

ITS TIME TO INTRODUCE ROAD PRICING IN TORONTO

Deputation/Submission to the City of Toronto Executive Committee December 1, 2016

Prepared by Graham Haines and Cherise Burda

Note: A summary of this submission was deputed by Graham Haines on December 1, 2016 to Toronto's executive committee.

With recommended budget cuts across the board at the City, TTC fare increases and a growing list of unfunded capital projects it is vital that the City thinks about the long-term implications of its budget decisions. To this end, as an organization with a mandate centered on building more liveable cities, we are encouraged by the comprehensive approach taken by City Staff, Executive Committee and City Council to understand the long-term budget requirements of the city, potential new sources of revenue, and the long-term financial implications of selling City assets such as the Toronto Parking Authority and Toronto Hydro Corporation.

While there is much to unpack from Staff reports EX20.1, EX20.2 and EX20.3, our submission focuses primarily on the proposed introduction of road tolls on the Gardiner and DVP. Road pricing is politically challenging, so we commend Mayor John Tory for his leadership on the introduction of tolls. We also commend Executive Committee and City Council for seriously considering the option.

In this submission, we present rationale for moving forward with road pricing in Toronto. Namely, road pricing will not only generate revenue, but it will also help the City achieve strategic short and long-term goals including reducing air pollution and greenhouse gas emissions. However, while road pricing is good policy, it is not a comprehensive solution to our current financial challenges. As a user-pay policy it encourages drivers to leave their car at home; consequently,

road pricing should lead to increased transit ridership, creating additional pressure on transit and active transportation networks in our City. As such, road pricing revenue would best be dedicated to additional transit and active transportation infrastructure improvements, while we need additional revenue to meet our existing budget challenges.

WHY IS ROAD PRICING A GOOD OPTION FOR TORONTO?

As discussed by Staff Report EX20.2, road tolls offer the city a new revenue stream with a relatively high level of incidence—those who would pay road tolls are those who benefit from the use of our roads. This alone is a compelling reason to discuss the introduction of road pricing. The true value of road pricing however is that it comes with a number of co-benefits that are well aligned with strategic goals at the local level. Effective road pricing policy can decrease pollution and greenhouse gas emissions, reduce congestion, and create a shift toward more sustainable forms of transportation.

1. Paying for the costs of driving

Road pricing, as with transit fares, presents the opportunity for a dedicated revenue tool where mobility pays for mobility. While our transit system relies on fares to fund 70% of operations¹, our roadways are currently built and operated largely out of general revenue. Introducing road tolls would help level this playing field, charging both drivers and transit users for the use of Toronto's major transportation investments.

Critics of road tolls often argue that the full cost of roadway infrastructure is funded through provincial and federal gas tax and vehicle registration fees. Unfortunately, on our municipal budget sheets this is far from the case. In 2015 the province returned \$170 million of gas tax money to the City of Toronto,² a value well short of the \$916 million projected average annual municipal operating and capital costs for transportation services.³ This significant gap between gas tax money and our transportation budget means that the upkeep and re-construction costs associated with the DVP and the Gardiner currently rely heavily on all Toronto citizens and their property tax contributions. Introducing road tolls on the Gardiner and DVP will help ensure that those who most benefit from these expressways, no matter where they live, help directly fund the associated ongoing operating and rehabilitation costs.

Looking at the bigger picture, road pricing can also help society re-capture some of the externalized costs of driving. A recent study, funded by CAA, found that combined the gas tax and vehicle registration fees comes close to breaking even with the hard costs associated with driving/roadways.⁴ However, once we start to include the externalized costs of driving, such as the costs of accidents, noise, air pollution, greenhouse gas emissions, and congestion^{5, 6} it becomes increasingly clear that drivers are not covering the full spectrum of costs associated with driving. Road pricing allows us an opportunity to not only help pay for the direct costs of driving at the municipal level, but also recapture some of these external costs.

Moreover, road pricing can capture revenue from all users, including users who live outside of the city and are using the roads and transit that Toronto taxpayers pay to maintain via Toronto's property tax. However, this is not a "tax on the 905" as all drivers, including those from the 416 are paying the same fee. It's only fair that drivers who use the roads on a daily basis contribute to their maintenance.

2. Changing behaviour and other co-benefits

Road pricing offers a number of co-benefits beyond raising revenue for the city. By increasing the cost of driving, road pricing encourages drivers to shift to other modes. This means that effective road pricing can reduce congestion and improve everyone's commute. In line with this, road pricing can also help reduce pollution and greenhouse gas emissions associated with transportation, supporting the City's and the Province's climate objectives.

Furthermore, perhaps surprisingly, road pricing can lead to real net savings for drivers themselves. A 2015 Pembina study⁷ which analyzed road pricing for the GTA in detail found that at the right price (less than half the current price of Highway 407 tolls), road pricing would lead to reduced congestion and result in benefits and net savings to drivers themselves—improved commute times, and savings in gas and car maintenance from reduced idling would balance out the increased cost of commuting.

To maximize the co-benefits of road pricing, and to make it easier for drivers to get out of their cars, we need transit and active transportation systems that can effectively absorb more users than planned for. Unfortunately, while we are making significant investments in transit at the municipal level and across the GTA, there will not be a reduction in total number of vehicles on the road, largely as a result of the significant population growth expected.⁸

If we can pair road pricing with increased investment in alternatives we have the rare opportunity to generate a win-win proposition—the City can generate more revenue and better capture the external costs of driving, the external impacts of driving on society can be reduced, and drivers themselves financially and personally benefit as a result of reduced congestion.

3. Protecting public assets for the public benefit

Mayor John Tory's decision not to sell Toronto Hydro is a long-term sustainable decision. Rather than selling off a revenue-generating asset for a short-term injection of cash, Toronto will maintain this asset that will generate revenue for the city. The same can be said about generating revenue from a road facility.

As infrastructure construction and maintenance grows ever more expensive for municipalities and provincial governments, capital and operational costs will increasingly be privatized, in which case the private company will do the tolling to pay for the cost and to make a profit—for example highway 407. Keeping these assets public the pricing and toll rates can be kept lower, and the funds go towards the public investment.

The highway was originally built by the province in response to congestion on Highway 401 to provide more capacity, and tolls were introduced to pay for its construction. However, the facility was sold to a private operator in 1997. Due to the private nature of the consortium that owns and operates highway 407, no revenues are allocated to public transit, but investments have been made in expansion and upgrades over the years; for example, new lanes were opened in both 2012 and 2014.⁹

FINANCIAL IMPLICATIONS

The primary challenge with introducing road tolls in order to close existing funding gaps as an alternative to other more traditional revenue streams, such as increased property taxes, is that road pricing creates new demand and pressures on our active transportation and transit systems, requiring the need for more transit options. This means that while introducing road pricing may offer a solution to our current budget obligations, they can create future expenditure requirements related to increased demand on the TTC and our active transportation networks.

Ideally, instead of directing road pricing revenue to existing shortfalls and planned capital expenditures, the future revenue generated by road pricing could be reinvested in improvements and expansion of the transit system and other alternatives to driving, such as better pedestrian and cycling infrastructure. This is the approach that has been taken in other jurisdictions that have introduced effective road pricing solutions such as London and California.

This means we still need to find sources of revenue to dedicate to existing shortfalls, including operations, services and planned capital expenditures, including transit infrastructure, parks infrastructure, housing and road infrastructure—i.e. the Gardiner immediate rebuild and rehabilitation alone will cost \$3.6B (out of \$5B net revenue over 30 years), saying nothing of the DVP and long term costs of both facilities.

MAKING THE MOST OF ROAD PRICING

As the city works out the details of a road pricing system, we present a number of considerations. Critics of road pricing claim that tolls will only divert traffic onto other residential streets. In fact, successful road pricing systems in other jurisdiction divert traffic over time of use or onto other modes, rather than onto other streets. This success requires a number of conditions, in particular: 1) a dynamic time-of-use system, 2) a congestion reduction focus; and, 3) the presence of viable alternatives to driving.

1. Consider a congestion charge

Tolls are generally used in cities in NA on bridges and other facilities to pay for their construction. If Toronto's broader objective is to reduce congestion, then a congestion charge is one option to consider. In some jurisdictions, road pricing is known as "congestion charging." London, Stockholm, and California all introduced road fares with the multiple objectives of reducing congestion and greenhouse gases, and generating revenue. Stockholm's congestion charge, for example, eased congestion by 20%.¹⁰ In all three jurisdictions, revenues were invested back into transportation, in particular, building more transit, making it even easier to leave your car at home.

Toronto Mayor John Tory has taken some action to reduce congestion, including ticketing vehicles blocking traffic. However, a 2015 study by the Pembina Institute shows that a reasonable road price on Toronto owned highways could reduce congestion on the DVP and

Gardiner by up to 15 per cent.¹¹ Less idling means less pollution and greenhouse gas emissions, and tolling would therefore help contribute to the City's and the Province's climate goals.

Road pricing can encourage mode shift locally in the precise location where the problem is. High occupancy toll (HOT) lanes are a good example of this approach, as they are implemented primarily to reduce congestion on a specific highway. They provide drivers with an option to pay to access high occupancy vehicle (HOV) lanes, which offer a faster less congested travel option than regular highway travel lanes.

It should be noted that both the Stockholm and London examples are cordon charges, whereby entry to the city core is charged. The Mayor's proposal is not for a cordon charge, and such a proposal has advantages—a cordon charge like London's would only penalize and restrict traffic into the city rather than charging travel in all directions, east-west and north-south, and all locations on the two highways.

2. Consider a dynamic time of use system

Different prices for different times of use (e.g. peak versus off-peak) can shift traffic around time of day, moving trips to times when there is more road capacity, rather onto other roads. Examples from other jurisdictions (London, Stockholm, California to name a few), show that dynamic pricing encourages drivers to travel at non peak times, or even forgo unnecessary car trips altogether. Drivers who have access to transit may take it if it's a convenient alternative. Academics, including University of Toronto engineering professor Baher Abdulhai, state that time-based pricing would encourage transit use or prompt many drivers to modify their route and time of travel.¹²

3. Improve transit and invest in the most effective projects

Other jurisdictions that have implemented road pricing have had success largely because good alternatives to driving, such as efficient transit, exist. We all know that Toronto has lagged behind cities in Canada¹³ and elsewhere in terms of building new transit, and many drivers do not have viable options to driving.

However, implementing a road tolling system in Toronto will likely take at least three years, which buys some time to improve transit service and implement quicker-to-deploy projects. For example, in recent years GO transit has lengthened trains, added express trains and introduced two-way half-hour service all day on the Lakeshore line. In Toronto, the 15-kilometre portion of

the Gardiner Expressway from Highway 427 to Yonge Street corresponds with the Lakeshore West GO train route between Long Branch and Union Station meaning that GO services already provides commuters a viable transit alternative to driving along the Gardiner.

Here in the 416, the Eglinton Crosstown should be running by 2021 giving drivers another east-west transit option. Another important project is the potential improvement of the 504 King streetcar into a rapid transit facility running in its own dedicated lane. With the 504 being the busiest surface route in the city and carrying 15,000 more passengers daily than the Sheppard subway, support for and prioritization of this project will be critical to keeping Toronto moving. In addition, the City should move ahead quickly with the 10-year cycling plan and begin immediate implementation of priority routes. Separated bike lanes have proven to attract ridership, for example, cycling on Richmond and Adelaide tripled after installation of separated bike lanes.¹⁴

Toronto's population will grow by well over half million people in next 15 years, and in the downtown core 10,000 new residents are added every year. This year's Vital Signs report notes that 20% of downtowners still drive—changing that is a big opportunity to reduce congestion. Ultimately our challenge is finding viable alternatives for everyone who drives into the city and into the core. Are we investing in the best transit projects that will carry the most riders from the 416 and the from the 905 that will lead to tangible mode shift?

4. Support lower-income road users

Worries that road pricing will cite the unfair burden to lower income drivers can be mitigated by exemptions built into a program, similar to tax credits for low- to moderate-income residents, an approach already used for Ontario sales taxes, the sales tax on energy, and property taxes.

RECOMMENDATIONS

1. Plan to implement a road pricing scheme as being considered by Executive Committee and City Council.
2. Dedicate road pricing revenue to transit and active transportation improvements by exploring alternative opportunities to meet current and projected budget shortfalls.
3. Consider alternative road pricing schemes to flat tolls, such as congestion charging and dynamic time of use pricing which better align with City of Toronto strategic goals.

-
1. City of Toronto (2016). TTC – a transit system that makes Toronto proud. Accessed at: <http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=a7a0dcddf337e410VgnVCM10000071d60f89RCRD>
 2. Dyck, D. (2015). Ontario gives municipalities \$333M from gas tax for public transit. November 12, 2015. Canadian Press. Accessed at: <http://www.cbc.ca/news/canada/toronto/ontario-gas-tax-public-transit-1.3316403>
 3. City of Toronto (2016). Council Approved 2016 - 2025 Capital Budget & Plan. Accessed at: [http://www1.toronto.ca/City%20Of%20Toronto/Strategic%20Communications/City%20Budget/2016/PDFs/2016%20Operating%20Budget%20\(Capital%20Budget\)%20CN.pdf](http://www1.toronto.ca/City%20Of%20Toronto/Strategic%20Communications/City%20Budget/2016/PDFs/2016%20Operating%20Budget%20(Capital%20Budget)%20CN.pdf)
 4. Gill, V., Lawson, J. (2013). Where the Rubber Meets the Road: How Much Motorists Pay for Road Infrastructure. The Conference Board of Canada. Available at: <http://www.conferenceboard.ca/e-library/abstract.aspx?did=5697>
 5. In 2009 the OECD has estimated the cost of congestion in the GTHA at \$3.3 billion. OECD (2009). OECD Territorial Reviews: Toronto, Canada.
 6. A recent Danish study found that externalized costs associated with driving in Copenhagen add up to €0.15/km (\$0.21/km). Choi, A, Gossling, S (2015). Transport transitions in Copenhagen: Comparing the cost of cars and bicycles. *Ecological Economics*, 113, 106-113.
 7. Burda, C., Srivastava, L (2015). Fare Driving: Exploring the benefits of traffic pricing in Toronto and the GTA. Pembina Institute. Available at: <http://www.pembina.org/pub/fare-driving>
 8. Bailie, A., Burda, C., Haines, G. (2010). Driving Down Carbon: Reducing GHG Emissions from the Personal Transportation Sector in Ontario. Pembina Institute. Available at: <http://www.pembina.org/pub/1993>
 9. 407 International, "407 International Reports 2014 Results," news release, February 12, 2015. <http://www.407etr.com/about/news-release/news-release2015-02-12.html>
 10. <http://www.sciencedirect.com/science/article/pii/S0967070X11001284>
 11. Burda, C., Srivastava, L (2015)
 12. Noor Javed, "Time to pay, one way or another: How congestion pricing could make a difference in your commute," *Toronto Star*, January 30, 2015. <http://www.thestar.com/news/gta/transportation/2015/01/30/time-to-pay-one-way-or-another-how-congestion-pricing-could-make-a-difference-in-your-commute.html>.
 13. Burda, C., Singer, G. (2014). Fast Cities: A comparison of rapid transit in major Canadian cities. Pembina Institute. Available at: <http://www.pembina.org/pub/fast-cities>
 14. City of Toronto (2016). Pilot Cycle Tracks Evaluation Reports. Available at: <http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=a2422ef2e21ad410VgnVCM10000071d60f89RCRD&vgnextchannel=ae48a00f92dd5410VgnVCM10000071d60f89RCRD>