



Transit as a solution to the climate crisis

Written submission for the pre-budget consultations in advance of Budget 2020

Canadian Urban Transit Association

August 2, 2019

The Canadian Urban Transit Association (CUTA) is pleased to submit the following pre-budget recommendations to the House of Commons Standing Committee on Finance for Budget 2020.

1. That the government add an additional \$250 million top-up to the federal Gas Tax Fund, and dedicate this funding to public transit operational expenses. This will provide transit systems with the flexibility to improve the frequency and reliability of service, which in turn will lead to increased ridership growth and reduced GHG emissions.
2. That the government eliminate the trade-off that transit systems currently face between larger or greener fleets by introducing a voucher program in which the federal government would offset the capital costs of transitioning to low-carbon vehicles.
3. That the government support green jobs in Canada by securing an exemption for Canadian transit manufacturers and suppliers from *Buy America Act* procurement restrictions in the United States.



Executive summary

Public transit is the most effective and affordable way to move large numbers of people through limited space in busy urban centres across Canada. The people-moving capacity of buses, light-rail trains and subways vastly exceeds that of single-occupancy vehicles. The same is also true of transit's ability to reduce greenhouse gas (GHG) emissions in the transportation sector. By increasing modal share and implementing measures to tackle congestion, the federal government can reduce the number of passenger cars that get stuck in traffic on a daily basis, and the resulting emissions from idling engines.

To limit global warming to 2°C, the share of low-emission final energy use in the transportation sector on the international stage will have to rise from less than 5% in 2020 to about 35–65% by 2050¹. The GHG emissions attributed to public transit are being lowered as our industry embraces new technologies and transitions to alternative fuels. Transit systems are building new infrastructure and developing new routes that will ensure more accessible and frequent service for millions of Canadians. When taken together, the greening of transit operations coupled with a service that acts as a viable alternative to passenger cars are jointly supporting Canadian efforts to meet our international climate obligations. However, more can be done.

CUTA believes that substantial reductions in GHG emissions can be accomplished via dedicated federal funding for transit operations. This funding would be permanent and would be provided to municipalities through a modest increase in the federal Gas Tax Fund of \$250 million per year. It would also be flexible enough to cover operational expenses that fall under state of good repair, fuel and operator costs. These expenses routinely figure as amongst the highest budget lines for transit systems in Canada. With modest federal investments in transit operations, the government could incentivize increased ridership, and in doing so capture the environmental and social benefits of more transit use. CUTA estimates that a commuter choosing to take a diesel bus instead of their car can cut their GHG emissions per kilometer by about 77%.

CUTA believes that the federal government can act as a catalyst in the transition to greener transit fleets by providing financial incentives to municipalities to cover a portion of the incremental costs of upgrading vehicles from diesel to low-carbon alternatives. Such a move would also help commercialize cutting-edge green technologies here in Canada. While similar incentive programs exist for the purchase of zero-emission cars, there are currently no such incentives for mass transit vehicles such as buses. For example, for every 1,000 e-buses introduced, demand for fuel drops by over 180,000 barrels per year², which is the equivalent of reducing 77,400 metric tonnes of carbon emissions.

Lastly, the transit manufacturing industry, which includes parts and component suppliers and bus, railcar and other rolling stock manufacturers, are key creators of green jobs in Canada. In order to sustain these jobs, manufacturers and suppliers need the federal government's support to tackle protectionist trade policies abroad. Buy America procurement restrictions are a significant irritant at present, and the federal government should secure an exemption to these rules in the transportation sector.

¹ United Nations, IPCC Report (2018) Summary for Policymakers C.2.4 (p.15)
https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf

² Clean Energy Canada "Will Canada miss the bus?" March 2019 (p.10) http://cleanenergycanada.org/wp-content/uploads/2019/03/Report_TER2019_Ebuses.pdf



1. \$250M Towards Dedicated Transit Operational Funding

Recommendation: That the government add an additional \$250 million top-up to the federal Gas Tax Fund, and dedicate this funding to public transit operational expenses. This will provide transit systems with the flexibility to improve the frequency and reliability of service, which in turn will lead to increased ridership growth and reduced GHG emissions.

According to CUTA's *Ridership Trends Study* (2018)³, the primary factors that influence transit ridership growth are improvements in service levels and a reduction in the associated costs of using transit (i.e. fares, convenience and travel time). By increasing the Gas Tax Fund by an additional \$250 million, transit systems will be provided with the flexibility to improve the reliability and frequency of their service. This will lead to increased ridership growth and reduced GHG emissions. Operational funding will also support the federal government in meeting its target to increase the modal share of public transit and active transportation by at least 25%.

Our ridership trends report also found that for every 10% increase in the operating budgets of transit systems, a 5.5% increase in vehicle service hours is expected. In addition, for every 10% increase in predicted vehicle service hours, a 10% increase in ridership is expected. CUTA estimates that an injection of \$250 million in operational funding could induce a 1.67% increase in ridership growth in a single year. This could reduce GHG emissions by the equivalent of removing 50,000 cars off our roads.

Increased ridership drives a modal shift from passenger cars to public transit. A commuter choosing to take a diesel bus instead of their car can cut their GHG emissions per kilometer by about 77%. Ontario's *Gas Tax Funds for Public Transit Program* is a successful model that delivers the needed flexibility for operational expenses that are currently not being served by the federal Gas Tax Fund. Internal CUTA research suggests that the average number of passengers in a vehicle commuting to work is 1.08 people per vehicle, while the average number of people traveling in a public transit vehicle in an average service hour is 41.15. The resulting savings in carbon emissions of moving more people in less space are immense.

In addition to increasing the reliability and frequency of transit services, complementary pricing policies that affect the cost of owning and using a private vehicle increase transit ridership as well. According to a recent report from the Parliamentary Budget Officer, Canada will have to increase the carbon price to \$102/tonne by 2030 to meet our international climate change commitments⁴. Investing in operational funding can be a complementary policy to Canada's existing carbon price, or an alternative to further increases. Within the policy context of increasing the marginal costs of driving a vehicle, we can facilitate behavioral changes towards sustainable mobility by reducing the marginal costs of taking transit by making it more frequent, reliable and affordable.

³ CUTA "Canadian Transit Ridership Trends Study" (2018) (p.88)
http://cutaactu.ca/sites/default/files/cuta_ridership_report_final_october_2018_en.pdf

⁴ Parliamentary Budget Officer "Closing the Gap; Carbon Pricing for the Paris Target" (2019) https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2019/Paris_Target/Paris_Target_EN.pdf



2. Low-Carbon Transit Vehicle Procurement Program

Recommendation: That the government eliminate the trade-off that transit systems currently face between larger or greener fleets by introducing a voucher program in which the federal government would offset the capital costs of transitioning to low-carbon vehicles.

Canada's transit industry is a world leader in manufacturing low-carbon vehicles. Manufacturers such as New Flyer and Nova Bus are developing tomorrow's green buses today. Several Canadian cities have set targets to green their transit fleets by 2040, including Montreal and Toronto.

The problem that our industry currently faces is that battery-powered electric and other low-carbon technology vehicles can be up to twice the cost of regular diesel-powered buses. This means that transit systems are faced with the trade-off between purchasing more buses to make service more frequent, and purchasing fewer but greener buses that make service cleaner for the environment. However, the demand for clean technologies is growing, and the costs of these technologies are dropping as a result. Since transit investments have long lifecycles, purchasing decisions today will affect Canada's long-term ability to lower GHG emission reductions. They will also shape the R&D investments of the transit manufacturing industry. Therefore, it is important for the federal government to provide transit systems and manufacturers with the flexibility to move towards low-carbon transit services in the future by introducing the right procurement incentives today.

We propose to eliminate the trade-off that transit systems currently face between larger or greener fleets by introducing a voucher program that would have the federal government offset the capital costs of low-carbon vehicles by up to 80%. The program would involve the government curating a list of approved low-carbon public transit vehicles that meet specific standards. The government would provide a voucher for a pre-determined amount (i.e. up to 80% of total costs) to a registered dealer, which would be redeemable at the time of purchase. The cost of this program would decline over time, as the induced demand for low-carbon vehicles would accelerate innovation and reduce vehicle prices.

This 10-year program would run until 2030 when the costs of low-carbon buses are expected to reach parity with diesel alternatives. According to Bloomberg New Energy Finance, inducing demand for low-carbon vehicles like e-buses through low-carbon procurement policies could cut this cost-parity timeline in half⁵, and rapidly accelerate a shift to clean energy. Currently, the high capital cost of low-carbon vehicles can be offset over its lifecycle by operational savings on fuel costs. However, the up-front capital costs are currently prohibitive and at-odds with expectations of short-to-medium term increases in ridership growth. By reducing the capital costs of acquiring low-carbon vehicles for transit systems by 80%, these vehicles will benefit from low life-cycle annual operating costs⁶.

The cost of this program can be capped at whatever level the government wishes by limiting the number of vouchers that are distributed annually. The estimated annual program cost of covering 80% of the incremental capital expenses for replacing all 15,000 conventional diesel buses in Canada by 2040 runs to approximately \$600 million per year.

⁵ Bloomberg New Energy Finance "Electric Buses in Cities; Driving Towards Cleaner Air and Lower Co2" March 2018 <https://data.bloomberglp.com/professional/sites/24/2018/05/Electric-Buses-in-Cities-Report-BNEF-C40-Citi.pdf>

⁶ Clean Energy Canada "Will Canada miss the bus?" March 2019 http://cleanenergycanada.org/wp-content/uploads/2019/03/Report_TER2019_Ebuses.pdf



3. Support Green Jobs in Transit Manufacturing

Recommendation: That the government support green jobs in Canada by securing an exemption for Canadian transit manufacturers and suppliers from *Buy America Act* procurement restrictions in the United States.

The transit manufacturing and supply industries are important creators of green jobs. In order to sustain these jobs, manufacturers need the federal government to help secure fair access to foreign markets. In this light, Canada must secure an exemption to *Buy America Act* procurement restrictions in the transportation sector that require up to 75% U.S. manufactured content.

The *Buy America Act* governs the procurement of transportation assets such as buses, trains and other rolling stock. The U.S. government has incrementally raised the American content requirement from 60% to 75%⁷. These rules could force leading Canadian transit manufacturers to expand their U.S. manufacturing footprints at the expense of homegrown expansion. There are recent examples that point to hundreds of job losses in transit manufacturing plants due to unfavourable business conditions abroad. Canadian bus manufacturers service 70% of the U.S. bus market in terms of annual sales. Canada should build on this comparative advantage and further grow its transit supply chain base. We cannot allow this industry of the future to deteriorate and relocate to other countries.

⁷ CBC News, Trump makes Buy America Rules More Restrictive, Demanding 75% US Components, Published July 15, 2019 <https://www.cbc.ca/news/business/buy-america-trump-rules-1.5212420>

