From:	"Mochrie, Paul" <Paul.Mochrie@vancouver.ca>
To:	"Direct to Mayor and Council - DL"
CC:	"City Manager's Correspondence Group - DL" "LaClaire, Lon" <lon.laclaire@vancouver.ca> "Dobrovolny, Jerry" <jerry.dobrovolny@vancouver.ca> "Enfeldt, Magnus" <Magnus.Enfeldt@vancouver.ca>
Date:	8/13/2018 1:03:47 PM
Subject:	Memo - Mobility Pricing Update – Recommendations of the Mobility Pricing Independent
Attachments:	ENG Memo to Mayor & Council - TPL - Mobility Pricing Final Report - Augu....pdf

Greetings Mayor and Council,

Please see the attached memo from Jerry Dobrovolny with regards to the completion of the Mobility Pricing Independent Commission.

The memo summarizes the key recommendations for a regional mobility pricing policy, and provides strategic considerations identified by staff:

- The Commission has identified that region-wide road usage charging is the most effective tool to provide a systematic, meaningful, and lasting reduction in traffic congestion.
- Two types of pricing systems could meet the key principles recommended by the Commission. Initial modelling of regional congestion point charges and distance-based charging concepts show the ability to substantially reduce congestion, improve travel time reliability, and encourage sustainable transportation modes.
- The Commission's work concludes the first step towards informing the decision of whether to, and how to implement a regional mobility pricing policy. Considerable dialogue and research is needed before decisions can be made.
- As part of a regional decision, consider an approach that best supports our City goals. Consider the cost of regional congestion to our residents, providing transportation choices to reduce travel costs for Vancouver households, and the ability of pricing systems/rates to manage congestion on our streets.

If you have any questions or require additional information, please contact Lon LaClaire, Director of Transportation, at 604.873.7336 or lon.laclaire@vancouver.ca.

Best,
Paul

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CITY OF VANCOUVER

CITY OF VANCOUVER

ENGINEERING SERVICES
Jerry W. Dobrovolny, P.Eng., MBA
City Engineer / General Manager

MEMORANDUM

August 13, 2018

TO: Mayor and Council

CC: Sadhu Johnston, City Manager
Paul Mochrie, Deputy City Manager
Katrina Leckovic, City Clerk
Lynda Graves, Administration Services Manager, City Manager's Office
Rena Kendall-Craden, Communications Director
Kevin Quinlan, Chief of Staff, Mayor's Office
Naveen Girn, Community Relations Director, Mayor's Office
Magnus Enfeldt, Associate Director, Strategic Business Advisory
Lon LaClaire, Director of Transportation

FROM: Jerry Dobrovolny
General Manager, Engineering Services

SUBJECT: Mobility Pricing Update – Recommendations of the Mobility Pricing Independent Commission

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In May 2018, the TransLink Board of Directors and Mayors' Council on Regional Transportation received the final report from the Mobility Pricing Independent Commission. The Commission, which was formed in June 2017, has fulfilled its mandate to investigate Metro Vancouver's congestion problem and recommend ways to address our region's traffic challenges.

The Commission's report shows that mobility pricing provides a long-term, sustainable and transformative way of meeting the region's future transportation challenges, but also identified questions and concerns about fairness and affordability, technology, and costs. The Commission's suggested principles for formulating a mobility pricing policy and the descriptions of high-level concepts for road usage charges only represents the first phase of a feasibility study for mobility pricing in Metro Vancouver. The Board and Mayors' Council have directed TransLink staff to undertake additional work, research and engagement to further explore key issues before any decision can be made on whether to consider mobility pricing further.

Continuing to support and advocate for a coordinated and regional approach to pricing the mobility system is critical to advancing the City's transportation objectives of managing congestion, encouraging sustainable modes, and responding to future trends in mobility. Building on the previous Mobility Pricing Update memo dated February 27, 2018, this memo provides a summary of the key findings of the Commission's recommendation and strategic considerations relevant to the City of Vancouver. The Commission's final report and all appendices are available on their website: www.itstimemv.ca.

CONTEXT FOR REGIONAL MOBILITY PRICING

As Metro Vancouver grows by a million more residents and half a million new jobs by 2040, the region will be met with the challenges of moving more people and goods in the same amount of space. Congestion is already impacting our quality of life, health, safety, economy, and also contributes to the affordability of living in the region. If left unmanaged, congestion will continue to worsen and impact the region's livability and economic competitiveness. Building more complete streets and new transit capacity is not enough to handle the region's growth on its own, and innovations in automated, connected, and shared vehicles will need to be managed in a way that continues to meet our mobility goals.

Prioritizing sustainable transportation modes that are more space-efficient than vehicles is critical for managing growth in a way that supports a healthy and liveable city. A comprehensive regional approach to mobility pricing is a key initiative that will achieve objectives in the City's *Transportation 2040 Plan (2012)*, the *Congestion Management Strategy (2017)*, and regional policies including TransLink's *Regional Transportation Strategy (2013*) and the *Mayors' Council 10-year Vision (2014)*.

A basic level of mobility pricing is already in place in Metro Vancouver in the form of fuel tax, transit fares, parking fees, and the previous tolls on the Port Mann and Golden Ears Bridges. Problems with the current approach include the need to manage congestion as the region grows, and fairness concerns that were raised with disproportionately impacting some communities around the Fraser River by tolling some bridges and not others. Revenues from fuel sales tax, the region's main source of transportation funding, has been unreliable and declining, therefore limiting the ability to effectively manage the transportation network and meet the communities' needs.

Given these challenges, the Mobility Pricing Independent Commission was formed by the Mayors' Council and the TransLink Board of Directors to provide independent advice and recommendations on how the region should proceed with advancing a comprehensive approach to road usage charging, and how to better coordinate pricing of all transportation modes and services in the region. Guided by the three objectives to (1) reduce traffic congestion on roads and bridges, (2) promote fairness, and (3) support transportation investment, the Commission conducted extensive research, analysis, and public engagement from July 2017 to May 2018.

Based on this work, the Commission has identified region-wide road usage charging as the most effective tool to provide a systematic, meaningful and lasting reduction in traffic congestion. Road usage charging would be a transformative opportunity for significant reductions in traffic congestion around the region that are not achievable only through investment in roads or transit.

RECOMMENDATIONS OF THE MOBILITY PRICING INDEPENDENT COMMISSION

The Commission has fulfilled its mandate to explore how road usage charges could be introduced, by undertaking two phases of research and analysis, and substantial public engagement as part of the *It's Time* project. The Commission's final report, *Metro Vancouver Mobility Pricing Study: Findings and Recommendations of the Mobility Pricing Independent Commission for an Effective, Fair and Affordable Mobility Pricing Policy (2018)* (378 pages), is available at the website: www.itstimemv.ca.

The main recommendations of the Commission's work includes the key principles for designing a mobility pricing policy that is equitable, fair, and affordable, along with potential road usage charging concepts that meet these principles and are worth further exploration.

Principles for a Mobility Pricing Policy

The Commission recommended 13 key principles that should be considered in formulating a regional mobility pricing policy that is effective, farsighted, and fair. In summary, a mobility pricing policy for Metro Vancouver should:

- deliver meaningful reductions in congestion in a way that is fair and coordinated between all modes and services;
- be consistent, equitable and aligned with availability of alternatives;
- ensure accountability in how revenue is used, but raising revenue should not be the primary aim; and
- be predictable but adaptable, and support other economic and environmental and social objectives of the region, including protection of privacy.

The full list of key principles and a brief discussion is provided in the **Appendix**.

Illustrative Road User Charging Concepts

Through a coarse-level evaluation of policy instruments and analyzing a series of possible decongestion charging concepts, the Commission concluded that two types of pricing systems – regional congestion point charges, and distance-based charging – could meet the principles outlined above and are worth exploring further in Metro Vancouver.

Through an iterative process of sophisticated transportation modelling, the Commission refined scenarios to illustrate potential designs for a mobility pricing system and the potential congestion reduction results, costs per household, and revenues. The charge rates assumed in the modelling were set at a level to achieve meaningful reductions in congestion, based on the economic theory and concept of marginal social cost pricing. A brief description of concepts and the potential outcomes are as follows:

- **A regional congestion point charge could include charge points at some or all of the regionally important crossings and at locations within the Burrard Peninsula** – An illustrative concept of charge points at or near 12 major regional water crossings and a north-south cordon on the east side of the Burrard Peninsula has the potential to generate regional congestion reductions of 20-25% and improve travel time reliability by 17-20%. The estimated cost for the median household that pays into the system is in the range of $5-8 per day, and $1,800-2,700 per year. Fuel tax would be maintained to complement the point charges and including fuel tax revenue, the net revenues could be $1.1-1.5 billion per year.

- **A distance-based charge with two or more zones with varying charges rates throughout the region –** An illustrative concept of eight different zones across the region has the potential to generate regional congestion reductions of 20-25% and improve travel time reliability by 18-23%. The estimated cost for the median household that pays into the system is in the range of $3-5 per day, and $1,000-1,700 per year. Fuel tax would be eliminated and after accounting for the loss of fuel tax revenue, the net revenues could be $1.0-1.6 billion per year.

Further analysis and iterations will be needed before finalizing the design of a decongestion charge system that balances many factors that need to be considered in more depth, such as the equity, affordability, and business impacts. Maps and graphics of the illustrative scenarios and potential outcomes are provided in the **Appendix**.

Next Steps Beyond the Commission

The Commission's work is only the first step in a multi-year process. There are important unanswered questions that need to be resolved, more work is needed to develop the illustrative concepts into a design that can be implemented, and significantly more regional dialogue to inform a decision around how to proceed with road usage charging in Metro Vancouver. It is clear however that "there is no one single policy that would be as effective as some form of mobility pricing to address regional objectives relative to congestion", as noted by Geoff Cross, Vice President of Transportation Planning and Policy at TransLink[1].

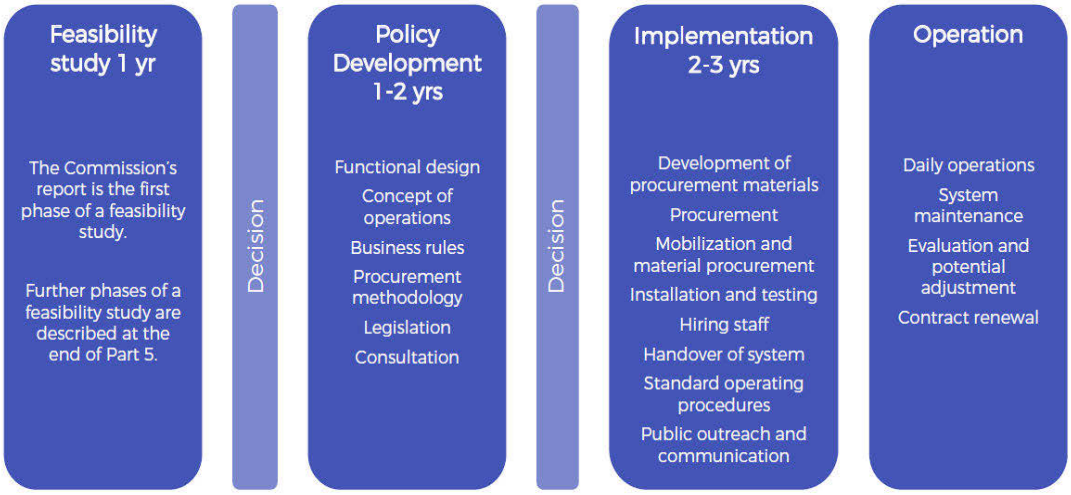
Upon accepting the Commission's report, the Mayors' Council and TransLink Board of Directors have directed TransLink staff to continue dialogue with the public and stakeholders, and to continue research in the next year as part of the feasibility study phase, including:

- Further refinement and iterations of the illustrative concepts, such as to coordinate transit fares and other forms of mobility pricing;
- Assessment of affordability and equity impacts, including the role of discounts, pricing caps and opportunities to return or redistribute revenue;
- Assessment of impacts for business, particularly transport-intensive businesses; and
- Initial assessment of the technology available for distance-based charging.

A decision will then need to be made on whether to proceed to a policy development phase. This phase may take 1-2 years, and would define the functional design of the chosen charging concept, legislation, and include further public and stakeholder consultation. Following the policy development, a final decision would need to be made on whether to implement mobility pricing. The implementation may take 2-3 years before it is operational.

The role of the Mayors' Council, TransLink Board of Directors, and provincial government will evolve through the decision process. If the Mayors' Council decide to implement road usage charges, the role of the provincial government will be significant to set out appropriate legislation and regulations. As well, a governance model would need to appropriately assign the responsibilities of future policy decisions, operations, and the collection and distribution of mobility pricing revenues.

The next phases and decision points before mobility pricing could be implemented is as follows:



Source: Metro Vancouver Mobility Pricing Study, Mobility Pricing Independent Commission May 2018

[1] *Public Meeting Minutes, Joint Meeting of the Mayors' Council on Regional Transportation and Translink Board of Directors, May 24 2018*

STRATEGIC CONSIDERATIONS

While the development of a mobility pricing policy is a regional conversation and decision, the City of Vancouver plays an important role in advocating for an approach that best supports a thriving economy and a sustainable, healthy, and livable city. Important topics and strategic considerations relevant to the City of Vancouver are discussed as follows:

- **Determining road usage charge rates that reduce congestion** – In order to realize the benefits of decongestion, road usage charge rates need to be set at a level that encourages changes to travel behaviour that would reduce congestion. Lower charges would be considered more affordable, yet it would generate revenue without providing any travel time benefits. The paradox is that the less you charge, the more it becomes a "tax grab". Higher rates would actually raise more revenue that could be used to invest in more affordable transportation options and reduce or offset the costs of mobility for people on low incomes. As such, the idea of charging $1 per bridge for all bridges would not meaningfully reduce congestion, and would also be an inefficient way to raise revenue. The road usage charge needs to be priced in accordance with a target level of congestion reduction for Metro Vancouver. Staff will need to support the ongoing process to identify a regional target that aligns with our City's goals for managing congestion and improving travel time reliability.

- **The average household cost for Vancouver residents** – The potential costs for the scenarios were reported as the median annual costs for households in the region that pay. Residents in Vancouver have higher rates of walking, cycling and taking transit, and also drive shorter distances than the average resident in Metro Vancouver[2]. The estimated costs also assumed that households would not adjust their driving behaviour. However, it is anticipated that many households will be able to change their travel behaviour on some days, which was observed when other cities implemented road usage charges. To support Vancouver households reduce their mobility costs and maintain an affordable lifestyle[3], we can continue to invest and implement actions in *Transportation 2040* and provide more options to walk, bike, take transit, or change other aspects of their travel behaviour.

- **Adjusting the regional fuel tax** – A key difference between the two road usage charging concepts is the assumption for maintaining or eliminating the fuel tax. The regional point charge scenario assumed that the fuel tax would remain in place in order to meet the principle of ensuring that everyone pays their fair share, and balances between paying for road use and paying for congestion. The distance-based charging scenario assumed that fuel tax would be eliminated. The public engagement revealed mixed perceptions around fuel tax. Most participants agreed it should be eliminated or reduced (56% and 21% of online responses), but supporting comments were heard to maintain, or maybe even increase the fuel tax to encourage a shift to more fuel efficient vehicles and address GHG emissions. Changes to the regional fuel tax would likely impact Renewable City Strategy goals.

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[2] Based on the *2011 Metro Vancouver Regional Trip Diary Survey – Analysis Report (2013)* by TransLink the share of weekday vehicle trips in Vancouver was 56% compared to the 72% vehicle mode share across all of Metro Vancouver. The average distance of a vehicle trip is 7.6 km in Vancouver, as compared to 9.9 km for vehicle trips averaged across all of Metro Vancouver.

[3] As noted in the *Metro Vancouver Housing and Transportation Cost Burden Study: A new way of looking at affordability (2015)* by Metro Vancouver, conversations about affordability in this region must include both housing and transportation costs. Land use, urban design, and infrastructure that supports walking, cycling, and transit – the lowest cost transportation choices – increases access to jobs and opportunities, and helps offset housing costs, thereby leading to more affordable lifestyles.

- **The ability to manage congestion in Vancouver** – The two road charging scenarios differ greatly in the resulting travel patterns and the ability to manage congestion specifically in Vancouver. In a congestion point charge approach, some reductions in travel time occur mostly on the north-south streets that provide access to crossings to the north shore and south of the Fraser River. Unless a cordon is provided within Vancouver or at the boundary to address trips within the Burrard Peninsula, there is only minor congestion reduction on east-west streets. A distance-based charge encourages drivers to reduce the total distance driven, which results in travel time reductions on all streets and substantial travel time reductions on east-west corridors. A distance-based charge has the most potential to manage congestion and improve travel times in a balanced pattern across the City.

- **Not charging False Creek Bridge crossings** – The regional congestion point charge scenario excludes charges on the False Creek Bridges. The analysis shows that these routes are not highly congested today, and point charges modelled on these crossings would divert traffic away from the False Creek Bridges to more congested areas around Quebec and Main Street (see **Figure 7** in the **Appendix**). As there would be little to no regional benefit of congestion reduction and would impact the local area negatively, the Commission concluded that there is little value in implementing point charges on the False Creek Bridges. Should future mobility pricing designs revisit charges across False Creek, staff recommend that travel patterns in Vancouver's City Core be carefully considered with regards to accessing major employment areas in Downtown and on the Broadway Corridor, as well as the need and opportunity to further improve walking, cycling and transit capacity across False Creek.

- **Potential exploration of a downtown cordon as part of a regional point charge** – A scenario of applying point charges in a cordon around a broadly defined Central Business District in Vancouver was analyzed by the Commission but was ruled out in early iterations. This scenario would not meet the key principle of meaningful region-wide congestion reductions. The public indicated low support for the same reasons. However, the Commission's research indicates that a downtown cordon as part of a regional point charge is one option worth further exploration. If a cordon around the downtown or city core of Vancouver is pursued, Staff recommend that detailed analysis of parking, congestion and long-term impacts to the local areas be a critical part of the deliberation of the cordon boundary.

- **Public acceptance will fluctuate before charges are implemented** – Drawing from experiences in other cities, the level of public acceptance is usually moderate to low early in the process when decongestion charging is described as abstract concepts. As a charging design emerges, the public tends to worry about negative personal consequences, leading to lower acceptance levels before implementation. After implementation, public acceptance typically increases when they experience the direct benefits to travel time and realize that the cost and travel behaviour changes are less problematic than anticipated. The Commission's work over the last year was a unique and highly consultative approach. Continuing to educate and support an informed public dialogue of the details, trade offs, and benefits of decongestion charging is critical to the process.

CONCLUSION

The completion of the Mobility Pricing Independent Commission concludes the first step towards informing the decision of whether to, and how to implement a regional mobility pricing policy.

The Commission's independent findings are clear; that region-wide road usage charging is the most effective tool to provide a systematic, meaningful and lasting reduction in traffic congestion. A mobility pricing policy is a transformative opportunity for Vancouver and the region. Both concepts of regional congestion point charges and distance-based charging can substantially reduce congestion and improve travel time reliability, encourage sustainable transportation modes, and also shape how we adapt to future mobility trends. It also allows us as individuals to re-think how we pay for mobility, and collectively as a region to re-examine the broader approach to fund transportation needs.

Considerable dialogue and research is needed before decisions can be made to further pursue a mobility pricing policy. During this time, Staff will continue engaging with TransLink on the feasibility study to identify regional congestion reduction targets, and other related processes, such as TransLink's Regional Transportation Strategy Update and the regional investment already taking place to improve walking, cycling, and transit infrastructure in our city

The City will continue to follow the region's lead to progress mobility pricing conversations at this time, but the need to consider taking a more proactive role in the future may arise if congestion continues to increase in the absence of a regional implementation plan.

If you have any questions or require additional information, please contact Lon LaClaire, Director of Transportation, at 604.873.7336 or lon.laclaire@vancouver.ca.

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Appendix – Summary of Recommended Key Principles and Illustrative Scenarios

APPENDIX – Summary of Recommended Key Principles and Illustrative Scenarios

The key principles that the Commission recommends should be considered in formulating a regional mobility pricing policy that is effective, farsighted, and fair is as follows:

Manage Congestion

1. **Deliver meaningful reductions in traffic congestion** – In order to achieve decongestion benefits, charges need to be set a level that achieve behaviour change or will otherwise be seen as a "tax grab". The appropriate level of congestion reduction targets would need to be assessed for Metro Vancouver and designed in way that decreases overall congestion across the region and minimizes rerouting that could cause new congestion hot spots or change the location of congestion.
2. **Ensure everyone pays a fair share** – Everyone who uses the transportation system should pay something for it. It should cost more if using the road causes congestion. It is important to find the right balance between paying for use and paying for congestion.
3. **Coordinate all the ways we pay for mobility, including new and emerging services** – A decongestion charge should be coordinated with all the other ways we pay for mobility in Metro Vancouver to achieve regional mobility goals.

Ensure Fairness

4. **Be consistent and explainable** – Differences in mobility pricing charges across users must be consistent and explainable.
5. **Support equity** – A mobility pricing system should be designed in a way that seeks to promote equity. Any revenues from a decongestion charge above those needed for agreed transportation investments should be used to address concerns about the affordability of mobility for people on lower incomes.
6. **Align prices for road use with access to transit** – The design of a decongestion charge should seek alignment of charges with the access to transit, which can also be supported by targeted transit improvements.

Support Investment

7. **Ensure accountability in the way revenues are used** – The entity that collects and manages revenues from a decongestion charge must ensure accountable, effective, and transparent use of those revenues.
8. **Not have raising revenue as its primary aim** – Raising revenues should not be the primary purpose of a mobility pricing policy.

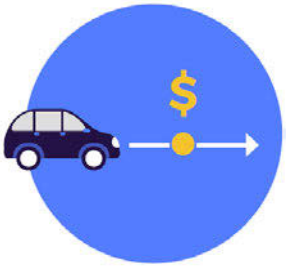
Other Considerations

9. **Deliver positive economic benefits** – A decongestion charge must deliver positive total economic benefits for the region.
10. **Protect individual privacy** – A mobility pricing system must recognize and respect an individual's interests and rights to privacy and use of personal information.
11. **Be predictable, but adaptable** – A mobility pricing system needs to be stable and predictable but can and should evolve over time to more effectively address congestion.
12. **Support goals for regional growth, climate change, and the environment** – The design of a mobility pricing policy should support provincial and regional environmental and land use objectives, as well as considering implications for health and road safety
13. **Continue to be explored with the public and stakeholders** – There will need to be further communication and engagement around a mobility pricing policy, with dedicated resources for inclusive outreach to Metro Vancouver's diverse residents.

Illustrative Road User Charging Concepts

Through sophisticated transportation, econometric, and decision modelling, two road user charging scenarios were illustrated to demonstrate the possible congestion reduction results, potential costs per household, and the system revenues. More analysis and iterations will be needed before finalizing the design of a decongestion charge system that balances the many factors that need to be considered. This will include finding the optimal locations of charges points and/or zone boundaries.

The concepts and traffic modelling assumed charge levels needed to achieve meaningful reductions in congestion, and show a best estimate of their impacts based on the modelling, for the two types of road user charging scenarios:



A regional congestion point charge with charge points at or close to some or all of the regionally important crossings, complemented by further point charges at locations within the Burrard Peninsula

A distance-based charge with two or more zones with varying charge rates throughout Metro Vancouver

The following figures for the two road user charging scenarios include:

- A map of how the charge could be implemented
- A map of the potential travel time reductions based on the modelling
- A table of the potential regional benefits and costs based on the modelling

Note that the “minimum” and “minimum+” indications on the maps and tables represent the two different charge rates that were modelled. In the “minimum” scenario, the modelled charge rate was set at 50% of the marginal social cost of congestion, whereas the charge rate of the “minimum+” scenario was set at 75% of the marginal social cost of congestion. This means that charges were set according to the level of congestion experienced in order to achieve the optimum level of congestion reduction for the transportation network as a whole.

Figure 1: Map of how <u>regional congestion point charges</u> could be implemented

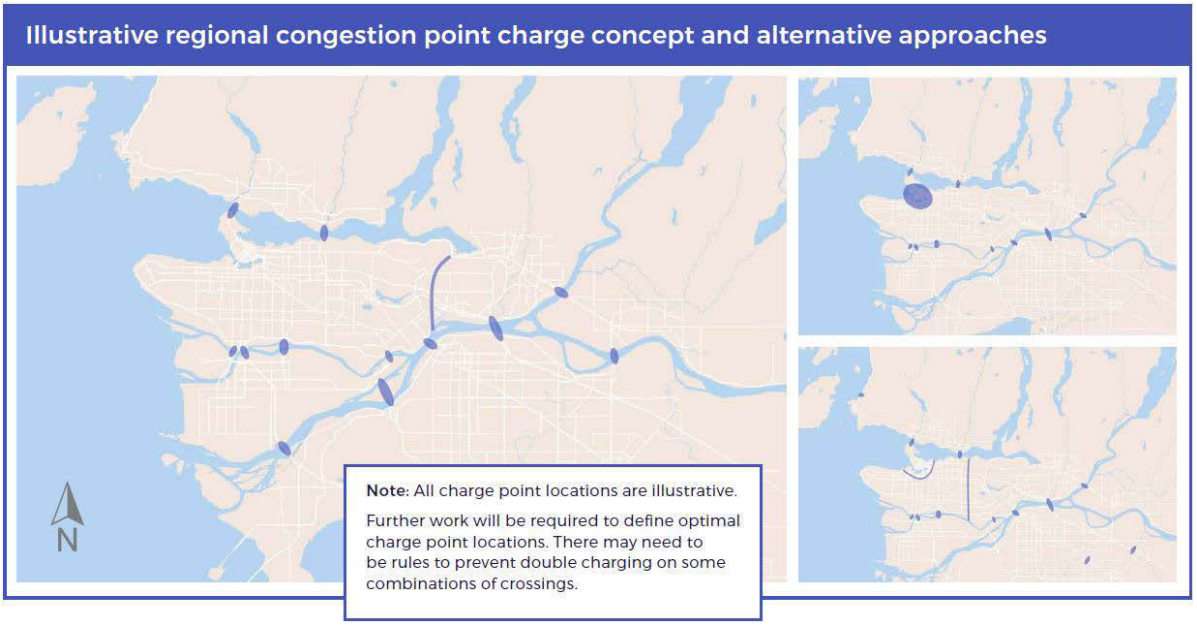


Figure 2: Map of the potential travel time reductions of regional congestion point charges based on traffic modelling

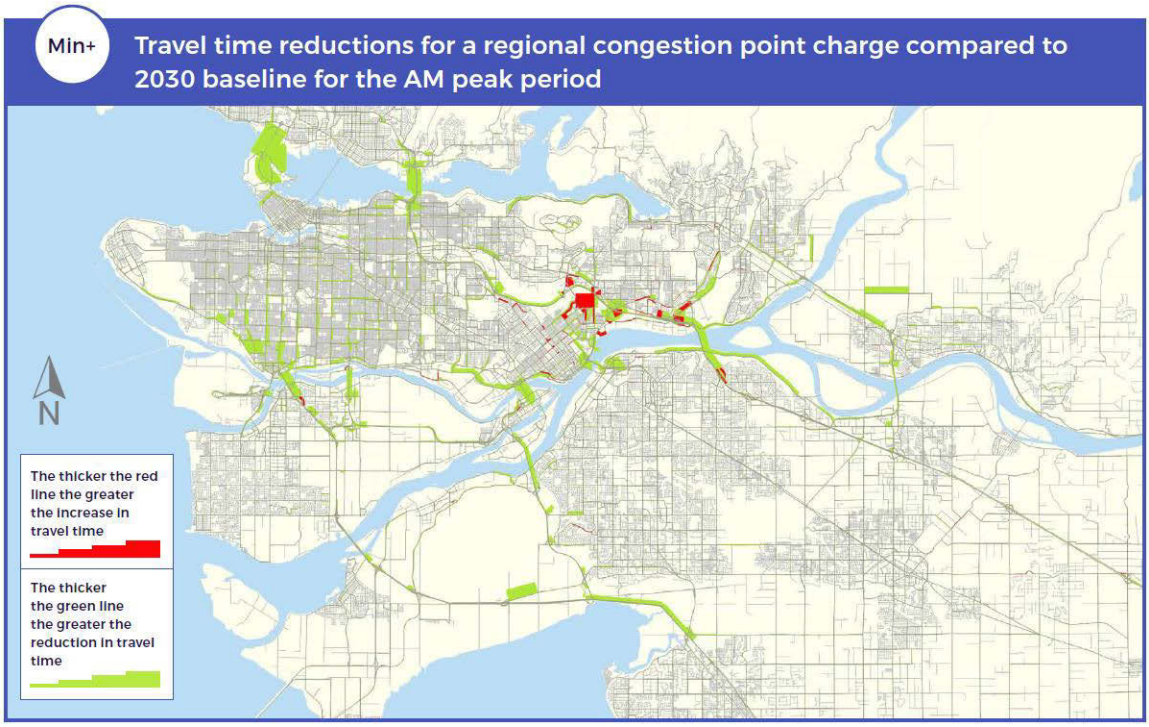


Figure 3: Table of regional benefits and costs of the modelled regional congestion point charges scenario

Evaluation criteria	Units	Regional congestion point charges	
		Min	Min+
Economic benefits			
Total net economic benefits	$ million/year	$220	$290
Congestion			
Total regional congested time savings	% change from baseline in 2030	-20%	-25%
Travel time reliability	% change from baseline in 2030	17%	20%
Visible congested time savings[5]	% households that will achieve >10 mins savings per day	25%	44%
Revenue			
Total net revenue[6]	$ million/year	$1,050	$1,460
Household costs			
Median daily costs for households that pay	$/household/day	$5-6	$7-8
Median annual costs for households that pay	$/household/year	$1,800-2,000	$2,500-2,700
Median household charges as a % of annual income	Low (<$50K/yr) Med ($50K-$100K/yr) High (>$100K/yr)	5-6% 2-3% 1-2%	7-8% 3-4% 1-2%
Amount needed to correct equity imbalance[7]	$ million/year	$170	$250
Environment, health, and contribution to the regional transportation strategy and regional growth strategy			
GHG emissions (all modes)	% change from 2030 Baseline	-2%	-3%
Total VKT (all modes)	% change from Baseline in 2030	-4%	-6%
VKT/capita (private car)	% change from Baseline in 2016	-12%	-14%

Figure 4: Map of how multi-zone distance-based charges could be implemented

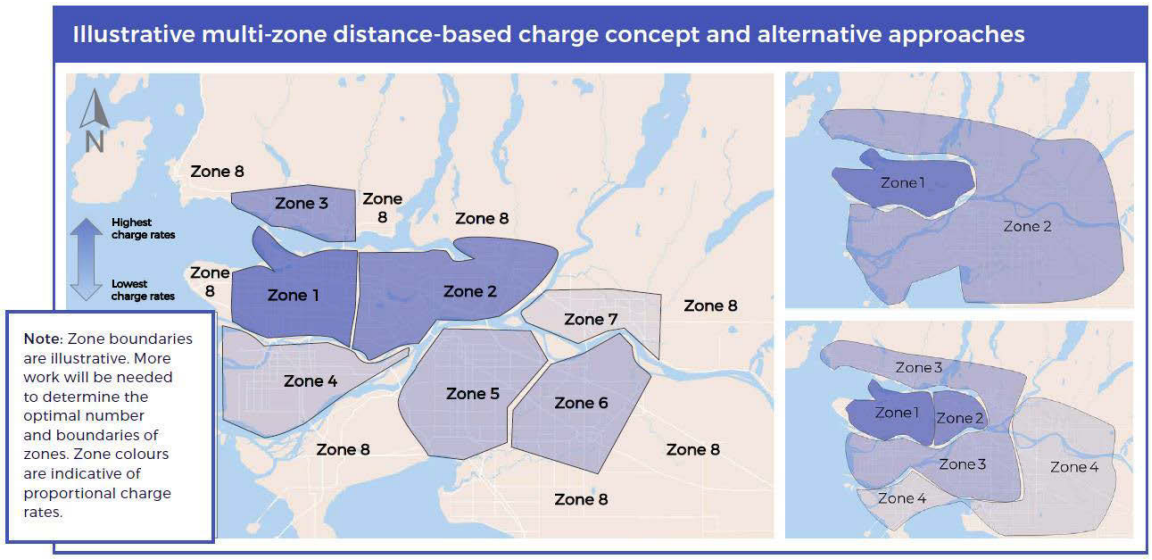


Figure 5: Map of the potential travel time reductions of multi-zone distance-based charges based on traffic modelling

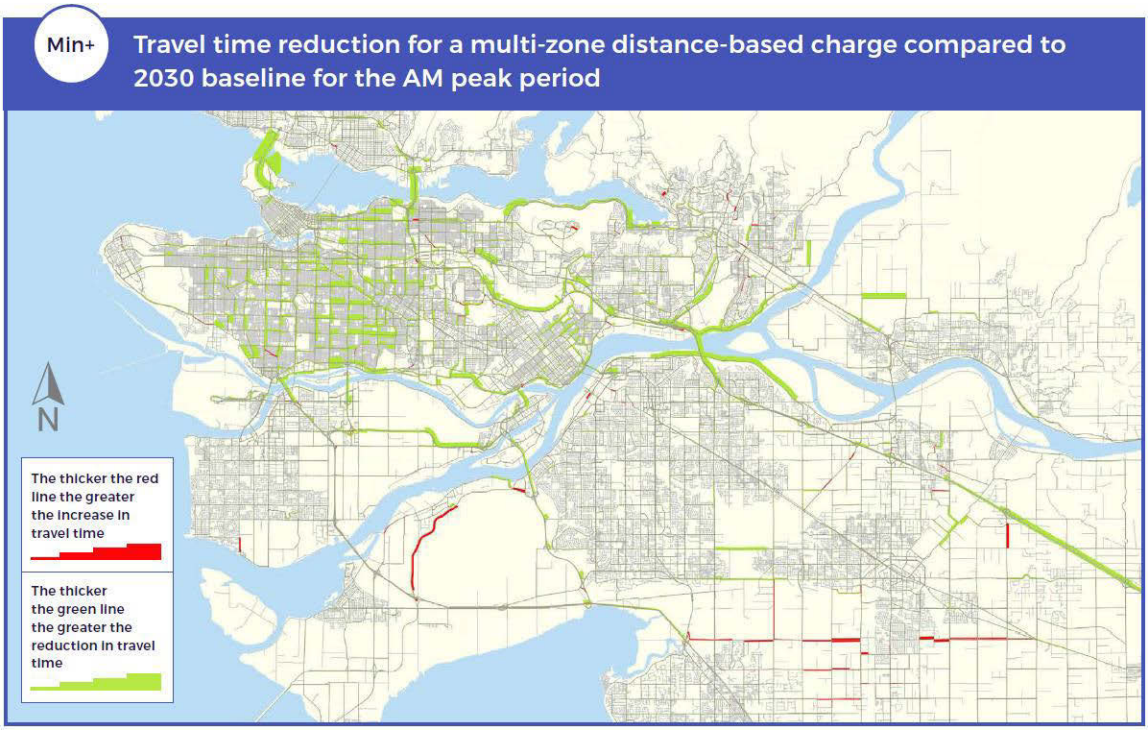


Figure 6: Table of regional benefits and costs of the modelled multi-zone distance-based charges scenario

Evaluation criteria	Units	Multi-zone distance-based charges	
		Min	Min+
Economic benefits			
Total net economic benefits	$ million/year	$180	$350
Congestion			
Total regional congested time savings	% change from baseline in 2030	-20%	-25%
Travel time reliability	% change from baseline in 2030	18%	23%
Visible congested time savings[9]	% households that will achieve >10 mins savings per day	25%	41%
Revenue			
Total net revenue[10]	$ million/year	$1,030	$1,640
Household costs			
Median daily costs for households that pay	$/household/day	$3-4	$4-5
Median annual costs for households that pay	$/household/year	$1,000-1,200	$1,500-1,700
Median household charges as a % of annual income	Low (<$50K/yr) Med ($50K-$100K/yr) High (>$100K/yr)	2-3% 1-2% 1%	3-4% 1-2% 1-2%
Amount needed to correct equity imbalance[11]	$ million/year	$230	$345
Environment, health, and contribution to the regional transportation strategy and regional growth strategy			
GHG emissions (all modes)	% change from 2030 Baseline	-3%	-4%
Total VKT (all modes)	% change from Baseline in 2030	-5%	-6%
VKT/capita (private car)	% change from Baseline in 2016	-13%	-14%

Figure 7: Map of traffic volumes and modelling of regional congestion point charges on the False Creek Bridges.

Maps indicate that despite a significant shift in traffic volumes from the False Creek Bridges to Quebec and Main Streets (left), travel times are not improved on the False Creek Bridges and are worsened on Quebec and Main Streets (right).