise be used to operate hybrid-electric buses. This project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 tonnes of CO_2e per year. This is the first step in reaching our target of 80 % reduction in GHG emissions . It will achieve a 5 per cent overall reduction in GHG emissions.

From an air quality perspective, the Cummins B6.7 diesel engine used in new hybrid-electric transit buses is certified to emit 0.14 grams per brake horsepower-hour (g/bhp-hr) of nitrogen oxides (NOx) and 0.002 g/bhp-hr of particulate matter (PM), and to have average efficiency of 32.7% Based on these values, a hybrid-electric bus will emit 0.66 grams of NOx and 0.009 grams of PM for every liter of fuel burned in the engine. Electric buses have no tailpipe emissions of NOx or PM.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
	SCREENING CRITERIA	
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] 40' Battery-electric Buses (9) — $ 84,990,000 On-board equipment — 1,100,000	Required

Criterion	Description	Assessment
	Total $86,090,000 [1] *Per Schedule C, Section 1.1, Part a)*	
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☒ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* Buses provide services to Metro Vancouver communities within TransLink's transportation service region and offer an environmentally responsible and sustainable transportation alternative to single occupant vehicle travel. They link communities with business, institutional and social hubs and destinations, and facilitate the creation and expansion of Transit Oriented Developments (TODs). They also provide collector and	Poor/Good/ Excellent

Criterion	Description	Assessment
	distribution services to Expo, Millennium, Evergreen and Canada Lines, West Coast Express and SeaBus.	
	Transportation Performance	
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share* This is a like-for-like vehicle fleet replacement project with no change in service provided (i.e. incremental vehicle kilometers travelled or shift to walk/cycle/transit/multiple occupancy vehicles mode share).	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety and/or goods movement for the duration of the project.* This is a like-for-like vehicle fleet replacement project with no change in service provided. As such, there are no incremental benefits tor vehicle congestion, transit passenger congestion, transit ridership and/or transportation safety.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* By maintaining TransLink's assets in good repair, vehicles will have fewer breakdowns and service disruptions, operating costs will not increase, and pollutant emissions will be reduced.	Poor/Good/ Excellent
	Regional Environmental Objectives	
Supports the Climate 2050 Strategic Framework and Integrated Air Quality and Greenhouse Gas Management Plan	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the Integrated Air Quality and Greenhouse Gas Management Plan.* The reduction in diesel fuel use will reduce annual tailpipe NOx and PM emitted in the Vancouver Metro region by 1,393 kg and 19 kg, respectively. Over the full 17-year service life of the proposed battery-electric buses, total local emissions of NOx will be reduced by 23.7 metric tons, and total local emissions of PM will be reduced by 323 kg.	Poor/Good/ Excellent

Criterion	Description	Assessment
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* 1. *For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* 2. *For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* This project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 MT CO_2e per year. This project will reduce diesel fuel use in CMBC hybrid buses by 2.11 million liters per year.	Poor/Good/ Excellent
	Economic Development	
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* Replacement of buses will provide improved reliability of the fleet, resulting in improved reliability to the regional transportation system.	Poor/Good/ Excellent

APPLICATION FOR FUNDING FROM THE GREATER VANCOUVER REGIONAL FUND FOR FEDERAL GAS TAX FUNDS

Project 8 Port Coquitlam Transit Centre and On-Route Charging Infrastructure to Support Battery Electric Buses

(Ref#212057)

A. 10-YEAR INVESTMENT PLAN

Please describe how the project fits within, and provides support to, the 10-Year Investment Plan

This project supports the infrastructure for battery-electric bus replacement project. Due to the expected completion date of the Marpole Transit Centre now anticipated to be in late 2024 or early 2025, another location is required to house replacement buses. To avoid having to replace these buses with Diesel-Hybrids or CNG, the plan to implement battery-electric buses at Port Coquitlam Transit Center (PTC) is being put forward.

B. PROJECT DESCRIPTION

Please complete the following for each project proposed for expenditure from the GVRF.

1. **Executive Summary (not to exceed two pages)**

Project Overview

Replacement of 57 40' diesel buses with battery-electric buses and installation of the charging infrastructure to support these buses are the first major projects under TransLink's Low Carbon Fleet Transition Plan: installation of charging infrastructure to support the replacement of 57 40' 2006 diesel buses with on-route charged battery-electric buses operating out of PTC. This will entail the purchase and installation of 8-10 450 kilowatt (kw) on-route fast chargers and up to 57 battery bus maintenance charges at the transit centre (for battery conditioning over-night). This will also require transit centre and on-route site, power, maintenance and infrastructure upgrades. For battery-electric bus operations, the charging infrastructure benefits mirror the battery-electric bus benefits, as each is dependent on the other.

Tangible Benefits and Outcomes

Charging infrastructure will support buses operating from PTC, which currently average 314 kilometers per day, and 78,000 kilometers per year. Analysis conducted during development of the TransLink Low Carbon Fleet Transition Plan indicates that 40' electric buses operating on PTC routes would annually average 1.51 kWh/km energy use. Total annual electricity required to charge the proposed 57 battery-electric buses would therefore be 6,713 MWh. While the buses to be retired and replaced with battery buses are diesel, TransLink already has a policy to replace retiring diesel buses with hybrid-electric buses, so the relevant comparison for new battery buses is to new hybrid-electric buses. Fuel use for 40' hybrid-electric buses averages 47.4 liters/100 km. The electricity used to charge the 57 electric buses slated to operate from PTC will therefore displace 2.1 million liters of diesel fuel annually, that would otherwise be used by new replacement hybrid-electric buses absent the battery bus purchase.

The proposed 57 electric buses are projected to use 6,713 MWh of electricity annually, with associated life cycle GHG emissions of 478 metric tons CO_2e. Absent the purchase of the electric buses, 57 hybrid-electric buses operating over the same routes would be expected to use 2.107 million liters of diesel fuel with associated life cycle GHG emissions of 7,717 metric tons CO_2e.

Per unit of transit service provided, the fuel (electricity) used to operate the electric buses has 94 per cent lower carbon intensity (g CO_2e/bus-mile) than the fuel (diesel) that would otherwise be used to operate hybrid-electric buses. This project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 MT CO_2e per year.

The installation of charging and supporting infrastructure would enable the realization of the above benefits.

Project Budget, Expenses, and GVRF Funding Request

The project budget is $30,604,000 with a GVRF request of $27,746,520. Expenses covered by this budget primarily include equipment procurement, installation and other miscellaneous project costs. The funding requested in this application will be applied towards expenses considered eligible per the terms of the Administrative Agreement.

Steps taken by TransLink to identify, evaluate, and prioritize the proposed project for inclusion in the Application.

This project was identified for GVRF funding in the 2018 Investment Plan (Appendix A, Table 8). State of good repair projects are prioritized through the annual capital planning process for inclusion in the Investment Plan and GVRF Applications.

2. Project Name

Port Coquitlam Transit Centre and On-Route Charging Infrastructure to Support Battery Electric Buses

3. Project Need and Location

In October 2018, TransLink adopted two significant sustainability targets: an 80 per cent reduction of GHG emissions by 2050, and utilization of 100 per cent renewable energy in all operations by 2050. Meeting these targets is possible with zero and low-carbon fuels and technologies, but it means that bold action is required through policy decisions, investment planning, and funding support.

The electrification of PTC is part of the original Low Carbon Fleet Strategy plan, and will support electrifying 57 buses.

4. Project Eligibility (check one):

☐ **Local Roads and Bridges, including active transportation**

☒ **Public Transit**

5. Project Purpose (check one):

☐ **Expansion:** Expands the carrying capacity of people and/or goods movement.

☐ **State of Good Repair:** Replaces or modernizes assets to keep the regional transportation system in a state of good repair.

☒ **Operational Efficiency/Effectiveness:** Improves the efficiency or effectiveness of the regional transportation system.

☐ **Refurbishment:** Extend the useful life of assets to maximize the utility of the regional investment in the transportation system.

☐ **Other (please specify :_____)**

6. Project Type (check one):

☐ **Growth**

☒ **Upgrade**

☐ **Risk (Resilience)**

☐ **Maintenance**

☐ **Opportunity**

7. Project Staging:

Year(s) of Acquisition or Start of Construction	Year of Completion of Construction	Year of Service Initialization	Year(s) of Renewal	Year(s) of End of Service
2021	**2023**	**2023**	**N/A**	**2040**

8. Has the project previously received funding through GVRF? Please explain.

No. This is the first application for GVRF funding for this project.

9. Was GVRF funding previously declined for the project? Please explain.

No. This is the first application for GVRF funding for this project.

10. Is the project anticipated to require additional future GVRF funding? If so, please explain.

No. TransLink is planning to complete this project within budget.

11. Project Cost + Funding

11.a Budget & Expenditures

Budget	Expenditures to Date	Forecast to Complete	Final Forecasted Cost	Variance (budget – final forecasted cost)
$30,604,000	$0	$30,604,000	$30,604,000	$0

11.b Project Funding

Prior Approved GVRF Funding	Current Year GVRF Funding Request	Other Funding – Specify source and whether confirmed/pending
$0	$27,746,520	N/A

11.c Project Budget Schedule

Item	2020	2021	2022	2023	2024	2025
GVRF-funded Project Budget		$1,423,827	$8,188,908	$15,763,910	$2,369,875	
Total Project Budget		$2,521,197	$8,659,968	$16,975,940	$2,446,895	

12. Project Budget Rationale

Describe the types of proposed project expenses to be funded by the Greater Vancouver Regional Fund

a. Explain how the project reflects the intent of the GVRF

This project will provide the charging infrastructure to support the replacement of 57 diesel buses with 57 battery-electric buses. Replacing diesel buses with battery-electric contributes to lowering the fleet's GHG emissions, NOx and diesel particulate matter which aligns with Metro Vancouver's IAQGGMP goals and supports GHG emissions targets approved by TransLink's Board and supported Mayors' Council.

b. In the absence of GVRF funding, can the project proceed with other funding sources? What risks do the other funding sources present to the project?

No. TransLink relies on GVRF funding for replacement of its revenue vehicle fleets and plans its annual budgets accordingly. The other source of funding available to TransLink is the Investing in Canada Infrastructure Program (ICIP). The ICIP funding program is focused on infrastructure improvement relating to capacity, quality and safety or, access to public transit systems. The

projects chosen by TransLink for GVRF funding are better suited to GVRF funding compared to the other sources of funding.

c. Identify potential risks – corporate and regional – of this project that could result in this project not being completed or being unsuccessful. Describe possible mitigation strategies to address these risks.

If this project does not proceed, the achievement of TransLink's internal GHG targets, along with actions supporting Metro Vancouver GHG and air quality efforts will be delayed. Together with 57 diesel buses replacement with battery-electric buses, this project is the first project planned under TransLink's Low Carbon Fleet Strategy, which has received Executive, Board and Mayors' Council support.

d. How may the project cost vary as a result of changing external factors, such as interest rates and currency exchange rates?

Project costs may vary due to foreign exchange rate fluctuations (as parts may be procured from the USA) and vendor pricing. These uncertainties are mitigated with a sufficient contingency allowance to absorb price and foreign exchange rate fluctuations.

e. How may foreseeable changes in investment, regulation, or policies from other orders of government affect the project?

Due to recent increases in senior government funding for public transit projects, many suppliers could experience larger demands to supply the infrastructure required to support the battery-electric vehicles. This may create a backlog with vendors, and if procurement is not initiated soon, could result in further delay in ordering and receiving vehicles.

f. How may foreseeable changes in technology affect the project?

Changes in battery-electric bus and charging technology are expected and will continually improve. Current technology is proven (TransLink current operates 4 battery-electric buses, with 15 more expected to be operational by 2022). Innovation in battery and charging technology will be beneficial.

g. What other corporate or external factors could alter the project need, scope, budget, or timeline for project delivery?

Project timeline may be affected by manufacturer's capacity and schedules, availability of parts and/or time of delivery from the manufacturer. The global COVID-19 pandemic may also affect supply chains needed to purchase and install the required equipment (e.g., if further shutdowns occur). Budget may fluctuate due to parts pricing and/or foreign exchange rates.

h. Describe how the project lowers the emissions profile of the transit fleet, for both greenhouse gas and common air contaminant emissions and advances the fleet towards the region's greenhouse gas emissions reduction targets.

As discussed in Project 7, the proposed 57 battery-electric buses are projected to use 6,713 MWh of electricity annually, with associated life cycle GHG emissions of 478 metric tons CO_2e. Absent the purchase of the battery-electric buses, 57 hybrid-electric buses operating over the same routes would be expected to use 2.107 million liters of diesel fuel with associated life cycle GHG emissions of 7,717 metric tons CO_2e. Per unit of transit service provided, the fuel (electricity) used to operate the electric buses has 94 per cent lower carbon intensity (g CO_2e/bus-km) than the fuel (diesel) that would otherwise be used to operate hybrid-electric buses. This project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 tonnes of CO_2e per year. This is the first step in reaching our target of 80% reduction in GHG emissions. It will achieve a 5 per cent overall reduction in GHG emissions.

From an air quality perspective, the Cummins B6.7 diesel engine used in new hybrid-electric transit buses is certified to emit 0.14 grams per brake horsepower-hour (g/bhp-hr) of nitrogen oxides (NOx) and 0.002 g/bhp-hr of particulate matter (PM), and to have average efficiency of 32.7% Based on these values, a hybrid-electric bus will emit 0.66 grams of NOx and 0.009 grams of PM for every liter of fuel burned in the engine. Electric buses have no tailpipe emissions of NOx or PM.

Charging infrastructure will support realization of these benefits.

C. EVALUATION CRITERIA

Please describe how project achieves or works towards each criterion by identifying and reporting on relevant performance measures. Where appropriate, present quantitative information. Please do not exceed 10 pages per project.

Two types of evaluation criteria are identified: Screening Criteria, which represent requirements that are mandatory for any project for which GVRF funding is requested; and Integrated Criteria, which allow for a qualitative assessment of proposed projects based on high priority objectives that reflect the intent of the Federal Gas Tax Fund, of Metro Vancouver goals, and of the Mayors' Council Vision.

Criterion	Description	Assessment
SCREENING CRITERIA		
Eligible Project Category	☐ Local roads and bridges, including active transportation ☒ Public transit	Required

Criterion	Description	Assessment
Eligible Expenses	As set out in the 2014 Administrative Agreement (Schedule C) Eligible Item — Expenditure[1] Equipment and installation — $27,746,520 Total — $27,746,520 *[1] Per Schedule C, Section 1.1, Part a)*	Required
Plan Consistency	Projects must be consistent with TransLink's Capital Plan, 10-Year Investment Plan, the Regional Growth Strategy and the Regional Transportation Strategy. ☒ 10-Year Investment Plan ☒ Mayors' Council Transportation and Transit Plan ☒ Metro 2040: Shaping our Future ☒ Regional Transportation Strategy	Required
Corporate Policies	Projects must be consistent with applicable TransLink policies such as sustainability, environmental responsibility, emissions and infrastructure. ☒ Sustainability policy ☒ Environmental policy ☐ Emissions policy ☐ Infrastructure policy – n/a	Required
INTEGRATED CRITERIA		
Regional Growth Strategy		
Supports the Regional Growth Strategy	*The degree to which the project assists in achieving the goals in the Regional Growth Strategy and directions set out in the Metro Vancouver Board Strategic Plan.* ☐ Create a Compact Urban Area ☐ Support a Sustainable Economy ☒ Protect Environment and Respond to Climate Change Impacts ☒ Develop Complete Communities ☒ Support Sustainable Transportation Choices	Poor/Good/ Excellent
Urban Centres and Frequent Transit Development Areas	*Where applicable, the project is located in, or demonstrates tangible benefits to the overall performance of Urban Centres and Frequent Transit Development Areas.* This project provides the charging infrastructure to support the replacement of 57 diesel buses with battery-electric buses. Buses provide services to Metro Vancouver communities within TransLink's	Poor/Good/ Excellent

Criterion	Description	Assessment
	transportation service region and offer an environmentally responsible and sustainable transportation alternative to single occupant vehicle travel. They link communities with business, institutional and social hubs and destinations, and facilitate the creation and expansion of Transit Oriented Developments (TODs). They also provide collector and distribution services to Expo, Millennium, Evergreen and Canada Lines, West Coast Express and SeaBus.	
Transportation Performance		
Headline Targets	*Demonstrates tangible beneficial effects on vehicle kilometres travelled and/or walk/cycle/transit/multiple occupancy vehicle mode share.* Together with Project #7 (replacement of 57 diesel buses with battery-electric buses), this project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 MT CO_2e per year and reduce diesel fuel use by 2.11 million liters per year.	Poor/Good/ Excellent
Other Transportation Outcomes	*Demonstrates tangible beneficial effects on vehicle congestion, transit passenger congestion, transit ridership, transportation safety, and/or goods movement for the duration of the project.* This project provides the infrastructure to support the replacement of existing diesel buses with battery-electric buses. As such, there is no change in service provided with no incremental benefits for vehicle congestion, transit passenger congestion, transit ridership and/or transportation safety.	Poor/Good/ Excellent
Project Type	*Demonstrated value of the project type (refer to section 6).* Together with Project #7 (replacement of 57 diesel buses with battery-electric buses, this project contributes to maintaining TransLink's assets in good repair As such, vehicles will have fewer breakdowns and service disruptions, operating costs will not increase, and pollutant emissions will be reduced.	Poor/Good/ Excellent
Regional Environmental Objectives		
Supports the Climate 2050 Strategic Framework and	*Contributes to the achievement of regional climate action and air quality goals, including directions set out in the Metro Vancouver Board Strategic Plan, the Regional Growth Strategy, Climate 2050, and the*	Poor/Good/ Excellent

Criterion	Description	Assessment
Integrated Air Quality and Greenhouse Gas Management Plan	*Integrated Air Quality and Greenhouse Gas Management Plan.* This reduction in diesel fuel use will reduce annual tailpipe NOx and PM emitted in the Vancouver metro region by 1,393 kg and 19 kg, respectively. Over the full 17-year service life of the proposed battery-electric buses total local emissions of NOx will be reduced by 23.7 metric tons, and total local emissions of PM will be reduced by 323 kg.	
Quantifiable Emissions Impacts	*Achieves quantifiable beneficial impacts on greenhouse gas and common air contaminant emissions relative to baseline transit vehicles and lowers the emissions profile of the transit fleet. The information requirement for this criterion is fulfilled as follows:* *1. For each transit vehicle project, provide a comparison of the emissions of the project versus the baseline vehicle.* *2. For the application in aggregate, provide the:* • *Annualized transit fleet emissions in the current year;* • *Plus, incremental changes in transit fleet emissions with full deployment of any proposed expansion, modernized, or refurbished vehicles.* Together with Project #7 (replacement of 57 diesel buses with battery-electric buses), this project is estimated to reduce net GHG emissions from CMBC bus operations by 7,239 MT CO_2e per year and reduce diesel fuel use in CMBC hybrid buses by 2.11 million liters per year.	Poor/Good/ Excellent
	Economic Development	
Supports regional prosperity	*Contributes to a regional transportation system that moves people and goods and aligns with regional prosperity.* This project provides the charging infrastructure to support replacement of 57 diesel buses with battery-electric buses. Replacement buses will maintain the fleet in state of good repair which will maintain the reliability of the regional transportation system.	Poor/Good/ Excellent

Attachment 2

Background on Federal Gas Tax Administrative Agreement and Greater Vancouver Regional Fund Policy

Federal Gas Tax Administrative Agreement

The renewed Administrative Agreement on Federal Gas Tax Fund in British Columbia came into effect in April 2014. The Agreement sets out the roles and responsibilities of the federal government, provincial government, and Union of British Columbia Municipalities (UBCM) for the administration of the Federal Gas Tax Fund. The Agreement also sets out the following:

- The GVRF pools 95% of the MVRD and its member municipalities' per-capital allocation of federal gas tax funds to support regional transportation projects proposed for funding by TransLink.
- The MVRD Board must approve all eligible projects proposed by TransLink for funding.
- The MVRD must notify UBCM of the eligible projects that it has approved for funding, after which the UBCM may provide funding to TransLink.
- In order to receive GVRF funding, TransLink must sign a Funding Agreement with UBCM.
- The remaining 5% of federal gas tax funds is allocated among local governments in Metro Vancouver through the Community Works Fund.
- Requests for new projects, amendments to the scope of prior approved projects, and use of approved but unspent funds for other projects must receive approval from the MVRD Board.

Greater Vancouver Regional Fund Policy

On May 27, 2016, the MVRD Board adopted the Greater Vancouver Regional Fund Policy, which establishes the process and criteria for approving expenditures from the GVRF for regional transportation projects proposed by TransLink. The UBCM holds the GVRF monies in trust, and transfers the requested amount of funds to TransLink only upon notification by the MVRD Board of its approval. The GVRF Policy sets out the application process, information requirements, and evaluation criteria to respond to TransLink's request for GVRF funding.

On February 28, 2020, the MVRD Board approved a revised version of the Greater Vancouver Regional Fund Policy, with four key amendments:

1. Updating the referral process such that TransLink staff will refer applications to Metro Vancouver, rather than the MVRD Board issuing a call for applications;
2. Requiring a GVRF report annually instead of semi-annually;
3. Clarifying the baseline transit vehicle technologies from which to estimate emissions reductions benefits; and
4. Requiring that TransLink demonstrate greenhouse gas reduction benefits, consistent with the MVRD Board target of a carbon neutral region by 2050.

TransLink's 2021 Application for Federal Gas Tax Funding is evaluated using the revised version of the Greater Vancouver Regional Fund Policy and its associated application guide.

Attachment 3

A summary of recent GVRF applications approved by the MVRD Board is provided below.

- September 23, 2016 – the MVRD Board approved $127.182 million in GVRF funds to TransLink for nine projects comprising replacement transit fleet vehicles only (84 community shuttles, 75 HandyDART vehicles, and 238 conventional buses).

- April 28, 2017 – the MVRD Board approved $121.280 million in GVRF funds to TransLink for six projects comprising expansion transit fleet vehicles, four battery electric buses for a pilot program, and equipment for deferred retirement of transit vehicles.

- July 28, 2017 – the MVRD Board approved scope changes and $24.210 million in additional GVRF funds to TransLink for three projects approved in 2016. The scope changes involved the purchase of conventional CNG and hybrid buses, rather than conventional diesel buses.

- October 27, 2017 – the MVRD Board approved $121.150 million in GVRF funds to TransLink for seven projects comprising expansion and replacement transit vehicles.

- March 23, 2018 – the MVRD Board approved a scope change to one project approved in 2017. The scope change involved procuring five 60-ft hybrid buses in lieu of seven 40-ft hybrid buses. There was no change to the previously approved GVRF funding amount of $7.29 million.

- October 26, 2018 – the MVRD Board approved $142.1 million in GVRF funds to TransLink for five projects comprising expansion and replacement transit vehicles.

- October 16, 2019 – the MVRD Board approved $149.1 million in GVRF funds to TransLink for six projects comprising expansion transit fleet vehicles (78 hybrid and/or battery-electric conventional buses), expansion and replacement of HandyDART (52) and Community Shuttle (71) vehicles, and refurbishment of Mark 1 SkyTrain Cars (36).

As of December 31, 2019, the balance in the GVRF was $275.7 million in unapproved funds (the Federal Government transfers new funds into an account held by UBCM in July and November of each year)

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Jerry W. Dobrovolny, Commissioner/Chief Administrative Officer

Date: December 15, 2020 Meeting Date: January 20, 2021

Subject: **2021 Finance and Intergovernment Committee Priorities and Work Plan**

RECOMMENDATION

That the Finance and Intergovernment Committee endorse the work plan as presented in the report dated December 15, 2020 titled "2021 Finance and Intergovernment Committee Priorities and Work Plan".

EXECUTIVE SUMMARY

This report presents the priorities and work plan for the Finance and Intergovernment Committee in 2021. Key actions are consistent with the endorsed 2021 Budget and Annual Work Plans for the Regional District Service Areas and Centralized Support Program, the Committee's Terms of Reference, and the *Board Strategic Plan*.

PURPOSE

To provide the Finance and Intergovernment Committee with the priorities and work plan for the year 2021.

BACKGROUND

At its October 14, 2020 meeting, the Finance and Intergovernment Committee reviewed the 2021 Budget and Annual Work Plans for the Regional District Service Areas and Centralized Support Program, which served as the basis for the 2021 Budget approved by the MVRD Board on October 30, 2020. The 2021 Annual Work Plans included in that budget a list of key actions that has been used to develop the Finance and Intergovernment Committee's work plan presented in this report.

The work plan presented in this report is consistent with the Finance and Intergovernment Committee's terms of reference (Attachment 2) and with the *Board Strategic Plan* and is being brought forward for the Committee's information, review and endorsement.

2021 WORK PLAN

The Finance and Intergovernment Committee is the standing committee of the Metro Vancouver Board that provides advice and recommendations on policies, bylaws, plans, programs, budgets, and issues related to the general government and corporate activities for the governing bodies of Metro Vancouver. In addition, it serves as the Board Executive Committee and provides guidance and oversight on major capital projects and all personnel matters.

Key actions in the 2021 Work Plan for the Committee are described below and listed according to the Committee responsibilities in its Terms of Reference.

- Oversight of key major projects;
- Development and implementation of communications strategies to build relations with other orders of government and other agencies;
- Review and approval of financial policies; and,
- Updates from external agencies.

The 2021 Work Plan for the Finance and Intergovernment Committee is provided in Attachment 1, including the expected time frame for reports to this Committee. The Committee will be updated on the status of the actions and projects in this work plan on a monthly basis per the Committee's schedule.

The Committee's Terms of Reference are provided in Attachment 2, outlining the Committee's responsibilities. The Finance and Intergovernment Committee Terms of Reference now include responsibility for major project reviews, which previously resided with the Climate Action Committee. This change was made in recognition that the scope of major project reviews extends beyond environmental impacts; however, major project reviews with a key focus on the environment will be referred to the Climate Action Committee on a project-specific basis.

ALTERNATIVES

1. That the Finance and Intergovernment Committee endorse the work plan as presented in the report dated December 15, 2020, titled "2021 Finance and Intergovernment Committee Priorities and Work Plan".

2. That the Finance and Intergovernment Committee endorse the work plan as presented in the report dated December 15, 2020, titled "2021 Finance and Intergovernment Committee Priorities and Work Plan" with the amendments provided at the Finance and Intergovernment Committee January 20, 2020 meeting.

FINANCIAL IMPLICATIONS

The priorities in the 2021 Work Plan of the Finance and Intergovernment Committee are consistent with the 2021 Budget approved by the MVRD Board on October 30, 2020 and with key actions included in the Annual Work Plans.

CONCLUSION

The work plan presented in this report identifies the priorities for the Finance and Intergovernment Committee in 2021 and is consistent with its terms of reference and the 2021 Budget approved by the MVRD Board. Staff recommends that Alternative 1 be approved.

Attachment

1. Finance and Intergovernment Committee 2021 Work Plan
2. Finance and Intergovernment Committee Terms of Reference

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Attachment 1

Finance and Intergovernment Committee 2021 Work Plan
Report Date: January 20, 2021

Priorities

1st Quarter	**Status**
2021 Standing Committee Events	In Progress
Board Strategic Planning Session	In Progress
TransLink Federal Gas Tax Application	In Progress
Intergovernmental Relations Strategy	In Progress
North Shore Wastewater Treatment Plant Update	In Progress
Project Delivery Update	Pending
Procurement Policy Update	Pending
National Zero Waste Council Update	Pending
2020 Zero Waste Conference	Pending
Forums on Systemic Racism Report Out and Next Steps	In Progress
Cost Allocation for Sewer Heat Recovery Opportunities to Reduce GHG Emissions	Pending
Litigation Updates	Pending
Fraser Basin Council Update	Pending
Lower Mainland Flood Management Strategy Update	Pending
Poplar Landing Update	Pending
Intergovernmental Communications and Engagement Update	Pending
Metro Vancouver Comments on from External Agency Projects (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending
2nd Quarter	
Vancouver Airport Authority Update and Board Appointment	Pending
Resilient Region Strategic Framework	Pending
Waste-to-Energy Facility District Energy	Pending
2019 Statement of Financial Information	Pending
Status of Reserves	Pending
Project Delivery Update	Pending
Municipal Finance Reform Update	Pending
Intergovernmental Communications and Engagement Update	Pending
UBC Cliff Interagency Steering Committee Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending
3rd Quarter	
Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy Update	Pending
Project Delivery Update	Pending
Litigation Updates	Pending
Intergovernmental Communications and Engagement Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending

4th Quarter	
Annual Budget and Five Year Financial Plan – Regional District Service Areas and Corporate Support	Pending
School and Youth Leadership Program Update	Pending
Project Delivery Update	Pending
Intergovernmental Communications and Engagement Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending

Finance and Intergovernment Committee

Terms of Reference

The Finance and Intergovernment Committee is the standing committee of the Metro Vancouver Board that provides advice and recommendations on the annual and long-term budgets for Metro Vancouver's Districts, the financial policies for the Districts, and Metro Vancouver's strategic relationships with other governments, agencies, and communities.

Committee Responsibilities

Within the scope of the *Board Strategic Plan*, Metro Vancouver management plans, Board policies, and *Metro Vancouver Financial Plan*, the Committee provides guidance and oversight to staff in the development of annual and long-term budgets, development and application of financial policies, and development of strategies and positions to manage inter-governmental relations and address specific initiatives that are undertaken by other agencies. Specific Committee responsibilities include the following:

- Guiding and monitoring the development of annual and long-term financial plans for consideration by the Board;
- Guiding the development of financial policies for consideration by the Board;
- Overseeing the development and implementation of communications strategies, intergovernment relations strategies, and other strategies to manage relations with other orders of governments, and with other agencies;
- Developing, for consideration by the Board, Metro Vancouver's positions on initiatives taken by other governments and agencies;
- Reviewing senior government policy and legislative initiatives that affect, or that may affect, governance of the region;
- Reviewing and recommending action to address initiatives that do not fall within the purview of another Metro Vancouver standing committee;
- Providing governance and oversight over key major projects;
- Overseeing revisions to and implementation of Metro Vancouver's International Engagement Program;
- Providing oversight and engaging leaders from government, business, academia, and the non-profit sector in dialogue on regional economic prosperity, including initiatives to promote the regions' economic strengths and livability, and produce economic analysis on the region; and
- Reviewing transportation projects eligible for Federal Gas Tax Funding proposed each year by TransLink, in accordance with the *Administrative Agreement on the Federal Gas Tax Fund in British Columbia* and the *Federal Gas Tax Fund Expenditures* Board Policy, and making recommendations to the Board on funding approvals.

Committee Membership and Meetings

The Chair, Vice Chair and members are appointed annually by the Chair of the Metro Vancouver Board. The Committee meets monthly, except for August and December, and holds special meetings as required. A quorum of 50% plus one of the Committee membership is required to conduct Committee business.

Committee Management

The Committee Chair, or in the absence of the Chair the Vice-Chair, is the chief spokesperson on matters of public interest within the Committee's purview. For high profile issues the role of spokesperson rests with the Metro Vancouver Board Chair or Vice Chair. On technical matters or in cases where an initiative is still at the staff proposal level, the Chief Administrative Officer or a senior staff member is the appropriate spokesperson. Where necessary and practical, the Board Chair, Committee Chair and Chief Administrative Officer confer to determine the most appropriate representative to speak.

The Chief Administrative Officer assigns a Committee Manager for the Committee. The Committee Manager is responsible for coordinating agendas and is the principal point of contact for Committee members.

To: Finance and Intergovernment Committee

From: Chris Plagnol, Corporate Officer

Date: January 6, 2021 Meeting Date: January 20, 2021

Subject: **Authorization to Attend Virtual 2021 Standing Committee Events**

RECOMMENDATION

That the Finance and Intergovernment Committee approve virtual attendance at the following events within the 2021 Leadership and Engagement program:

- Air and Waste Management Association Conference
- Air Quality and Health Workshop
- APA National Planning Conference
- American Water Works Association Annual Conference
- BC Recreation and Parks Association Symposium
- BioCycle Conference
- Canadian Housing and Renewal Association National Congress
- Canadian Institute for the Administration of Justice Annual Conference
- Canadian Institute of Planners
- Housing Central Conference
- National Recreation and Parks Association Annual Conference
- Rail~Volution
- Recycling Council of BC Conference and Trade Show
- Renewable Cities Conference
- Solid Waste Association of North America Conference and Trade Show
- Special Parks District Forum
- Water Environment Federation Technical Exhibition and Conference
- Additional events approved by the Board Chair that align with the priorities of the appropriate standing committee.

EXECUTIVE SUMMARY

This report brings forward conferences and events for approval by Finance and Intergovernment Committee, as required by the *Remuneration Bylaw*, as these were approved in the 2021 budget. The 18 events were identified given their relevance to the various standing committee mandates; each event presents an opportunity for committee members to participate in learning, interaction and engagement with other North American organizations, and to represent Metro Vancouver. Given the Covid-19 pandemic and associated travel restrictions, consideration will only be given to events held in a virtual format. Selection of committee member participation will be considered at upcoming standing committees, which will then require Board Chair approval, as the final step.

PURPOSE

To seek approval of the 2021 events and conferences, that were identified as part of the Board-approved budget, which will authorize remuneration for those members approved to attend.

BACKGROUND

Pursuant to the provisions of the *Remuneration Bylaw*, authorization for committee members' travel and payment of expenses for attendance at events must be within the scope of the Board-approved budget, must be approved by the Finance and Intergovernment Committee (which has oversight over the general government budget), and finally must be approved by the Board Chair.

Events, such as conventions, conferences and seminars, are part of the general government budget, which falls under the purview of the Finance and Intergovernment Committee. As such, it is the Committee's role to determine by resolution what event(s) will be supported within the Board approved budget.

METRO VANCOUVER EVENT REPRESENTATION

In October 2020, the MVRD Board approved the annual budget for general government services which includes funds set aside for committee member attendance and remuneration at events in 2021. Events are defined under the *Remuneration Bylaw* as "courses or similar education or research activities, conventions, seminars, workshops and conferences". The annual budget is developed based on events that are relevant and have value to individual Standing Committee mandates and where there is a benefit to have representation from Metro Vancouver Directors or Committee members at those events. The proposed events align with the provisions of the Board's policy titled *Metro Vancouver Leadership and Engagement Policy.*

Events will be brought forward for consideration at the relevant Standing Committees and members interested in attending events (or equivalent events, as appropriate) will submit their interest to Standing Committee Chairs for Board Chair approval. Events and the number of recommended attendees have been included in this report for consideration by the Finance and Intergovernment Committee in accordance with the *Remuneration Bylaw*, which requires a resolution from the Committee to support remuneration for attendance from the General Government budget.

COVID-19 Travel Restrictions -- Given the COVID-19 pandemic and related travel restrictions, it is likely that some of the conferences listed may be cancelled or may move to an online virtual format. At the present time, and unless otherwise authorized by the Board Chair, only attendance by a virtual method is being considered for approval.

The 18 events listed below have been submitted for representation by Metro Vancouver Standing Committees in 2021.

Climate Action Committee events

Air and Waste Management Association Conference

- Place and Date: *June 14-17, 2021,* Orlando, Florida (v*irtual attendance, if available*)
- Number of attendee(s): 1

- This conference brings professionals from major industry, private sector, consulting, government and education to explore the ever-expanding environmental challenges and provide solutions to becoming and remaining resilient.

Air Quality and Health Workshop

- Place and Date: Vancouver, British Columbia, March 3, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference will focus on the latest research on the relationship between air quality and COVID-19.

Renewable Cities Conference

- Place and Date: Vancouver, British Columbia, May 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference will focus on supporting cities through the transition to 100% renewable energy and increased energy efficiency.

Housing Committee events:

Canadian Housing and Renewal Association National Congress

- Place and Date: St. John's, Newfoundland, April 27-29, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 1
- This conference focuses on affordable and social housing and how governments are poised to increase capacity and innovation in sustainable affordable housing practices.

APA National Planning Conference

- Place and Date: Boston, Massachusetts, May 1-4, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference relates to planning and brings together planners as well as elected officials with a focus on research to improve planning, with ideas from housing practitioners.

Housing Central Conference

- Place and Date: Vancouver, British Columbia, November 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference will focus on the latest developments in western Canadian housing sector, with inspiring speakers and colleagues from throughout the housing sector.

Indigenous Relations Committee events:

Canadian Institute for the Administration of Justice Annual Conference

- Place and Date: Vancouver, British Columbia, November 17-19, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference will focus on reconciliation with Indigenous peoples of Canada bringing together contributors to the development of Indigenous law in Canada, who will share their experiences, successes, challenges, and lessons learned for future efforts.

Liquid Waste Committee events:

Water Environment Federation Technical Exhibition and Conference

- Place and Date: Chicago, Illinois, October 16-20, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference provides extensive educational opportunities and access to the field's most cutting-edge technologies and services in the area of utilities.

Regional Parks Committee events:

National Recreation and Parks Association Annual Conference

- Place and Date: Nashville, Tennessee, September 21-23, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference focuses on the park and recreation community in North America.

BC Recreation and Parks Association Symposium

- Place and Date: Vancouver, British Columbia, May 5-7, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This annual symposium includes education, networking and leadership development for recreation and parks professionals, and community leaders from all over BC and beyond.

Special Parks District Forum

- Place and Date: Portland, Oregon, June 6-9, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This annual forum provides in-park learning opportunities for elected representatives and staff from special park districts and regional districts across North America.

Regional Planning Committee events:

Canadian Institute of Planners

- Place and Date: Halifax, Nova Scotia, July 6-9, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 1
- This conference brings experts and leaders from diverse sectors, regions and jurisdictions to work on building climate change resilience in our communities, ecosystems and economy.

APA National Planning Conference

- Place and Date: Boston, Massachusetts, May 1-4, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference relates to planning and brings together planners as well as elected officials with a focus on research to improve planning, with ideas in urban planning.

Rail~Volution

- Place and Date: Phoenix, Arizona, November 2, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference focuses on cities around North America that are making great strides with their public transportation systems and in building livable communities.

Water Committee events:

American Water Works Association Annual Conference

- Place and Date: San Diego, California, June 13-16, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference focuses on topics and technologies/equipment in the environment and waste management industry.

Zero Waste Committee events:

BioCycle Conference

- Place and Date: West Coast USA, Dates to be Announced (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference is dedicated to organics management, and provides an opportunity to learn about the experiences of communities across North America in managing organics.

Recycling Council of BC Conference and Trade Show

- Place and Date: Whistler, British Columbia, Dates to be Announced (v*irtual attendance, if available*)
- Number of attendee(s): 2
- This conference focuses on reducing waste and building a circular economy.

Solid Waste Association of North America Conference and Trade Show

- Place and Date: Orlando, Florida, November 1-2, 2021 (v*irtual attendance, if available*)
- Number of attendee(s): 1
- This conference provides an opportunity to participate in sessions on waste reduction, recycling and residuals management, and learn about leading-edge programs from across North America.

ALTERNATIVES

1. That the Finance and Intergovernment Committee approve virtual attendance at the following events within the 2021 Leadership and Engagement program:
   - Air and Waste Management Association Conference
   - Air Quality and Health Workshop
   - APA National Planning Conference
   - American Water Works Association Annual Conference
   - BC Recreation and Parks Association Symposium
   - BioCycle Conference
   - Canadian Housing and Renewal Association National Congress
   - Canadian Institute for the Administration of Justice Annual Conference
   - Canadian Institute of Planners
   - Housing Central Conference
   - National Recreation and Parks Association Annual Conference
   - Rail~Volution
   - Recycling Council of BC Conference and Trade Show
   - Renewable Cities Conference
   - Solid Waste Association of North America Conference and Trade Show

- Special Parks District Forum
- Water Environment Federation Technical Exhibition and Conference
- Additional events approved by the Board Chair that align with the priorities of the appropriate standing committee.

2. That the Finance and Intergovernment Committee receive the report dated January 6, 2021, titled "Authorization to Attend Virtual 2021 Standing Committee Events".

FINANCIAL IMPLICATIONS

If the committee supports alternative 1, funds are included in the 2021 General Government budget to cover the remuneration and expenses associated with the attendance at the events listed in this report. If some of the events are cancelled or move to an online virtual format in response to the Covid-19 pandemic, expenses will be lower than anticipated as travel and accommodation costs will not be applicable. The total budget for the 18 conference events for standing committee members to attend in 2021 is $172,800 for both expenses and remuneration.

CONCLUSION

The *Remuneration Bylaw* requires that the Board Chair authorize remuneration associated with committee member attendance at events. The Finance and Intergovernment Committee has oversight responsibility for the general government budget and therefore this Committee is required to provide a resolution to approve the events. The events listed in this report are within the approved 2021 budget and within the scope of work for each of the designated standing committees; alternative 1 is recommended.

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metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Jerry Dobrovolny, Commissioner/Chief Administrative Officer

Date: January 4, 2021 Meeting Date: January 20, 2021

Subject: **Manager's Report**

RECOMMENDATION
That the Finance and Intergovernment Committee receive for information the report dated, January 4, 2021, titled "Manager's Report".

Board Strategic Planning Workshop: February 26-27, 2021
A Board Strategic Planning Workshop has been scheduled for February 26 and 27, 2021. The purpose of the workshop is to review the status of the current *2019-2022 Board Strategic Plan* and reflect upon the issues that have emerged since the plan was adopted. These emerging issues include resilience, social equity, economic prosperity, and reconciliation. This workshop will be an opportunity for the Board of Directors to consider and give staff guidance on impacts to the existing *Board Strategic Plan* in light of these emerging issues. The workshop will feature keynote speakers on the topics of economic prosperity, social equity, and reconciliation.

Sub-Regional Forums on Systemic Racism
In the month of November, Metro Vancouver held four Council of Council sub-regional forums providing learning and discussion opportunities on the topic of systemic racism. Dr. Handel Wright (UBC professor and Director of the Centre for Culture, Identity and Education) provided the keynote address for the forum and shared context, examples, history and definitions of systemic and institutional racism, and thoughts on moving forward to address this issue in our region. A diverse group of five storytellers shared their direct experiences of racism and how it has impacted their lives. Discussion was moderated by Kathryn Gretsinger, an award-winning CBC broadcaster and professor of journalism at UBC.

Elected officials attended virtually and were able to ask questions of presenters. The forums were also livestreamed on the Metro Vancouver public website. Over 110 people participated virtually on Zoom and over 60 people joined for the livestream. Feedback on the forum noted how valuable the event was and that the speakers were very impactful. The opportunity for additional discussion and direction on resulting actions will be provided at the upcoming Board Strategic Planning Workshop.