

# Phase One Plan

DRAFT TECHNICAL DOCUMENTATION

# INTRODUCTION

## Background

This document outlines the technical foundation of the draft Phase One Plan, including proposed revenues, expenditures, services, and initiatives.

By legislation, TransLink must develop investment plans to identify transportation services, key initiatives, and capital investments, as well as how these services, initiatives and investments will be funded. Once approved, the investment plan serves as TransLink's strategic and financial plan for the applicable 10-year period, until a successor investment plan is approved.

As an investment plan, the Phase One Plan must identify the major actions that TransLink plans to undertake, and set out the relationship between those actions planned by TransLink and:

- the regional growth strategy,
- provincial and regional environmental objectives, including air quality and greenhouse gas emission reduction objectives,
- anticipated population growth in, and economic development of, the transportation service region,
- TransLink's current long term strategy, and
- provincial transportation and economic objectives.

The Phase One Plan proposes to begin delivery of the 10-Year Vision for Metro Vancouver Transit and Transportation (also known as the "Mayors' Council Vision" or "Mayors' Vision").

Development of this documentation was guided by TransLink's long-term Regional Transportation Strategy (RTS) and Metro Vancouver's Regional Growth Strategy (RGS).

## The 30-Year Regional Transportation Strategy

The RTS is the strategic framework that sets out TransLink's approach for accommodating the one million more people expected to move to the region in the next 30 years and the resulting demand on the transportation system.

The RTS sets headline targets – to make half of all trips by walking, cycling and transit, and to reduce the distance people drive by one-third – and related goals. In achieving the targets, everyone benefits from more reliable transportation options, less time and stress commuting, improved access to jobs and housing, safer roads, and reduced greenhouse gas emissions.

## The 10-Year Vision

In 2014, TransLink's 23-member Mayors' Council on Regional Transportation outlined service improvements and priority investments in a 10-Year Vision. The Vision was subsequently endorsed by the TransLink Board of Directors as the blueprint to guide the preparation of TransLink investment plans.

The 10-Year Vision identifies priorities and phasing for investments in the region, and outlines actions and policies that will help the region reach the targets of the RTS, while preparing to accommodate the region's growing population.

The Phase One Plan is anticipated to be the first of three investments plans to deliver the entire Mayors' Vision. Successive 2018 and 2020 investment plans are anticipated to identify further strategic initiatives, programs, and investments.

# INVEST to Maintain & Grow the Transportation System

## Invest in Transit

- Provide transit service, as described in the table below.

*Conventional Transit Service Levels (service hours in thousands)\**

### Previously Funded/Committed

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Bus</b>	5,003	5,003	5,003	5,003	5,003	5,003	5,003	5,003	5,003	5,003
<b>SeaBus</b>	11	11	11	11	11	11	11	11	11	11
<b>Rail</b>	1,522	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520
<b>Total</b>	6,535	6,534	6,534	6,534	6,534	6,534	6,534	6,534	6,534	6,534

### New in this Plan

	2017	2018	2019**	2020	2021	2022	2023	2024	2025	2026
<b>Bus</b>	132	293	384	500	500	500	500	500	500	500
<b>SeaBus</b>	1	1	2	3	3	3	3	3	3	3
<b>Rail</b>	39	105	185	246	262	278	289	293	293	293
<b>Total</b>	172	400	571	749	765	781	792	796	796	796

\* Table does not include Custom Transit

\*\*If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.

- This Plan includes a 10% increase in bus service, an 18% increase in rail service, and a 15% increase in Custom Transit across the region.
- This Plan will provide more frequent service on 50 different bus routes that carry 650,000 passengers across the region every day.

- B-Line express routes on Fraser Highway, Lougheed Highway, Marine Drive, 41<sup>st</sup> Avenue, and Hastings Street.
- Expansion of coverage service areas, including: Silver Valley in Maple Ridge, Morgan Creek and Clayton in Surrey, Willoughby in Langley, and Burke Mountain in Coquitlam .
- Increase SkyTrain service beginning in early 2017, by providing more service outside of current peak hours. Further additional service following procurement of new rail cars.
- Transit capital expenditures are shown in Schedule 1, including:
  - Purchase 50 new cars for Expo, Millennium, and Canada Lines, with expanded service using new fleet;
  - Purchase 5 new West Coast Express cars and one new locomotive;
  - Purchase 171 new buses;
  - Purchase a new SeaBus vessel; and
  - Invest in transit priority to implement measures to improve service reliability and speed, such as queue jump lanes and transit signal priority.

## Plan for New Rapid Transit

- Build on significant completed technical work (UBC Rapid Transit Study and the Surrey Rapid Transit Study) that evaluated options for expanding the region's rapid transit network.
- Continue planning and engineering for the Millennium Line Extension (Broadway Subway) and South of Fraser Rapid Transit (Surrey Light Rail).
- Continue to work with partner governments to confirm funding contributions for Millennium Line Extension, South of Fraser Rapid Transit, and next phase of Upgrades to Existing Rail (including completion of Expo Upgrade Strategy).

## Invest in Walking & Cycling

- Fund walking and cycling infrastructure, as described in the table below.

*Capital expenditures for walking and cycling (\$ millions)*

	2017	2018	2019*	2020	2021	2022	2023	2024	2025	2026
<b>Walking</b>	2.5	5.0	5.0	-	-	-	-	-	-	-
<b>Regional Cycling – previously committed</b>	1.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
<b>Regional Cycling – new in this plan</b>	6.0	11.9	11.9	-	-	-	-	-	-	-
<b>TransLink-Owned Cycling – previously committed</b>	1.5	0.8	1.0	1.3	1.0	1.0	1.0	1.0	1.0	1.0
<b>TransLink-Owned Cycling – new in this plan</b>	2.3	4.6	4.6	-	-	-	-	-	-	-

*\*If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.*

- Through cost-sharing with municipalities, fund pedestrian infrastructure around transit stops, stations and exchanges, including sidewalks, crosswalks, and pedestrian signals.
- Through cost-sharing with municipalities, fund bicycle infrastructure including cycle paths and bike share.
- Expand funding to invest in cycling infrastructure on TransLink-owned facilities and at major transit stations and exchanges.

## Invest in Roads & Bridges

- Invest in TransLink-owned bridges and fund the regional share of the Major Road Network (MRN), as described below.

*Expenditures for Major Road Network (\$ millions)*

	2017	2018	2019*	2020	2021	2022	2023	2024	2025	2026
<b>MRN Upgrades – previously committed</b>	8.9	4.6	13.8	-	-	-	-	-	-	-
<b>MRN Upgrades – new in this plan</b>	10.0	20.0	20.0	-	-	-	-	-	-	-
<b>MRN Seismic – previously committed</b>	-	-	-	-	-	-	-	-	-	-
<b>MRN Seismic – new in this plan</b>	6.5	13.0	13.0	-	-	-	-	-	-	-

*\*If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.*

*Major Road Network expansion*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Lane Kilometers (km)	2,394	2,657	2,684	2,710	2,738	2,765	2,793	2,820	2,849	2,877
Increase %	1%	11%	1%	1%	1%	1%	1%	1%	1%	1%

- Fund operations, maintenance, and pavement rehabilitation of the Major Road Network. Funding will be distributed to municipalities based on the number of lane-kilometres of MRN in their jurisdiction.
- Provide for a one-time increase to the length of the MRN of 11%, as well as annual 1% increases.
- Continue to maintain and operate the Golden Ears Bridge, Knight Street Bridge, Westham Island Bridge, North Arm Bridge (Canada Line), and SkyBridge (Expo Line).
- Reinstate regional funding that was eliminated in 2013 to fund Major Road Network Upgrades that are cost-shared with municipalities.
- Provide new regional funding for municipalities to rehabilitate and make seismic retrofits to MRN structures, such as overpasses, retaining walls, and bridges.

## Plan for a New Pattullo Bridge

The Pattullo Bridge is one of the oldest bridges in the region, built in 1937 with expected 50-year design.

Through 2016, TransLink completed essential repairs on the existing Pattullo Bridge while analyzing bridge replacement options and consulting with local communities. Rehabilitation work will keep the existing bridge in service to the end of 2022.

- Continue project development activities to keep the Replacement Project on schedule to open by January 1, 2023. The replacement project must be in an approved investment plan by mid-2017 to proceed with procurement.
- Continue to work with senior governments to confirm capital contributions for the Replacement Project.

## Maintain Assets in Good Condition

- Invest in state of good repair projects, including the implementation of a new Enterprise Asset Management System, and proactively manage assets to ensure safe, secure, and resilient operations.
- Modernize BCRTC systems and processes to ensure a safe and reliable system, including replacing rail on the Expo and Millennium lines and implementing remaining recommendations from the SkyTrain Independent Review.

# MANAGE the System to be More Efficient & Customer-Focused

## Make Travel Safe, Secure, Easy, Attractive & Reliable

- Deliver a more universally accessible transit experience including: installing proximity-sensor entrances at faregates; launching the Access Transit Compass Card; and responding to findings of the Access Transit Service Delivery Review.
- Enhance the Compass Card experience for customers, including enabling new fare payment methods and integrating Compass with other transportation services.
- Improve customer travel information and wayfinding at transit stops and stations to make the transit system easier to navigate.
- Expand the in-person and digital marketing reach of TravelSmart, building on the current program to deliver travel information and incentives more effectively.
- Launch an integrated travel planning and payment platform to provide real-time, dynamic and targeted travel information across modes.
- Undertake priority actions from the Regional Goods Movement Strategy, including collaborating with partners to designate and manage a Regional Truck Route Network and coordinate truck permitting.



## **Use mobility pricing to reduce congestion and overcrowding, improve fairness, and generate revenue**

- Implement an integrated approach to pricing for transit and roads with near-term actions including launching a Mobility Pricing Independent Commission; completing the Transit Fare Review and undertaking a major field study on options for more coordinated regional bridge and road tolling.

# **PARTNERING to Make it Happen**

## **Develop Project Partnership Agreements**

The 10-Year Vision calls for Project Partnership Agreements whenever the region is making major investment decisions that involve significant cost and risk and that require higher degrees of coordination and collaboration by multiple partners for success.

- Following a collaborative and integrated planning process for both the major project and the area around it, Project Partnership Agreements documenting mutual commitments on project design and infrastructure needs as well as supporting land use and transportation policies and investments will be brought forward for approval by the Mayors' Council before or with funding approval in an investment plan.

## **Work with Partners to Align Transportation and Land-Use**

- Continue to work with municipalities to ensure land use and transportation plans are aligned with regional priorities and create a region where transit, walking, and cycling are convenient and easy.
- Continue to develop and implement Corridor Plans, Station/Exchange Plans, and Area Plans to identify priorities for integrating transit, walking, and cycling infrastructure with land use, consistent with the RGS and RTS. Actions will include

working with municipalities to support affordable rental housing along the Frequent Transit Network (FTN)<sup>1</sup> and the Metro 2040/Regional Affordable Housing Strategy.

## Improve Coordination and Unlock Innovation through new Public-Private Sector Partnerships

- Collaborate with public and private sector partners to establish the Greater Vancouver Urban Freight Council to: champion and help facilitate priorities identified in the Regional Goods Movement Strategy; coordinate freight-related initiatives between partners; and exchange knowledge and information on urban freight issues, including protection of rail rights-of-way and access to waterways for goods movement.
- Expand role in providing mobility options, including vanpooling, to serve the region's diverse mobility needs.
- Collaborate with public sector, industry and academic partners to set up and fund a social innovation lab to explore “new mobility” concepts including:
  - Opportunities to leverage benefits of vehicle automation to achieve regional objectives (e.g. reduced driving, more compact land use, improved safety);
  - Mobility as a Service systems that integrates payment across transportation services;
  - Ways to expand car sharing and multi-occupancy vehicle use; and
  - Expanded public transit service delivery models, including flexible last-mile services.

## OUTCOMES

In implementing the first three years of the Vision, the Phase One Plan will help the region get on track towards the goals and targets adopted under the RTS.

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<sup>1</sup> Frequent Transit Network is a network of corridors that have transit service every 15 minutes or better, all day, 7 days a week

## Target: 50% trips by walking, cycling, and transit

In 2016, TransLink is forecast to provide 233 million transit journeys. Transit ridership is expected to rise with the opening of the Evergreen Extension and expansion of transit services.

- The Phase One Plan is expected to increase annual transit journeys to 272 million by 2026. Implementation of the entire 10-Year Vision in future phases, including mobility pricing strategies, is expected to further grow annual transit journeys to 354 million by 2030.
- The Phase One Plan also delivers a significant portion of the capital investments for walking and cycling infrastructure identified in the Vision. This is key to fostering conditions that support walking and cycling, helping fully leverage investments in transit by maximizing their catchment area.

*Ridership forecast (millions)*

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Transit Journeys</b>	233	241	248	255	260	263	265	268	269	271	272
<b>annual increase</b>		3.5%	3.0%	2.8%	2.0%	1.1%	0.9%	0.9%	0.5%	0.6%	0.5%

## Target: Reduce distances driven by 1/3 from 2011 levels

- One of the ways TransLink contributes towards this target is by providing a reliable FTN connecting Urban Centres and around which new growth and development will be concentrated, as identified in the RGS.
- TransLink will continue to work with partners to ensure land-use and form are supportive of that transit. TransLink achieves this through the FTN. The 2011 Census of Canada and Pitney Bowes Canada Business Points indicate 54% of the region's dwellings and 66% of the region's jobs are located within walking distance<sup>2</sup> of the FTN.
- The extent of the FTN will expand through the Phase One Plan as a result of increasing SeaBus service frequency to FTN levels, between Waterfront Station and

<sup>2</sup> "within walking distance" is defined as a 5-minute walk (400 m) of a frequent bus corridor or within 10-min walk (800 m) of a rapid transit station.

Lonsdale Quay. The Phase One Plan will also increase transit service along the FTN.

- Other routes within the transit network will also see improvements, to reduce crowding and expand service to new areas.
- The implementation of new B-Lines will result in over 270,000 residents and 252,000 jobs gaining access to a B-Line.

## **Towards the Goals of the Regional Transportation Strategy**

The actions and investments in the Phase One Plan support continued progress towards the goals set out in the RTS.

### **Provide sustainable transportation choices**

- Initiatives that enhance sustainable transportation choices will help to improve regional accessibility, increase walking, cycling and transit use, and reduce both the need to own a car and distances travelled by car.
- Expansion of transit service hours will provide more service per capita, reversing the recent trend that has seen service levels idle while the population continues to grow.

### **Support a compact urban area**

- Implementing the 10-Year Vision will contribute to focusing growth in Urban Centres as designated by the RGS.
- Planned service expansion will result in tangible improvements and expansion to the FTN. In addition, TransLink will continue to work with its local government partners to support alignment of land-use and transportation planning.

### **Foster safe, healthy and complete communities**

- Increase funding for walking and cycling, including a commitment to work with municipal stakeholders to develop a performance-based process for allocation.
- Transit expansion into new service areas will provide transportation alternatives to growing communities.

### **Enable a sustainable economy**

- Initiatives and investments will result in improved access to jobs, and more efficient and reliable movement for goods and people.
- TransLink will continue to play a key role in improving goods movement in and around the region through the Goods Movement Strategy. Expanded MRN funding identified in the Phase One Plan will improve safety and efficiency; seismic upgrades to the MRN will support the network's long-term resilience and reliability.
- The Phase One Plan will support a key pillar of the province's BC Jobs Plan, strengthening infrastructure to get goods to market, through continued investment in a safe, reliable and efficient multi-modal transportation network.

### **Protect the environment**

The road-based transportation system is responsible for more than one third of all greenhouse gas emissions in the Metro Vancouver region.

- TransLink supports the reduction in emissions of Criteria Air Contaminants (CAC)<sup>3</sup> that impacts respiratory health and greenhouse gas (GHG) that contribute to climate change. Emissions of both are a product of distance (vehicle kilometres travelled, or VKT) and fuel efficiency.
- The Plan is expected to deliver moderate progress on emissions reductions in the near term with the opening of the Evergreen Extension and expansion of transit services. Additional reductions are expected with increasingly efficient vehicles.
- The region will not advance emission reduction goals without continued expansion of transit, walking, and cycling investments and reduction of VKT in the long term.
- TransLink's average transit fleet fuel efficiency and GHG emissions rates compare favourably to peer regions because of the electric-powered SkyTrain system and trolley buses, and hybrid and alternative fuel conventional buses and community shuttles.

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<sup>3</sup> Criteria Air Contaminants refer to a group of pollutants that include sulphur oxides, nitrogen oxides, particulate matter (PM), volatile organic compounds (VOCs), carbon monoxide, and ammonia.

- TransLink will continue to make improvements by replacing older-generation diesel buses. TransLink monitors and reports fleetwide GHG emissions and CAC on an annual basis.
- Transit expansion and the use of a more fuel efficient fleet is an integral part of a low carbon economy and achieving the emissions reductions outlined in BC's Climate Leadership Plan.

# FUNDING

## Revenue Sources

### Transit Fares

*Transit fare revenue forecasts (\$ millions)*

	2017	2018	2020	2021	2022	2023	2024	2025	2026	2026
<b>Fares</b>	542	570	600	628	650	674	698	720	741	762

- The Phase One Plan plans for annual fare increases of 5 to 10 cents for single-use products, 25 cents for DayPasses, and \$1 to \$3 for monthly passes for the first three years. (Increases to West Coast Express fares vary; see Schedule 8 for detailed fare table).
- The Phase One Plan plans further, annual increases to fares in 2020 through 2026. No short-term fares are planned to be above targeted levels specified by the SCBCTA Act.
- Fare changes are proposed to occur in July of each year in the Plan period.
- The Transit Fare Review is underway and will recommend changes to TransLink's fare structure. Prior to the Reviews completion, TransLink assumes fare increases based on the current fare structure and products. Any potential changes to fare structure from the Transit Fare Review will be included in a future investment plan.
- See Schedule 8 for complete fare table.

## Property Tax

*Property tax revenue forecasts (\$ millions)*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Standard property tax</b>	333	343	354	364	375	386	398	410	422	435
<b>Replacement tax</b>	18	18	18	18	18	18	18	18	18	18
<b>Additional property tax</b>	6	12	18	25	31	38	45	53	62	71

- A portion of property taxes collected in the region is used to support transit, roads, and bridges in the region.
- Under the current system, the total amount of property tax revenue TransLink collects in the region increases by 3% per year, regardless of how much growth in new development occurs. This is capped by legislation, and can only be increased with approval by the Mayors' Council through an investment plan.
- This Phase One Plan proposes to adjust the TransLink property tax formula to better account for new development in order to keep up with inflation and growing per capita usage of transit and transportation. Under this proposed change, the average homeowner in the region would see approximately an additional \$3 increase in property taxes each year.
- Property taxes (including Replacement Tax and proposed Additional Property Tax) are forecast to generate a total \$4,361 million in revenues over 10 years, with the Standard Property Tax generating \$3,820 million, the Replacement Tax generating \$180 million, and the Additional Property Tax generating up to \$361 million.

## Motor Fuel Sales Tax

*Motor fuel sales revenue forecasts (\$ millions)*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Motor fuel tax</b>	385	388	389	390	390	391	391	392	393	393

- TransLink receives a portion (17 cents per litre) of the motor fuel tax in Metro Vancouver.

- Annual fuel tax revenues over the Plan 10-year period are forecast to remain relatively constant and amount to \$3,901 million.

### Proposed Development Fee

- A new region-wide development fee is proposed to be implemented no later than 2020, with implementation details to be developed and consulted on in 2017 in coordination with local governments, stakeholders, and the province. The provincial government will need to advance enabling legislation for the development fee by late 2017 or early 2018.
- This Phase One Plan contemplates the proposed regional development fee to take the form of a Development Cost Charge (DCC).
- The development fee is expected to generate \$127 million in revenues over 10 years, to be applied to debt service costs.
- If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.

### Other Sources

- Other sources of operating revenue include the Parking Rights Tax, Golden Ears Bridge tolls, Hydro Levy, interest income, and the provincial operating contribution to the Canada Line.

*Other revenue forecasts (\$ millions)*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Parking Rights Tax</b>	70	71	73	74	75	76	77	78	79	80
<b>GEB Tolls</b>	56	58	60	62	65	67	70	72	75	78
<b>Hydro Levy</b>	21	21	21	22	22	22	23	23	23	24
<b>Interest Income (unrestricted)</b>	3	7	12	16	16	17	17	18	19	21
<b>Operating Contribution</b>	19	19	19	19	19	19	19	19	19	19



### Golden Ears Bridge Tolls

- TransLink will continue to generate revenue from tolls collected on the Golden Ears Bridge, which will continue to be adjusted for inflation on an annual basis.
- Ten-year toll revenues are forecast to be \$664 million.
- See Schedule 7 for planned toll rates.

### Provincial Contributions

- TransLink receives an operating contribution of \$19 million per year from the province representing deferred provincial contributions for the Canada Line.

## Capital Funding & Senior Government Contributions

*Capital funding contributions (\$ millions)*

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Build Canada	4	-	-	-	-	-	-	-	-	-
Federal PTIF	152	218	-	-	-	-	-	-	-	-
Provincial (PTIF)	100	144	-	-	-	-	-	-	-	-
Provincial (exc. PTIF)	9	-	-	-	-	-	-	-	-	-
Greater Vancouver Regional Fund (GVRF)	195	165	94	36	26	20	81	113	59	188
Regional Proceeds from Sale of Assets	10	10	10	10	10	10	10	10	10	10
Other	1	1	1	1	1	1	1	1	1	1

### Sale of Surplus Property

- TransLink will also generate additional revenues through sale of surplus property, with proceeds applied directly to capital (assumed as \$10 million per year for the Plan period).

### Greater Vancouver Regional Fund (GVRF Gas Tax Fund)

The GVRF, administered through Metro Vancouver, pools member municipalities' gas tax funds to support regional transportation projects delivered by TransLink. Funding to TransLink is contingent on application and approval of eligible projects by the Greater Vancouver Regional District Board of Directors.

- The GVRF currently contributes capital funding to delivering transit projects.
- This Plan assumes \$978 million in GVRF funding to support transit fleet modernization and system expansion.

### **Public Transit Infrastructure Fund**

- The Government of Canada has committed \$370 million of Phase 1 of the Public Transit Infrastructure Fund (PTIF) for various capital improvements that advance the Mayors' Vision.
- These investments include fleet expansion of SkyTrain, Canada Line, and West Coast Express; upgrades at various stations and exchanges; continued state of good repair initiatives; and design of the Millennium Line Extension (Broadway Subway) and South of Fraser Rapid Transit (Surrey Light Rail) projects.

### **Build Canada Fund**

- TransLink has received funding from the federal Building Canada Fund (BCF) for SkyTrain station upgrades. TransLink continues to apply these funds to projects underway.

### **Provincial Contributions**

- The Province of British Columbia has committed capital funding to match the federal PTIF contribution.

## **Established Borrowing Limit**

TransLink currently has an established borrowing limit of \$3.5 billion.

- This Draft Plan proposes an increase of \$0.5 billion in the amount TransLink may borrow so that the revised borrowing limit, in accordance with section 31 (1) of the SCBCTA Act, becomes \$4 billion, pending the Mayors' Council on Regional Transportation consultation with the Greater Vancouver Regional District Board of Directors. The proposed increase supports delivery of the regional share of capital expenditures in the Plan.

# Schedules

## Schedule 1: Capital Expenditures (\$ millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>CAPITAL EXPENDITURES (\$ millions)</b>										
<b>Bus</b>										
Equipment	10	45	-	-	-	-	-	-	-	-
Facilities	7	15	3	1	4	3	3	2	3	2
Infrastructure	54	73	36	29	16	20	13	13	14	18
Technology	2	4	4	-	-	-	-	-	-	-
Vehicles	194	208	95	35	21	21	95	142	76	233
<i>Subtotal Bus</i>	<i>267</i>	<i>345</i>	<i>138</i>	<i>65</i>	<i>41</i>	<i>44</i>	<i>111</i>	<i>157</i>	<i>93</i>	<i>253</i>
<b>Rail</b>										
Equipment	72	95	14	22	16	7	-	-	-	-
Facilities	1	11	2	1	2	3	3	-	-	-
Infrastructure	130	116	41	10	17	18	17	16	28	16
Technology	3	14	1	1	1	0.1	1	0.1	1	0.1
Vehicles	119	120	8	12	21	32	110	108	-	0.2
<i>Subtotal Rail</i>	<i>325</i>	<i>356</i>	<i>66</i>	<i>46</i>	<i>57</i>	<i>60</i>	<i>131</i>	<i>124</i>	<i>29</i>	<i>16</i>
<b>Corporate</b>										
Equipment	1	4	-	-	-	-	-	-	-	-
Facilities	2	0	-	-	-	-	-	-	-	-
Infrastructure	58	4	-	5	5	5	5	-	-	-
Technology	15	18	21	20	20	16	16	17	17	17
Non-Revenue Vehicles	1	0.3	0.1	0.1	-	-	0.3	0.4	0.3	-
<i>Subtotal Corporate</i>	<i>77</i>	<i>26</i>	<i>21</i>	<i>25</i>	<i>25</i>	<i>21</i>	<i>21</i>	<i>17</i>	<i>17</i>	<i>17</i>
<b>TL Roads &amp; Bridges</b>										
TL Owned Cycling	4	5	6	1	1	1	1	1	1	1
TL Roads and Bridges	9	15	9	5	-	-	-	-	-	-
<i>Subtotal Roads &amp; Bridges</i>	<i>13</i>	<i>20</i>	<i>15</i>	<i>6</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
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**CAPITAL INFRASTRUCTURE CONTRIBUTIONS (\$ millions)**

**Road Network**

MRN Pavement Rehab	17	29	27	25	26	26	26	28	29	29
MRN Upgrades	19	25	34	-	-	-	-	-	-	-
MRN Seismic	6.5	13	13	-	-	-	-	-	-	-
Regional Cycling	8	13	13	2	2	2	2	2	2	2
Walking	2.5	5	5	-	-	-	-	-	-	-
<i>Subtotal Road Network</i>	53	85	92	27	28	28	28	30	31	31

Total Capital	735	832	332	169	153	154	292	329	170	318
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Note: Figures are preliminary and subject to change.

Note: Totals may not add due to rounding.

Note: If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.

## Schedule 2: Major Capital Projects (\$ millions)

Project	Gross Cost (\$m)	Project Start Year
Replacement of SkyTrain MKI Vehicles	233	2021
2026 Conventional Bus Replacements	216	2025
2024 Conventional Bus Replacements	122	2023
Canada Line Fleet Expansion	88	2017
2023 Conventional Bus Replacements	86	2022
Expo Line Fleet Expansion	80	2017
Expansion of 40 ft Conventional Bus Fleet	73	2017
Expansion of 60 ft Conventional Bus Fleet	66	2017
2018 Conventional Bus Replacements	65	2017
2025 Conventional Bus Replacements	65	2024
Expo Line Burrard Station Upgrade	61	2017
Expo Line Guideway Seismic Upgrade	52	2020
SkyTrain OMC Replacement/Relocation	50	2017

Note: Figures are preliminary and subject to change.

## Schedule 3: Operating Expenditures (\$ millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bus Division	694	729	762	795	812	829	847	865	883	902
Rail Division	298	307	323	336	344	353	361	367	372	380
Roads, Bridges, Cycling ( <i>does not include MRN Capital Funding</i> )	53	52	53	54	56	57	59	60	62	64
TransLink Corporate	119	102	100	100	104	105	106	108	112	114
Transit Police	37	37	38	39	40	40	41	42	43	44
<i>Operating (excluding Debt Service)</i>	<i>1,200</i>	<i>1,228</i>	<i>1,276</i>	<i>1,323</i>	<i>1,356</i>	<i>1,385</i>	<i>1,414</i>	<i>1,442</i>	<i>1,473</i>	<i>1,503</i>

Debt Service Costs	283	307	332	354	368	379	388	399	398	395
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<i>Operating (including Debt Service)</i>	<i>1,483</i>	<i>1,535</i>	<i>1,608</i>	<i>1,677</i>	<i>1,724</i>	<i>1,764</i>	<i>1,802</i>	<i>1,841</i>	<i>1,871</i>	<i>1,898</i>
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Note: Figures are preliminary and subject to change.

Note: Totals may not add due to rounding

Note: If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.

## Schedule 4: Revenue Sources (\$ millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Operating Revenues</b>										
<i>Transit Revenues</i>										
Fares	542	570	600	628	650	674	698	720	741	762
Other transit revenues	23	23	24	24	24	25	25	26	26	27
<i>Property Tax</i>										
Standard property tax	333	343	354	364	375	386	398	410	422	435
Replacement tax	18	18	18	18	18	18	18	18	18	18
Additional property tax	6	12	18	25	31	38	45	53	62	71
<i>Motor fuel tax</i>	385	388	389	390	390	391	391	392	393	393
<i>Parking Rights Tax</i>	70	71	73	74	75	76	77	78	79	80
<i>GEB Tolls</i>	56	58	60	62	65	67	70	72	75	78
<i>Other</i>										
Hydro Levy	21	21	21	22	22	22	23	23	23	24
Interest Income (unrestricted)	3	7	12	16	16	17	17	18	19	21
Operating Contribution	19	19	19	19	19	19	19	19	19	19
<b>Revenues Applied to Debt</b>										
<b>Service Costs</b>										
Development Cost Charges	-	-	-	10	15	20	20	20	21	21
<b>Total Operating Revenue</b>										
	1,475	1,531	1,588	1,651	1,701	1,753	1,802	1,850	1,898	1,948

Note: Figures are preliminary and subject to change.

Note: If the new region-wide development fee is not enabled and confirmed by 2018 for implementation in 2020, a portion of the expansion contemplated for introduction in 2019 would need to be deferred. This would be in the order of 100,000 to 125,000 annual conventional bus service hours or a combination of transit and road/walk/cycle improvements of equivalent value.

## Schedule 6: Borrowing (\$ millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Debt Level - Gross Direct Debt (ending balance)	3,141	3,276	3,425	3,468	3,485	3,496	3,671	3,787	3,733	3,547

Note: Figures are preliminary and subject to change.

## Schedule 7: Golden Ears Bridge Toll Rates

Vehicle Classification	July 2016	July 2017	July 2018	July 2019	July 2020	July 2021	July 2022	July 2023	July 2024	July 2025	July 2026
<b>Car</b>											
Transponder registered	\$3.15	\$3.20	\$3.25	\$3.30	\$3.35	\$3.40	\$3.45	\$3.50	\$3.55	\$3.60	\$3.65
Video registered	\$3.70	\$3.75	\$3.85	\$3.95	\$4.05	\$4.15	\$4.25	\$4.35	\$4.45	\$4.55	\$4.65
Unregistered	\$4.40	\$4.50	\$4.60	\$4.70	\$4.80	\$4.90	\$5.00	\$5.10	\$5.20	\$5.30	\$5.40
<b>Small Truck</b>											
Transponder registered	\$6.25	\$6.40	\$6.55	\$6.70	\$6.85	\$7.00	\$7.15	\$7.30	\$7.45	\$7.60	\$7.75
Video registered	\$6.85	\$7.00	\$7.15	\$7.30	\$7.45	\$7.60	\$7.75	\$7.90	\$8.05	\$8.20	\$8.35
Unregistered	\$7.45	\$7.60	\$7.75	\$7.90	\$8.05	\$8.20	\$8.35	\$8.50	\$8.65	\$8.80	\$9.00
<b>Large Truck</b>											
Transponder registered	\$9.30	\$9.50	\$9.70	\$9.90	\$10.10	\$10.30	\$10.50	\$10.70	\$10.90	\$11.10	\$11.30
Video registered	\$9.95	\$10.15	\$10.35	\$10.55	\$10.75	\$10.95	\$11.15	\$11.35	\$11.60	\$11.85	\$12.10
Unregistered	\$10.55	\$10.75	\$10.95	\$11.15	\$11.35	\$11.60	\$11.85	\$12.10	\$12.35	\$12.60	\$12.85
<b>Motorcycle</b>											
Transponder registered	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Video registered	\$1.50	\$1.55	\$1.60	\$1.65	\$1.70	\$1.75	\$1.80	\$1.85	\$1.90	\$1.95	\$2.00
Unregistered	\$2.90	\$2.95	\$3.00	\$3.05	\$3.10	\$3.15	\$3.20	\$3.25	\$3.30	\$3.35	\$3.40

Note: Figures are preliminary and subject to change.

## Schedule 8: Transit Fares

				Annual fare increases for 2017 through 2026 are assumed effective July 1											
<i>Regular, Short Term Fares</i>				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
<b>Conventional Transit</b>	<b>Cash/Compass Ticket</b>	Adult	1-Zone	\$2.75	\$2.85	\$2.95	\$3.00	\$3.10	\$3.20	\$3.30	\$3.35	\$3.40	\$3.50	\$3.55	
			2-Zone	\$4.00	\$4.10	\$4.20	\$4.25	\$4.40	\$4.50	\$4.65	\$4.80	\$4.95	\$5.05	\$5.25	
			3-Zone	\$5.50	\$5.60	\$5.70	\$5.75	\$5.90	\$6.10	\$6.30	\$6.45	\$6.65	\$6.85	\$7.05	
	Concession	1-Zone	\$1.75	\$1.80	\$1.90	\$2.00	\$2.05	\$2.10	\$2.20	\$2.25	\$2.30	\$2.40	\$2.45		
		2-Zone	\$2.75	\$2.80	\$2.90	\$3.00	\$3.10	\$3.20	\$3.30	\$3.35	\$3.40	\$3.50	\$3.55		
		3-Zone	\$3.75	\$3.80	\$3.90	\$4.00	\$4.10	\$4.25	\$4.35	\$4.50	\$4.65	\$4.80	\$4.90		
	<b>DayPass</b>	Adult	All Zones	\$9.75	\$10.00	\$10.25	\$10.50	\$10.75	\$11.25	\$11.50	\$11.75	\$12.25	\$12.50	\$12.75	
Concession		All Zones	\$7.50	\$7.75	\$8.00	\$8.25	\$8.50	\$8.75	\$9.00	\$9.25	\$9.50	\$9.75	\$10.00		
	<b>Canada Line YVR AddFare</b>			\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00		
<b>Custom Transit</b>	<b>Cash</b>		All Zones	\$2.75	\$2.85	\$2.95	\$3.00	\$3.10	\$3.20	\$3.30	\$3.35	\$3.40	\$3.50	\$3.55	
<i>Discounted, Short Term Fares</i>															
<b>Conventional Transit</b>	<b>Compass Card Single Trip (Stored Value)</b>	Adult	1-Zone	\$2.10	\$2.20	\$2.30	\$2.40	\$2.45	\$2.55	\$2.60	\$2.70	\$2.80	\$2.85	\$2.95	
			2-Zone	\$3.15	\$3.25	\$3.35	\$3.45	\$3.55	\$3.65	\$3.75	\$3.90	\$4.00	\$4.10	\$4.25	
			3-Zone	\$4.20	\$4.30	\$4.40	\$4.50	\$4.65	\$4.75	\$4.90	\$5.05	\$5.20	\$5.35	\$5.55	
			Concession	1-Zone	\$1.75	\$1.80	\$1.85	\$1.95	\$2.00	\$2.05	\$2.15	\$2.15	\$2.20	\$2.25	\$2.30
			2-Zone	\$2.75	\$2.80	\$2.85	\$2.95	\$3.00	\$3.10	\$3.15	\$3.20	\$3.25	\$3.35	\$3.40	
			3-Zone	\$3.75	\$3.80	\$3.85	\$3.95	\$4.05	\$4.20	\$4.30	\$4.45	\$4.60	\$4.65	\$4.75	
<b>Custom Transit</b>	<b>FareSaver/Compass Card Single Trip</b>		All Zones	\$2.10	\$2.20	\$2.30	\$2.40	\$2.45	\$2.55	\$2.60	\$2.70	\$2.80	\$2.85	\$2.95	
<i>Non-Short Term Fares</i>															
<b>Conventional Transit</b>	<b>Monthly Pass</b>	Adult	1-Zone	\$91.00	\$93.00	\$95.00	\$98.00	\$101.00	\$104.00	\$107.00	\$110.00	\$113.00	\$115.00	\$118.00	
			2-Zone	\$124.00	\$126.00	\$128.00	\$131.00	\$135.00	\$139.00	\$143.00	\$147.00	\$152.00	\$156.00	\$160.00	
			3-Zone	\$170.00	\$172.00	\$174.00	\$177.00	\$182.00	\$188.00	\$193.00	\$199.00	\$205.00	\$211.00	\$218.00	
			Concession	All Zones	\$52.00	\$53.00	\$54.00	\$56.00	\$58.00	\$59.00	\$61.00	\$63.00	\$65.00	\$66.00	\$67.00
<b>Custom Transit</b>	<b>Monthly Pass</b>		All Zones	\$91.00	\$93.00	\$95.00	\$98.00	\$101.00	\$104.00	\$107.00	\$110.00	\$113.00	\$115.00	\$118.00	
<p>* Short term fares, as defined in the South Coast British Columbia Transportation Authority Act, include passes up to three days in duration, such as single trips and DayPasses. The "targeted fare" for a revenue transit service is equal to the short term fare of April 1, 2008, increased by 2 per cent per year compounded annually. This Draft Investment Plan does not propose any fares in excess of targeted fares. Prices for non-short term fares are not subject to regulation.</p>															
<p>** The Canada Line YVR AddFare is applicable only to outbound travel beyond Sea Island on Canada Line on applicable fare products purchased on Sea Island. The YVR AddFare rate may be reviewed periodically for potential adjustments in connection with contractual and funding obligations.</p>															

Note: Figures are preliminary and subject to change.



				Annual fare increases for 2017 through 2026 are assumed effective July 1											
<i>Regular, Short Term Fares</i>				2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
<b>West Coast Express</b>	<b>One-Way Compass Ticket (Cash)</b>	Adult	1- or 2-Zone	\$5.50	\$5.60	\$5.70	\$5.75	\$5.90	\$6.10	\$6.30	\$6.45	\$6.65	\$6.85	\$7.05	
			3-Zone	\$7.25	\$7.35	\$7.45	\$7.50	\$7.70	\$7.95	\$8.20	\$8.45	\$8.70	\$8.95	\$9.20	
			4-Zone	\$9.00	\$9.10	\$9.20	\$9.25	\$9.55	\$9.80	\$10.10	\$10.40	\$10.70	\$11.05	\$11.40	
			5-Zone	\$12.25	\$12.35	\$12.45	\$12.50	\$12.90	\$13.25	\$13.65	\$14.05	\$14.50	\$14.95	\$15.35	
			Concession 1- or 2-Zone	\$3.25	\$3.30	\$3.40	\$3.50	\$3.60	\$3.70	\$3.80	\$3.95	\$4.05	\$4.20	\$4.25	
				3-Zone	\$4.25	\$4.30	\$4.40	\$4.50	\$4.65	\$4.75	\$4.90	\$5.05	\$5.20	\$5.35	\$5.55
				4-Zone	\$5.50	\$5.55	\$5.65	\$5.75	\$5.90	\$6.10	\$6.30	\$6.45	\$6.65	\$6.85	\$7.05
				5-Zone	\$7.50	\$7.55	\$7.65	\$7.75	\$8.00	\$8.20	\$8.45	\$8.70	\$9.00	\$9.25	\$9.55
		<b>Return Compass Ticket (Cash)</b>	Adult	1- or 2-Zone	\$10.25	\$10.50	\$10.75	\$11.00	\$11.35	\$11.65	\$12.00	\$12.40	\$12.75	\$13.15	\$13.55
	3-Zone			\$13.75	\$14.00	\$14.25	\$14.50	\$14.95	\$15.40	\$15.85	\$16.30	\$16.80	\$17.30	\$17.85	
	4-Zone			\$17.00	\$17.25	\$17.50	\$17.75	\$18.30	\$18.85	\$19.40	\$20.00	\$20.60	\$21.20	\$21.85	
	5-Zone			\$23.00	\$23.25	\$23.50	\$23.75	\$24.45	\$25.20	\$25.95	\$26.75	\$27.55	\$28.35	\$29.20	
	Concession 1- or 2-Zone			\$6.25	\$6.50	\$6.75	\$7.00	\$7.20	\$7.40	\$7.55	\$7.70	\$7.85	\$8.05	\$8.20	
				3-Zone	\$8.25	\$8.50	\$8.75	\$9.00	\$9.25	\$9.55	\$9.85	\$10.05	\$10.30	\$10.50	\$10.70
			4-Zone	\$10.50	\$10.75	\$11.00	\$11.25	\$11.60	\$11.95	\$12.30	\$12.65	\$13.05	\$13.40	\$13.70	
			5-Zone	\$14.50	\$14.75	\$15.00	\$15.25	\$15.70	\$16.20	\$16.65	\$17.15	\$17.70	\$18.20	\$18.75	
<i>Discounted, Short Term Fares</i>															
<b>West Coast Express</b>	<b>One-Way Compass Card (Stored Value)</b>	Adult	1- or 2-Zone	\$4.60	\$4.70	\$4.80	\$4.90	\$5.05	\$5.20	\$5.35	\$5.50	\$5.70	\$5.85	\$6.05	
			3-Zone	\$6.05	\$6.15	\$6.25	\$6.35	\$6.55	\$6.75	\$6.95	\$7.15	\$7.35	\$7.60	\$7.80	
			4-Zone	\$7.45	\$7.55	\$7.65	\$7.75	\$8.00	\$8.20	\$8.45	\$8.70	\$9.00	\$9.25	\$9.55	
			5-Zone	\$10.20	\$10.30	\$10.40	\$10.50	\$10.80	\$11.15	\$11.45	\$11.80	\$12.15	\$12.55	\$12.90	
			Concession 1- or 2-Zone	\$2.70	\$2.75	\$2.80	\$2.90	\$3.00	\$3.10	\$3.15	\$3.25	\$3.35	\$3.45	\$3.55	
				3-Zone	\$3.50	\$3.55	\$3.60	\$3.70	\$3.80	\$3.95	\$4.05	\$4.15	\$4.30	\$4.40	\$4.55
				4-Zone	\$4.60	\$4.65	\$4.70	\$4.80	\$4.95	\$5.10	\$5.25	\$5.40	\$5.55	\$5.75	\$5.90
				5-Zone	\$6.25	\$6.30	\$6.35	\$6.45	\$6.65	\$6.85	\$7.05	\$7.25	\$7.50	\$7.70	\$7.95
		<b>Return Compass Pass (Stored Value)</b>	Adult	1- or 2-Zone	\$10.00	\$10.25	\$10.50	\$10.75	\$11.05	\$11.40	\$11.75	\$12.10	\$12.35	\$12.60	\$12.85
	3-Zone			\$13.00	\$13.25	\$13.50	\$13.75	\$14.15	\$14.60	\$15.00	\$15.50	\$15.95	\$16.40	\$16.90	
	4-Zone			\$16.25	\$16.50	\$16.75	\$17.00	\$17.50	\$18.05	\$18.60	\$19.15	\$19.70	\$20.30	\$20.90	
	5-Zone			\$22.00	\$22.25	\$22.50	\$22.75	\$23.45	\$24.15	\$24.85	\$25.60	\$26.35	\$27.15	\$28.00	
	Concession 1- or 2-Zone			\$6.00	\$6.25	\$6.50	\$6.75	\$6.90	\$7.05	\$7.20	\$7.35	\$7.50	\$7.65	\$7.80	
				3-Zone	\$7.75	\$8.00	\$8.25	\$8.50	\$8.75	\$9.00	\$9.30	\$9.55	\$9.75	\$9.95	\$10.15
			4-Zone	\$10.00	\$10.25	\$10.50	\$10.75	\$11.05	\$11.40	\$11.75	\$12.10	\$12.45	\$12.75	\$13.00	
			5-Zone	\$13.75	\$14.00	\$14.25	\$14.50	\$14.95	\$15.40	\$15.85	\$16.30	\$16.80	\$17.30	\$17.85	
<i>Non-Short Term Fares</i>															
<b>West Coast Express</b>	<b>Monthly Pass</b>	Adult	1- or 2-Zone	\$151.75	\$153.75	\$155.75	\$158.75	\$164.00	\$168.00	\$173.00	\$179.00	\$184.00	\$190.00	\$195.00	
			3-Zone	\$201.00	\$203.00	\$205.00	\$208.00	\$214.00	\$221.00	\$227.00	\$234.00	\$241.00	\$248.00	\$256.00	
			4-Zone	\$244.00	\$246.00	\$248.00	\$251.00	\$259.00	\$266.00	\$274.00	\$283.00	\$291.00	\$300.00	\$309.00	
			5-Zone	\$335.75	\$337.75	\$339.75	\$342.75	\$353.00	\$364.00	\$375.00	\$386.00	\$397.00	\$409.00	\$422.00	
			Concession 1- or 2-Zone	\$93.00	\$94.00	\$95.00	\$97.00	\$100.00	\$103.00	\$106.00	\$109.00	\$112.00	\$116.00	\$119.00	
			3-Zone	\$124.50	\$125.50	\$126.50	\$128.50	\$132.00	\$136.00	\$140.00	\$145.00	\$149.00	\$153.00	\$158.00	
			4-Zone	\$154.25	\$155.25	\$156.25	\$158.25	\$163.00	\$168.00	\$173.00	\$178.00	\$183.00	\$189.00	\$195.00	
			5-Zone	\$217.25	\$218.25	\$219.25	\$221.25	\$228.00	\$235.00	\$242.00	\$249.00	\$256.00	\$264.00	\$272.00	
* Short term fares, as defined in the South Coast British Columbia Transportation Authority Act, include passes up to three days in duration, such as single trips and DayPasses. The "targeted fare" for a revenue transit service is equal to the short term fare of April 1, 2008, increased by 2 per cent per year compounded annually. This Draft Investment Plan does not propose any fares in excess of targeted fares. Prices for non-short term fares are not subject to regulation.															

Note: Figures are preliminary and subject to change.