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Update on Funding Gaps for GTHA Rapid and Conventional Transit Backgrounder Report

REVISED

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In August, 2016, the Move the Greater Toronto and Hamilton Area (MTGTHA) collaborative of non-government organizations released a major report and backgrounder entitled *"Are We There Yet? The state of transit investment in the Greater Toronto & Hamilton Area*". Transport Action Ontario is a core member of MTGTHA and was a major contributor to the report.

In September, 2017, Transport Action Ontario released a report entitled "*Update on Funding Gaps for GTHA Rapid and Conventional Transit"*. It summarizes key events of the past year, and calculates an updated funding gap. This report is the Backgrounder to that report and provides the details on the events and calculations.

1. Summary of MTGTHA Report and Funding Gap as of August, 2016:

The 2016 report and backgrounder found that the capital construction cost for the entire plan as laid out in the 2008 Regional Transportation Plan (RTP), plus subsequent announcements, was about $69B (2014$). Assuming the entire plan was constructed, and funding promises made by government at all levels at the time were lived up to, additional capital construction funding of $28.8B would be needed.

Operating, maintenance (O&M) and rehabilitation costs for these new rapid transit (RT) lines, currently small, were estimated to rise to $1.6B/yr by 2022 and $4.6B/yr by 2042, reaching a cumulative of $78B by 2042. A significant fraction of O&M costs would be recovered from transit fares although it is difficult to allocate a split between rapid and conventional transit in an integrated network. The report assumed that 70% of new RT O&M costs were recovered from fares, this recovery would accumulate to $29B by 2042. Total necessary funding in the period 2014 to 2042 for new RT would therefore be $29B (capital gap) + $78B (O&M, rehab) - $29B (fares) = $78B or $2.8B/yr. At steady state in the distant future, net O& M and rehab were estimated at $3.2B/yr. Therefore a new funding stream of $2.8B to 3.2B/yr would be needed in perpetuity to build and operate the new RT network. This covers construction costs in early years and O&M and rehab costs in later years.

2. Events since August, 2016

2.1 Updates to RT Network- Scope and Costs

- Metrolinx issued a discussion paper on the next RTP in Fall, 2016. Although not yet final, it appears that the next RTP will have a final built-out RT network of First Wave and Next Wave projects, GO Regional Express Rail (RER), limited GO extensions and Smart Track/Eglinton West LRT. (See Discussion Paper Figure 4.) This would be supplemented by a Frequent Transit Network (bus and streetcar feeder) and other local transit improvements. Only limited if any additional RT projects will be identified. This is a dramatic departure from the 2008 RTP which had a much more extensive RT network. As cited in the MTGTHA Backgrounder Report, there are about 35 RT projects identified in 2008 that are currently entirely or partially unfunded. Most of these have the potential of being dropped from the next RTP, including important projects such as Waterfront Light Rail Transit (LRT) ($1.5B) and Eglinton East LRT ($1.6B).
- Toronto has clarified the costs (staff report 10/31/16) associated with Smart Track (6 new stations on Kitchener and Stouffville GO RER lines) and Eglinton West LRT, with total capital construction costs of $3.7B.
- Metrolinx (staff report June 28, 2017) has provided capital costs and indicated the Province has approved funds for three extensions to the GO system: Bowmanville Extension $550M, Kitchener Extension (presumably the Missing Link project) $2.25B, Niagara Extension $160M, all in 2014-2016$.

2.2 Update on Provincial Funding Commitments and Revenue Sources

In addition to the funding for the 3 GO extensions above, iIn June, 2017, Ontario announced $155M for Relief Line project development (planning, business case, environment assessment, design/engineering) and $55M for Yonge Subway extension (advancing design and engineering).

Progress on revenue sources has been modest and controversial (re asset sales and road tolls):

- Asset sales (GM shares, LCBO head office lands, Hydro One shares) started in 2015 and continue, with proceeds going into the Trillium Trust which is dedicated to fund infrastructure projects under the Move Ontario Forward plan. The 2017 Provincial Budget (pg 160) indicates that $5.3B have been credited to the Trillium Trust, on track to reach target of $5.7B. Other real estate assets are anticipated for sale, including OPG HQ ($200M) and Seaton and Lakeview lands. It is not known how much of this will go to transit.
- Ontario started its HOT lanes pilot on the QEW in August, 2016 and it continues with good driver acceptance.
- In December, Toronto City Council approved road tolls on the DVP/GE expressways as a new revenue source, but in January the Province indicated they would not approve the required regulatory amendment. Instead, the Province committed increasing the transit share of the existing gas tax over the next four years from 2 ¢/L to 4 ¢/L. Provincial gas tax grants are provided to municipalities to fund transit improvements, such as major infrastructure upgrades,

buying additional transit vehicles or improving service. In 2016-2017, about $235M will be provided to GTHA agencies. This will double over the next few years.

- Ontario Climate Change Action Plan was released in 2016 and kicked in on January 1, 2017, with total anticipated revenue of $5 – 8 B over 5 years in total/all sectors, with $350 - 675M planned to be directed at improvements to GO Transit.
- In February, Ontario instituted tolling on Highways 407 (East extension) and 412, with revenues to go to transit.
- 905 Chairs/ Mayors have requested the Province to give their municipalities the same revenue tool opportunities that Toronto has, under City of Toronto Act, 2006, eg land transfer tax.
- In August, 2017, the Association of Municipalities of Ontario (AMO) issued a request to boost the HST from 13% to 14%, raising $2.5B/yr dedicated for municipal infrastructure. Of 7 tax options, AMO's research found that a retail sales tax increase was the fairest way to go, spreading the cost more widely. A Nanos poll suggested a majority of Ontarians supported such an increase. A majority opposed cutting municipal services to freeze property taxes, but was also very concerned about future property tax increases ("fixation"). All three major Ontario party leaders immediately said "no" to the AMO request.

MTGTHA has long stated that the Province needs to earmark more funding for transit, particularly from new revenue sources. Here is the summary of amounts cited above.

Revenue Source	**Amount**	**Comment**
Asset Sales	$5.3 B to date (province wide)	One-time source. Not certain how much will go to GTHA transit
HOT lanes pilot on QEW	Small	New source, but likely very little net revenue. Will grow as HOT network expands
Provincial Gas Tax -increased transit grant to 4 ¢/L	$235M/yr growing to $470M/yr to GTHA	Reallocation of existing revenue stream
Climate Change Action Plan (CCAP)	$100 – 150M/yr for first 4 years to GO	New source.
407 East and 412 Tolls	?	New source

Assuming the current commitments from CCAP and Provincial Gas Tax continue unchanged, these will provide about **$600M/yr** for GTHA transit.

2.3 Update on Federal Funding

- Following the Toronto staff report 10/31/2016, it is now possible to quantify Prime Minister Harper's commitment of funding 33% of Smart Track costs up to a maximum of $2.6B. The expected federal contribution for 6 new ST stations and towards the Eglinton LRT West is $1.2B in total.
- In Budget 2016, and the Fall, 2016 Economic Statement, $3.4B was allocated nationally over 3 years to Phase I of the Investing in Canada Plan, called the Public Transit Investment Fund (PTIF).

The Ontario portion is $1.5B, and has largely gone to small state of good repair projects. For example, Hamilton has received $32M for new buses, garage and bus stops, and Burlington has $3M. However, York ($36M) and Toronto ($27M) used portions for studies of Yonge Subway extension and Relief Line respectively.

- On March 31, 2017, Prime Minister Trudeau and Infrastructure Canada announced $1.9B under the Harper-era $14B New Building Canada Fund (NBFC) for funding up to 50% of project costs for extra track and grade separations on 4 GO RER corridors. This $1.9B is a generous fraction of the entire fund, so it is likely that no more funds from the NBCF will flow to GTHA transit. As GO RER was already fully funded by the Province, the Metrolinx CEO stated that this $1.9B grant means that more Metrolinx funds are freed up to work on other Next Wave projects.
- Canada issued Budget 2017, providing more details on Phase II public transit investments of $20.1B + >$5B (from Canada Infrastructure Bank) over 11 years. On July 7, Ottawa confirmed that it will provide $8.3B to Ontario of which $4.8B would be for GTHA transit. The feds also mandated that the provinces provide a minimum of 33% of the cost of new transit projects paid for under PTIF Phase II. Based on federal behaviour in the past, this new funding will likely be earmarked for large RT projects rather than small projects as in PTIF Phase I. It is presumed that this money is over and above that committed for SSE ($660M), ST ($1.2B) and GO RER ($1.9B).
- On June 23, 2017, Ottawa formally announced they were reallocating $330M in support of Sheppard LRT to the Finch LRT, as the funding from the Harper-era Building Canada Fund was set to expire unless used soon. This does not change their total commitment. As Finch was already fully funded by the province, presumably this frees up provincial money to be used elsewhere.

Although not in the “update” category, it is worth summarizing the Federal Gas Tax fund. It is currently about $800M/yr for Ontario or 5 cents/liter, of which about 50% would be for GTHA, It is directed to municipalities and can be used for many types of infrastructure. It is allocated on a per capita basis and administered by AMO. The City of Toronto normally directs about $160M/yr to the TTC. Brampton, Mississauga, and York also direct some federal gas tax money to transit. Assume that in total, about **$200M/yr** goes to GTHA transit.

2.4. Updates on Municipal Commitments

In February 2016, Toronto and York agreed to pick up $400M and $160M respectively for the cost overrun for the Spadina Subway Extension (TYSSE). This was not reflected in our August 2016 report.

Toronto is kicking in $55M for relief line studies, (50% from PTIF).

3. Revised Capital and Operating Costs and Funding Gap for new RT plan

Conservatively, assume that only the smaller RT network cited in Section 2.1 is built. This makes costing of the new RT network easy, as all the individual lines have published capital costs. The Table at the end of this report shows costs of each project, plus committed funding. The funding basis is 2014-2016$.

Therefore the capital construction cost of the new, abbreviated RT network is $57.7B, which is about 84% of the previous assumed network cost of $69B. From the Table, the capital construction funding gap is $9.3B

Net O&M and rehab costs, after fare recovery, are also presumed to fall to 84% of the previous values, accumulating to 0.84 x $49B = $41B between 2014 and 2042.

Total additional funding needed to build and operate this RT network over 2014-2042 is $9.3B + $41B = $50B or **$1.8 B/yr.** This is net of fare recovery.

4. Other Transit-Related Capital

A major unanswered question is whether senior governments will assist in a significant way with the capital costs of the Frequent Transit Network or other conventional transit to feed the abbreviated RT network. This includes transit vehicles and potential road widenings for Transit/HOV.

As an example of go-forward needs, York Region has a 10 year transit capital program for growth and rehabilitation/replacement of $678M largely for bus replacement, fleet expansion and new garages. The roads program is $1.6B (10 year), of which all but $500M is for widening of existing roads for Transit/HOV. Total transit-related 10-year capital plan is therefore $1.8B. There is also a large list of projects needed within the 10 year period that are not in the capital plan, totalling another $1.6B. The funding source for this capital is largely from development charges (balance from property tax levy), but York's analysis shows that these sources are insufficient unless raised to unrealistic levels. It is noted that the 10 year unfund gap is numerically about equal to the 10 year funded program.

York Region has a population of 1.1 Million. Assuming similar per capita capital expenditures in Peel (Pop 1.4M), Durham (0.6M) and Halton (0.4M) would yield a 10-year transit-related capital plan in these suburban areas of $6B or about $0.6B/yr. And assuming that needed, but unfunded, projects within the 10 year period are numerically similar to the funded portion, this yields an unfunded gap of $0.6B/yr for the regions of York, Peel, Durham and Halton.

Toronto has a 10 year transit capital plan of $9.4B or about $0.9B/yr, not including TYSSE and Scarborough Subway extension, which are discussed in an earlier section. See TTC staff report Sept 6, 2016. TTC expected "Traditional Capital Funding Available" to be $6.3B. Including PTIF Phase 1 funding of $1.2B leaves a funding gap of $1.9B. TTc also had a list of unfunded capital projects in the 10 year plan totalling $1.8B. Total unfunded gap is $3.7B or $0.4B/yr.

Senior governments have been involved in state of good repair and small growth projects through gas tax funds. But there are also many examples where they have made major one-time commitments to equipment and other costs not associated with large network expansion projects:

- In 2008, Ontario provided $170M funds to initiate BRT-lite in Brampton and Durham.
- In 2010, Canada contributed $92M through its Canada Strategic Infrastructure Fund (CSIF) and Ontario $280M through Metrolinx Quickwins to new Toronto subway cars(total cost $700M).
- In 2010, Ontario contributed $416M for 204 new low floor LRVs for Toronto (total cost $1.29B).
- Ontario is supporting Presto implementation at the local transit agencies.

In addition, Ontario picks up all capital costs for GO over and beyond the signature expansion projects in the Table. For example, the 2016-17 Metrolinx Annual Report shows $432M capital expenditures for state of good repair projects for GO and $20M for the UPEx. It is not known if there are unfunded projects in the Metrolinx capital plan.

Total 10 year approved capital program (beyond new RT) =$ 0.6B (905) +$0.9B (TTC) + $0.5(GO) = $2.0B/yr

Total 10 year unfunded capital gap (beyond new RT) =$ 0.6B (905) +$0.4B (TTC) + $?? (GO) = about **$1.0B/YR**. This assumes that existing capital funding from municipalities continues as per approved budgets.

5. Transit Operating Subsidy

The annual TTC subsidy from the City of Toronto for 2017 is about $600M. The YRT/VIVA operating cost subsidy is about $120M/yr (60% of total transit operating costs of $197M). Ontario picks up GO's subsidy for O&M which was $262M in 2016-2017.

Assume total op subsidy required across GTHA is $600M (TTC) + $400M (all of 905) + $300M (GO) = **$1.3B/yr.**

At the present time, these subsidies are fully covered by the municipalities from the tax base. Therefore the funding gap is zero. However, as service continues to grow, it will become progressively harder for municipalities to subsidize operations, unless the tax levy is increased or new revenue sources are found.

6. Summary and Comments

The grand total of all unfunded gaps, net of fare revenue, on-going traditional municipal contributions at traditional levels and net of on-going provincial and federal grants is:

New RT network (construct and operating subsidy)	$1.8B/yr
Conventional transit and existing RT network (capital needed over and beyond currently available municipal funding)	$1.0B/yr
Conventional transit and existing RT network (operating subsidy over and beyond currently available municipal subsidy)	zero + from service growth
Total	$2.8/yr+
Minus Ongoing funding from CCAP and Provincial/Federal Gas Tax	($0.8B)
NET UNFUNDED GAP	**$2.0/yr +**

This is the **unfunded gap**, net of fare revenue, and net of traditional municipal contributions to capital and operating costs at today's levels.

There is much evidence that the municipalities are "tapped out" and cannot provide more funding to fill this gap. Senior governments need to fund portions of the capital program, as they have on many occasions in the past. Alternatively, the Province could pick up a portion of the operating subsidy, as was done in decades past and proposed by the NDP in their platform in the last election (Pembina Report "Whose on Track for Rapid Transit" March, 2014). This would free up funds for the municipalities to fill more of the capital gap. Or the province can approve new municipal revenue tools beyond existing, leaving the municipalities to find the political courage to implement.

COSTS AND COMMITMENTS FOR FIRST WAVE, NEXT WAVE AND OTHER APPROVED RT PROJECTS

	$B	Prov Comm.	Fed Comm.	Mun Comm.
First Wave (2008$)				
TYSSE (Spadina Subway Extension)	2.6	1.1	0.7	0.9
Eglinton LRT	5.3	5.3		
Scarborough LRT	1.8	1.8		
Finch LRT	1.0	1.0		
Sheppard LRT	1.0	0.7	0.3(now Finch)	
Mississauga BRT	0.3	0.1	0.1	0.1
VIVA BRT	1.4	1.4		
UP Express	0.5	0.3	0.2	
GO Georgetown	1.5	1.1	0.4	
Union Station	0.7	0.4	0.2	0.1
TOTAL (2008$)	16.1	13.1	1.9	1.1
INFLATE TO 2014$ (15%)	18.5	15.0	2.2	1.2
New Costs in First Wave (2014$): -Replace Scarborough LRT with SSE -TYSSE overrun	 1.6 0.7		 0.7	 0.9 0.7
TOTAL (2014$)	**20.8**	**15.0**	**2.9**	**2.8**
Next Wave(2008$)				
Relief Line	7.4	0.15(2017$)	0.03(2017$)	0.03(2017$)
Yonge Subway	3.4	0.05 (2017$)	0.04(2017$)	
GO Rail Expansion	**			
GO Lakeshore Expansion	**			
Electrify GO Kitchener and UP Exp.	**			
Brampton Queen	0.6			
Dundas BRT	0.5			
Hamilton LRT	1.0	1.0		
Hurontario LRT	1.6	1.6		
TOTAL (2008$)	14.5	2.8		0.1
TOTAL(2014$)	**16.7**	**3.2**	**0.0**	**0.1**
GO RER (2014$)	**13.5**	**13.5**	**1.9**	
Other GO extensions: **-Bowmanville** **-Kitchener (Missing Link)** **-Niagara**	 **0.6** **2.2** **0.2**	 **0.6** **2.2** **0.2**		
ST (6 stns+Egl. W. LRT) (2016$)	**3.7**		**1.2**	
OTHER FED $ (NO PROJ. ASSIGNED) **– Prov. Matching $ not included**			**4.8**	
GRAND TOTAL (2014/6$)	**57.7**	**34.7**	**10.8**	**2.9**

* Prov and Fed $ for first wave projects are approximate to force totals to about $13B and $2B (2008$)

** Project became part of GO RER