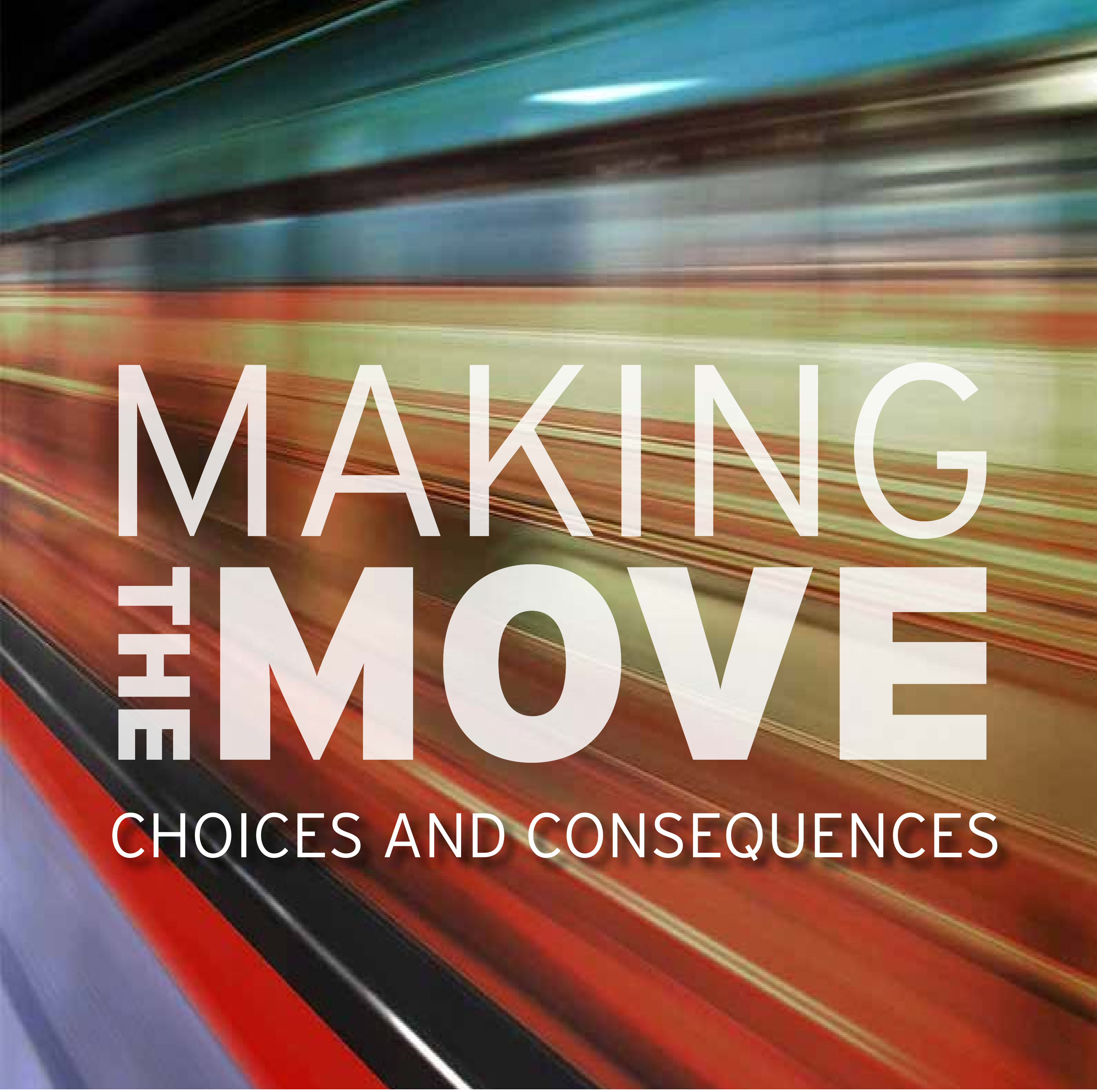

MAKING THE MOVE

CHOICES AND CONSEQUENCES

December 2013

TRANSITPANEL

TRANSIT INVESTMENT STRATEGY ADVISORY PANEL

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December 12, 2013

Dear Premier Wynne and Minister Murray:

In September 2013, the Transit Investment Strategy Advisory Panel was appointed with the mandate to review the Metrolinx *Investment Strategy*, engage with the public, and recommend how transit in the Greater Toronto and Hamilton Area (GTHA) should be funded. We were asked to report back in December.

A good regional transit network is a cornerstone of a productive metropolitan economy that benefits everyone. But road congestion and transit crowding in the GTHA have reached a tipping point. Unless we choose to expand our transit infrastructure to offer choice, entice hundreds of thousands of commuters out of their cars, and connect people to jobs, we will pay a steep price.

We are very pleased to present our report, which offers a fair, practical, and accountable revenue strategy. It includes simple revenue tools that lever a reasonable amount of debt to unlock the billions of dollars needed to build an integrated GTHA-wide transit network. Two options that demonstrate feasibility are modelled:

a) A phased and capped increase to the gasoline and fuel taxes; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes); or
b) A phased increase to the gasoline and fuel taxes capped at a lower rate followed by an increase to the HST; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes).

Our proposal calls for a fair and balanced contribution from all stakeholders, without asking too much of any one group.

This plan creates the capacity to build three-quarters of the Next Wave, delivers significant funds for local transit improvements, and provides for debt retirement. It even includes a two-year Kick-start Program for local transit service improvements to coincide with the introduction of new taxes.

The most common and forceful message that emerged from all of our public meetings and consultations is that the public has very little trust in how transit is planned, in how money is managed, and in how projects are delivered. We address this concern head-on and our recommendations, when enacted, will:

- Ensure that new revenues are held in a stand-alone Fund, within Metrolinx, to be spent solely on funding transit expansion and renewal in our city-region;
- Guarantee accountability and transparency for how the funds are collected, spent, and reported on; and
- Encourage the de-politicizing of decision-making by insisting that elected officials do not approve projects unless they are validated through solid, thorough business case analyses.

Given the Toronto region's pivotal importance to the national economy, the federal government must step up to the plate with a fair contribution to fund transit expansion in the GTHA. Municipalities should ensure that new development supports transit ridership goals with intensification how and where appropriate, and makes greater use of their borrowing capacity to finance local transit improvements.

During the past twelve weeks, the Panel heard from many members of the public and stakeholder groups and received input in town hall meetings, online, and via social media. Metrolinx, relevant Government Ministries, and many other organizations supported our work with their expertise and research. We are very grateful for all the input and ideas, and for the generous contributions of time by so many people. The Panel offers special and heartfelt thanks to our exceptionally talented and dedicated staff for their tireless efforts and unfailing devotion in the preparation of this report.

We would like to thank you for the opportunity to contribute to shaping the future of transit in the Greater Toronto and Hamilton Area. We have been enlightened by the process we have undertaken and are pleased by the remarkable degree of agreement we have reached. While views differed on some points, the recommendations, taken as a package, have the unanimous support of the Panel.

With the submission of this report the Panel has fulfilled its mandate. Champions are needed now who will continue to communicate the importance of investing in transit. It is vital that a continuing campaign of communication and public education, supported by governments and civil society, is undertaken to sustain momentum.

We hope that the fact that 13 citizens with diverse backgrounds, expertise, and experience have produced this consensus report will give comfort and courage to the Government of Ontario to act.

Respectfully submitted,

Anne Golden, Chair

Paul Bedford, Vice-Chair

Cherise Burda

Gordon Chong

Teresa Di Felice

Patrick Dillon

Iain Dobson

Kulvir Gill

Blake Hutcheson

Andy Manahan

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THE TRANSIT INVESTMENT STRATEGY ADVISORY PANEL REVIEWED HOW TRANSIT IN THE GREATER TORONTO AND HAMILTON AREA (GTHA) SHOULD BE FUNDED, AND ASSESSED THE PROPOSED METROLINX INVESTMENT STRATEGY. OUR REPORT OFFERS A FAIR, PRACTICAL, AND ACCOUNTABLE REVENUE STRATEGY FOR BUILDING THE INTEGRATED REGION-WIDE TRANSIT NETWORK THAT IS SO URGENTLY NEEDED. OUR RECOMMENDATIONS CAN BE GROUPED INTO EIGHT THEMES.

1

CREATING AN INTEGRATED REGION-WIDE TRANSIT NETWORK Congestion in the GTHA is growing dramatically. With an additional 2.5 million people and one million more cars expected in the next 18 years, the problem will only get much worse. After decades of neglect, we can no longer postpone building the kind of transit network that gives people new transportation choices, eases congestion, better connects people with existing and future jobs, and enables people to travel efficiently in all directions.

2

PROPOSING A NEW REVENUE STREAM FOR THE NEXT WAVE Our proposed funding strategy, when fully implemented, will provide between $1.7 and $1.8 billion annually for transit in the GTHA. This funding strategy will lever the additional borrowing (at a net debt-to-revenue ratio of about 2.5 to 1) needed to build Next Wave projects, and retire the resulting debt. The revenue stream also provides for investments in local transit improvements and a new two-year Kick-start Program that will offer tangible transit improvements in the short-term.

One option for the proposed revenue stream includes:

- ***Gasoline and Fuel Taxes:*** phased increase commencing with 3 cents per litre and adding 1 cent per litre per year up to 10 cents per litre
- ***Corporate Income Tax:*** modest increase of 0.5 per cent to the general rate
- ***Provincial Portion of Harmonized Sales Tax:*** redeployment of the GTHA portion of the provincial part of the HST charged on gasoline and fuel taxes

An alternative option caps the increase in gasoline and fuel taxes at 5 cents and is instead followed by a 0.5 per cent increase to the HST. The other two revenue sources are the same.

3

SHARING THE COST Since the benefits of transit infrastructure are widely shared, so should be the costs. The formula we are proposing requires modest contributions from drivers, businesses, and the general public. Each revenue source yields significant dollars, is easy to collect, and does not have an undue impact. For instance, the cost of the 3 cents per litre Gasoline Tax increase in year one would be about $80 for an average household.

4

BUILDING PUBLIC TRUST The cornerstone of an investment strategy must be to build trust in how governments plan transit, manage funds, and execute the plan. The overwhelming message from all stakeholders was "dedicate it or forget it". That is why we call for legislation that requires all new revenue to be held in a dedicated stand-alone Fund. It would also require all project spending to be monitored and tracked against plan, with results published to ensure accountability and transparency.

5

MAKING DECISIONS BASED ON SOLID BUSINESS CASE ANALYSIS Transit decision-making must be validated through solid business case analysis. Decision-makers should not approve projects in the absence of full and published business cases. We cannot afford to waste billions of dollars on projects that use inappropriate types of transit, generate insufficient ridership, fail to address congestion, and don't contribute to an integrated regional transit network.

6

ENGAGING WITH THE PRIVATE SECTOR TO CAPTURE LAND VALUE FROM TRANSIT DEVELOPMENT Properly planned and negotiated, transit expansion can create opportunities for private sector cost-sharing of stations and other infrastructure. Metrolinx must adopt a proactive and collaborative approach in working with the private sector to take advantage of the increase in land value created by the Next Wave of rapid transit projects.

7

CALLING FOR FAIR CONTRIBUTIONS FROM THE FEDERAL GOVERNMENT AND GTHA MUNICIPALITIES Given the importance of the GTHA to the national economy, the Government of Canada must join the Province to become a full partner with a fair and reliable contribution to fund transit expansion in our region. Municipalities should play a stronger role by ensuring that planning policies encourage new development that supports transit ridership through appropriate intensification. They should also make greater use of their borrowing capacity to finance local transit improvements.

8

COMMUNICATING AND ENGAGING WITH THE PUBLIC Successful implementation of this strategy will depend on champions to sustain the momentum. We propose a continuing campaign of public education by civil society and governments. The public must understand that this is a non-partisan issue – GTHA transit is a cornerstone of sustainable prosperity for our region, province, and country.

IT'S TIME TO MAKE THE MOVE!

Over the past three months, the Panel has worked very hard to develop a viable strategy to get our region moving. Our recommendations reflect the six Hard Truths About Transit in the Toronto Region, seven criteria for setting priorities, and six core principles for funding transit. The time to act is now.

TRANSITPANEL

TRANSIT INVESTMENT STRATEGY ADVISORY PANEL

1.1 | TERMS OF REFERENCE

The Transit Investment Strategy Advisory Panel was established by Premier Wynne on September 18, 2013 with a mandate to advise the Province on how to respond to the Metrolinx *Investment Strategy* and to engage with the public to determine whether the Metrolinx recommendations are the right ones. The Advisory Panel comprises 13 citizens with diverse backgrounds who bring relevant expertise and experience from across the region. The Panel was given a tight timeframe and was asked to report in December to allow the Government to meet its timeline for the 2014 Budget.

The Big Move is a 25-year integrated transit and transportation plan that was adopted by the Metrolinx Board in 2008 after a comprehensive public consultation process. Its goal was nothing less than to transform how we move around the region in order to create a healthier, more sustainable place to live and work. The transformation began with $16 billion worth of transit expansion now underway as the First Wave projects. Five years later in 2013, Metrolinx released its proposed *Investment Strategy* designed to fund the Next Wave projects from *The Big Move*.

Our job was to provide an independent, non-partisan assessment of the Investment Strategy, analyze the choices and consequences of the revenue options, and recommend the best way to proceed.

1.2 | THE PANEL'S APPROACH

The Panel approached its task with a determination to add value. Our intent was not to duplicate past work, but rather to build on the research, analysis, and consultations that had already been done. This meant considering new research, examining project priorities so that they could be aligned with revenue, and applying principles to guide selection of the most justifiable revenue tools.

To that end, we spent the first four weeks in an intense process of orientation with a view to identifying the key issues. We reviewed the major reports used in the development of the Metrolinx *Investment Strategy*, scanned the submissions and results of the extensive consultations conducted by Metrolinx and others, and were briefed by relevant Ministries and agencies. In addition, we held a series of meetings with experts reflecting a range of perspectives.

Over several weeks, we met with key stakeholders, released a series of three papers, and provided opportunities for public and business input through town halls and via our website, www.transitpanel.ca.

We realized early on that the public debate on transit was being impeded by a series of misconceptions. The first discussion paper, entitled *Hard Truths About Transit in the Toronto Region* (see Appendix 2 for full paper), aimed at adding clarity to the debate by establishing six hard truths:

- **Subways are not the only good form of transit.** What matters is matching the right transit mode and technology to the proposed route to avoid wasting scarce capital, reducing funds for other projects, and creating burdensome debt.
- **Transit does not automatically drive development.** To be successful and affordable, transit routes must connect with current and anticipated employment.
- **The cost of building the transit is not the main expense.** Life-cycle operating, maintenance, and financing costs are a major portion of the total cost of transit and must be included in the analysis leading to decisions.
- **Transit riders are not the only beneficiaries of new transit infrastructure.** Everyone benefits – economically, socially, and environmentally – from new transit infrastructure.
- **Transit expansion in the region is not at a standstill.** There is $16 billion worth of transit construction now in progress throughout the GTHA.
- **We can't pay for the region-wide transit we need by cutting waste in government alone.** New dedicated revenue sources are required.

There is no evidence that the magnitude of funds needed to build, operate, and maintain a transit network capable of serving a future region of more than 10 million people can be found by simply cutting waste. These are the facts:

- Ontario has the lowest spending per capita of all provincial governments.

- Spending has already been reined in significantly. Growth in program spending has been held to less than one per cent over the last two years.
- Ontario is committed to eliminating the deficit by 2017-18.

These commitments leave little room for major new expenditures from existing revenue sources, especially in these times of constraint.

The Drummond Commission spent nearly a year searching for ways to cut spending and made some significant recommendations to improve government efficiency. However, it did not find efficiency measures sufficient to both reduce the deficit and fund transit expansion. Indeed, Drummond called for the creation of "new revenue sources for future transportation capital needs."[1]

The Panel's second paper, entitled *The Transit We Need*, emphasized the critical importance of an evidence-based approach to transit planning. The paper also set out seven criteria for setting priorities for what we build. Chief among these criteria are addressing congestion, creating a region-wide network, and linking to current and future employment locations.

Both of these papers were well-received and set the stage for four community public meetings that were held across the region (Vaughan, Toronto, Mississauga, and Pickering) during the first two weeks of November.

Notwithstanding the different transportation experiences in each part of the region, the themes that emerged from all four public meetings were consistent. The third paper, entitled *What We Heard*, summarized these themes as follows:

1. Dedicate it or Forget it: People are generally willing to pay, provided there is assurance that the money will not be mixed in with general government revenue and spent elsewhere. There appears to be little public trust in government's ability to plan transit, to manage the funds, or to execute the plan. To address this lack of trust, there was unanimous agreement that all new money generated must be dedicated and not available for any other purpose. This Fund must be transparent and accountable so people can see how the funds are spent.

2. Everybody Should Pay: There was wide agreement that all sectors of society should contribute to the new revenue stream since everyone will benefit, directly and indirectly, from an improved transportation system. Financial contributions from drivers, businesses, transit riders, and developers in the GTHA should be part of the solution. There was also consensus that all orders of government have a role in funding transit. In particular, the federal government needs to become a reliable funding partner. Municipalities could also increase their participation, including through borrowing and other means, to address local transit needs.

3. Educate, Inform, Communicate: People felt that they really did not have enough information on how implementation of the plan would benefit them today and in the future. This is a major hurdle, and must be overcome if public support for raising new revenue for transit is to be sustained. This underscores the need to spell out the full range of costs and benefits to people in personal terms, such as time wasted in gridlock, mental stress, and the cost of owning and operating two or more cars due to a lack of transportation choices.

4. Deliver Local Transportation Improvements: There was a strong feeling that a meaningful portion of the new transit funding should be directed to local transit improvements. Many examples of a mismatch between local and regional transit services were highlighted at public meetings. The Metrolinx *Investment Strategy* recommended that up to 25 per cent of all new funds generated should be invested in local transit improvements to ensure that local and regional transportation work together in a much stronger way. New funding to support local transit improvements must be used to address specific transportation needs, and must not be used by local governments to offset municipal taxes.

One of the questions that came up regularly in our discussions is why the focus was so much on public transit. Several participants advised us "not to forget about roads". The Panel understands that both public transit and roads are essential components of an effective region-wide transportation system. The fact is that the central transportation challenge in our region is to entice hundreds of thousands of commuters out of their cars and onto buses, streetcars, trains, light rail vehicles, and subways. That said, road improvements are often needed to facilitate transit investment.

Transit can be the cornerstone of a productive metropolitan economy that benefits everyone. However, if we choose not to make the required investment, the consequence will be paralysis through gridlock.

This report proposes a viable way forward. The decision before us is very simple – to build a region-wide transit network or not. The choice we make today will shape the future of our region.

Traffic congestion in the Greater Toronto and Hamilton Area (GTHA) has reached an untenable state, and that congestion is growing dramatically.

According to a 2012 survey by Environics Research, 55 per cent of respondents in the GTHA said they 'often' have to leave earlier than they would prefer due to congestion. Moreover, 74 per cent said transportation had reached 'crisis' proportions.[2] With an additional 2.5 million people and one million cars expected to enter this city-region in the next 18 years[3], the problem is slated to get a lot worse.

After decades of neglect, we can no longer afford to postpone building a modern transit network across the region. The negative impacts and costs of traffic congestion in urban areas – on the economy, environment, and society in general – have been well-documented. The evidence for the GTHA is compelling: Unless we expand our transit infrastructure in a way that is sustainable, congestion costs and growth in productivity losses will compound.

2.1 | WHY WE NEED TO INVEST

The Toronto region now ranks as the worst performer in Canada in moving people to and from work and is near the bottom of global rankings.[4] For the past several decades, our investments in the region's public transit have not kept pace with economic and population growth. This is true for Canada as a whole. Between 1955 and 1977, new investment in infrastructure grew by 4.8 per cent annually, in line with economic and population growth; between 1978 and 2000, however, it grew by a miniscule 0.1 per cent.[5] Little wonder we have fallen so far behind.

In Toronto, the investment in public transit (as a percentage of GDP) in the 1990s was among the lowest in OECD countries.[6] This was largely due to the decline in the federal share of investment in public infrastructure - from 27 per cent in 1955 to 5.3 per cent in 2007. Although both the governments of Canada and Ontario have since made more funding available, the gap is far from being closed, and the funding increase does not respond to predicted growth.

Making a move on regional transit projects will benefit individuals, households, businesses, and communities across the GTHA.

What the Panel Heard

During the consultations phase, the Panel engaged with members of the public and stakeholder groups, and heard reasons why the GTHA must expand its transit network.

"If people were to see the tangible benefits of a new dedicated transit tax, through an increase/improvement in current operating services, then it would be more palatable for new taxes." – Toronto resident

"Prioritization should be based on what provides greatest benefit to riders but also balance regional needs, not based on politics. Need to work as a region, not just with a local lens." – Mississauga resident

The Greater Toronto Civic Action Alliance, a group of civic leaders from across all sectors, identifies seven major themes why investment in transit matters: *jobs and economy; quality of life; community; equity and access; health and safety; environment; civic pride.*

HOW EVERYONE WILL BENEFIT

To appreciate how transit will improve everyone's lives, we need to look at both the direct benefits to individuals and businesses – "what's in it for me?" – and the broader benefits to our economy and society as a whole – "what's in it for all of us?".

IT'S OUR CHOICE : WHAT'S IN IT FOR ME?

+ ACTION Saying YES to transit investment	(-) INACTION Saying NO to transit investment
Regional network connecting all neighbourhoods and business districts; 1 million more people within a 5-10 minute walk to rapid transit[1]	Fragmented network limiting travel between neighbourhoods and business districts
Less gridlock and congestion: People have choices to reach job sites, schools, hospitals, and other important locations	More gridlock and congestion: People have fewer options to get to work and other important destinations
Faster and more comfortable daily commutes; frequently running trains on reliable lines	Average daily commute times increased by more than half an hour – from an estimated 77 to 109 minutes[2] – a cost of $16.00 per week[4]
People less dependent on owning one or more vehicles – a saving of $11,000 per year per car, on average.[3] With a region-wide network, many drivers could give up their cars.	Without transit, more income consumed by vehicle expenses, the second-largest financial pressure on household budgets; In areas poorly served by transit, more families must own multiple vehicles
Transportation infrastructure keeps pace with population growth	2.5 million more people and 1 million more cars overburden transportation infrastructure
Reduced greenhouse gas emissions and improved air quality	Increased negative environmental impacts
Fewer premature deaths per year, fewer car accidents, and reduced healthcare costs	Health issues arising from pollution and commuting stress are exacerbated

1 Based on modelling undertaken for the Panel by the Ministry of Transportation, a 5 to 10 minute walk is assumed to be 500 metres.
2 Metrolinx, *The Big Move*, November 2008, p. 59
3 Canadian Automobile Association, Driving Costs, 2012
4 "Based on 32 minutes' additional daily commuting time; 60 km/hr travel speed; 10L/100 km fuel efficiency; 5 days' commuting per week; $1.25 per litre of gasoline; and 80% additional fuel spent in congested traffic. (Kesting A, Treiber M, "Calibrating car-following models using trajectory data: A methodological study", Transportation Research Board, Record: 2088: 148-156).

IT'S OUR CHOICE : WHAT'S IN IT FOR ALL OF US?

+ ACTION Saying YES to transit investment	(-) INACTION Saying NO to transit investment
$110 billion to $130 billion growth to Ontario's GDP by 2031[5]	New business investment moves to other large urban areas that can more effectively accommodate economic growth
Productivity is boosted by easing congestion and increased access to jobs for workers	Productivity and time losses in the GTHA – currently estimated at $6 billion – will grow to $15 billion by 2031[6]
GTHA benefits from hundreds of thousands of new jobs and new training opportunities for the next generation of skilled tradespeople	Lost opportunity to create up to 900,000 person-years of construction and long-term employment at a time of very high youth unemployment[7]
Better match of workers and jobs, which benefits employers and offers greater career opportunities[8]	Greater losses in productivity and reduced job opportunities
Increased access to job opportunities for unemployed and under-employed	Income inequality gap exacerbated
More efficient movement of goods and services	Business and freight impeded by worsening congestion
GTHA moving up in global competitiveness rankings	GTHA moves down in global competitiveness rankings
Greater civic pride in GTHA	Sinking civic pride

5 Metrolinx, Investing in our Region, Investing in our Future, May 2013
6 HDR Decision Economics estimated that the annual cost of congestion to the GTHA is $6 billion in its study, prepared for Metrolinx, Cost of Congestion in the Greater Toronto and Hamilton Area, December 2008. A more recent study by Benjamin Dachis at the C.D. Howe Institute considers the additional impacts on loss of agglomeration and productivity and estimates the cost to be $11 billion annually. Cars, Congestion and Costs: A New Approach to Evaluating Government Infrastructure Investment, July 2013.
7 Metrolinx, Investing in our Region, Investing in our Future, May 2013
8 The Conference Board of Canada, Connecting Jobs and People: Exploring the Wider Benefits of Urban Transportation Investments, August 2011

Continuing the long period of under-investment in transit will pass the economic burden on to the next generation. Getting people to fully appreciate this is a challenge because not all costs or benefits become apparent overnight.

Creating public awareness and taking action by investing in an improved regional transportation system is of vital importance. Today's gridlock is the consequence of decades of under-investment in transit. The transit infrastructure investments we make today will determine the quality of our lives for generations.

Metrolinx created a bold vision in 2008 with *The Big Move*, a regional transportation plan with a seamless grid of road, transit, cycling, and pedestrian infrastructure expansion. As a product of a consensus among elected officials of the Region, *The Big Move* required compromise to ensure that the leadership of the whole region could buy into it. Launching it was a major achievement.

Things have changed over the last five years. Not surprisingly, we know more now than we knew then. For instance, new research has emerged on the critical importance of linking public transit to employment and on the extent to which job growth is occurring in areas not served by *The Big Move*'s proposed projects.[7, 8]

Metrolinx has made a few technical updates to *The Big Move* since 2008. This includes advancing the Relief Line – originally identified as a subway connecting Bloor West, downtown Toronto, and the Danforth – to the list of Next Wave projects. *The Big Move* is scheduled for full review by 2016 (refer to Appendix 5 for a map of the plan).

The Panel does not view *The Big Move* as written in stone. Nor do we propose to re-map the plan.

We found that we could not separate the matter of how to pay for new transit from the process and criteria used for selecting the projects themselves. During the course of our work, the issue of transit in Scarborough became a front page story. Various stakeholders quickly took positions without the benefit of a thorough business case analysis.

This incident was raised in our public meetings as confirmation that transit planning in the Toronto region had become too politicized and divorced from evidence-based planning. This challenge is discussed further in Section 5.3.

3.1 | CRITERIA FOR SELECTING FUTURE TRANSIT PROJECTS

De-politicizing transit decisions is especially important now, given today's fiscal environment. Because the choice of transit technology and other factors affect the cost, we believe it is critical that Next Wave projects be prioritized in accordance with the following criteria:

1. Transit investments must help ease congestion, not add to it

Building rapid transit requires massive public expenditures that must be fully justified by evidence-based planning. No major transit should proceed without compelling evidence that it will serve to ease congestion.

2. Transit investments must lead to a connected region-wide network

The transit we build in the GTHA should not amount to one-off projects, but to an integrated, region-wide grid connecting all parts of the GTHA and across the core of Toronto. This will give people access to jobs and other opportunities across the region, not just in their home municipality. Moreover, connections between regional rapid transit and local transit should be seamless.

3. Transit investments must align with current and future major employment locations

Recent research has shown that the pattern of employment location in the GTHA is changing. Until 1980, 63 per cent of all office space in the GTHA was located in downtown Toronto or directly on subway lines. Toronto's financial core now has less than one quarter of the offices in the region, meaning that an estimated 500,000 people work in suburban office buildings that are accessed almost entirely by car. For example, 97 per cent of the people who work at the Meadowvale Business Park in Mississauga drive to work.[9, 10]

By 2031, the *Growth Plan* for the Greater Golden Horseshoe estimates that there will be 4.8 million people working in the GTHA. This represents an increase of almost 1.3 million new workers in the GTHA.[11] Studies have indicated that an increasing number of new jobs will be located in office buildings.[12] During peak hours, the ratio of workers to non-workers among transit riders is four to one.

The research makes it clear that the role of office development in generating ridership is pivotal.[13] The key factors determining the location of these jobs will be access to transit, planning permissions, development-ready sites, and competitive economic conditions.

When people are within walking distance of transit, it is more likely to succeed. Therefore, transit investments must be made to align with current and future major employment locations.

4. Transit projects must align, where possible, with the location of public and community institutions

Our track record of connecting residential households with transit is improving. In 2001, only 42 per cent of people in the GTHA lived within two kilometres of rapid transit. When *The Big Move*'s First Wave of rapid transit projects is completed, this number will rise above 60 per cent.[14]

In addition, as Metrolinx identifies in its *Investment Strategy*,[15] we need to do better at coordinating the locations of institutions, university and college campuses, hospitals, and other destinations with transit. Schools and other community infrastructure help drive ridership, and contribute to walkable, multi-use, and multi-functional neighbourhoods.

Having these important destinations in car-dependent areas makes no sense. They must be connected to public transit.

5. The type of transit must be appropriate for the situation, accounting for ridership, cost, and fiscal and environmental impact

Contrary to the Toronto myth that subways are the only good form of rapid transit, the truth is that an effective and sustainable public transit network depends on matching the technology to the circumstances.

Though traditional subways are effective in densely built up areas such as Toronto's core, they are not the best solution for spread-out, low-density parts of the region. Combining regional rail, which transcends dense urban areas, with local dedicated light rail and bus rapid transit will deliver cost-effective, congestion-easing solutions.

6. Projects must be built on a practical timeline

The $50 billion program of *The Big Move* is the largest urban rapid transit capital program in Canada's history. The discussion to date has focused almost exclusively on the capital cost of construction. It is essential that we consider all costs, including capital, operating, maintenance, and financing over each project's full life-cycle.

Considerations of both project suitability and fiscal capacity led the Panel to conclude that the full Next Wave should be carried out in phases. Implementing projects that meet the Panel's criteria and align with new revenue will:

- Drive congestion relief and demonstrate results as soon as possible, so as to generate momentum for the full program;
- Enable new taxes to be phased in over time;
- Take advantage of developments and innovations in transit technology and service as they evolve; and
- Allow for the full life-cycle costs of projects to be accounted for.

7. Investments must provide tangible benefits and improvements in both the short-term and long-term

Building rapid transit takes many years, and improvements to transit service should be made a priority in the short-term. Examples include more frequent service, better fare integration, improved technology, improvements to transit vehicles, and use of intelligent transportation systems.

Other cost-effective programs can encourage a shift from cars to transit and non-peak travel. Incentives could include employer benefits for telecommuting and flex hours, parking cash-back, pay-as-you-drive insurance, and tax breaks for carpooling and other mode shifting.

By introducing service and operational improvements, people will be able to see real benefit from day one.

PANEL RECOMMENDATION # 1

That Metrolinx implement the Next Wave projects in accordance with the following seven criteria:

- Projects must help ease congestion, not add to it
- Projects must lead to a connected region-wide network
- Projects must align with current and future major employment locations
- Projects must align, where possible, with location of public and community institutions
- The type of transit must be appropriate for the situation, accounting for ridership, cost, and fiscal and environmental impact
- Projects must be built on a practical timeline
- Investments must provide tangible benefits and improvements in both the short-term and long-term

3.2 | PHASE ONE OF NEXT WAVE PROJECTS

We have included the projects below – representing three-quarters of the Next Wave[16] – in our funding model, which is intended to demonstrate how our proposed dedicated revenue stream can pay for an integrated regional system.[17] Based on our proposed selection criteria, the case for beginning with this portfolio is compelling. Of course, as recommended in Section 5.3, every project must be preceded by a published, comprehensive, up-to-date business case analysis.

- Relief Line
- GO Two-Way All Day (excluding Lakeshore)[18]
- Hurontario LRT
- Electrification of Union-Pearson Express
- Yonge North Subway (partial extension, delivered after Relief Line is in service)[19]
- Priority portions of other rapid transit – Hamilton, Durham, Dundas, Brampton

Three of these projects – the Relief Line, Hurontario LRT, and GO Two-Way All-Day Service – are expected to deliver the highest ridership, provide the most congestion relief, create connections to employment in the region, and establish the needed backbone of a region-wide rapid transit network. Although these projects will take time to implement, it is important to advance them as soon as is practical.

Electrification of the region's rail network is widely considered to be an essential evolution in our system, which will take many years to fully implement.[20] It is important to begin this evolution. The Panel supports this thinking. UP Express has been identified by Metrolinx as the first line to be electrified; it will connect the two busiest transportation hubs in Canada.

In addition to these projects, the Panel's funding model includes rapid transit projects in disconnected parts of the region, namely Hamilton, Durham, Dundas, and Brampton. We have also factored in the initial stage of the Yonge North Subway extension. These projects will start to knit together all parts of our region.

Not included as part of Phase One but still on the Next Wave list are:

- GO Lakeshore Expressrail (long lead-time required)
- GO Lakeshore extensions (not immediately critical to the network)
- GO Kitchener line Electrification (must follow Two-Way All-Day Service)
- The remaining portion of Yonge North Subway extension (must be built after the Relief Line, given capacity constraints)
- Remaining portions of other rapid transit – Hamilton, Durham, Dundas, Brampton (next logical step to expand)

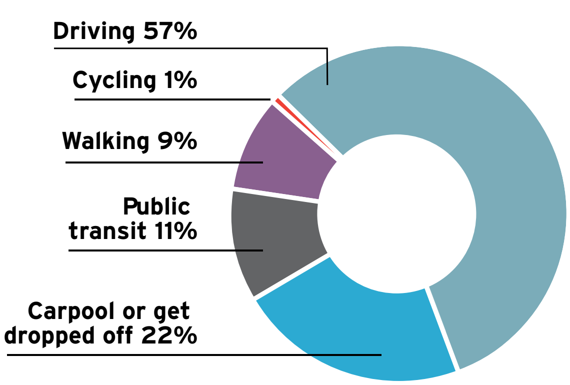
There will be some who would have preferred that the Panel create an even more ambitious plan to implement all of the Next Wave. However, this would require more tax increases. The Panel is very aware that public willingness to accept new taxes is limited. In our view, our plan does not slow down progress. Rather, the opposite: it advances *The Big Move* by creating the capacity to build three-quarters of the Next Wave sooner than expected and by demonstrating early benefits so as to build support for the entire program. Further, Metrolinx will now have the opportunity to refine these projects in light of the improved business case analysis that we are recommending and that Metrolinx is developing (see Section 5.3).

3.3 | THE LOCAL CONNECTION

Every transit trip uses local transportation services for at least a part of the journey. As described in the image below, passengers access GO stations using a variety of modes.[21] These much-needed services face growing financial pressures given population growth projections.

Recommendation #18 of the Metrolinx *Investment Strategy* proposes to help support these services, with 25 per cent of new revenue to be dedicated to "key elements of the transit and transportation system" (15 per cent municipal transit and transportation; 5 per cent local roads and highways; 5 per cent other transportation initiatives). The Panel endorses this recommendation.

Access mode to GO Transit Stations



PANEL RECOMMENDATION # 2

The Panel endorses the Metrolinx *Investment Strategy* recommendation that 75 per cent of dedicated revenue be allocated to Next Wave projects (capital, maintenance, and some operating) and up to 25 per cent be allocated to local transit and transportation initiatives.

(IS Recommendation #18)

KICK-START PROGRAM

With our funding model, there is opportunity to go further. To provide tangible benefits in the short-term, the Panel is recommending a Kick-start strategy.

The aim of a Kick-start Program is to be able to demonstrate the value that investment will bring early on. This time-limited two-year fund would incent municipalities to introduce local transit improvements that would coincide with the introduction of new taxes. Municipalities would be asked to contribute, showing that they too have "skin in the game". Kick-start money would be used for capital projects or start-up operating funding for initiatives that become self-funded after two years. It would be understood that the money could not be used to offset property tax or fare increases.[22]

Municipal operators would provide Metrolinx with a list of projects to be funded by the Kick-start Program. Criteria or a menu of options would guide project selection. The Panel suggests a matching formula where costs are 80 per cent funded by the Kick-start Program and 20 per cent funded by municipalities.

In turn, municipal operators would report on how the funds were spent, and what benefit transit riders experienced. A set of key performance indicators (e.g., ridership increase) would be established and published.

Full scoping of a funding program would necessarily consider a wide range of elements including eligible investment amounts, how to apply and qualify for funding, reporting requirements, and financial arrangements.

The Kick-start funding would be in addition to funding for new rapid transit projects, and the 25 per cent allocation to municipalities, highways, and multi-modal projects.

PANEL RECOMMENDATION # 3

That a two-year Kick-start Program be developed to deliver noticeable results to transit riders across the GTHA in the immediate-term and coincide with the implementation of new revenue sources.

3.4 | ALIGNMENT OF THE BIG MOVE WITH THE GROWTH PLAN

The *Metrolinx Act, 2006* requires Metrolinx to review *The Big Move* at least once every 10 years, and make any changes, to ensure that it complies with 'prescribed provincial plans and policies.' However, the Act does not require the review to assess whether projects identified in *The Big Move* are still expected to achieve the Province's long-term transportation goals and respond to anticipated growth in the number of residents and jobs.

A review of the *Growth Plan for the Greater Golden Horseshoe* is scheduled for 2016. While the *Metrolinx Act, 2006* requires *The Big Move* to conform to the *Growth Plan*, it does not require both reviews to be coordinated.

The *Growth Plan for the Greater Golden Horseshoe* requires municipalities to plan for increased densities and a mix of uses to support existing and proposed transit lines and stations. The 10-year review of the *Growth Plan* would be an opportunity to ensure that it supports and advances the goals of *The Big Move*. Both the *Growth Plan* and *The Big Move* must seek to achieve a transit supportive urban structure, with density levels that justify an extensive capital investment in transit.

The Panel believes that these reviews should be undertaken sooner rather than later and done in concert. This will enable both Metrolinx and the Province to take advantage of emerging research[23] and new analytical tools[24] that show patterns of development in ways that reveal new insights.

As discussed, the best way to create accessibility and mitigate congestion is through a network. The network we need must, as far as possible, link to employment areas in both Toronto and the 905. The latest information suggests that this can be accomplished by expanding the scope of the original Relief Line concept – intended to relieve severe overcrowding on the Yonge Subway and at Union Station. A study, currently being undertaken by Metrolinx, is being done concurrently with a City of Toronto study on the routing of a Relief Line. The Panel has been told that the study is exploring other options such as increasing the capacity and frequency of GO service.

PANEL RECOMMENDATION # 4

That the review of *The Big Move* be brought forward to begin in 2014. That the review of the *Growth Plan for the Greater Golden Horseshoe* also be advanced to 2014 so that the two reviews can be coordinated. As part of *The Big Move* review, Metrolinx should address the alignment of *The Big Move* with current and future major employment locations.

3.5 | SUPPORTIVE MUNICIPAL LAND USE POLICY

Municipalities must ensure that new development supports ridership goals while also promoting stable, liveable, mixed-use communities. In some instances, ridership will be in place. In others, intensification must occur within the principles of good planning.

Municipalities have begun to move in this direction. For example, Mississauga, Brampton, Burlington, and Markham have all made significant adjustments to policies to support transit. The City of Toronto intends to implement a Development Permit System to expedite approvals on the Eglinton Crosstown LRT corridor.

Transit development should not lead to carte blanche acceptance of high-density development. Intensification has to be sensitively integrated into communities so that the outcome balances the need for ridership with impacts on existing communities. The Panel believes that Metrolinx and GTHA municipalities should adopt a proactive joint approach to land use planning around rapid transit projects in order to achieve this balance.

PANEL RECOMMENDATION # 5

That Metrolinx and GTHA municipalities adopt a proactive joint approach to land use planning to achieve zoning that supports intensification along transit corridors and around stations.

The need for a Transportation Planning Policy Statement was included in the *Metrolinx Act, 2006*. It is an important component of effective planning. In its *Investment Strategy*, Metrolinx has recommended that the Minister of Transportation develop a Transportation Planning Policy Statement to encourage greater integration of land use policies with *The Big Move* and investments in transit and transportation infrastructure. The Panel supports this recommendation.

PANEL RECOMMENDATION # 6

The Panel endorses the Metrolinx *Investment Strategy* recommendation that:

"the Minister of Transportation proceed with the development of a Transportation Planning Policy Statement under the provisions of the *Metrolinx Act*, to encourage greater integration of land use policies with *The Big Move* and investments in transit and transportation infrastructure."
(IS Recommendation #9)

3.6 | IMPROVING COLLABORATION

Successful collaboration is a challenge faced by large city-regions around the world. This challenge is no different for the GTHA. The GTHA is made up of two single-tier municipalities (Toronto and Hamilton) and four regional municipalities (Durham, York, Peel, and Halton) that represent 24 local municipalities. Transit services in the region are delivered by nine local agencies and one regional service, GO Transit. Given this context, the importance of collaboration cannot be overstated.

The Panel has considered the Metrolinx *Investment Strategy*, input from stakeholders and the public, and research from around the world to develop our recommendations to improve collaboration in GTHA transportation.

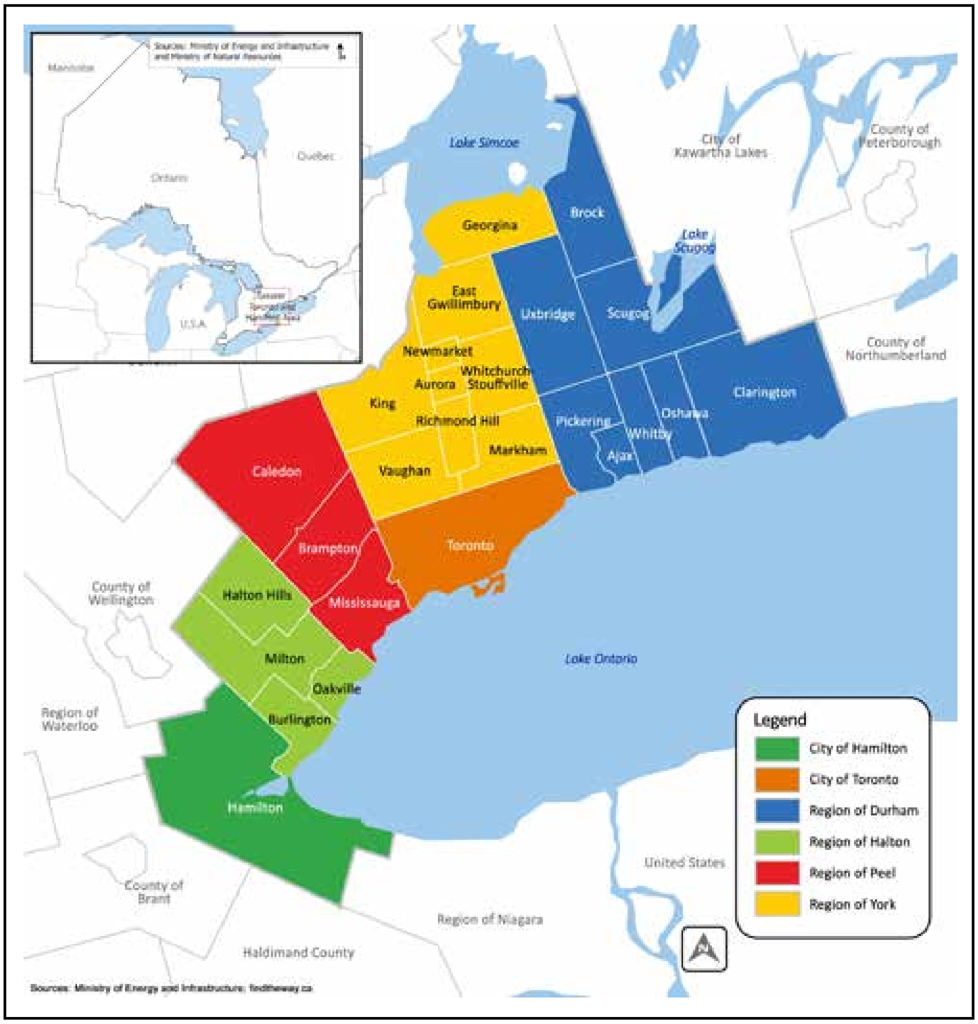
As an agency of the Province, Metrolinx is governed by a Board of Directors appointed by the Province and cannot include elected officials. In December 2013, there were 12 members of the Board, which is legislated to have a maximum of 15 persons. A scan of international practices shows that including municipal representation on regional transportation bodies is common practice. It also confirms that there is no perfect governance model. There are advantages and disadvantages to including municipal politicians, depending upon the context. Hence, the Panel is satisfied with supporting the Metrolinx recommendation that six municipally-nominated citizen members be appointed to the Metrolinx Board. These members would join the 12 current members, growing the Board's size to 18.

PANEL RECOMMENDATION # 7

The Panel supports the Metrolinx *Investment Strategy* recommendation that:

"the Province of Ontario consider adjusting the composition of the Metrolinx Board of Directors, in order to provide municipalities in the Greater Toronto and Hamilton Area with the opportunity to nominate up to six citizen appointees to the Board."
(IS Recommendation #3)

THE GREATER TORONTO AND HAMILTON AREA



In our public meetings and discussions with political leaders, the Panel heard that there would be considerable value in having a venue for all elected politicians to discuss region-wide policy issues. This confirmed a conclusion reached at a symposium on governance gridlock in the region held at Ryerson University in early 2013.[25] The Panel suggests establishing a forum to improve collaboration across the GTHA. An annual regional forum of current elected officials comprising all GTHA politicians (municipal, provincial, and federal) would provide a venue to discuss major policy challenges, including urban growth and transportation, and create an opportunity to engage the private and civic sectors.

PANEL RECOMMENDATION # 8

That an annual regional forum of current elected officials in the GTHA be established to discuss major policy challenges, including urban growth and transportation.

How we pay for the transit we need is the crux of the Panel's mandate. To evaluate recommendations on revenue tools and financing methods, we examined the criteria used by Metrolinx and other stakeholder groups. After testing them with participants in the four public meetings, the Panel selected the following core principles.

4.1 | SIX CORE FUNDING PRINCIPLES

1. Provides sufficient and sustainable revenue

Building more than $50 billion in new transit investment and keeping those projects operational once complete is expensive. New revenue tools must be introduced to generate sufficient funds to support transit projects over the entire useable life of an asset ranging from 25 to 50 years.

2. Strives for fairness across regions and among income groups and sectors

No region should be unfairly impacted by the choice of new revenue tools, nor should any one sector or income group. Options should aim to strike a fair balance where all sectors that benefit from transit contribute.

The Province has already committed to ensuring that parts of the province outside of the GTHA will not have to pay for transit expansion within the GTHA.

3. Is easy to implement and administer

The Panel recognizes that the government has a responsibility to collect funds in the most cost-effective manner and to keep the costs of compliance as low as possible. Selection of a new revenue source with high administration and implementation costs would be counter-productive.

4. Provides choice and encourages less reliance on the automobile

The Panel favours revenue sources that contribute to reduced congestion and greater choice and encourage alternatives to the car. Some revenue tools have the ability to affect travel behaviour and, by extension, the performance of the GTHA's transportation network. Selected revenue tools should send price signals that encourage efficient travel choices.

5. Minimizes economic impacts and distortions

The tools must not act as significant disincentives to business investment or reduce the region's ability to attract human capital in today's global economy. Any significant change in revenue tools should be phased-in to allow time for the economy to adjust.

6. Ensures accountability and transparency

All of the research, stakeholder submissions, and public consultations demonstrate that new revenue raised for transit and transportation-related activities must be dedicated in a transparent manner. The ability to monitor spending and track the progress of individual projects against plan is essential to enhance and maintain public trust.

4.2 | SHARING THE COST

We will not be able to build the transit we require in the GTHA to sustain prosperity unless all sectors and levels of government contribute. Given the financial pressures it faces and the state of the economy, the Province of Ontario cannot bear the full cost of transit expansion. All of society benefits from new transit infrastructure – economically, socially, and environmentally – and all should share the burden. Moreover, all orders of government have a stake in the health of this city-region. All must contribute.

BUSINESSES

Ontario's employers and employees are major beneficiaries of government investments in transit infrastructure and improvements. The Panel explored various options for business participation in transit expansion. Corporate contributions to government revenue come most commonly from broad-based business taxes, such as corporate income tax and payroll taxes, or other taxes, such as municipal development charges and property taxes. Our proposed tools (see Section 4.5) include a modest increase in the general Corporate Income Tax rate for the life of *The Big Move* program. We also recommend an increased effort to capture the value that will be created by new infrastructure through private sector investment. This would have the benefit of lowering costs, but would not constitute a new, predictable, on-going revenue stream.

PEOPLE

Our package of tools (described in Section 4.5) includes measures borne by drivers in the form of increases to the Gasoline Tax and Fuel Tax, and all consumers in the form of the Harmonized Sales Tax. Transit riders pay fares that increase regularly in line with inflation: Both the TTC and GO Transit have recently raised their fares. Therefore, the Panel does not recommend further fare increases. Moreover, transit operators currently depend on fares to support operating costs.

THE FEDERAL GOVERNMENT

A common theme at all four public meetings was that all orders of government have an important role to play in funding transit. Particular attention was given to the federal government, which has been described as "missing in action". Federal funding is ad hoc and does not support long-term planning, which is key to quality investment decisions.

The *2013 Federal Budget* announced a 10-year, new Building Canada plan to support provincial, territorial, and municipal infrastructure, which will deliver over $47 billion starting in 2014-15.[26] Included in this estimate is $32 billion under the Federal GST Public Service Bodies' Rebate and Federal Gas Tax Fund, which will be provided directly to municipalities under existing arrangements. Hence, what remains is $15 billion in new money for all infrastructure projects across the country over 10 years. It is too early to tell how much of this federal investment will be for transit in the GTHA.

The Council of the Federation is currently analysing how strategic infrastructure investments promote economic growth, create jobs, enhance productivity, and boost business competitiveness. In return, economic expansion results in greater tax revenue for governments, which can be reinvested to build more projects, thereby creating a virtuous cycle.

Canadian Urban Centres

The famous urbanist Jane Jacobs observed, *"...the large cities... are Canada's major economic assets. Without Vancouver, Calgary, Toronto, Montreal, and Winnipeg...Canada would be so poor that it would qualify as a third world country."*

Source: C5: Historic First Meeting of Canadian Mayors with Jane Jacobs. Ideas that Matter, Volume 2, Number 1. 2001

Not surprisingly, national governments all over the world are making significant investments in transit. Canada remains the only G8 country without a coordinated national framework of policies and programs for funding expansion and renewal of transit systems. As shown in the chart opposite, a review of national transit policy frameworks done by the Canadian Urban Transit Association indicates that Canada ranks at the bottom in terms of its engagement in urban public transit.[27]

The Toronto region is widely acknowledged to be the economic engine of the country. All of Canada benefits from a prosperous Toronto city-region, which represents 20 per cent of Canada's GDP. It follows that the federal government should be a significant contributor, and step up with predictable long-term investments for transit infrastructure in the GTHA.

In its *Investment Strategy*, Metrolinx has called for the federal government to increase its financial commitment to *The Big Move* and recommends the adoption of a national transit strategy, whereby the federal government would contribute up to one-third of the capital costs of Next Wave projects. While a national transit strategy would be desirable, the Panel's recommendation focuses on revenue. With a predictable federal funding partner, implementation of the Next Wave could be accelerated, the list of projects expanded, and new revenue requirements reduced.

OBSERVED ELEMENTS OF NATIONAL TRANSIT POLICY FRAMEWORKS	Canada	United States	Australia	New Zealand	United Kingdom	Italy	France	Germany	Russia	Japan	Korea
FINANCING											
Fairbox Policy (e.g., minimum fare recovery rates)				✓		✓					
FAIR SUBSIDIES/TAX EXEMPTIONS											
Free/subsidized fares for elderly persons				✓	✓					✓	✓
Free/subsidized fares for disabled persons				✓	✓			✓			
Free/subsidized fares for youth/students										✓	✓
Tax-deductible fare cards	✓	✓								✓	
Tax-free transit benefits provided by employers (e.g., transit passes, work buses)		✓			✓						
CAPITAL FUNDING											
Predictable capital funding		✓		✓	✓	✓	✓	✓			
Capital funding for emissions reductions		✓					✓				
Capital funding for physical accessibility improvements		✓		✓	✓					✓	✓
New transit technology funding										✓	✓
Transit-related research and development funding		✓		✓				✓		✓	✓
Competitive project selection process		✓			✓		✓	✓			
Cost sharing requirements		✓				✓	✓				
OPERATING FUNDING											
Predictable operating funding		✓		✓	✓			✓		✓	✓
Clear means of operating funding allocation		✓		✓	✓			✓			
ALLOWANCES FOR LOCAL REVENUE GENERATION											
Devolution of power and responsibility to local/regional governments to implement taxes for transit systems		✓				✓	✓				
Devolution of power and responsibility to local/regional governments to implement congestion/road pricing					✓	✓	✓	✓			
PRIVATE SECTOR											
Allowance for transit service to be defined by local/regional government	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SOCIAL INCLUSION											
Accessible services for customers with mobility impairments must be provided in the same service area as regular transit services		✓					✓	✓			
ADMINISTRATIVE SUPPORT											
Federal body for urban policy development (could be within a larger department)	✓	✓	✓		✓		✓	✓		?	✓
LEVEL OF POLICY INTEGRATION											
Public transit policy imbedded within a broader national policy (e.g., environmental, urban, industrial, health, safety) in place or in development		✓	✓	✓	✓		✓	✓			✓
Stand-alone transit policy in place or in development.		✓		✓			✓	✓			
Supports supranational regulations (e.g., EU regulations, Kyoto Protocol)	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
AUTONOMOUS REGIONS											
Major cities subject to different policies than the rest of the country					✓		✓	✓			
Certain provinces/states subject to different policies than the rest of the country					✓			✓			
LAND USE PLANNING											
Requirement to have land use integration.						✓	✓	✓			✓
Federal investment tied to land use commitments.											
PLANNING REQUIREMENTS											
Requirement to have mode integration							✓	✓			✓
Requirement to have long-term regional transportation plans		✓	✓	✓	✓	✓	✓			✓	
Requirement to have service standards (e.g., performance, fares, equipment, service levels and types, etc.)							✓	✓		✓	✓

Source: National Strategies on Public Transit Policy Framework, prepared for CUTA by Stantec Consulting, May 2011.

PANEL RECOMMENDATION # 9

The Panel endorses the Metrolinx Investment Strategy recommendation that:

"the federal government contribute up to one-third of the capital costs of the Next Wave transit and transportation infrastructure." (IS Recommendation #8)

MUNICIPAL GOVERNMENTS

Municipal governments play a lead role in the planning, funding, and operating of local transit. The obvious sources of municipal revenue for transit are property taxes, development charges, and fares. And they could do more.

Development charges were proposed by Metrolinx, City of Toronto staff, the Canadian Centre for Policy Alternatives, and the Ontario Chamber of Commerce. However, because development charges are currently being reviewed by the Ministry of Municipal Affairs and Housing, the Panel is not recommending changes at this time.

There are tools that municipalities could use to "up the ante." For example, municipalities could better use their borrowing capacity to finance transit infrastructure and local transit-related improvements.

PANEL RECOMMENDATION # 10

That municipalities in the GTHA make greater use of their borrowing capacity to finance local transit improvements.

THE PROVINCIAL GOVERNMENT

The primary funder for *The Big Move* is the Province of Ontario. A concern raised to the Panel is that the Province might choose to reduce its current capital and operating funding to GO Transit and other committed projects. The Panel would like to underscore that creation of a new dedicated revenue stream must not be used to substitute for existing support.

PANEL RECOMMENDATION # 11

That existing and committed transit funding from all orders of government be maintained and not offset or be replaced by the recommended new revenue stream.

4.3 | SUPPORTING NEW BORROWING WITH DEDICATED REVENUES

The provincial government has traditionally used debt financing to build infrastructure throughout Ontario. Our roads, bridges, and transit facilities have all been built over many decades by borrowing, issuing bonds, and repaying them over time. The resulting infrastructure was seen as an investment in growing a prosperous economy.

The current provincial deficit and net debt have placed serious limitations on the borrowing capacity of the Province. While elimination of the government's deficit is targeted for 2017-2018, it appears feasible to use debt to finance public transit if it is tied directly to new revenue streams. This new revenue would be required in order to ensure that the Province's net debt-to-revenue ratio, already the highest of all provinces, does not rise further than currently forecast.

The Panel has created a proof of concept where:

- new revenue would be applied to the cost of Next Wave Metrolinx projects;
- the new revenue stream levers additional borrowing to bridge the gap between immediate cash needs for project construction and full implementation of revenue to help mitigate taxpayer impacts; and

- the borrowing is based on a conservative net debt-to-revenue ratio of 250 per cent (2.5 to 1), as a share of consolidated operating revenue.

As shown, the model does not include, but could accommodate, future operating, maintenance, and rehabilitation costs, which are not yet apparent. The Panel has highlighted the need for financial planning to take these into account. Our model could potentially provide funds for maintenance and rehabilitation should the Province choose to retire the debt more slowly. Our expectation is that in the subsequent phase of the Next Wave – when further tax increases may be necessary and when maintenance and rehabilitation costs for the first phase projects do occur – these costs will be covered. As recommended in Section 5.3, the life-cycle capital, operating, maintenance, and financing costs should be evaluated in the business case analysis — a prerequisite to obtaining funds.

PANEL RECOMMENDATION # 12

That a new, reliable revenue stream be created, dedicated to the construction of a GTHA-wide transit network, used to lever new funds at a conservative net debt-to-revenue ratio of 2.5 to 1, and applied to debt retirement upon completion of projects.

4.4 | EVALUATION OF SELECT REVENUE TOOLS OPTIONS

Research into revenue tools in other jurisdictions is extensive, and numerous reports have been released as part of the debate related to the Metrolinx *Investment Strategy*. In addition to Metrolinx's recommendations, various association and stakeholder reports advocate both for and against new revenue tools (see Appendix 6 for summary).

Based on our extensive review of this information, we have narrowed our options down to a select few viable alternatives, as set out below:

GASOLINE TAX AND FUEL TAX

- These two taxes are imposed at a flat amount per litre and do not fluctuate with the price of gasoline or fuel. Gasoline prices have ranged between less than $0.60 per litre to more than $1.40 per litre in the past ten years.[28]

OVERVIEW	
Potential Revenue Per Year	~$140M based on 1-cent increase to Gasoline Tax and Fuel Tax (GTHA portion; when fully implemented) Source: Adapted from information provided by Ministry of Finance
How It Works	Two different taxes applied at a flat amount per litre on the sale of gasoline and diesel respectively.
Who Pays	Drivers; Businesses

- The current provincial rate is 14.7 cents per litre for gasoline and 14.3 cents per litre for fuel (diesel). These rates have not changed since 1992.
- An increase in the gasoline and fuel tax rates would encourage changes to travel behaviour, particularly as transit projects are built and more options are available.
- The effect of the tax would be spread among individuals and businesses: more on individuals in the case of gasoline, and more on businesses in the case of diesel fuel, especially the trucking industry.
- Revenue from this source could decline over time due to declining consumption of gasoline and fuel. However, the expected increase in the number of cars in the next 20 years will offset this.
- For administrative and regional competitiveness reasons, these taxes should be raised on a province-wide basis.
- Usage-based (pay-as-you-drive) auto insurance programs could help offset the increased cost of gasoline. This measure gives drivers more control over their insurance costs as their usage patterns and driving behaviour can reduce rates.
- For business, about 40 per cent of the combined tax increase would be borne by the transportation and warehousing sector.

INTER-JURISDICTIONAL COMPARISONS	Vancouver Region	Montreal Region	GTHA
Average Regular Gas Price – November 14, 2013 (cents/L)	127.9	136.4	124.6
Federal Excise Tax on Gasoline (cents/L)	10	10	10
Provincial Gasoline Tax (cents/L)	8.5	19.2	14.7
Local Gasoline Tax (cents/L)	17	3	-
Provincial Carbon Tax on Gasoline (cents/L)	6.67	-	-
Total Excise Tax on Gasoline Tax (cents/L)	42.17	32.2	24.7
Sales Tax (PST + GST, GST + QST, and HST, respectively)*	5%	14.975%	13%
Total impact of Gasoline Tax (cents/L)	44.3	37.0	27.9
Sales Tax (excluding impact on Gasoline Tax) (cents/L)	4.0	12.9	11.1
Total Taxes on Gasoline (cents/L)	**48.3**	**49.9**	**39.0**

Source: Adapted from Metrolinx *Investment Strategy* – p.65
*The BC Provincial Sales Tax (PST) is 7 per cent but there is a point of sale exemption.

Inter-jurisdictional comparisons

- In the Vancouver area, a dedicated tax of $0.17 per litre of gasoline or fuel is levied for transit. This accounts for 24 per cent of TransLink's total revenue (2011).
- In the Montreal area, a dedicated tax of $0.03 per litre of gasoline is levied for transit.
- Total tax on gasoline in the GTHA is about $0.09 to $0.11 per litre lower than in the city-regions of Greater Vancouver and Montreal (see table above).
- In November 2013, the Pennsylvania Senate passed a transportation funding bill that lifts the cap on their state gas tax, enabling an increase of as much as 28 cents per gallon (7.4 cents per litre) to fund transportation infrastructure.

The Panel's Conclusion on Gas and Fuel Taxes

These taxes match usage, affect travel behaviour, are simple to administer, can have a positive impact on the environment, and raise significant funds. If an increase in these taxes is phased in gradually, the impact on the economy, drivers, and truckers will be more easily absorbed.

HARMONIZED SALES TAX

- The HST is a value-added tax that applies to most goods and services.
- The HST is generally seen as more equitable than other taxes because it reflects consumer purchasing behaviour.
- Impacts are felt across a broad range of goods and services.
- As a province-wide tax, the HST could not be raised only in the GTHA.

OVERVIEW	
Potential Revenue Per Year	~$770M based on 0.5 per cent increase in year one (GTHA portion) Source: Adapted from information provided by Ministry of Finance
How It Works	Value-added tax applied on sale of goods and services.
Who Pays	Consumers

Inter-jurisdictional comparisons

- Sales taxes dedicated for transit investments are used widely in major US cities, including New York, Los Angeles, Chicago, Houston, and Minneapolis. These taxes are more similar to Ontario's former Retail Sales Tax (RST) as they are not value-added taxes.
- Los Angeles has approved three separate ballot measures to dedicate 0.5 per cent sales tax to

- transportation (totalling 1.5 per cent). This revenue accounts for 66 per cent of the total revenue of LA County Metro.
- Chicago dedicates a regional sales tax to their regional transportation authority that ranges from 0.75 per cent to 1.25 per cent depending on the location.

The Panel's Conclusion on HST

While the HST is a fair and efficient way to raise significant revenue, it does not influence travel behaviour.

CORPORATE INCOME TAX (CIT) GENERAL RATE

- CIT is a broad-based tax that is levied on a business's taxable income.
- The general CIT rate has been reduced from 14 per cent in 2009 to 11.5 per cent at present, with a commitment to reduce it further to 10 per cent once the deficit is eliminated.

OVERVIEW	
Potential Revenue Per Year	~$190M based on 0.5 per cent increase to general CIT rate (GTHA portion; when fully implemented) Source: Adapted from information provided by Ministry of Finance
How It Works	Increase to general CIT rate, currently at 11.5 per cent levied on taxable income allocated to Ontario.
Who Pays	Businesses

- Ontario's current combined federal/provincial general CIT rate of 26.5 per cent is almost 13 percentage points lower than the 2013 average combined federal/state general CIT rate in the US, which is important to support export firms and international investment in Ontario. Changes to the CIT rate may increase tax planning, where corporations shift income out of (or losses into) Ontario.
- As a province-wide tax, CIT cannot be raised only in the GTHA.
- CIT is the most variable government revenue source as it depends on economic conditions.

Inter-jurisdictional comparison

- Corporate Income Taxes are not widely used as a dedicated revenue source to fund transit.

The Panel's Conclusion on CIT

Section 4.2 gives the rationale for a contribution from business. The Panel explored several options: Corporate Income Tax, Employer-Paid Payroll Tax, and a Business Parking Levy. Neither CIT nor Payroll Tax affects travel behaviour. After considerable debate and consultation, the Panel recommends a modest increase in the general Corporate Income Tax rate. Until recently, the rate was 14 per cent; an increase from its current rate of 11.5 per cent to 12 per cent will keep it in the bottom half of all provinces. CIT is deemed preferable to the other two choices, namely an Employer-Paid Payroll Tax, and a Business Parking Levy. Payroll taxes increase the cost of labour and could negatively impact job creation. A Business Parking Levy is complex to administer and has an adverse impact on small retailers.[29]

HIGHWAY TOLLS

- Proposals for tolls include their use on new roads only or on the existing 400-series highways and major municipal expressways.
- A highway toll program of this scope has never been implemented, nor have tolls ever been used on already built roads (except for rebuilt roads).

OVERVIEW	
Potential Revenue Per Year	~$1.3B (net) based on $0.10/km on all GTHA highways in year one (excluding Highway 407) Source: Adapted from AECOM-KPMG Revenue Tool Profiles
How It Works	Per kilometre charge on vehicles driving on GTHA highways.
Who Pays	Drivers

- The Canadian public's experience with direct charges for road use is relatively limited.
- Highway tolls encourage travel behaviour change.

- A new Conference Board of Canada report entitled *Travel Time and Reliability: an Analysis of Commuting on 407 ETR* (December 2013), concludes that commuters are willing to pay direct charges for road use if they see value gains in terms of time savings, reliability, and vehicle-operating cost savings.
- Tolling all GTHA highways would increase congestion on municipal roads and access routes, as some drivers would choose these free alternatives.
- Consideration could be given to a variable rate implementation scheme, where vehicles are charged different amounts at different times of day. With emerging technology, new approaches to road pricing will be possible.
- Highway tolls are currently used in the GTHA on Highway 407 and will be used on the new 407 East. Existing sections of Highway 407 are operated by a private concessionaire who charges variable rates based on type of vehicle, section of road, and time of day. Current charges for passenger vehicles range from $0.19 to $0.27 per kilometre.

Inter-jurisdictional comparison

- Highway tolls are used as a funding source for transportation funding in Austin, Texas (SH130), Indiana (Indiana Toll Road), Florida (Everglades Parkway), Dublin, Ireland (M1), and England (M6 Toll Motorway).
- Broad-scale highway toll implementation is in place in Germany for Heavy Goods Vehicles (HGV) only. In Germany, all vehicles over 12 tonnes pay between $0.19 and $0.40 per kilometre throughout the country.

The Panel's Conclusion on Highway Tolls

Although highway tolls can raise a significant amount of revenue and influence travel behaviour, they are expensive, complicated, and require a lot of lead time to implement. Once transit alternatives are in place, road tolls meet our criteria and are a valid option. Following the opening of the new Highway 407 East, the Province has the option of designating the new toll revenue to the Next Wave. For now, however, the Panel has not recommended Highway Tolls as a revenue source.

4.5 | COMPONENTS OF THE NEW REVENUE STREAM

The Panel is presenting two viable options for revenue sources based on its six core principles. Both options share the burden among beneficiaries, and each includes a proof of concept to use dedicated new revenue exclusively for the construction of Next Wave Metrolinx projects. Both use the newly created revenue stream to borrow additional funds using the conservative borrowing ratio to 2.5 to 1. Introducing new revenue will require an amendment to the *Taxpayer Protection Act, 1999*.

The proposed tax increases would be implemented province-wide. In our proof of concept, the allocation dedicated to the GTHA is based on real GDP. Funds from outside the GTHA would not be used to support GTHA transit projects.

Option A: A Mix of Corporate Income Tax, Gas and Fuel Taxes, and HST

This first revenue option combines three different tax sources: a modest general **Corporate Income Tax** rate increase; phased increases to the **gasoline** and **fuel taxes**; and redeployment of the provincial portion of the Harmonized Sales Tax (**HST**) charged on these taxes in the GTHA (discussed below).

Option A includes a modest 0.5 per cent general Corporate Income Tax (CIT) rate increase in 2015-16, which would provide up to $350 million per year when fully implemented. This CIT increase would be combined with a Gasoline Tax and Fuel Tax increase of 3 cents per litre in 2015-16, rising by 1 cent each year thereafter until both provincial taxes increase by 10 cents per litre. This 10 cent per litre on the Gasoline Tax and Fuel Tax would raise a combined $2.6 billion per year province-wide when fully implemented.

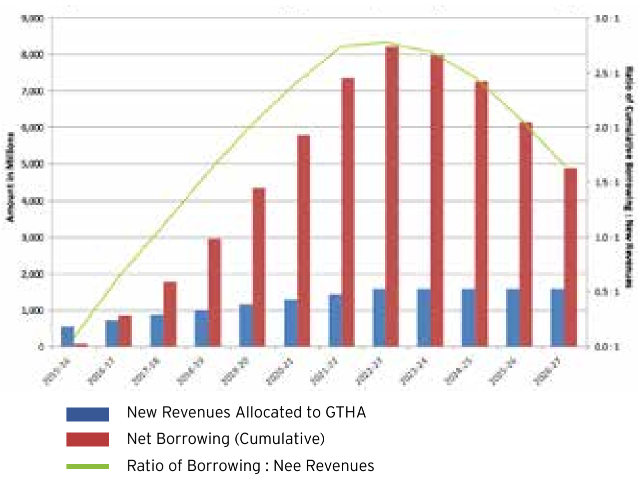
Taken together, these combined tax increases would raise close to $3 billion province-wide per year when fully implemented, with almost $1.6 billion of those funds allocated to the GTHA. Added to this will be $80 million of HST on gas and diesel fuel taxes attributed to the GTHA (see below). Nearly $1.3 billion – together with additional funds borrowed against new revenue – would be available to support

Next Wave projects and ultimately retire the debt. As per the Metrolinx formula, $400 million would be distributed for local transit projects.

With this option, an average Ontario household, which has income between $80,000-$90,000, would pay about $80 in the first year from a Gasoline Tax increase of 3 cents per litre. When fully implemented, with a Gasoline Tax increase of 10 cents per litre, this same household would pay $260, representing 0.3 per cent of income.

PROOF OF CONCEPT: OPTION A

(Gasoline Tax and Fuel Tax rising to 10 Cents, 0.5% Corporate Income Tax)



Option B: Less from Gas and Fuel, More from HST

The Panel's second revenue option is a combination of four different tax sources: a modest general **Corporate Income Tax** rate increase; a lesser phased increase to the **gasoline** and **fuel taxes**, followed by a small increase to the **HST**; and redeployment of the provincial portion of the **HST** charged on the gas and fuel taxes in the GTHA.

This option includes a modest 0.5 per cent general Corporate Income Tax (CIT) rate increase in 2015-16, which would provide up to $350 million per year when fully implemented. This CIT increase would be combined with a Gasoline Tax and Fuel Tax increase of 3 cents per litre in 2015-16, rising by 1 cent each year thereafter until both provincial taxes increase by 5 cents per litre. This 5 cent per litre on the Gasoline Tax and Fuel Tax would raise a combined $1.2 billion per year province-wide when fully implemented.

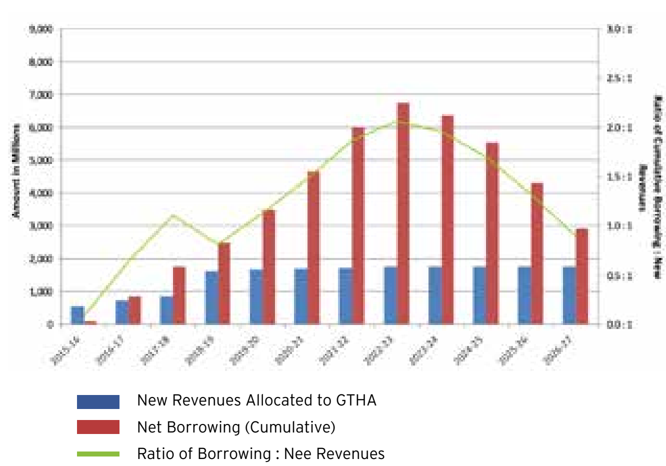
In contrast to Option A, the Panel then recommends a 0.5 per cent Harmonized Sales Tax increase starting in 2018-19, which would provide nearly $1.7 billion per year when fully implemented.

Taken together, these combined tax increases would raise close to $3.3 billion province-wide per year when fully implemented, with almost $1.8 billion of those funds allocated to the GTHA. Added to this will be $80 million of HST on gas and diesel fuel taxes attributed to the GTHA (see below). Nearly $1.4 billion – together with additional funds borrowed against new revenue – would be available to support Next Wave projects and ultimately retire the debt. As per the Metrolinx formula, $440 million would be distributed for local transit projects.

With this option, an average Ontario household, which has income between $80,000-$90,000, would pay about $80 in the first year from a Gasoline Tax increase of 3 cents per litre. When fully implemented, with a Gasoline Tax increase of 5 cents per litre, this same household would pay $145. The 0.5 per cent HST rate increase would cost that same household an additional $155 annually, representing 0.18 per cent of income. Together, both tax changes would cost the same Ontario household about $300 per year.

PROOF OF CONCEPT: OPTION B

(Gasoline Tax and Fuel Tax rising by 5 Cents, 0.5% Corporate Income Tax, 0.5% Harmonized Sales Tax)



Redeployed Provincial Revenue

The Panel also recommends that the provincial portion of the Harmonized Sales Tax (HST) charged on Gasoline Tax and Fuel Tax attributed to the GTHA be redeployed to transit. This amount is estimated at $80 million per year and would have a small impact on the Province's finances.[30]

The HST is a federally-administered value-added tax with a combined rate of 13 per cent. In Ontario, the provincial portion of the tax is eight per cent, and the federal portion is five per cent.

As a harmonized tax, the HST applies to the "all-in" price or the total charge for a good or service, which means the price of the item, as well as all applicable charges. In the case of gasoline and fuel purchases, HST is levied on the value of the Federal Excise Tax on gasoline and fuel and the provincial gasoline and fuel taxes.

PANEL RECOMMENDATION # 13

That the new revenue stream be based on one of the two following options:

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a. A phased and capped increase to the gasoline and fuel taxes; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes); or

b. A phased increase to the gasoline and fuel taxes capped at a lower rate followed by an increase to the HST; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes).

PANEL RECOMMENDATION # 14

That only the portion of the revenue stream attributed to the GTHA be invested in the GTHA, with revenue outside of the GTHA available for priorities elsewhere in Ontario.

Appendix 7 and Appendix 8 illustrate the two options presented by the Panel.

4.6 | CAPTURING LAND VALUE UPLIFT

Transit, particularly high-occupancy rapid transit, increases property values in its immediate area. Land value capture (LVC) refers to arrangements that attempt to recoup a portion of these increased values to support transit development. Properly planned, transit investments can encourage development around transit stations and transit routes. LVC tools can be used to provide direct contributions to the capital costs of transit.

The existing 118 km London Crossrail project is an excellent example of applying Land Value Capture. Almost one-third of all costs for this £14.8 billion project were contributed by business.[31]

It is important to differentiate between Negotiated Land Value Capture and Legislated Land Value Capture. Negotiated Land Value Capture involves a discussion with land owners and businesses prior to the development of a new transit line. The increased value of benefits to land owners and businesses of locating on a new transit line can be documented, and allow for a direct negotiated financial contribution in the form of cash or system construction. In contrast, Legislated Land Value Capture is applied to property adjacent to new transit stations after the new transit line is already built. Because this approach follows the construction of transit, it may result in a less significant financial contribution as the incentive for business to contribute in other ways may be diminished.

Based on our consultations and research, including a recently released paper done for Metrolinx[32], the Panel has concluded that significant land value capture opportunities are being missed. The example of the London Crossrail project – a prime example of development-based negotiated LVC – suggests that Metrolinx could raise considerable funds if it were to better collaborate with the private sector.[33]

Metrolinx acknowledges the need to do more in this area. Indeed, Metrolinx's *Investment Strategy* includes a specific recommendation to work with municipalities and the land development industry to develop a land value capture strategy for the Next Wave of rapid transit projects.

To fully deliver on this strategy, Metrolinx must adopt a new mindset in how it engages with the private sector.

PANEL RECOMMENDATION # 15

The Panel endorses the Metrolinx *Investment Strategy* recommendation that:

"Metrolinx work with municipalities and the land development industry to develop a land value capture strategy for the Next Wave of rapid transit projects, which also considers existing and under-construction rapid transit assets to ensure an appropriate private-sector contribution towards the cost of stations and other infrastructure."
(IS Recommendation #10)

PANEL RECOMMENDATION # 16

That Metrolinx strengthen its capacity and expertise in the real estate field and adopt a proactive and collaborative approach to engaging with the private sector to pursue LVC opportunities for each unfunded project.

The public has very little trust in how transit is planned, in how money is managed, and in how projects are delivered. This was the most forceful message that emerged from all of our public meetings and consultations with stakeholder groups. This needs to be addressed on three fronts:

- Dedicating new revenue so that it must be spent exclusively in funding the creation of an integrated, region-wide transit network.
- Ensuring accountability and transparency for how funds are collected, spent, and reported on.
- De-politicizing decision-making by insisting that transit projects are selected using evidence-based analysis of costs and benefits.

5.1 | A NEW DEDICATED FUND FOR GTHA TRANSIT

The phrase 'dedicate it or forget it' came up in multiple community meetings, and the Panel accepts this as one of the most important findings from its public consultations. The government must create high fences around dedicated funds so they don't end up mixed in with the government's general revenue.

The Panel's recommendation to address this pressing concern about trust is to create a Fund, in a separate part of Metrolinx, as a transparent and segregated account to administer money to be spent exclusively on *The Big Move*. The purpose and requirements for this Fund must be defined in legislation.

Using legislation to restrict the spending of new revenue to specific purposes is a departure from how government spending is usually done. The Panel recognizes that its recommendations could affect the fiscal flexibility of the Province, but feedback from the community meetings and other research was unanimous: dedicated funding is a necessary step to building public trust in transit planning.

5.2 | ACCOUNTABILITY AND TRANSPARENCY

The Panel understands that dedicated funding is meaningless without proper accountability and transparency, backed up with reporting that is publicly available to anyone who wants to see it.

To meet the public's expectations for accountability and transparency, the Panel recommends that the new Fund publish its financial statements in a stand-alone annual report using plain language. The annual report would include performance metrics to measure individual projects against plan. As is the case with Metrolinx, the Fund's financial statements would be subject to independent third party audit, either by a recognized accounting firm or the Office of the Auditor General of Ontario. Metrolinx addresses this in Recommendation #5 of its *Investment Strategy*.

Although the Fund would technically be part of the Province's books, the on-going focus in public reporting should be on the ways in which this dedicated new revenue is applied directly against Next Wave transit projects.[34]

PANEL RECOMMENDATION # 17

That legislation be used to create a Fund within Metrolinx as a transparent, segregated account to administer money solely for the funding of *The Big Move*. This new Fund would publish its financial statements in a stand-alone annual report that tracks spending against plan and uses plain language.

5.3 | EVIDENCE-BASED EVALUATION: DE-POLITICIZING DECISION-MAKING

The public's low trust in transit decision-making can be addressed in part by ensuring that the process for project evaluation and selection is evidence-based and transparent. The Metrolinx *Invest-*

ment Strategy notes that using a comprehensive business case analysis and prioritization framework "builds confidence that the right projects are being selected for delivery at the right time and in the right sequence."[35]

The Panel wishes to underscore this point. In a soon-to-be-published report by the Neptis Foundation entitled *Review of Metrolinx's Big Move*, the author asserts that the process currently used by Metrolinx has a number of limitations. These include:

- Inconsistent information is provided for each Benefit Case Analysis.
- Funding decisions are made in the absence of published Benefit Case Analyses.
- For some projects with completed Benefit Case Analyses, project scope has changed so drastically that the analysis is no longer relevant.

Our understanding is that Metrolinx is currently updating its evaluation process, as discussed in IS Recommendation #14. The Panel recommends that this improved business case analysis framework be completed for all projects and made available to the public prior to funding approvals.

PANEL RECOMMENDATION # 18

That all projects approved by Metrolinx and elected officials must have up-to-date, publicly-available, business case analyses that validate the investment, taking into account life-cycle capital, operating, maintenance, and financing costs.

Notwithstanding the desire for politics-free decision-making, the Panel recognizes that, in a democracy, decisions cannot, and often should not, be made solely by the "experts." It has been suggested that one answer is to expand the authority and mandate of Metrolinx to give it "the teeth" to have the final say over project decisions. However, Metrolinx is not an elected body, but rather a creature of the Province, and does not have the power to tax. In addition, we count on local municipalities to represent the perspectives of their communities, an important principle in our system of governance. The challenge in metropolitan regions is to strike a reasonable and workable balance between local responsiveness and regional coordination.

5.4 | PUBLIC-PRIVATE PARTNERSHIPS

A public-private partnership (also referred to as a "P3") is a method of procuring and implementing infrastructure projects. P3s can improve efficiency and provide value-for-money by transferring certain project risks (e.g., construction delays, cost inflation, and long-term maintenance) from the public sector to the private sector. It is important to note, however, that P3s are not a source of revenue. The government must still pay a private sector partner to deliver a project.

In Ontario, P3s are referred to as Alternative Financing and Procurement (AFP) and have been used successfully to deliver social infrastructure projects, including hospitals, courts, and correctional facilities. The Province's long-term infrastructure plan, called *Building Together,* requires that AFP be considered for all provincially-owned infrastructure projects valued at over $50 million. Since all of the Next Wave projects are valued at more that $50 million, they will be considered for AFP. The Panel agrees with this policy and recommends that Metrolinx use AFP when value-for-money is demonstrated.

PANEL RECOMMENDATION # 19

The Panel endorses the Metrolinx *Investment Strategy* recommendation that:

"all Next Wave projects with a construction value of more than $50 million be evaluated to determine whether they could be delivered through Alternative Financing and Procurement, using Infrastructure Ontario, to ensure service delivery that is on budget and on schedule." (IS Recommendation #13)

In conversations with many organizations and the public, the message was loud and clear: achieving the vision of an integrated regional transit system will require continuous communication, education, and advocacy.

Despite extensive attempts by government and Metrolinx to help people understand *The Big Move* transportation plan, people feel that they did not really have enough information on how implementation of the plan will benefit them today and in the future.

With the submission of its final report, the Panel has fulfilled its mandate. Champions are needed who will continue to communicate the urgency of investing in transit now. There are several organizations out there today promoting the case for investing in transit – the Move the GTHA Network, Civic Action, the Toronto Region Board of Trade, among others. The Panel hopes that leaders who care about city-building from all sectors – political, academic, business, labour, and civil society – will continue to champion the cause.

An ongoing campaign of communication and information is essential to connect the big picture choices around transit investment to the daily life experiences of people. Perhaps the most common question asked is "how will my life be improved"? People need to understand this, and more importantly, start to see this.

The Government of Ontario, Metrolinx, and champions of transit investment will all play key roles in driving home the message of choices and consequences. Failing to act is a choice. Unless we choose to invest in transit, we will be hard-pressed to sustain the prosperity we value.

PANEL RECOMMENDATION # 20

That the Government of Ontario move forward to act on these recommendations and that leaders from all sectors – political, academic, business, labour, and civil society – continue to communicate the importance of transit investment in the GTHA.

1 That Metrolinx implement the Next Wave projects in accordance with the following seven criteria:

- Projects must help ease congestion, not add to it
- Projects must lead to a connected region-wide network
- Projects must align with current and future major employment locations
- Projects must align, where possible, with location of public and community institutions
- The type of transit must be appropriate for the situation, accounting for ridership, cost, and fiscal and environmental impact
- Projects must be built on a practical timeline
- Investments must provide tangible benefits and improvements in both the short-term and long-term

2 The Panel endorses the Metrolinx *Investment Strategy* recommendation that 75 per cent of dedicated revenue be allocated to Next Wave projects (capital, maintenance, and some operating) and up to 25 per cent be allocated to local transit and transportation initiatives. (IS Recommendation #18)

3 That a two-year Kick-start Program be developed to deliver noticeable results to transit riders across the GTHA in the immediate-term and coincide with the implementation of new revenue sources.

4 That the review of *The Big Move* be brought forward to begin in 2014. That the review of the *Growth Plan for the Greater Golden Horseshoe* also be advanced to 2014 so that the two reviews can be coordinated. As part of *The Big Move* review, Metrolinx should address the alignment of *The Big Move* with current and future major employment locations.

5 That Metrolinx and GTHA municipalities adopt a proactive joint approach to land use planning to achieve zoning that supports intensification along transit corridors and around stations.

6 The Panel endorses the Metrolinx *Investment Strategy* recommendation that: "the Minister of Transportation proceed with the development of a Transportation Planning Policy Statement under the provisions of the *Metrolinx Act*, to encourage greater integration of land use policies with *The Big Move* and investments in transit and transportation infrastructure." (IS Recommendation #9)

7 The Panel supports the Metrolinx *Investment Strategy* recommendation that: "the Province of Ontario consider adjusting the composition of the Metrolinx Board of Directors, in order to provide municipalities in the Greater Toronto and Hamilton Area with the opportunity to nominate up to six citizen appointees to the Board." (IS Recommendation #3)

8 That an annual regional forum of current elected officials in the GTHA be established to discuss major policy challenges, including urban growth and transportation.

9 The Panel endorses the Metrolinx *Investment Strategy* recommendation that: "the federal government contribute up to one-third of the capital costs of the Next Wave transit and transportation infrastructure." (IS Recommendation #8)

10 That municipalities in the GTHA make greater use of their borrowing capacity to finance local transit improvements.

11 That existing and committed transit funding from all orders of government be maintained and not offset or be replaced by the recommended new revenue stream.

12 That a new, reliable revenue stream be created, dedicated to the construction of a GTHA-wide transit network, used to lever new funds at a conservative net debt-to-revenue ratio of 2.5 to 1, and applied to debt retirement upon completion of projects.

13 That the new revenue stream be based on one of the two following options:

a. A phased and capped increase to the gasoline and fuel taxes; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes); or

b. A phased increase to the gasoline and fuel taxes capped at a lower rate followed by an increase to the HST; a modest increase to the general Corporate Income Tax rate; and redeployment of a small portion of HST revenue (charged on gasoline and fuel taxes).

14 That only the portion of the revenue stream attributed to the GTHA be invested in the GTHA, with revenue outside of the GTHA available for priorities elsewhere in Ontario.

15 The Panel endorses the Metrolinx *Investment Strategy* recommendation that: "Metrolinx work with municipalities and the land development industry to develop a land value capture strategy for the Next Wave of rapid transit projects, which also considers existing and under-construction rapid transit assets to ensure an appropriate private-sector contribution towards the cost of stations and other infrastructure." (IS Recommendation #10)

16 That Metrolinx strengthen its capacity and expertise in the real estate field and adopt a proactive and collaborative approach to engage with the private sector to pursue LVC opportunities for each unfunded project.

17 That legislation be used to create a Fund within Metrolinx as a transparent, segregated account to administer money solely for the funding of *The Big Move*. This new Fund would publish its financial statements in a stand-alone annual report that tracks spending against plan and uses plain language.

18 That all projects approved by Metrolinx and elected officials must have up-to-date, publicly-available, business case analyses that validate the investment, taking into account life-cycle capital, operating, maintenance, and financing costs.

19 The Panel endorses the Metrolinx *Investment Strategy* recommendation that: "all Next Wave projects with a construction value of more than $50 million be evaluated to determine whether they could be delivered through Alternative Financing and Procurement, using Infrastructure Ontario, to ensure service delivery that is on budget and on schedule." (IS Recommendation #13)

20 That the Government of Ontario move forward to act on these recommendations and that leaders from all sectors – political, academic, business, labour, and civil society – continue to communicate the importance of transit investment in the GTHA.

APPENDICES

Purpose of Transit Investment Strategy Advisory Panel

The Advisory Panel will support the Province in its review of, and response to, the recommendations in Metrolinx's *Investment Strategy*. It will do this through research and analysis, as well as public engagement and dialogue, focused on both the recommendations presented by Metrolinx and consultation on other potential revenue options.

THE PURPOSE OF THE PANEL IS TWO-FOLD:

(1) Review and Advise

- The Panel will advise government on its response to the Metrolinx *Investment Strategy*.
- The primary objective of the Panel is to review the Metrolinx *Investment Strategy* and to engage with the public to determine whether the recommendations in the Metrolinx *Investment Strategy* are, in their view, the right ones.
- The Panel may also consider additional options and present them for engagement with the public.
- The Panel will then review all options in conjunction with any other suggestions made by the public, and report back to government by December 2013.
- This report-back will serve as an opportunity for the Panel to present their findings in a way that answers the following questions:
  - Does the public generally agree with the proposed revenue tools recommended by Metrolinx?
  - Do the proposed Metrolinx investment tools meet the stated objectives of fairness, equity, accountability and transparency?
  - Are there other tax or non-tax revenue options to fund transit that the public supports or has suggested?
  - Are there individual municipal transit issues that require specific attention or action?
  - What are the Panel's recommendations to government, based on all that the Panel has learned and heard?

2) Communications Channel

- The Panel will communicate and receive feedback on concerns as well as any additional options being considered by the government, as required and as appropriate.
- It will serve as a channel to engage the public and stakeholders and seek to build public support for transit investment.
- The Panel will engage in a minimum of four public townhalls and utilize innovative engagement tools, in addition to a series of meetings throughout the Fall of 2013.
- The report-back to government will be in the form of a Chair's report, based upon the input received from the Panel and the public.

ADVISORY PANEL SUPPORT

- The Panel will be supported by a Secretariat, which will:
  - Include a Director of Research and Operations, an Executive Assistant, a Project Manager, and, potentially up to 3 part-time researchers.
  - Have dedicated office space for up to 8 people, as well as access to a board room and other resources.
- Staff from the Ministry of Transportation, the Ministry of Finance, the Ministry of Infrastructure, Cabinet Office and other key ministries, as applicable, will provide support for, and analysis to the Secretariat.
- As the analysis of the Metrolinx *Investment Strategy* recommendations is developed, the Panel could seek technical advice and feedback from external experts, as needed.
- Expertise could potentially be leveraged from industry experts, engineers, value planners, economists, former officials, etc.

APPROACH TO ADVISORY PANEL – HIGH PROFILE STAKEHOLDER ENGAGEMENT

- Advisory Panel members have been identified from key stakeholder groups (e.g., associations and advocacy groups, etc.).
  - The Panel will comprise of 13 members, and will be chaired by Anne Golden, Past President & CEO of The Conference Board of Canada, and Distinguished Visiting Scholar and Special Advisor at Ryerson University.
  - The Chair will be supported by a Vice-Chair, Paul Bedford, Adjunct Professor of Urban & Regional Planning, University of Toronto and former Toronto Chief Planner
  - The Panel members include:
    - Chair – Anne Golden, Ryerson University
    - Vice Chair – Paul Bedford, University of Toronto
    - Pat Dillon, Provincial Building & Construction Trades Council of Ontario
    - Andy Manahan, Residential and Civil Construction Alliance of Ontario
    - Teresa Di Felice, Canadian Automobile Association
    - Cherise Burda, Pembina Institute
    - Leith Moore, Ontario Home Builders' Association
    - Joe Mancinelli, Labourers' International Union of North America
    - Mohan Nadarajah, Citizen Member
    - Gordon Chong, former Toronto City Councillor
    - Kulvir Gill, Citizen Member
    - Blake Hutcheson, Oxford Properties
    - Iain Dobson, Real Estate Search Corporation
- A wide range of stakeholders have been identified so that various viewpoints and areas of expertise can be leveraged (e.g., financial, economic, governance, planning, etc.).
- A consultant with the appropriate expertise and resources has been hired to organize and facilitate the Panel and public meetings.

TIMING AND ADVISORY PANEL MEETINGS

- Advisory Panel meetings will take place over the Fall of 2013, with the objective of having the process wrapped up by December 15, 2013.
- The internal Panel meetings would be organized with the Minister of Transportation and/or delegate (Deputy Minister or Assistant Deputy Minister). This would create an opportunity for the Minister to provide an overview of the desired outcomes of the Panel and parameters to guide the panellists' discussions, as well as to present new ideas and analysis.
- A possible framework for the Panel:
  - Introductory (Orientation) Meeting
    - The Premier and Minister of Transportation would attend the first internal session with the Panel.
    - Discuss the goals and objectives of the Panel and the scope – i.e., that the Panel should engage in a discussion about all possible revenue options.
  - Update Meetings
    - Updates for the Panel regarding analysis and additional options to introduce into the public discussion.
    - Updates from the Panel regarding public input and feedback from sessions.
  - Final Report-Back Meeting
    - Report-back to the Minister of Transportation and the Premier.
- The Panel would hold a minimum of four public townhalls.
- The Minister of Transportation will not be directly involved in the public meetings of the Panel.
- While the Panel will develop the engagement format, the following is a potential structure for the public meetings:
  - The Chair could give a keynote address and provide an overview of the Panel's purpose and objectives, as well as some key themes, new ideas and recommendations that they intend to discuss.
  - The meetings will be structured to permit maximum feedback and engagement from participants.

Introduction

Toronto used to be considered a transit system leader and all levels of government made bold investments to earn that reputation. We are reaping the benefits of those investments to this day, as a city, region, province, and country.

The Toronto region now ranks as the worst performer in Canada in moving people to and from work and is near the bottom of global rankings[2]. For the past several decades our investments in the region's public transit have not kept pace with economic and population growth. This is true for Canada as a whole. Between 1955 and 1977, new investment in infrastructure grew by 4.8% annually, in line with economic and population growth; between 1978 and 2000, however, it grew by a miniscule 0.1%[3]. Little wonder we have fallen so far behind.

In Toronto, the investment in public transit (as a percentage of GDP) in the 1990s was among the lowest in OECD countries[4]. This was largely due to the decline in the federal share of investment in public infrastructure - from 27% in 1955 to 5.3% in 2007. Although both the governments of Canada and Ontario have since made more funding available, the gap has not nearly been closed nor does the funding increase respond to predicted growth.

The consequences for the Toronto region of this long period of under-investment are:

- Cost of time lost by people and goods sitting in traffic to the Toronto regional economy of $6 billion annually, and predicted to rise to $15 billion by 2031 if no action is taken[5 6]
- Inability to effectively match workers to jobs, contributing to productivity losses and higher unemployment[7]
- Lack of transit availability and connectivity which contributes to growing social inequity in the Toronto region. Average GTHA commuting time of 82 minutes to and from work each day, which is the longest daily commute of all US and Canadian cities. This is predicted to grow to 109 minutes if we fail to improve our transit system[8]
- Negative impact on physical and mental health. Studies show that individuals who spend increased periods of time behind the wheel tend to be less fit and suffer more stress. Increased pollution, including reduced local air quality and high Greenhouse Gas (GHG) emissions

The GTHA is expected to grow by 2.5 million more people and by more than 1 million vehicles by 2031. Transit infrastructure, together with human capital, are the main determinants of economic growth in today's knowledge economy. And they are linked because our ability to attract the people we need depends on the economic opportunities and quality of life our region can offer. Hence, the recent warning by the OECD that "The state of the Toronto region's infrastructure could significantly strain its capacity to compete with other OECD metropolitan regions."[9] In short, what is at stake is our city-region's prosperity in a competitive global world.

In the Panel's view, the public debate is being impeded by a series of misconceptions. This paper, the first of three leading up to the consultation phase of our work, aims at adding clarity to the debate by establishing six hard truths.

- ***Subways are not the only good form of transit.*** What matters is matching the right transit mode and technology to the proposed route to avoid wasting scarce capital, reducing funds for other projects, and creating burdensome debt.
- ***Transit does not automatically drive development***. To be successful and affordable, transit routes must connect with current and anticipated employment.
- ***The cost of building the transit is not the main expense***. Lifecycle operating and maintenance costs are a major portion and must be included in the analysis leading to decisions.
- ***Transit riders are not the only beneficiaries of new transit infrastructure***. Everyone benefits – economically, socially and environmentally – from new transit infrastructure.
- ***Transit expansion in the region is not at a standstill.*** There is $16 billion worth of transit construction now in progress throughout the GTHA.
- ***We can't pay for the region-wide transit we need by cutting waste in government alone.*** New dedicated revenue sources are required.

These are hard truths, but until we accept them, we will not be able to have a mature discussion. Decisions will not be based on reason and evidence, but will be one-off decisions aimed at short term political gain.

Hard Truth One:
Subways are not the only good form of transit.
Matching the right transit mode and technology to the proposed route is what matters.

Many people operate under the assumption that subways are the optimal type of transit in all situations and anything else is second best. In fact, different circumstances merit different transit technologies based on current and projected ridership levels, population and employment densities, and terrain. The importance of ridership levels is obvious as low ridership means excessive subsidies.

Despite the obvious appeal of subways, TTC surface streetcar and bus service plays a huge role in moving people and feeding into the subway network. The 140 TTC bus routes carry a total of 1.2 million riders per day. According to 2012 data, 283,000 daily riders use Toronto's eleven streetcar lines. This number far exceeds the 187,000 daily riders on the entire GTHA GO train network. Even on the popular GO transit system, one-quarter of the riders use GO buses.

The choices for rapid transit expansion before us are: bus rapid transit, light rail transit, subways, and regional rail. Each mode, operating in its own right of way, has distinct benefits and very different construction, operation, and maintenance costs (see Table 1).

It is essential to note that the St. Clair line is not an LRT; it is a streetcar in its own right-of-way and is not the model for future LRTs.

Table 1: General Comparison of Rapid Transit Technologies

	BRT	LRT	Subway
Ridership capacity per peak hour	2,000-25,000	5,000-25,000	25,000-40,000
Average speed	15-40 km/h	15-40 km/h	25-50+ km/h
Station spacing	~500m	~500m-900m	~500m-2km+
Cost per kilometre	$25-50M	$35-40M $150M (underground)	~$300M
Cost per vehicle	$450K - $1M	$3-5M	$5M+

Ministry of Transportation

Figure 1: Descriptions of Transit Options[10]

Transit option[11]	Description
	**Subway:** A heavy rail system that runs on a track that is completely separate from road and pedestrian traffic. The Toronto subway travels mostly through underground tunnels, although some stations are at street level.
	**Light Rail Transit:** A fast-moving train that operates in its own right-of-way (a separated traffic line, or off street route). LRTs have about twice as many stops as subways but fewer than bus or streetcar routes. They are faster and can carry more people than buses and streetcars. LRTs are very popular in European and US cities, as well as in Calgary, Edmonton and Ottawa.

	**GO Train:** A train that operates on existing railways and tends to cover longer commuting distances.
	**Bus Rapid Transit:** A bus that travels in its own lane separated from traffic by curbs. Rapid bus lanes are being built along Yonge St. and Hwy 7 in York Region. BRT is the least expensive mode of rapid transit to build and most accessible as entrances are barrier-free. BRTs can operate like LRTs without the rails and can be converted to LRTs when ridership warrants. BRT has a distinct role to play and is complementary to both LRT and subway technology.

Contrary to the myth that subways are the only good form of rapid transit, the truth is that an effective and sustainable public transit network depends on matching the technology to the circumstances.

Hard Truth Two: Transit does not automatically drive development. Success depends on the right alignment with economic growth and jobs.

It is widely assumed that building new rapid transit will lead automatically to new real estate development along the transit line, including office development which accommodates almost half of the region's labour force. During peak hours, when the congestion occurs, the ratio of workers to non-workers among riders is four to one. Recent research makes it clear that the role of office development in generating ridership is pivotal.[12]

The evidence shows that you cannot just build transit anywhere and hope commercial development will follow. While access to rapid transit is a catalyst for development, it is only one factor. The potential of rapid transit to spur development linked to employment depends on its alignment with the development potential of land surrounding transit stops and the plans of businesses for growth. Integrating rapid transit decisions with land use planning, economic development strategy, and job growth is crucial. Only then can we hope to achieve sustainable ridership and the best possible return on investment.

In Toronto, the original extension of the University line to Yorkdale, as well as the Danforth and Bloor extensions did not attract significant development .The Sheppard subway line has generated residential but very little office development. The line remains vastly under-used; the daily ridership of just 50,000 people is below that of the King streetcar. Subways are appropriate where they align with demand: When the original Yonge subway was approved in 1946, demand was assured, as 17,500 people per hour were already using the existing trolley system. The Yonge subway now carries almost three-quarters of a million people daily.[13]

Understanding the relationship between transit planning, land use and employment region-wide will cast the debate over transit priorities in a new and constructive light.

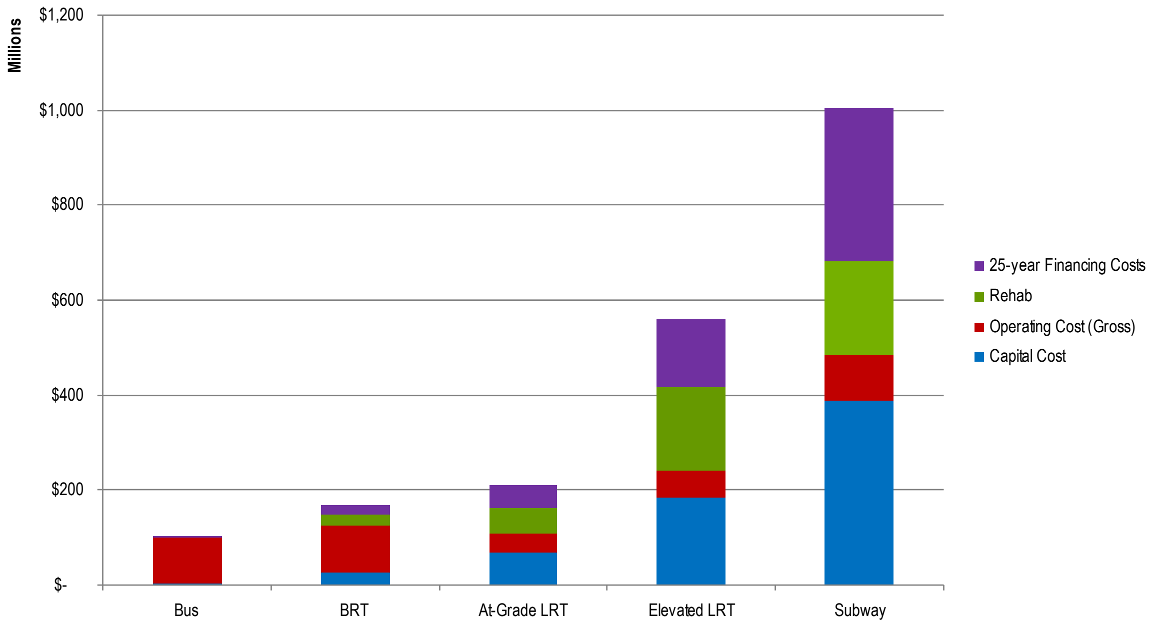
Hard Truth Three:
The cost of building transit is not the main expense.
The long term cost of operating and maintaining transit is far higher.

The current budgeting practice of governments in Canada is to separate capital spending from operating. The Panel believes that we need to understand both sides of the equation in making decisions on where to invest in transit.

The Metrolinx Investment Strategy recognizes the importance of thinking beyond construction costs to factor in the full costs of the projects after they are built. However, these associated costs are not spelled out fully in *The Big Move* plan.

The graph below sets out the typical construction cost and the subsequent operating and maintenance costs for each mode.

Graph 1: Transit Mode 50-Year Costs: 25-Year Capital Financing on a Per Kilometre Basis (does not include fare box revenue)



Created for the Panel by Metrolinx

All of these costs must be taken into account in analysing the full cost of a project before deciding what to build, where, and when.

Hard Truth Four:
Transit users are not the only beneficiaries of new transit infrastructure. Everyone benefits – economically, socially, and environmentally.

Another misconception is that only transit users benefit from new transit infrastructure. This argument, often voiced by those who have no access to public transit themselves, reflects the view that, "if I don't use it, why should I pay for it?"

The answer to that question is that the ability of our economy to produce and distribute opportunities to all depends on how efficiently we connect employers, jobs and residents. Public transit infrastructure is a cornerstone of a productive economy, especially in this century when reliance on cars can no longer provide the requisite connectivity. Expanded transit infrastructure supports economic growth, productivity gains, and regional competitiveness. It also contributes to social inclusiveness by improving access to employment opportunities and making job work connections easier, especially for those without cars.

All Ontarians have access to public infrastructure that they may not use at the individual level. Parks, police services, hospitals, and public schools are examples of services that one may not use personally every day, but benefit from collectively.

The lack of transit choices throughout the region requires many families to own two vehicles. According to the Canadian Automobile Association, the average cost of owning and operating a car is approximately $10,000-11,000 per year[14]. Improved transit availability could produce substantial personal savings for many families if they could meet their transportation needs with a single vehicle - savings that could be better used in various ways, be it for housing, children's education, or retirement savings. For those who can't or choose not to take transit, connecting jobs to transit will reduce commuter traffic on the highways and improve driving conditions.

A comprehensive and integrated regional transit network will produce benefits that are very personal: more economic and employment opportunities, more money available for public services, more choices, less time stuck in gridlock , less stress, and a better quality of life for more people. These are indirect benefits that will be felt by all of us. But for some, the benefits will be quite dramatic. For instance, all day GO service will give people who are totally car dependent now a new transportation choice. Those who don't drive will notice a significant improvement in access and convenience.

Hard Truth Five:
Transit expansion in the region is not at a standstill. There is $16 billion worth of transit construction now in progress throughout the GTHA.

Much of the discussion on transit in the GTHA has focussed on overcrowding on our subways, streetcars and buses, worsening congestion on our roads, and months of heated debate over what to build in Scarborough. The prevailing mood of frustration and cynicism was summed up in a recent National Post headline "The TTC once knew how to move people but now we spend more time arguing than building subways" (July 20, 2013). But it is important not to lose sight of the real progress that is being made and the many projects currently under way across the region.

In fact, there is $16 billion worth of capital funding for rapid transit projects proceeding now:

- **Toronto-York Spadina Subway Extension**: An extension of Toronto's subway system from Downsview station to Vaughan Metropolitan Centre in York Region.
- **Light Rail Transit Projects**: LRT projects on Eglinton Avenue, Sheppard Avenue East and Finch Avenue West.
- **Union Pearson Express**: A rail link connecting Union Station with Pearson Airport, which will be completed in time for the 2015 Pan Am Games.

- **York Region Viva**: Bus rapid transit (BRT) service on bus only lanes along Yonge Street and Highway 7 corridors in York Region.
- **Union Station Revitalization**: The renewal and expansion of Union Station, the busiest transportation hub in Canada.
- **Mississauga Transitway**: A BRT system across Mississauga along Highway 403, Eastgate Parkway and Eglinton Avenue.
- **Brampton Züm**: BRT on Queen Street, Main Street, Steeles Avenue and Bovaird Drive in Brampton.
- **Georgetown South Project:** Infrastructure improvements along GO Transit's Kitchener rail corridor.
- **Durham Pulse:** The BRT system travelling across the Highway 2 corridor in Durham.
- **PRESTO card:** The regionally integrated fare card for the GTHA.

In addition, **GO Transit** is making significant infrastructure improvements across its extensive rail and bus network. These investments include the expansion of GO's locomotive fleet, new double-decker buses, new and expanded parking facilities across the rail network, new rail service to Kitchener-Waterloo Region and Guelph, the extension of the Bradford GO rail services to Barrie, and 30-minute service on the Lakeshore line. In addition, all day GO train service will start on the Kitchener line by 2015 and is slated to be extended to the Barrie, Stouffville, and Richmond Hill lines within the coming five years.

These improvements are a good start after decades of deferred expansion, maintenance and renewal. But the transit infrastructure spending shortfall is enormous and it is placing major demands on present and future municipal budgets.

Acknowledging the progress that is being made will hopefully contribute to building momentum for investing in the region-wide integrated transit system that is so urgently needed.

Hard Truth Six:
We can't pay for the transit we need by cutting waste in government alone. The necessary funds cannot be found from savings and efficiencies alone.

There is no evidence that the magnitude of funds needed to build, operate, and maintain a transit network capable of serving a future region of more than 10 million people can be found by simply cutting waste.

These are the facts:

- Ontario has the lowest spending per capita of all provincial governments.
- Spending has been reined in significantly. Program spending is projected to grow at an average annual rate of less than 1% over the next five years.
- Ontario is committed to eliminating the deficit by 2017-18.

These commitments leave little room for major new expenditures from existing revenue sources, especially in these times of constraint.

The Drummond Commission spent nearly a year searching for ways to cut spending. It did not find measures sufficient to both reduce the deficit and fund transit expansion. Indeed, the Commission highlighted the importance of transit infrastructure investments and called for “an honest discussion on other revenue solutions.”[15]

Conclusion

Every choice brings with it consequences. Transit decisions have been and are being made based on poor and incomplete information. This distorted conversation has been facilitated by perpetuation of the myths set out in this paper. The Panel is of the view that we must acknowledge the “hard truths” about public transit in order to make intelligent choices that will serve us well for the long-term.

End Notes

[1] Ontario, The Growth Plan for the Greater Golden Horseshoe, June 2013

[2] Toronto Region Board of Trade, A Green Light to Moving the Toronto Region, p. 5, 2013

[3] Golden and Brender, Conference Board of Canada, Mission Possible: Successful Canadian Cities, 2007

[4] Organization of Economic Development, OECD Territorial Review, p. 96, 2010

[5] Metrolinx, Cost of Road Congestion in the Greater Toronto and Hamilton Area: Impact and Cost Benefit Analysis of the Metrolinx Draft Regional Transportation Plan, 2008

[6] There is a debate about the cost of traffic congestion. To date, the cost has been estimated based on the value of time lost by people and goods sitting in traffic. A recent report by the C.D. Howe Institute (July 2013) argues that $6 billion underestimates the congestion costs because it doesn't taken into account 'agglomeration benefits'. If we add the costs when congestion makes urban interaction too costly to pursue, the number rises by up to $5 billion.

[7] Conference Board of Canada, Connecting Jobs and People, 2011

[8] Metrolinx, The Big Move, p. 59, 2012

[9] Organization of Economic Development, OECD Territorial Review, p. 23, 2010

[10] Pembina Institute, Drivers' Choice, pg. 7, April 2012

[11] Image sources: *Subway*: "St George TTC Rocket" by Secondarywaltz, Wikimedia Commons, CC BY-SA 3.0, http://en.wikipedia.org/wiki/File:St_George_TTC_Rocket.jpg; *LRT*: Jon Bell, http://www.lightrailnow.org/images02/cal-lrt-marlboroughstn-crowd-median-expwy-trf-20040511_jon-bell.jpg; *GO Train:* at Benjamin Bach, "GO Trains coming to Kitchener Waterloo!," Commercial Real Estate in Waterloo Region, Nov. 12, 2010, http://www.benjaminbach.com/wp-content/uploads/2010/11/gotrain.jpg; *Rapid Bus: Viva at Warden Station* Oct 15, 2013, http://vivanext.com/blog/2011/06/04/why-bus-rapid-transit/

[12] Strategic Regional Research, A Region in Transition, January 2013

[13] Toronto Transit Commission, Transit Toronto: Public Transit in the GTA Yesterday, Today and Tomorrow, www.transit.toronto.on.ca

[14] Canadian Automobile Association, Driving Costs, 2012

[15] The Commission on The Reform of Ontario's Public Services, p. 46, 2013

APPROACH TO CONSULTATION

The Panel engaged in public consultation over the course of its mandate. The Panel heard from Ontario residents and organizations representing a range of sectors, perspectives, and regions.

Prior to embarking on its own consultation and outreach, the Panel reviewed stakeholder submissions made to Metrolinx related to its *Investment Strategy* and was briefed on the results of the City of Toronto's outreach initiatives.

The Panel used a blend of feedback and outreach methods. These included:

- Three papers, two of which had accompanying op-eds that were published in major newspapers;
- Media interviews;
- A dedicated website that disseminated information and received public submissions;
- An online survey;
- Twitter;
- Four public meetings; and,
- Key stakeholder meetings with select GTHA business leaders, municipal officials, transit operators, and other stakeholders.

Media outreach

As part of the Panel's public outreach, the Panel Chair and Vice Chair participated in a number of radio, print, and digital media interviews. The Panel Chair and Vice Chair will continue to engage with media following the release of the report. A number of panellists also participated in public outreach by promoting the Panel's public meetings and issues papers with their respective networks.

Website

The Panel's website, transitpanel.ca, acted as a one-stop information sharing and collection centre. The website hosted the Panel's Terms of Reference, biographies on each panellist, a slideshow of the Panel's mandate and approach, access to the Panel's three papers, information on public meetings, an interactive survey, and a feedback form. In addition to the Panel's issues papers, the website's news section highlighted interesting tweets and news articles related to the Panel.

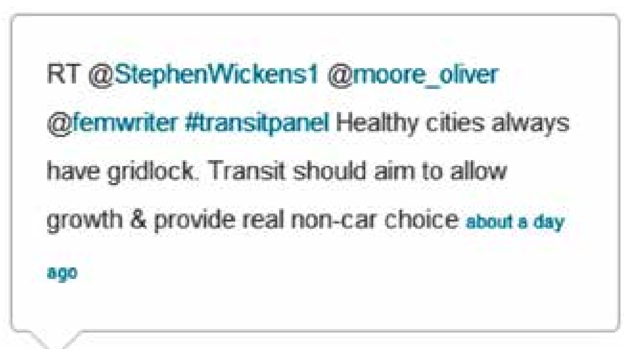
The website received approximately 27,000 visitors between its launch and the release of the final report. Over 1,500 people viewed the presentation on the Panel's mandate and approach and more than 4,000 accessed the Panel's issues papers via the website.

Online questionnaire

Website visitors were invited to take part in an online survey. Surveys were also available in paper form at the public meetings. The survey included both closed and open-ended questions. A total of 255 people filled in surveys. This is a small sample size and is not likely to represent an accurate portrait of the GTHA population due to the sample not being random. Nevertheless, the survey responses offered useful insights on the key themes.

Twitter

Twitter was used to promote the Panel's website, public meetings, and issues papers and generate participation in the Panel's online survey. At the end of November, the Panel's twitter handle @transitpanel had approximately 270 followers and discussion on the hashtag #transitpanel had reached over 425,000 people.



Written submissions

The Panel received over eighty written submissions expressing a broad range of views, including recommendations how transit improvements should be funded; ideas on project prioritization, ways to improve decision-making, and specific projects; views expressing transit needs in certain areas of the GTHA and other parts of Ontario; and, suggestions on technologies that could improve the efficiency of existing transportation infrastructure.

Public meetings

Four public meetings were held in different parts of the GTHA during the first two weeks of November:

- November 4: Vellore Village Community Centre, Vaughan
- November 6: Mattamy Athletic Centre, Toronto
- November 13: Living Arts Centre, Mississauga
- November 14: Recreational Complex of Pickering, Pickering

A total of 174 GTHA residents attended the public meetings. The first portion of the meetings consisted of either a moderated interview with the Panel Chair (two of the four meetings) or an introduction by the Chair, followed by questions and answers. The second portion of the meetings was dedicated to roundtable discussions with two plenary discussions.

Meeting participants provided feedback to the Panel in a number of ways:

- In written form via participant workbooks;
- Through table discussion, recorded by table notetakers in master workbooks;
- Via a written survey (identical to the online survey);
- Through a feedback card;
- Through plenary Q&A; and,
- During plenary discussions.

Public notification

A news release was issued on Canada News Wire on October 31, 2013 to announce public meetings. Online, community, and ethnic news media were contacted and invited to attend and report on the Panel meetings.

The Transit Panel Secretariat reached out by phone and email to more than 300 municipal leaders and elected representatives and more than 100 community, business and advocacy leaders beginning on October 28th and leading up to the first event on November 4th.

Public meetings and online consultation opportunities were promoted using the Panel website, Twitter, and through advertisements placed in local newspapers and on Google and Facebook.

Stakeholder meetings

The Panel held more than 40 meetings with business leaders, municipal CAOs, planning officials, transit operators, academics, and industry and transportation advocacy organizations. A full list of stakeholders whom the Panel met with is provided in Appendix 4.

KEY THEMES AND ISSUES

The consultation meetings and written submissions covered a broad spectrum of viewpoints. Nevertheless, a number of themes emerged:

Strong desire for transit improvements and increased travel choice

Submissions received and participants at public and stakeholder meetings placed a high value on improving public transit systems at both local and regional levels. There is a strong desire for public transit improvements and expansion across the GTHA and beyond. Respondents from areas outside the GTHA where public transit service is very limited or does not exist recognized this lack of choice as a disadvantage. A number of submissions advocated for improvements to existing service levels or the extension of GO Transit service into their communities. Transit operators, municipalities, and boards of trade all advocated for improvements within their areas. Some submissions and stakeholders, particularly those at the Mississauga public meeting and municipal CAOs, raised the need to better integrate fares among transit operators.

New revenue is necessary

While some meeting participants and written submissions suggested that the Government should fund transit through reallocation of existing revenues or through finding efficiencies, the majority of respondents acknowledged the need for new revenues.

Everybody should contribute

While individual submissions sometimes advocated that certain sectors or user groups should exclusively fund improvements, plenary discussions at public meetings revealed widespread acknowledgement that, since everyone will benefit from an improved transportation system, all sectors of society should contribute financially.

There are transportation needs outside the GTHA that need to be addressed. We heard that these regions should also have access to revenues raised outside the GTHA. The Panel received a collection of submissions from Northwestern Ontario strongly conveying views that additional taxes levied for GTHA transit expansion should not be derived from outside the GTHA.

Many ideas shared on revenue tools

While there was widespread agreement that new revenues would be necessary, there was less agreement on which specific revenue tools should be used. Numerous ideas for funding strategies were presented, including HST, road tolls, congestion charges, corporate taxes, user fees, community gift cards, parking levies, gasoline and fuel taxes, development charges, taxes on high income earners, taxes on shipping goods, a hospitality tax, federal contributions, property taxes, and punitive taxes including penalizing vehicle rollover costs and speeding. A few respondents advocated for redistribution of existing revenues, for example, directing existing gas tax money towards transit or cutting full-day kindergarten.

Several submissions advocated for the adoption of funding tools that would promote transit ridership and active transportation, and de-incentivize driving.

Public trust must be earned

It became clear through consultations with business leaders and at public meetings that there is currently little trust in transit planning and decision-making, management of funds, and project delivery.

Before agreeing to pay more, people want assurances that money collected will be spent wisely and that decisions will be guided by evidence-based planning and compelling cost-benefit analyses without political interference. Meeting participants expressed frustration with political interference in transit planning, and some called for Metrolinx to have increased powers in order to de-politicize decision-making. There was unanimous agreement that all new money generated must be dedicated and secured so that it cannot be used for any other purpose. Many requested that a designated fund should be established for this purpose.

Importance of education and communication

Public meeting participants and some written submissions called for increased public outreach and communication initiatives to build social awareness of the benefits of transit and to ensure accountability and transparency. Respondents want information in interesting and accessible formats, and suggested that social media, blogs, and videos on YouTube should be used. One participant suggested that a website with daily reporting on projects' progress be developed.

ORGANIZATIONS

Ajax-Pickering Board of Trade	Gary Strange
Building Industry and Land Development Association	Bryan Tuckey
CEO forums: AECOM, AECON, Bell, BMO, Brookfield Asset Management, Cadillac Fairview, Cisco Systems Canada, Ernst & Young LLP, George Brown College, IBM, Kilmer Van Nostrand Co., KPMG, Menkes Developments, Morguard Investments, Loblaw Companies, McKinsey & Company, Ontario Teachers' Pension Plan, Oxford Properties Group, PricewaterhouseCoopers, Ryerson University, Siemens Canada, TELUS, Toronto Financial Services Alliance	
Canadian Urban Transportation Association	Michael Roschlau
Conference Board of Canada	Vijay Gill
Evergreen Foundation/ Move the GTHA Network	John Brodhead
Institute of Municipal Finance and Governance	Enid Slack, André Côté
KPMG	James Stewart
Ontario Home Builders' Association	Leith Moore, Joe Vaccaro
Ontario Public Transit Association	Norm Cheesman , Larry Ducharme *(London Transit)*
Ontario Trucking Association	David Bradley, Stephen Laskowski
PricewaterhouseCoopers	Sandra Pupatello, Michael Jordan, Genevieve Bonin
Promote the Yonge Street subway extension	Councillors Valerie Burke *Markham;* Godwin Chan, *Richmond Hill ;* Alan Shefman, *Vaughan*
REALpac	Carolyn Lane
Registered Nurses' Association of Ontario	Kim Jarvi
Toronto Atmospheric Fund	Julia Langer
Toronto CivicAction Alliance	John Tory, Linda Weichel
Toronto Environmental Alliance	Franz Hartmann
Toronto Labour Council	John Cartwright
Toronto Region Board of Trade	Carol Wilding, Richard Joy
Torys LLP	Mitch Frazer
Transport Action Ontario	Peter Miasek, Karl Junkin, Bruce Budd

INDIVIDUALS

Joe Berridge	John Caliendo	Olivia Chow, *MP*
Ken Greenberg	Alan Jones	Barry Lyon
Eric Miller	Steve Munro	John Sewell

MUNICIPALITIES

City of Mississauga
Mayor Hazel McCallion, Ed Sajecki, Janice Baker

City of Toronto
Jennifer Keesmaat, Joe Pennachetti, Karen Stintz, John Livey, Steve Buckley, Joe Farag, Roberto Rossi, and Lynda Taschereau

Toronto Transit Commission	Andy Byford
City of Burlington	Bruce Zvaniga
Town of Oakville	Nancy Sully
Halton Region	Maureen Van Ravens
Town of Milton	Bill Mann
Region of Peel	Sabbir Saiyed
York Region	Bruce MacGregor
York Region Rapid Transit	Mary-Frances Turner

MINISTERS AND STAFF

Infrastructure Ontario
Ministry of Finance
Ministry of Infrastructure
Ministry of Municipal Affairs and Housing
Ministry of Transportation
Metrolinx

SUBMISSIONS RECEIVED

Only includes submissions received from organizations. Submissions received from individuals are not listed for privacy reasons.

Air Pollution Coalition
Ajax-Pickering Board of Trade
Association of Municipalities of Ontario
Building Industry and Land Development Association
Burlington for Accessible Sustainable Transit
Canadian Federation of Independent Business
City of Mississauga
Code Red TO
Community Commonwealth Association
Consumer Policy Institute
Canadian Urban Transit Association (CUTA) and Ontario Public Transit Association
Town of Oakville
Enterprise Solution Architect
ITS-ETO Consortium
LEA Consulting
Mississauga Residents' Associations Network
Move the GTHA
Niagara Region, Public Works Department
Ontario Building Trades Council
Ontario Trucking Association
Toronto Central LHIN Strategic Advisory Council
Toronto Environmental Alliance
Toronto Public Health
Toronto Financial District Business Improvement Area
Town of Ajax
Town of Ignace
Unique Flow Technologies
Western GTA Summit

THE BIG MOVE 25-YEAR PLAN

FIRST AND NEXT WAVE PROJECTS

RECOMMENDATIONS FOR NEW REVENUE SOURCES

Metrolinx Investment Strategy	Toronto Region Board of Trade	City of Toronto Staff Report	Canadian Centre for Policy Alternatives	Ontario Chamber of Commerce
Sales Tax (1%)	Sales Tax	Sales Tax	Sales Tax	Highway Tolls
Gas and Fuel Taxes (5¢/l)	Gas and Fuel Taxes	Gas and Fuel Taxes	Gas and Fuel Taxes	Gas and Fuel Taxes
Parking Levy	Parking Tax ($1/Day)	Parking Levy	Parking Charges	Parking Levy*
Development Charges		Development Charges	Development Charges	Sales Tax*
High Occupancy Tolls	High Occupancy Tolls	High Occupancy Tolls	Payroll Tax	Development Charges*
Paid Parking at GO		Road Tolls		Transit Fares*
Land Value Capture		Vehicle Registration Tax		High Occupancy Tolls*

* Mixed support

OTHER OPTIONS CONSIDERED FOR NEW REVENUE SOURCES

Metrolinx Investment Strategy	Toronto Region Board of Trade	City of Toronto Staff Report	Canadian Centre for Policy Alternatives	Ontario Chamber of Commerce
Carbon Tax	Carbon Tax	Congestion Tax	Road Tolls	Vehicle Kilometres Travelled
Property Tax	Property Tax	Property Tax	Property Tax	Employer Payroll Tax
Income Tax	Income Tax	Income Tax		Property Tax
Payroll Tax	Payroll Tax	Payroll Tax	Vehicle Registration Tax	
Licence Fees	Licence Fees	Land Transfer Tax	Land Transfer Tax	
Road Tolls	Road Tolls	Land Value Capture		
Corporate Income Tax	Corporate Income Tax			
Transit Fares	Utility Bill Tax	Transit Fares	Transit Fares	

Proof of Concept: Option A (Gasoline Tax, Fuel Tax to 10 Cents, 0.5% Corporate Income Tax)

- This example utilizes these revenue sources: Corporate Income Tax at 0.5% starting in 2015-16, Gasoline Tax and Fuel Tax starting at 3¢ in 2015-16 and climbing to 10¢ after eight years, and re-purposing of existing Harmonized Sales Tax attributed to Ontario's Gasoline Tax and Fuel Tax in the GTHA.
- The Panel has designed a proof of concept where new revenue sources are applied exclusively to the capital cost of Next Wave Metrolinx projects to test whether or not a new revenue stream used to leverage additional borrowing in the early years of construction can generate sufficient cash to support the magnitude of construction contemplated in the Next Wave.
- Project capital costs and construction timing for individual projects may differ from this proof of concept, but the Transit Investment Strategy Advisory Panel has presented this example to show that modest increases in taxes, phased in over time and allocated for the GTHA region, could support the construction of new transit projects without destabilizing the Province's finances.
- The Panel made several assumptions on timing for construction for projects in consultation with Metrolinx. These estimates will be refined as projects are implemented. The proof of concept is intended to show that this set of recommended tax increases could generate close to $3 billion per year in new revenue across the province when fully implemented, with almost $1.6 billion dedicated to the GTHA region. This new revenue would support the required borrowing.
- Recognizing that these taxes are province-wide, funds not allocated to the GTHA would be spent outside the GTHA to support local infrastructure needs, broadly defined.
- In order to help build support in GTHA municipalities, the proof of concept also provides for 25% of the new money to be spent on local investment strategy priorities, and also provides for a Kick-start Program of $300 million over two years to help build eligible local transit capital improvements.
- The Panel's proof of concept demonstrates why the federal government must be a funding partner. Federal support will allow the Province to accelerate construction, reduce borrowing and financing costs, and expand the list of funded projects.

Illustrative Example, Sample Fiscal Profile ($ Millions)[8]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
New Revenues from all new sources[1]	1,020	1,335	1,600	1,865	2,135	2,405	2,680	2,965	2,965	2,965	2,965	2,965
(Multiply x 53.6%) New Revenues notionally allocated to GTHA[1]	547	716	858	1,000	1,144	1,289	1,436	1,589	1,589	1,589	1,589	1,589
(Less) Program Expense, 25% Municipal Transfers to GTHA	137	179	214	250	286	322	359	397	397	397	397	397
(Less) Program Expense, Kick-start Program	150	150	0	0	0	0	0	0	0	0	0	0
(Add) Program Expense, HST Revenues on Existing Gas/Fuel	80	80	80	80	80	80	80	80	80	80	80	80
Total Remaining, New Revenues Remaining for GTHA	340	467	723	830	938	1,047	1,157	1,272	1,272	1,272	1,272	1,272
Assumed Total Project Gross Capital Spend[5]	420	1,240	1,640	2,020	2,330	2,510	2,700	2,140	1,030	560	170	0
Incremental Borrowing Amount (Total Cash Requirement)	80	770	920	1,190	1,390	1,460	1,550	870	0	0	0	0
Cumulative Borrowing Amount (Cash Needed for Capital Projects)[2, 3]	80	850	1,770	2,960	4,350	5,810	7,350	8,220	8,220	7,980	7,270	6,160
Amounts Available for Debt Retirement (from surplus revenue)[4]	0	0	0	0	0	0	0	0	(240)	(710)	(1,110)	(1,270)
Net Borrowing Amount (Total Amount)[5, 6]	80	850	1,770	2,960	4,350	5,810	7,350	8,220	7,980	7,270	6,160	4,890
Ratio of Cumulative Borrowing : New Revenue[7]	0.1 : 1	0.6 : 1	1.1 : 1	1.6 : 1	2.0 : 1	2.4 : 1	2.7 : 1	2.8 : 1	2.7 : 1	2.5 : 1	2.1 : 1	1.6 : 1

Option A: Explanatory Notes

1 All numbers, particularly revenue estimates and GTHA-weighting, are preliminary and subject to change. Final GTHA revenue weighting shown here is based on real GDP (The Conference Board of Canada[36]), but actual methodology would depend on government decisions.

2 The incremental borrowing requirement in a given fiscal year is made up of the shortfall between new revenue notionally allocated to the GTHA and the Assumed Total Project Gross Capital Spend.

3 Project capital costs do not yet include operating, maintenance, and rehabilitation costs, which are not yet known. The proof of concept assumed a traditional delivery mechanism for all projects i.e., no Alternative Financing and Procurement (AFP) models. Use of an AFP approach could provide additional value-for-money.

4 Interest is paid on the total amounts borrowed during construction. Debt starts to be repaid starting in 2023-24. Interest on debt calculations are simplified for the proof of concept and may vary depending on cash management. Capitalized interest (not material in the short-term) is ignored.

5 Annual project spend estimates are based on per project costs as identified in the Metrolinx *Investment Strategy*, including lead time and construction time for individual projects. Actual construction schedule would be implemented by Metrolinx. Project costs are preliminary and subject to change.

6 The proof of concept would utilize a segregated account to administer money to be spent solely in funding of *The Big Move*. The account, in the first several years of the plan, would hold a negative balance at year-end since cash requirements for construction requirements exceed the new revenue allocated to GTHA.

7 While the Panel has received conflicting advice on how much borrowing can be leveraged, the Panel has selected a cautious ratio of additional borrowing against new revenue target of approximately 2.5 to 1.

8 Numbers may not add due to rounding.

Proof of Concept: Option B (Gasoline Tax, Fuel Tax to 5 Cents, 0.5% Corporate Income Tax, 0.5% Harmonized Sales Tax)

- This example utilizes these revenue sources: Corporate Income Tax at 0.5% starting in 2015-16, Gasoline Tax and Fuel Tax starting at 3¢ in 2015-16 and climbing to 5¢ after three years, followed by a Harmonized Sales Tax increase at 0.5% in 2018-19, and re-purposing of existing Harmonized Sales Tax attributed to Ontario's Gasoline Tax and Fuel Tax in the GTHA.
- The Panel has designed a proof of concept where new revenue sources are applied exclusively to the capital cost of Next Wave Metrolinx projects to test whether or not a new revenue stream used to leverage additional borrowing in the early years of construction can generate sufficient cash to support the magnitude of construction contemplated in the Next Wave.
- Project capital costs and construction timing for individual projects may differ from this proof of concept, but the Transit Investment Strategy Advisory Panel has presented this example to show that modest increases in taxes, phased in over time and allocated for the GTHA region, could support the construction of new transit projects without destabilizing the Province's finances.
- The Panel made several assumptions on timing for construction for projects in consultation with Metrolinx. These estimates will be refined as projects are implemented. The proof of concept is intended to show that this set of recommended tax increases could generate close to $3.3 billion per year in new revenue across the province when fully implemented, with almost $1.8 billion dedicated to the GTHA region. This new revenue would support the required borrowing.
- Recognizing that these taxes are province-wide, funds not allocated to the GTHA would be spent outside the GTHA to support local infrastructure needs, broadly defined.
- In order to help build support in GTHA municipalities, the proof of concept also provides for 25% of the new money to be spent on local investment strategy priorities, and also provides for a Kick-start Program of $300 million over two years to help build eligible local transit capital improvements.
- The Panel's proof of concept demonstrates why the federal government must be a funding partner. Federal support will allow the Province to accelerate construction, reduce borrowing and financing costs, and expand the list of funded projects.

Illustrative Example, Sample Fiscal Profile ($ Millions)[8]	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
New Revenues from all new sources[1]	1,020	1,335	1,600	3,045	3,095	3,150	3,205	3,265	3,265	3,265	3,265	3,265
(Multiply x 53.6%) New Revenues notionally allocated to GTHA[1]	547	716	858	1,632	1,659	1,688	1,718	1,750	1,750	1,750	1,750	1,750
(Less) Program Expense, 25% Municipal Transfers to GTHA	137	179	214	408	415	422	429	438	438	438	438	438
(Less) Program Expense, Kick-start Program	150	150	0	0	0	0	0	0	0	0	0	0
(Add) Program Expense, HST Revenues on Existing Gas/Fuel	80	80	80	80	80	80	80	80	80	80	80	80
Total Remaining, New Revenues Remaining for GTHA	340	467	723	1,304	1,324	1,346	1,368	1,393	1,393	1,393	1,393	1,393
Assumed Total Project Gross Capital Spend[5]	420	1,240	1,640	2,020	2,330	2,510	2,700	2,140	1,030	560	170	0
Incremental Borrowing Amount (Total Cash Requirement)	80	770	920	720	1,000	1,160	1,340	750	0	0	0	0
Cumulative Borrowing Amount (Cash Needed for Capital Projects)[2,3]	80	850	1,770	2,480	3,490	4,650	5,980	6,730	6,730	6,370	5,530	4,310
Amounts Available for Debt Retirement (from surplus revenues)[4]	0	0	0	0	0	0	0	0	(360)	(830)	(1,230)	(1,390)
Net Borrowing Amount (Total Amount)[5, 6]	80	850	1,770	2,480	3,490	4,650	5,980	6,730	6,370	5,530	4,310	2,910
Ratio of Cumulative Borrowing : New Revenues[7]	0.1 : 1	0.6 : 1	1.1 : 1	0.8 : 1	1.1 : 1	1.5 : 1	1.9 : 1	2.1 : 1	2.0 : 1	1.7 : 1	1.3 : 1	0.9 : 1

Option B: Explanatory Notes

1 All numbers, particularly revenue estimates and GTHA-weighting, are preliminary and subject to change. Final GTHA revenue weighting shown here is based on real GDP (The Conference Board of Canada[37]), but actual methodology would depend on government decisions.
2 The incremental borrowing requirement in a given fiscal year is made up of the shortfall between new revenue notionally allocated to the GTHA and the Assumed Total Project Gross Capital Spend.
3 Project capital costs do not yet include operating, maintenance, and rehabilitation costs, which are not yet known. The proof of concept assumed a traditional delivery mechanism for all projects i.e., no Alternative Financing and Procurement (AFP) models. Use of an AFP approach could provide additional value-for-money.
4 Interest is paid on the total amounts borrowed during construction. Debt starts to be repaid starting in 2023-24. Interest on debt calculations are simplified for the proof of concept and may vary depending on cash management. Capitalized interest (not material in the short-term) is ignored.
5 Annual project spend estimates are based on per project costs as identified in the Metrolinx *Investment Strategy*, including lead time and construction time for individual projects. Actual construction schedule would be implemented by Metrolinx. Project costs are preliminary and subject to change.
6 The proof of concept would utilize a segregated account to administer money to be spent solely in funding of *The Big Move*. The account, in the first several years of the plan, would hold a negative balance at year-end since cash requirements for construction requirements exceed the new revenue allocated to GTHA.
7 While the Panel has received conflicting advice on how much borrowing can be leveraged, the Panel has selected a cautious ratio of additional borrowing against new revenue target of approximately 2.5 to 1.
8 Numbers may not add due to rounding.

PANEL POSITION ON INVESTMENT STRATEGY RECOMMENDATIONS

Full text of recommendations is in Appendix 10

RECOMMENDATION	METROLINX SAYS	PANEL POSITION	DETAILS (PANEL RECOMMENDATION #)
Recommendation 1: Rapid Transit Projects	a. Complete the First Wave of projects	No comment	
	b. Fund projects consistent with *The Big Move*	Support	Recommend that money be dedicated solely for the funding of *The Big Move* (AP#17)
	c. Build the Next Wave of projects	Amend	Recommend building the Next Wave in phases (in text)
	d. Report back in June 2014 on Next Wave scope and phasing	Support and add	Recommend criteria for project prioritization (AP #1)
	e. Deliver local jobs and community benefits programs	No comment	
Recommendation 2: *The Big Move* Review	Integrate IS recommendations into review of *The Big Move*	Amend	Fast-track review of *The Big Move* and integrate with review of the *Growth Plan* (AP #4)
Recommendation 3: Metrolinx Board Appointees	Addition of six municipally nominated citizens to the Metrolinx Board	Support	Support (AP #7)
Recommendation 4: Trust Fund	Establish a GTHA Trust Fund governed by a board of trustees	Amend	Recommend Fund within Metrolinx (AP #17)
Recommendation 5: Reporting and Projects and Programs	Enhance public reporting on projects and programs	Support	Recommend publishing annual financial statement in plain language (AP #17) and tracking projects against plan (in text)
Recommendation 6: IS 10-year Review	Review IS every 10 years	No comment	
Recommendation 7: IS 20-Year Reauthorization	Reauthorize IS every 20 years	No comment	
Recommendation 8: federal government	Request 1/3 funding and a National Transit Strategy of federal government	Partial Support	Support 1/3 funding role (AP #9); No comment on National Transit Strategy
Recommendation 9: TPPS Statement	Minister approval of a Transportation Planning Policy Statement	Support and add	Support (AP #6) Recommend a proactive joint approach to land use planning (AP #5)
Recommendation 10: Land Value Capture	Develop a Land Value Capture Strategy in partnership with industry	Support and add	Support (AP #15); Recommend Metrolinx strengthen capacity and adopt a proactive and collaborative to pursue LVC (AP #16)
Recommendation 11: Design Excellence and Use of Public Land	Pursue design excellence in urban design and maximize land value of publicly-owned land	No comment	
Recommendation 12: Other Public Infrastructure	Public agencies locate institutions in support of land use and transportation planning	Support	Support in project prioritization criteria (AP #1)
Recommendation 13: AFP Delivery	Consider AFP delivery for all projects over $50 million	Support	Support (AP #19)
Recommendation 14: Project Evaluation	Expand and enhance evidence-based evaluation and prioritization	Support and add	Recommend that all projects approved have a business case that validates the investment (AP #18)
Recommendation 15: Transportation Performance Reporting	Establish common approach and report consistently on transportation performance across the region, benchmarking to other systems	No comment	

RECOMMENDATION	METROLINX SAYS	PANEL POSITION	DETAILS (PANEL RECOMMENDATION #)
Recommendation 16: Service and Fare Integration	a. GTHA service integration, with plan developed by 2014	No comment	
	b. GTHA fare integration, with plan developed by 2014	No comment	
Recommendation 17: GTHA Customer Service Standard	Establish GTHA-wide customer service standard and report publicly on progress and performance	No comment	
Recommendation 18: Trust Fund Allocation Split: 75-25	a. 75% of funds dedicated to Next Wave costs	Support	Support (AP #2)
	b. 15% of funds for municipal funding; 5% of funds for highways; 5% of funds for other initiatives	Support and add	Support (AP #2) Recommend a Kick-start Program in addition to 25% (AP #3)
	New funds should be in addition to existing commitments	Support	Support (AP #11)
Recommendation 19: Allocation of 25%	Establish criteria to guide allocation of 25% funding (rec'd 18b)	No comment	
Recommendation 20: Investment Tools for $2B	a. 1% addition to HST	Alternative plan	Options A and B include a redeployment of the Provincial portion of the HST on Gas and Fuel Taxes in the GTHA; (AP #13 – details in text) Option B includes a 0.5% increase to the HST (AP #13 – details in text)
	b. $0.05/L gas and fuel tax	Alternative plan	Option A includes a phased increase in taxes up to $0.10/L; (AP #13 – details in text) Option B includes a phased increase in taxes up to $0.05/L; (AP #13 – details in text)
	c. Variable business parking levy	Reject	Recommend 0.5% increase to general CIT rate as business contribution (AP #13 – details in text)
	d. Development Charge increase	Defer	Support review underway by Province and Municipalities (in text)
	Dedicate revenues to Trust Fund	Support	Support (AP #12)
Recommendation 21: Mobility Tax Credit	Mobility Tax Credit to accompany HST	No comment	
Recommendation 22: Revenue Tools Outside of the GTHA	Revenues collected outside the GTHA should stay outside the GTHA	Support	Support (AP #14)
Recommendation 23: Timing of Tools and Use in Trust Fund	Investment tools implemented as soon as practical; surplus revenue be retained by the Trust; use debt financing	Support	Recommend use of debt (AP #12)
Recommendation 24: Smaller Tools	a. HOT lanes	No comment	
	b. Pay-for-parking at transit stations	No comment	
	c. LVC implementation	Support (see above)	

Additional Recommendations

Recommend that a regional forum of current elected officials in the GTHA be established to discuss major policy challenges including urban growth and transportation. (AP #8)
Recommend that municipalities in the GTHA make greater use of their borrowing capacity to finance local transit improvements. (AP #10)
Recommend that the Government of Ontario move forward to act on these recommendations and that leaders from all sectors – political, academic, business, and civil society – continue to communicate the importance of transit investment in the GTHA. (AP #20)

METROLINX INVESTMENT STRATEGY RECOMMENDATIONS

Recommendation 1: Rapid Transit Projects	To ensure continued progress in *The Big Move*, it is recommended that: a. Metrolinx continue to pursue the completion of First Wave rapid transit projects. b. All transit and transportation investment decisions made by Metrolinx, municipalities or other agencies for the use of funds generated by the *Investment Strategy* should be consistent with *The Big Move* c. Metrolinx continue working with the Province of Ontario, municipalities and other agencies on planning, designing, building and operating a series of regional rapid transit projects, listed below, referred to as the Next Wave projects, described in Section 3.5.1: • Relief Line • Yonge North Subway Extension • Brampton's Queen Street Rapid Transit • Hamilton Light Rail Transit • Hurontario-Main Light Rail Transit • Dundas Street Bus Rapid Transit • Durham-Scarborough Bus Rapid Transit • GO Two-Way, All-Day Service • GO Lakeshore Express Rail Service – Phase 1 (including Electrification) • Electrification of GO Transit Kitchener Line and Union Pearson Express. d. Metrolinx continue working with the Province of Ontario and municipalities on the finalization of the scope and phasing of the Next Wave projects, and report back to the Metrolinx Board of Directors by June 2014. Any material changes to the Next Wave projects would require approval by the Metrolinx Board of Directors, following appropriate consultation and input from municipalities and the public, as required under the *Metrolinx Act*. Continued progress on Next Wave projects is subject to the availability of funding from this proposed *Investment Strategy*. e. Metrolinx continue working with communities and local and regional organizations to develop and implement strategies to take advantage of local jobs and training programs to provide community benefits for the areas that will be hosting the rapid transit infrastructure outlined in Recommendation 1 (c) above.
Recommendation 2: *The Big Move* Review	It is recommended that as part of its legislated review of the regional transportation plan, scheduled to begin in 2014 and be completed in 2016, Metrolinx fully integrate the recommendations of the *Investment Strategy*, including the Next Wave projects.
Recommendation 3: Metrolinx Board Appointees	It is recommended that the Province of Ontario consider adjusting the composition of the Metrolinx Board of Directors, in order to provide municipalities in the Greater Toronto and Hamilton Area with the opportunity to nominate up to six citizen appointees to the Board.
Recommendation 4: Trust Fund	It is recommended that the funds generated by the *Investment Strategy* be dedicated to the construction, financing, management and operation of transit and transportation infrastructure set out in this report. To this end, it is recommended that a Greater Toronto and Hamilton Area Transportation Trust Fund be established and governed by a board of trustees, for the management and distribution of the proceeds of the trust.
Recommendation 5: Reporting and Projects and Programs	It is recommended that Metrolinx enhance its public engagement processes to model best practices and its reporting systems in order to establish robust and transparent public reporting on the delivery of projects, related to budget and schedule, the rationale or basis for any changes, and the concrete, specific results that are experienced as a result of the implementation of programs as a whole and specific projects.
Recommendation 6: IS 10-year Review	It is recommended that the *Investment Strategy* be reviewed periodically, at least every 10 years, to confirm that it continues to be effective and reasonable in delivering a transit and transportation system for the Greater Toronto and Hamilton Area.
Recommendation 7: IS 20-Year Reauthorization	It is recommended that after 20 years, the *Investment Strategy* be subject to a fundamental review and reauthorization to consider the future needs of the region and that an updated report be submitted by Metrolinx to the Province and GTHA municipalities.
Recommendation 8: federal government	It is recommended that the federal government be requested to increase its commitment to implementing *The Big Move*. Particular consideration should be given to the adoption of a National Transit Strategy that would see the federal government contribute up to one-third of the capital costs of Next Wave transit and transportation infrastructure.
Recommendation 9: TPPS Statement	It is recommended that the Minister of Transportation proceed with the development of a Transportation Planning Policy Statement under the provisions of the *Metrolinx Act*, to encourage greater integration of land use policies with *The Big Move* and investments in transit and transportation infrastructure.

Recommendation 10: Land Value Capture	It is recommended that Metrolinx work with municipalities and the land development industry to develop a land value capture strategy for the Next Wave of rapid transit projects, which also considers existing and under-construction rapid transit assets, to ensure an appropriate private-sector contribution towards the cost of stations and other infrastructure.
Recommendation 11: Design Excellence and Use of Public Land	It is recommended that Metrolinx, in conjunction with the Province of Ontario, municipalities and their respective agencies, use the Next Wave of projects to increase the quality of the urban environment through design excellence, the support of transit-oriented development, as well as maximizing value through the management of publicly-owned property along rapid transit lines.
Recommendation 12: Other Public Infrastructure	It is recommended that all public agencies give consideration to planning public infrastructure and facilities for locations that support the land use, transit and transportation policies of *the Growth Plan* for the Greater Golden Horseshoe and *The Big Move*. Particular consideration should be given to facilities that are large employment generators or significant focal points for communities, such as government services, hospitals, post-secondary institutions, justice facilities and other major trip generators, and ensure that the costs of providing transit and transportation services are considered in deciding on the location of facilities and infrastructure.
Recommendation 13: AFP Delivery	It is recommended that all Next Wave projects with a construction value of more than $50 million be evaluated to determine whether they could be delivered through Alternative Financing and Procurement, using Infrastructure Ontario, to ensure service delivery that is on budget and on schedule.
Recommendation 14: Project Evaluation	It is recommended that Metrolinx, working in conjunction with the Province of Ontario, municipalities and their respective agencies, build on, expand and enhance our collective capacity to undertake world-leading evidence-based project evaluation and selection processes for the delivery of regional rapid transit projects, as well as other transit and transportation projects..
Recommendation 15: Transportation Performance Reporting	It is recommended that Metrolinx work with transit authorities in the GTHA to build and improve upon a common approach to reporting on performance, so that information can be consolidated for the region as a whole and benchmarked with other systems.
Recommendation 16: Service and Fare Integration	It is recommended that Metrolinx and the local transit authorities: a. Continue to take steps to improve the level of service integration across the GTHA, in order to enhance the customer experience. To this end, a GTHA Regional Service Integration Plan should be developed, with measurable deliverables, for completion in 2014, with implementation to follow. b. Initiate work no later than 2014 on the development of a GTHA Regional Fare Integration Plan, identifying short and long-term strategies, with measurable deliverables, that will be pursued.
Recommendation 17: GTHA Customer Service Standard	It is recommended that Metrolinx and the local transit authorities work together to share best practices on continuous improvement in customer service, in order to improve customer service and experience, and to develop common reporting mechanisms, where appropriate. All transit authorities in the region should move to develop a passenger charter or similar document, and to report publicly on progress and performance, and this kind of reporting should be a condition for the receipt of any funding through the *Investment Strategy*.
Recommendation 18: Trust Fund Allocation: 75-25	It is recommended that revenues generated through the *Investment Strategy* be used to establish a dedicated transit and Transportation Trust Fund, to be allocated as follows: a. Approximately 75 percent to Next Wave capital construction and financing costs, maintenance costs and the Metrolinx share of ongoing operating costs of the Next Wave regional transit projects; b. Up to 25 percent for other key elements of the transit and transportation system - local roads and transit, improvements to the highway system and various other transportation initiatives including: • Municipal funding of up to 15 percent, to be matched by local contributions, for local transit, road, and bridge improvements that are intended to increase transit ridership and the carrying capacity of roads and streets for all users; • Up to 5 percent for strategic investments in the provincial and municipal controlled access highway network to improve the mobility of people and goods; and • Up to 5 percent for other transportation and mobility initiatives, including walking and cycling infrastructure, fare integration, mobility hubs, urban freight movement, intelligent transportation systems and user information systems. • The allocation of funding among these categories should be reviewed regularly. Existing funding from all orders of government should continue to support existing programs, services and projects. Specifically, the Province of Ontario should maintain its current level of capital and operating funding to services like GO Transit, provincial highways and existing committed projects. Municipalities would continue to be responsible for capital and operating funding for regional and local highways and roads, and local transit services. To support the expansion of the transit and transportation system, the investment tools recommended in this *Investment Strategy* are intended to be in addition to existing funding provided by all orders of government.

Recommendation 19: Allocation of 25%	It is recommended that Metrolinx work in consultation with stakeholders and municipalities, as well as the Province of Ontario to develop eligibility, selection, and allocation criteria to guide the distribution of the funds referred to in Recommendation 18 (b).
Recommendation 20: Investment Tools for $2B	It is recommended that, to generate the targeted $2 billion annually to complete the Next Wave of projects, the following investment tools be implemented in the Greater Toronto and Hamilton Area: a. A one percentage point value-added tax, as part of the Harmonized Sales Tax; b. A five cent per litre regional fuel and gasoline tax; c. A variable Business Parking Levy, with an average cost of 25 cents per day per space, to be implemented on off-street non-residential parking spaces on the basis of relative market value. d. A Development Charge increase equivalent to a 15 percent increase in existing rates, along with amendments to the Development Charges Act, 1997 to be arrived at in consultation with the Province of Ontario, municipalities and other stakeholders. The amendments would include: I. Removal of the 10% reduction and 10-year average historical service level cap on development charges levied for transit growth. II. Introduction of an "integrated transportation service" category that combines various transportation modes and determines charges based on new service improvement standards. III. Introduction of a new reporting standard for municipalities to demonstrate accountability and transparency for the revenues raised by Development Charges, and dedicated to achieve transit and transportation expansion and improvement. I.V In addition, it is recommended that all revenue generated from these tools, other than reasonable administration costs and Mobility Tax Credit rebates, be dedicated to fund transit and transportation infrastructure, and be transferred to the Transportation Trust Fund.
Recommendation 21: Mobility Tax Credit	It is recommended that, to ensure fairness and mitigate the impact of the implementation of the investment tools on low-income segments of the population, the Province of Ontario develop a Mobility Tax Credit, to be implemented on an income-tested basis, funded by revenue generated by the investment tools. Other transitional or ongoing measures may be considered by the Province to mitigate impacts on other populations, if appropriate.
Recommendation 22: HST Outside of the GTHA	It is recommended that, should the Province of Ontario decide to implement an investment tool on a province-wide basis, only revenue collected in the Greater Toronto and Hamilton Area should be directed to the region, with revenues outside of the GTHA being available for priorities in other parts of Ontario.
Recommendation 23: Timing of Tools and Use in Trust Fund	It is recommended that the investment tools be implemented as soon as practical. Surplus revenue in any given year is to be retained in the Transportation Trust Fund outlined in Recommendation 4 and may only be available for use for future expenditures in subsequent years. Revenue from the investment tools may be used to service long-term debt to finance transit and transportation infrastructure.
Recommendation 24: Smaller Tools	It is recommended that the investment tools outlined in Recommendation 20 be supplemented by: a. High Occupancy Toll lanes on regional highways, implemented by converting existing High Occupancy Vehicle lanes, as well as expanding the network of HOV/HOT lanes to other highway corridors; b. Pay-for-parking at transit stations, with revenues dedicated to the improvement of services delivered in the relevant transit corridors and for local transit access improvements; and c. Land value capture.

BIBLIOGRAPHY

Abdulhai, B., *Congestion Management in the GTHA: Balancing the Inverted Pendulum*, Residential and Civil Construction Alliance of Ontario, 2013

Burda, C. and Graham Haines, *Driver's Choice: Options to Manage Gridlock and Fund Rapid Transit in the GTA*, The Pembina Institute, Toronto, 2012

Burda, C. and Graham Haines, *Making Tracks to Torontonians*, The Pembina Institute, Toronto, 2011

Canada, *Federal Budget*, Department of Finance, 2013

Dachis, B., *Cars, Congestion and Costs: A New Approach to Evaluating Government Infrastructure Investment*, C. D. Howe Institute, Toronto, 2013

Dobson, I., *Strategic Regional Research, A Region in Transition*, Toronto 2013

Drummond, D., *Public Services for Ontarians: A Path to Sustainability and Excellence*, Commission on the Reform of Ontario's Public Services, Toronto, 2012

Gill, V., and Sarah Dimick, *Canada as a Global Leader: Delivering Value Through Public-Privtae Partnerships at Home and Abroad*, Conference Board of Canada, Ottawa, 2013

Gill, V., Mario Iaccobacci, and Orice Owusu, *Connecting Jobs and People: Exploring the Wider Benefits of Urban Transportation Investments*, Conference Board of Canada, Ottawa, 2011

Gill, V. and John Lawson, *Where the Rubber Meets the Road: How Much Motorists Pay for Road Infrastructure*, Conference Board of Canada, Ottawa, 2013

Golden A., Natalie Brender and Marni Cappe, *Mission Possible: Successful Canadian Cities*, Conference Board of Canada, Ottawa, 2007

Golden, A. and Sophie Knowles, *Governance Gridlock – Solving the Problems for 21st Century Regions*, Ryerson University, Toronto, 2013

Givens, M., *The Employment Land Study*, RESC, Prepared for the City of Toronto, Toronto, 2012

Hook, W., Stephanie Lotshaw and Annie Weinstock, *More Development for Your Transit Dollar: An Analysis of 21 North American Transit Corridors*, Institute for Transportation and Development Policy, New York, 2013

Kitchen, H. and Robin Lindsey, *Financing Roads and Public Transit in the Greater Toronto and Hamilton Area*, Residential and Civil Construction Alliance of Ontario, Toronto, 2013

Metrolinx, *Big Move Implementation Economics: Revenue Tool Profiles*, prepared by AECOM KPMG, Toronto, 2013

Metrolinx, *GO Electrification Study – Appendix 10 Implementation of Electrification Options*, Toronto, 2010

Metrolinx, *Land Value Capture Discussion Paper*, George Hazel Consulting, Toronto, 2013

Metrolinx, *Investing in our Region, Investing in our Future* (*Investment Strategy*), Toronto, 2013

Miller, G., et al, *The New Geography of Office Location and the Consequences of Business as Usual in the GTA*, Canadian Urban Institute, Toronto, 2011

Ontario, *Growth Plan for the Greater Golden Horseshoe*, Toronto, 2006

Ontario, *Building Together: Jobs & Prosperity for Ontarians*, Ministry of Infrastructure, Toronto, 2011

Ontario Chamber of Commerce, *The $2 Billion Question: GTHA Business Opinion on Funding The Big Move*, Toronto, 2013

Organization of Economic Development, *OECD Territorial Review*, Toronto, 2010

Plummer, P. and Neil Bentley, *Prioritizing Investment to Support Our Economy*, NetworkRail, London

Real Property Association of Canada, *Potential Economic Impacts of Proposed Business Parking Levy in the Greater Toronto and Hamilton Area*, Prepared by Altus Group Economic Consulting, 2013

Stantec Consulting, prepared for the Canadian Urban Transit Association, *National Strategies on Public Transit Policy Framework*, Toronto, May 2011

Stantec Consulting and Victoria Policy Institute, *National Strategies on Public Transit Policy Framework*, Victoria, 2011

Toronto Region Board of Trade, *A Green Light to Moving the Toronto Region: Paying for Public Transportation Expansion*, Toronto, 2013

Translink, *Translink Governance Review*, Vancouver, 2013

Urban Land Institute, *When the Road Price is Right: Land Use, Tolls, and Congestion Pricing*, Washington, DC, 2013

[1] *Commission on the Reform of Ontario's Public Services*, Drummond D., 2012, Recommendation 12-6, p. 325

[2] Briefing materials from Metrolinx

[3] *Growth Plan for the Greater Golden Horseshoe, 2006*, Province of Ontario, consolidated June 2013

[4] Toronto Region Board of Trade, *A Green Light to Moving the Toronto Region*, p. 5, 2013

[5] The Conference Board of Canada, Golden and Brender, *Mission Possible: Successful Canadian Cities*, 2007

[6] Organization of Economic Development, *OECD Territorial Review*, 2010, p. 96

[7] Strategic Regional Research, *A Region in Transition*, Dobson et al., January 2013

[8] *Connecting Jobs and People*, The Conference Board of Canada, August 2011

[9] *The New Geography of Office Location and the Consequences of Business as Usual in the GTA*, Canadian Urban Institute, March 2011

[10] *Strategic Regional Research, A Region in Transition*, Dobson et al., January 2013

[11] *Growth Plan for the Greater Golden Horseshoe, 2006*, Province of Ontario, consolidated June 2013 and *Census 2011*, Census Canada

[12] *The Employment Land Study*, Malone Given Givens, RESC. Prepared for the City of Toronto. August 2012

[13] *Strategic Regional Research, A Region in Transition*, Dobson et al., January 2013

[14] *Investing in our Region, Investing in our Future*, Metrolinx, May 2013

[15] Recommendation #12, *Investing in our Region, Investing in our Future*, Metrolinx, May 2013

[16] Calculated based on costs

[17] Project capital costs and construction timing for individual projects may differ from those used in the Panel's model. In development of a proof of concept, the Panel made several assumptions on timing for construction for projects in consultation with Metrolinx. Project cost estimates will be refined as projects are implemented. Coordination of the actual construction schedule would be implemented by Metrolinx.

[18] Service will be introduced in sections with some more construction-ready than others. In addition, Two-Way All-Day service is not planned to serve the full length of GO Rail corridors. Metrolinx indicates that this service is planned to reach Mount Pleasant (Kitchener corridor), Meadowvale (Milton corridor), Mount Joy (Stouffville corridor), Richmond Hill, and East Gwillimbury (Barrie corridor).

[19] Yonge North BCA, three project versions were modeled. The proof of concept has used the phased extension (Option 2 - to Steeles), which envisages the subway being built only after the Relief Line is in service.

[20] Metrolinx, *GO Electrification Study – Appendix 10 Implementation of Electrification Options*, 2010

[21] *Metrolinx and Intermodality*, Presentation by Antoine Belaieff http://www.vanhorne.info/files/vanhorne/07A%20Intermodal%20Passenger%20Travel%20NSERC.pdf May 2012

[22] Examples are: real-time transit information initiatives; buses to provide new and more frequent service; station improvements; bus shelters; accessibility initiatives.

[23] Work includes: Strategic Regional Research, A Region in Transition, Dobson et al. January 2013; The New Geography of Office Location and the Consequences of Business as Usual in the GTA, Canadian Urban Institute, March 2011.

[24] The Ontario Ministry of Transportation has recently launched the iCorridor website. This site provides data visualization and information sharing on core planning and transportation data. MTO uses iCorridor to inform decisions on planning and infrastructure investments, and is available to the public here: http://www.mto.gov.on.ca/iCorridor/. The Ontario GeoPortal site hosts GIS information available to the Ontario Public Service. It enables the Ministry of Infrastructure and Infrastructure Ontario to better manage the government's realty portfolio.

[25] *Governance Gridlock – Solving the Problems for 21st Century Regions*, Golden and Knowles, 2013 Ryerson University

[26] Department of Finance, *Federal Budget, 2013*

[27] *National Strategies on Public Transit Policy Framework*, prepared for CUTA by Stantec Consulting, May 2011

[28] Historical Price Charts, Torontogasprices.com. November 2013

[29] *Potential Economic Impacts of Proposed Business Parking Levy in the Greater Toronto and Hamilton Area*, Altus Group Economic Consulting, August 2013

[30] This amount – equivalent to the HST attributed to gasoline and diesel fuel taxes in the GTHA – would be drawn from the Consolidated Revenue Fund.

[31] Presentation by Jim Berry, Canary Wharf Group, entitled: *"London's Crossrail: A Case Study in Transit Investment"*, October 2013, http://munkschool.utoronto.ca/imfg/uploads/255/crossrail___jim_berry_oct_30_2013_final.pdf

[32] *Land Value Capture Discussion Paper*, George Hazel Consulting, prepared for Metrolinx, August 2013

[33] The Crossrail project is worth about 15 billion pounds, of which LVC is generating 750-950 millions (or 5-6 per cent of the total cost). A report for Transport for London measured nearly 3 billion uplift around two of the stations, of which about 300 million pounds (10 per cent) was captured for the project mainly for the Canary Wharf Development.

[34] The technical advantage of having such a Fund on the Province's books would allow the government to borrow for the Fund and transfer the proceeds to the Fund – the Province's cost-of-borrowing is less than a stand-alone entity. The Province also gains an advantage in the accounting treatment – how the government records the expense, which is important given the government's commitment to eliminate its deficit in 2017-18.

[35] *Investing in our Region, Investing in our Future*, Metrolinx, p.53, May 2013

[36] Adapted from The Conference Board of Canada: *Metropolitan Outlook 1: Economic Insights into 13 Canadian Metropolitan Economies*, Spring 2013 and *Metropolitan Outlook 2: Economic Insights into 15 Canadian Metropolitan Economies*, Summer 2013.

[37] Adapted from The Conference Board of Canada: *Metropolitan Outlook 1: Economic Insights into 13 Canadian Metropolitan Economies*, Spring 2013 and *Metropolitan Outlook 2: Economic Insights into 15 Canadian Metropolitan Economies*, Summer 2013.

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