



Supporting Quality Public Transit for Ontario Communities

Submission to

**The Hon. Charles Sousa
Minister of Finance**

2017 Pre-Budget Consultations

Prepared by the

Ontario Public Transit Association

and the

Canadian Urban Transit Association

February 15, 2017

Summary and Recommendations

These are exciting times for public transit, with unprecedented support for critical infrastructure investment from all levels of government. Elected officials and citizens alike recognize that public transit is essential to the provision of a host of other public and private sector services, and plays an important role in city-building.

The Ontario Public Transit Association (OPTA) and the Canadian Urban Transit Association (CUTA) are pleased to contribute to the Ontario government's 2017 budget deliberations, and acknowledge the difference it makes when municipalities can count on their provincial and federal partners. In combination, "Moving Ontario Forward" and Phase 1 of the federal Public Transit Infrastructure Fund (PTIF) are allowing many municipalities to turn the page on a time when investments did not keep pace with aging infrastructure or the growth of our cities.

At the federal level, CUTA continues to work closely with the Federation of Canadian Municipalities (FCM) to finalize the details of PTIF Phase 2.¹ When added on to the \$1.48 billion in federal funding from PTIF Phase 1 for Ontario, a new era of public transit will be possible.

When it comes to attracting new transit ridership, there is no replacement for service frequency and reliability, both of which require dedicated, predictable operating funds. Since 2014, OPTA had recommended that the government increase the share of the dedicated gas tax for public transit to an amount greater than the current 2 cents per litre, in order to fund transit service improvements. On January 27, 2017, the Government of Ontario did just that, by announcing that funding from gas tax would increase to 4 cents per litre by 2021-22. On behalf of the 99 transit systems in Ontario that receive gas tax funding, OPTA and CUTA gratefully acknowledge the significance of this announcement. Doubling the funding for transit sends a clear signal about the importance of public transit to achieving the goals of Ontario's Climate Change Action Plan and transitioning to an innovative, low-carbon economy.

The following recommendations focus on the Ontario-specific operating challenges that come with growth and increasingly high standards for service quality, safety and sustainability.

Recommendations:

1. In recognition of the role public transit plays in reducing GHG emissions, make municipal transit operations whole for the increased cost of fuel resulting from cap and trade, while also engaging in transit-specific cap and trade consultations;
2. Extend the exemption in Bill 118 for municipal transit operations and allow for the use of hand-held radios, while OPTA completes a market and operational review of alternative technology.

Introduction

Cities are the economic engines of Canada, and modern, reliable transit systems provide the backbone on which to build the new economy. Transit systems based on sound planning principles and public policies of inclusion and active living can be powerful tools in building healthy, sustainable communities, and reducing Ontario's GHG emissions. Public transit connects people to jobs, schools, hospitals, recreation facilities and other vital services. It is also a key factor in attracting businesses, generating jobs, and retaining top talent in our cities.

OPTA and CUTA both applaud the Province's commitment to building transit infrastructure. We recognize that Ontario is currently undertaking the largest infrastructure investment in the province's history, and the recent commitment to build a seamless and integrated transportation network across the province through Moving Ontario Forward is unprecedented in addressing both the state-of-good-repair backlog and building for the future.

Making nearly \$31 billion available over the next 10 years for investments in priority infrastructure projects across the province through two dedicated funds is a bold and much needed commitment. This will go a long way towards creating new transit capacity, alleviating traffic congestion and supporting sustainable growth throughout the province.

With this increased investment in transit infrastructure comes the need to sustain the operations of existing, new and expanded services. As the recent Gas Tax announcement acknowledges, municipalities and their transit systems are facing a rapidly growing challenge to shoulder the operating cost of their transit systems. Transit fares have reached a ceiling. The average transit fare across Ontario in 2015 – taking into account all types of riders and fare media – stood at \$2.27/trip, by far the highest of any Canadian province or territory. We applaud the recent announcement to increase the share of gas tax to municipal transit starting in 2019-20, but there are pressing, industry-wide operational needs that must be addressed in 2017.

Recommendation 1: Make municipal transit operations whole for the cost of fuel price increases resulting from cap and trade, while also engaging in transit-specific cap and trade consultations

As of January 1, 2017, Ontario's cap and trade program will capture suppliers and distributors of transportation fuel by putting a price on carbon. The increased cost of fuel is expected to be an additional 4.7 cents per litre of diesel.ⁱⁱ These increased costs will be compounded annually as the cap on GHG emissions declines each year.

Ontario's cap and trade plan is a market-based approach to controlling pollution by providing economic incentives for achieving emissions reductions. This makes sense – as econometric models and experience has shown, when the price of gasoline increases, commuters choose to drive less and take transit more.

But transit ridership is not only correlated to gas prices – it’s correlated to a host of factors including transit service and fares. If, because of increased fuel costs, transit systems have less to spend on service reliability and frequency, then transit ridership will fall in spite of the incentives to leave the car at home. In an increasingly competitive and segmented market, research suggests that ridership will increase only in regions that can provide tailored services that increase satisfaction and loyalty among all user groups.ⁱⁱⁱ

Cap and Trade is designed to help reduce carbon footprints by economically incenting shifts to greener technologies. One unintended consequence of this program is an increase in operating costs for public transit – precisely the green choice the program would like people to shift to. It is our submission that a policy gap exists in the current Cap and Trade program, one that is relatively inexpensive to close in comparison to the overall initiative. Why make the green alternative more expensive if we want people to shift to it?

Transit is the “green” alternative, and transit systems market themselves on that basis. By passing on increased fuel costs to municipal transit operations, fares are likely to rise and investments in service improvements will be reduced. This increased pressure on operating costs will only exacerbate the challenges of competing with the single occupant vehicle. In the case of the TTC, for example, the 2017 impact is estimated to be \$5.4 million when all energy cost increases are considered. As such, the disincentive of increased fuel costs, when applied to municipal transit, will not have the desired effect.

Below are the estimates for the Year 1 impacts of the additional 4.7 cents per litre, based on 2015 statistics from the Ontario Urban Transit Fact Book. The Year 5 impacts will be 5 times greater.

	Diesel Fuel Consumption (L) in 2015	Estimated Cost Increase in 2017
Ontario	116,823,099	\$5,490,686
GO	65,365,572	\$3,072,182
TTC	85,200,951	\$4,004,445
Total	267,389,622 L	\$12,567,312

In total, cap and trade is estimated to cost municipal transit systems an additional \$12.5 million in 2017. Given that fuel represents between 8-10% of a transit system’s total operating costs, as the cost of cap and trade is compounded over the next five years, transit systems will have an increasingly difficult challenge.

Calculation of Diesel Fuel Costs as a percentage of Operating Expenditures			
2015			
	Total Fuel Expenditure	Total Operating Expenses	Fuel as a % of Operating
Ontario summary	\$338,748,957	\$4,405,094,658	8%
Ontario Less GO Transit & TTC	\$141,298,965	\$1,479,278,185	10%

This request that transit “be made whole” with respect to the cost of cap and trade is but a small part of the larger recommendation for transit-specific cap and trade consultations. To this end, OPTA invites the provincial government to work with us to develop a comprehensive carbon-zero strategy for Ontario’s municipal transit sector. In anticipation of the government’s support, OPTA has already engaged the Canadian Urban Transit Research and Innovation Consortium (CUTRIC) to undertake transit-led research. From the CUTRIC proposal:

While there has been some preliminary research completed to explore the impacts and opportunities associated with carbon pricing programs for Metrolinx, there has been insufficient research into the impacts of carbon pricing on municipal transit specifically. And there has been no research carried out to date that provides transit-led normative recommendations to the Government of Ontario vis-à-vis municipal transit opportunities associated with Cap and Trade policies, including new potential revenue generation opportunities.

This research proposal will explore the impacts and opportunities that carbon pricing will have on municipal transit agencies across Ontario through a combination of research exploring best practices globally, GHG score card methodology development for Ontario transit, and normative consultation sessions based on expert insights gained from transit industry members.

The culmination of this research and collaborative consultation process will be a transit-led Cap and Trade Strategy provided to the Government of Ontario to guide future policies to ensure they are mainstreamed with transit needs and that they align with transit-led solutions.

The CUTRIC research proposal is attached for reference to this submission.

Recommendation 2: Extend the exemption in Bill 118 for municipal transit operations and allow for the use of hand-held radios, while OPTA completes a market and operational review of alternative technology

Bill 118 (Distracted Driving Law) was passed October 26, 2009. The new law banned the use of hand-held communication and entertainment devices, with few exceptions. The legislation included a 3-year exemption to December 31, 2012 for commercial and public transit drivers, as well as public service workers who are engaged in the performance of their duties. In 2012, that exemption was extended an additional five years to December 31, 2017.

Public transit operations – complete with professionally trained drivers, strict Standard Operating Procedures, collective agreements, and on-road supervision - are very different from the operation of personal vehicles. Indeed, hand-held devices are an important tool in ensuring public and driver safety. Stakeholder consultations scheduled for fall 2016, where these kinds

of considerations would have been presented, have not occurred. As such, an extension to the deadline is warranted.

In anticipation of stakeholder consultations, OPTA is in the process of engaging a consultant to undertake a market and operational review of available technology alternatives. The review and resulting whitepaper will include:

- the state of the market in terms of options that would comply with the legislation;
- current operational practices in place in the public transit sector in Ontario as they relate to this legislation; and
- assessment of accidents/incidents that have occurred in the public transit sector directly relating to the use of a hand-held device.

Safety is core business for municipal transit operations, and takes into account both the safety of the travelling public as well as the safety of drivers. OPTA looks forward to sharing the results of our study with the Ministry of Transportation as they engage with stakeholders in the coming months.

Conclusion

We are encouraged by the priority the Province has given to transit investment in recent years, and applaud the recognition of transit's role in supporting economically and environmentally sustainable communities. We are also impressed by the Province's vision for a future that integrates the economy, the environment, energy, urban development and transportation into a coherent set of policies. Healthy, efficient and effective public transit provides the backbone for improved quality of life and economic competitiveness.

In addition to increased provincial investment in infrastructure through Moving Ontario Forward, transit will continue to require provincial support for operating funds to meet the growing expectations of the public for frequency and reliability. Support for transit service improvements will go a long way to allowing municipalities of all sizes to plan for and contribute to Ontario's low-carbon economy.

***OPTA**, the Ontario Public Transit Association, is the provincial association whose members represent public transit systems, health and social service agency transportation providers, suppliers to the industry, and government representatives. OPTA's vision is excellence in the provision of sustainable public transit services for Ontarians.*

***CUTA**, the Canadian Urban Transit Association, is the national association representing public transit systems, urban mobility providers, suppliers to the industry, government agencies, individuals and related organizations across the country. Its vision is to inspire and influence the evolution of integrated urban mobility.*

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ⁱ FCM Budget 2017 submission “Seizing the Moment”

http://www.fcm.ca/Documents/issues/2017_FCM_Budget-SeizingTheMoment_EN.pdf

ⁱⁱ Ontario’s budget announcement on February 25, 2016 included information about potential fuel cost increases, indicating that the introduction of the cap and trade system will likely result in an increase of 4.3 cents per litre of gasoline and 4.7 cents per litre of diesel in Ontario.

ⁱⁱⁱ Ahmed El-Geneidy, Associate Professor, and Dea van Lierop, PhD Candidate, School of Urban Planning at McGill University <http://www.mcgill.ca/urbanplanning/people/el-geneidy>

CUTRIC-OPTA RESEARCH PROPOSAL

Introduction

Ontario has introduced a Cap and Trade Program that will be implemented on January 1st, 2017. This program will have impacts on the transportation industry, including municipal transit agencies.

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PART A: RESEARCH THEMES

What is Cap and Trade?

Cap and Trade creates a limit on the quantity of Greenhouse Gas (GHG) emissions that industries can emit. This limit is gradually reduced over time in order to further reduce emissions. In the case of Ontario, this reduction is expected to range between 4.14 and 4.51 per cent annual GHG reductions until 2021.²

Cap and Trade limits on industry stakeholders are divided into allowances that represent a unit of emissions. Each business within an identified industry must obtain allowances to cover emissions within the cap through a market auction or by receiving freely-allocated allowances.³ A business can reduce its carbon costs by selling any unused allowances to any other company that may have too few.⁴

The Ontario Cap and Trade program has established a target of a 15 per cent reduction in GHG emissions by 2020, 37 per cent by 2030, and 80 per cent by 2050. These targets establish the parameter conditions for what could be a robust and growing market for emissions offsets that can be bought and sold in an open marketplace by a variety of actors, including potentially transit systems.

The threshold for “heavy emitters” that are currently included in the Cap and Trade Program includes industries and institutions with annual GHG emissions of more than 25,000 tonnes. Additionally,

¹ (Evola, 2016)

² (Phillips & Drolet, 2016)

³ (Evola, 2016)

⁴ (Phillips & Drolet, 2016)

transportation fuels will be covered at volumes of 200 litres or more. All emitters of 10,000 tonnes of CO₂ “equivalent” or more will be required to report their emissions starting in 2017, as well.⁵

Firms that are targeted as “heavy emitters” can offset their carbon footprint by investing in carbon offsets. “Offsets” relate to projects that reduce GHGs or draw carbon pollution out of the atmosphere. In Ontario, the government will recognize real, additional, enforceable, verifiable, and permanent reductions that occur outside the cap.⁶ Transit may have a role to play in the “offset” marketplace.

What does the Ontario Climate Action plan say about transportation & transit?

The Ontario Climate Change Action Plan currently outlines five ways to lower emissions from transportation.

1. Increasing the availability and use of lower carbon fuel. This includes propane and liquefied gas, as well as gasoline that has been mixed with renewable fuels. This will boost the renewable content of fossil fuels, and assist fuel distributors by supporting them in providing lower carbon fuel to consumers that is less carbon intensive. The government intends to also fund pilot projects to assess waste and agricultural methane as a fuel source.
2. Increasing the use of electric vehicles. This includes maintaining the province’s incentives for electric vehicles, eliminating HST on zero-emission vehicles, providing free overnight vehicle charging to EV owners, incentivizing the replacement of older cars, ensuring charging infrastructure is widely available, creating electric vehicle ready workplaces, and funding an electric and hydrogen innovation advancement program that will recognize manufacturers that exhibit performance in advance zero-emission vehicle sales, marketing, infrastructure and public awareness. Lastly, this will be accomplished through increasing the public awareness through working with Plug’n Drive.
3. Supporting cycling and walking. This includes supporting cycling and walking as mobility options to help decrease the number of cars on the road, as well as improve overall public health. This will be accomplished through better commuter cycling networks, safe cycling, convenient cycling (parking stations), and commuter cycling accommodated through infrastructure along highways and major transit corridors.
4. Increasing the use of low-carbon trucks and buses. This includes offering a Green Commercial Vehicle Program that will provide incentives to eligible businesses that want to buy low-carbon commercial vehicles and technologies to reduce emissions, including electric and natural gas-powered trucks, aerodynamic devices, anti-idling devices, and electric trailer refrigeration. Another method to accomplish this will also be through building a network of low-emission fueling stations, and improving competitiveness of short-line railways (According to the Railway Association of Canada, short- lines can be three to four times more efficient per tonne-kilometre than transporting the same freight by truck).
5. Supporting the Accelerated Construction of GO Regional Express Rail. This includes creating a strong network that encourages people to choose transit.

Additionally, the Ontario Climate Change Action Plan identifies the need to begin developing post-2020 Cap and Trade regulations. The Report states, “The government has heard from Ontario businesses that they want additional clarity for the post- 2020 compliance periods.” The province will begin consultations later in 2016 to develop post-2020 program guidelines. Ontario’s Western Climate Initiative partners – Quebec and California – just recently began their own consultations in this regard.

⁵ (Government of Ontario, 2016)

⁶ (Phillips & Drolet, 2016)

Key to these discussions will be the need to maintain a competitive economy while achieving environmental results.

Ontario's Cap and Trade program is expected to generate proceeds of approximately \$1.8 to \$1.9 billion each year,⁷ but the program could generate additional funding if Cap and Trade regulations were extended to include mid-emitters in the future.

What challenges exist for municipal transit within Ontario's Cap and Trade & Climate Action Strategies in the immediate future?

Cap and Trade policies will result in an immediate increase in diesel costs as of January 1st 2017. This will be the result of an initial five per cent increase in diesel fuel costs, which will continue unabated for the next five years (i.e. five per cent per annum until 2021). The evident impact on transit is higher diesel costs in the short-term. This may cause a challenge for those transit agencies that currently struggle to pay for operations within the existing low-priced global diesel marketplace.

However, in addition to the increase in diesel costs, the Ministry of Transportation has also become more vigilant in monitoring and fining transit agencies with relation to noxious material emissions from older buses. Though this monitoring activity is not an explicit component of the Cap and Trade policy, it forms part and parcel of the overall mainstreaming of climate action strategies and emissions-reducing activities that all ministries within the provincial family have been asked to undertake.

Both of these outcomes will create financial costs for municipal transit agencies.

The research identified below, as carried out by CUTRIC, will map the diesel cost increases across Ontario transit agencies based on existing Cap and Trade regulations, and it will map out other "climate action" strategies that the MTO may be considering implementing over the next five years (such as NOX monitoring efforts).

Robust methodologies to model and score GHGs from transit

The Ontario Climate Action Plan and Cap and Trade Program have outlined the fact heavy emitters will be required to record and report their emissions⁸. The CUTRIC research proposed here will develop a GHG reporting tool for transit agencies within OPTA so that transit agencies can accurately map out their own GHG footprint before being required to do so in the future.

Currently, most GHG monitoring tools for transit explore diesel-to-CO2 conversions only. This is insufficient for the purpose.

CUTRIC will develop a more robust mapping tool that includes the following GHG measures:

1. CO2 *equivalent* measures from diesel and compressed natural gas combustion in fleets ("CO2 equivalent" outputs relate to CO2, CO, and other global warming pollutants produced through combustion of fossil fuels);
2. NOX emissions measures from diesel and compressed natural gas combustion;
3. CO2 equivalent measures from garages and transit offices – heating, cooling and other electrical or gas-based auxiliary systems to maintain garages;
4. CO2 equivalent measures of travel among staff for transit business (CO2 equivalent measurement of travel choices by transit employees who commute for business purposes to meetings, conferences, etc.);
5. CO2 equivalent measures of travel among staff to commute to work (CO2 equivalent measurement of transit staff GHG footprint in getting to work on a daily basis).

⁷ (Government of Ontario, 2016)

⁸ (Government of Ontario, 2016)

These emissions constitute the *full* GHG footprint of transit agencies. (For example, transit offices located in areas not easily or quickly served by transit itself constitute a GHG problem that needs to be addressed in the future to enable less carbon intensive mobility for staff employees.)

The outcomes of this research will be used to develop a standard method for effective monitoring, mapping and scoring of transit agencies' respective GHG footprints on a per rider basis, or other standardized metric.

Thus, CUTRIC will develop a system-by-system evaluation of OPTA transit agencies to understand which transit companies are low, medium, and high emitters based on GHG emissions from sources No. 1 to No. 5 above. To do so, CUTRIC will develop an Ontario report card for transit agency GHG emissions, which agencies can use to assess themselves on an annual basis and which they can use to measure year-on-year GHG reductions to qualify for Cap and Trade revenues as well as offset credits in the future.

Exploring conditions for the use of Cap and Trade revenues

As of January 1st 2017, Ontario's Cap and Trade program will begin generating revenue. Legally, those revenues are tied to innovation of green technologies and/or the procurement of green technologies.

Currently, there is no normative strategy outlining how Cap and Trade revenues can or should be used for transit system investments at the municipal level.

This legal requirement to bind Cap and Trade revenue to the development or integration of green technologies begs the question as whether some of the revenue will be allocated to transit agencies, *if* those funds support diesel bus procurements or the expansion of garages that do not accommodate electric or hydrogen fuel cell propulsion.

CUTRIC will utilize qualitative consultation sessions over the course of 2017 to develop a strategy for Cap and Trade investments into municipal transit agencies in Ontario going forward.

The CUTRIC method for qualitative sessions will map onto the consultation method utilized over the past two years as part of CUTRIC Federal and Provincial consultation sessions as funded by Industry Canada (now Innovation, Science and Economic Development Canada) and the Ontario Ministry of Economic Development and Growth. This method focuses on focus group style outputs related to opportunities, challenges and solutions vis a vis themes of technological tools and policy framework. The method additionally involves separating a larger consultation group into breakout groups in which they are asked to deliver conclusions related to opportunities, challenges, and solutions. The result of this method is stakeholders responding to identified challenges ahead and developing actual technological, social, and operational solutions to overcome challenges and realize opportunities associated with Cap and Trade.

Potential for new revenue mechanisms emerging from low carbon fleet conversions through Cap and Trade offsets

It is unclear whether Cap and Trade in the future will grant credits to agencies as they convert to low or zero-carbon electric or hydrogen fuel cell options.

As part of its assessment and analysis, CUTRIC will explore the potential for new revenue generation within transit agencies, as they transition to greener fleets or as ridership grows and displaces single occupancy vehicles. This assessment will include recommendations to government as to how transit could or should be enabled to generate carbon credits or offsets that can be sold in a carbon marketplace in the future.

PART B: METHODOLOGY

1. Literature review

CUTRIC will develop a literature review to document how transit has modeled its GHG footprint in other sub-national and national jurisdictions globally.

This will include examining how transit has been affected by Cap and Trade and direct carbon taxation policies in other jurisdictions. Additionally, this literature review will examine the benefits that transit agencies have received from carbon pricing globally.

2. GHG report card methodology generation

CUTRIC will develop a robust mapping and scoring tool that includes the full GHG footprint of transit agencies. This mapping and scoring tool will be used to develop a standard method for effective monitoring, mapping and scoring of transit agencies' respective GHG footprints on a per rider basis, or other standardized metric.

3. Policy mapping of potential cost challenges and revenue generation capabilities based on transit experiences in other jurisdictions

CUTRIC will create a policy map that will illustrate the possibilities emergent in other global jurisdictions with carbon pricing programs – such as in Quebec and California – to demonstrate mechanisms by which transit has benefited from carbon pricing tools in play.

4. Consultation sessions with Ontario transit agency staff

Consultation sessions will be held five times throughout 2017 as follows. The consultation sessions will be prescheduled to enable the attendees to find a point person within their transit teams that will serve as a transit expert. The sessions will look at hypothetical scenarios and gather ideas from various industry experts for solutions to be fed into a Strategy Plan on behalf of OPTA members to the Government of Ontario, including the Ministry of Environment & Climate Change (MOECC) and Ministry of Transportation.

Tentative timeline for deliverables

Literature Review:	Carbon pricing & transit innovation (globally)	February 2017
Consultation Session 1:	Ontario Cap & Trade: overview & diesel pricing	February 2017
Consultation Session 2:	Transit GHG footprinting: models & methodologies	April 2017
GHG Report Card Methodology:		June 2017
Consultation Session 3:	Ontario Cap & Trade: transit revenue qualification	June 2017
Consultation Session 4:	Ontario Cap & Trade: carbon offset opportunities	August 2017
Consultation Session 5:	Ontario Cap & Trade: infrastructure and operation investments	October 2017
Cap & Trade for Transit:	OPTA Strategy Submission	December 2017