

## SUSTAINABLE PROSPERITY POLICY BRIEF

### Policy Bundles for Reducing Transportation Emissions in Large Cities

#### BACKGROUND

Reducing greenhouse gas emissions from transportation, and particularly from private passenger vehicles, is one of the biggest challenges facing Canada's major cities.

Current research shows that transportation accounts for approximately 25 per cent of Canada's GHG emissions. Some modes of transportation also create air pollution and traffic congestion, which in turn contribute to health and ecological impacts and lost economic productivity. All of these impose economic costs on households, businesses and governments.

Municipal governments can use a combination of policy measures and incentives to reduce passenger vehicle use and curb emissions. These include: market-based instruments (MBIs) to make GHG-intensive transportation choices more expensive and lower the relative cost of alternative modes of transportation; additional public transportation services; and incentives to use zero-emission transportation such as bicycles and electric vehicles.

The Policy Brief examines some of the issues facing Canadian cities and highlights how similar challenges have been successfully addressed by New York City, London and Paris, each of which has used regulation, services, and MBIs in different combinations to induce behavioural change and make alternative modes of transportation more accessible.

#### The Canadian Situation

Reducing transportation-based emissions in Canadian cities would improve urban living and set an example for other urbanizing jurisdictions around the world. However, the scope and scale of change required means that federal and provincial governments will need to support city governments by providing resources and facilitating regional and national policy coordination. Canada is the only G8 country without a national, long term public transportation funding strategy.

GHG emissions from transportation in Canadian cities have trended either flat or upward over the past 50 years in spite of technology-related efficiency gains. Emissions from road transportation rose by 40 per cent between 1990 and 2011 with most of the growth attributable to a rise in passenger transportation.

Nearly 80 per cent of all trips in Canada are made by car. The average travel distance to work increased by 9 per cent from 1996 to 2006. Emissions from private vehicles increased at nearly twice the pace of population growth between 1990 and 2007 due to steadily increasing reliance on automotive transportation and increasing travel distances. In Canada's largest cities, transportation generates a major share of GHG emissions.

These trends create a powerful imperative for Canadian governments at all levels to reduce GHG emissions from transportation. They can be lowered through three key strategies: reducing demand for transportation; shifting from higher to lower emitting transportation modes and fuels; and increasing the efficiency of the existing transportation system.

Municipal governments have four primary levers with which to drive change:

- They can demonstrate the benefits and possibilities of change through their direct control of City assets and operations.
- They can use outreach, information and educational campaigns and efforts to influence residents' behaviour and choices.
- They can provide services to their local constituents.
- They can incent or command changes in behaviour through regulation and policies for matters within their jurisdictional or legislative authority.

### **Lessons for Canada from New York, London and Paris**

The three cities adopted different approaches to bundling policy tools to reduce emissions and manage traffic.

**New York** began aggressively engaging in local climate policy in 2007 with the launch of *PlaNYC*, a 30-year integrated economic development and sustainability plan linking together multiple areas of action including transportation. *PlaNYC* is integrated with the NYC Department of Transportation's *Sustainable Streets* 2008 planning document. The two plans outline actions to drive down emissions from transportation with an overall goal of reducing total GHG emissions by 30 per cent by 2030. Actions have included an overhaul of parking fees and policies to reduce congestion caused by traffic circling and double parking, improved public transit, improved and expanded bike lanes, bike storage facilities and a bike share program, and improved and expanded pedestrian zones.

**London** produced a 20-year strategic planning document in 2006 called *T2025: Transport Vision for a Growing World City*. London is a pioneer in the use of pricing mechanisms to drive transformation in the transportation sector and relies heavily on these measures to induce change as well as fund investment in alternative options. Measures have included a central city congestion system under which vehicles pay a price to enter the central zone. Profits are used to fund improvements in the bus network. The city has also improved and expanded bike lanes and pedestrian areas.

**Paris** has focused its sustainable transportation policy on reallocating road space away from private automobiles and towards alternative modes of transportation and increasing the availability, quality, and frequency of public transit services. The city first explicitly engaged in climate change and transportation governance in 2007 with the release of the Paris Transportation Plan and Paris Climate Plan. A substantial amount of road-space has been re-allocated to cyclists, pedestrians and bus traffic.

### **Conclusion**

Canadian cities could use market incentives through both demand and supply interventions. Adjusting prices leads individuals to reconsider the extent and mode of their travel. Fiscal measures reinforce land use, transit investment and other mode shift strategies. The three case studies illustrate how the flexible bundling of market-based instruments with services and regulations can encourage change in the transportation sector.