Photo: Ontario Growth Secretariat, Ministry of Energy and Infrastructure

Driving Down Carbon

FACT SHEET

Commuters hold the keys to reducing climate change emissions in Ontario

Changing how we commute will cut carbon, improve quality of life

Ontario is on the road to cutting climate change pollution. It's time to kick it into high gear.

Transportation is the largest and fastest-growing source of climate-change causing greenhouse gases (GHGs) in Ontario, responsible for almost one-third of emissions.

The majority of this pollution is caused by the choices Ontarians make when they get behind the wheel.

Under its Climate Plan, Ontario has set an ambitious goal to reduce greenhouse gases: 15% below 1990 levels by 2020. Meeting this commitment will make Ontario a leader in North America. Ontario's plans to phase out coal-fired power plants and invest in renewable power will account for the bulk of the province's total required GHG reductions in 2020. But the government's own figures show that these and other climate policies are not enough and will only take Ontario 56% of the way toward its end goal.

In particular, much more can be done to drive down emissions from personal transportation — how we get around, where we work and live and the efficiency of the vehicles we drive.

The good news is that leaders already have the road map to get there. Ontario's Climate Change Action Plan, the Places to Grow Growth Plan for the Greater Golden Horseshoe and Metrolinx's The Big Move have the province moving along the right track to reaching its GHG reduction targets.

But the current direction stops short of the end goal for meeting the targets. Getting to our destination requires key changes to those policies — and better choices for commuters.

Driving Down Carbon *shows that by making specific improvements to transportation policies already in place, Ontario can take the equivalent of about one million cars off the road, reducing traffic, smog and GHG emissions. Ontario's commuters can have faster, safer and cleaner options to get around.*

Ontario's transportation road map

Current government policies will drive down GHG emissions from personal transportation in Ontario — but we can reduce emissions further and enjoy a higher quality of life by improving those policies.

THE CURRENT COURSE

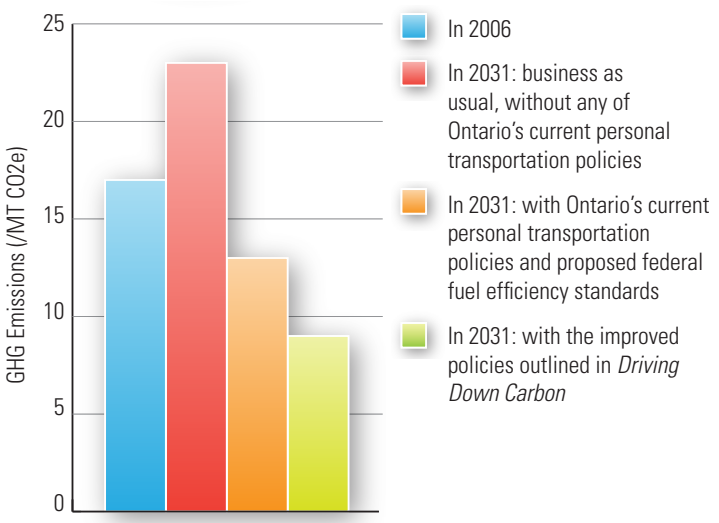
Ontario is on the right course. Under current government initiatives, GHG emissions from personal transportation in the Greater Golden Horseshoe region are expected to decrease modestly, from 16 million tonnes in 2006 to 12.4 million tonnes in 2031.

The reductions are more impressive when compared to business as usual figures, which indicate how emissions would grow without these government policies (Figure 1).

These results underscore the significance of current government policies and the need to ensure these policies are properly enforced, fully implemented and not weakened.

However, given the large proportion of total GHG pollution that comes from Ontario's vehicles, these policies need to be strengthened and new policies introduced if we are to get closer to our climate goals.

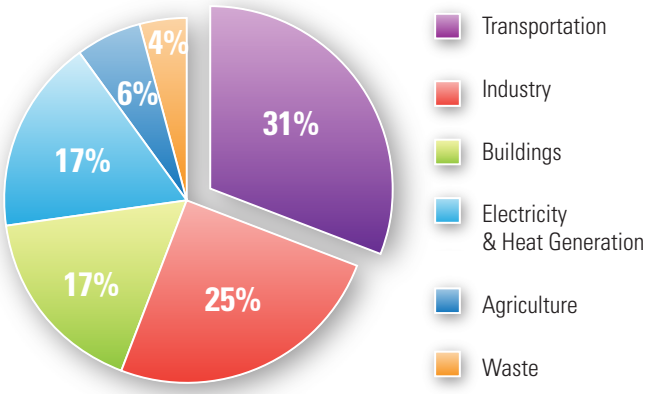
Figure 1: GHG emissions resulting from personal transportation policies in the Greater Golden Horseshoe



Source: The Pembina Institute, *Driving Down Carbon*

Figure 2: Ontario's 2007 GHG emissions by source

Transportation is responsible for the largest share of greenhouse gas emissions in Ontario. Personal vehicles are also the fastest-growing source of GHGs, increasing by 26% from 1990 to 2007. This is almost three times faster than total GHG emissions growth in the province.



Source: Government of Ontario, Climate Change Action Plan: Annual Report 2008-09

The pattern of urban growth has a direct effect on personal transportation.

Photo: Roberta Franchuk, The Pembina Institute

Scope of *Driving Down Carbon*:

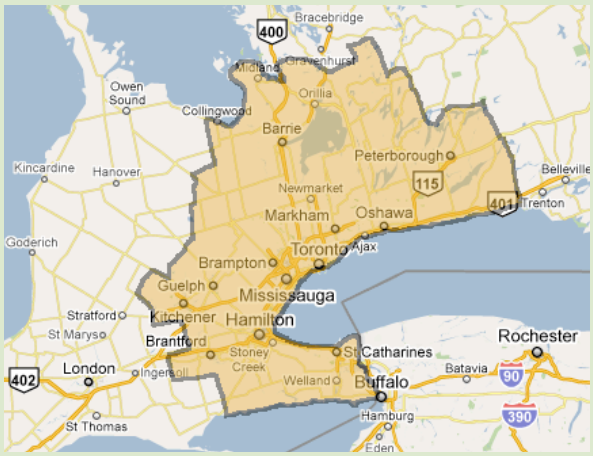
Geographic: Greater Golden Horseshoe, which encompasses 70% of Ontario's population

Time Frame: 2006-2031, the time frame of the Growth Plan and the Metrolinx transit plan The Big Move

Policies: Current provincial policies related to personal transportation and options to improve these policies using best practices

Travel Type: Typical weekday travel such as work, school and shopping — about 70-80% of total personal travel activity in Ontario

The Greater Golden Horseshoe area



Source: Google Maps, ©2009 Google, Tele Atlas

Getting up to speed

New and improved policies proposed by *Driving Down Carbon* could reduce Ontario's GHG emissions by a further 3.6 megatonnes, equivalent to taking about one million cars off the roads in the Greater Golden Horseshoe region. Here's how:

Get Tougher on Sprawl. The right improvements to Ontario's land use planning policies can reduce the amount of time Ontarians spend behind the wheel and make transit more accessible to more people. These include:

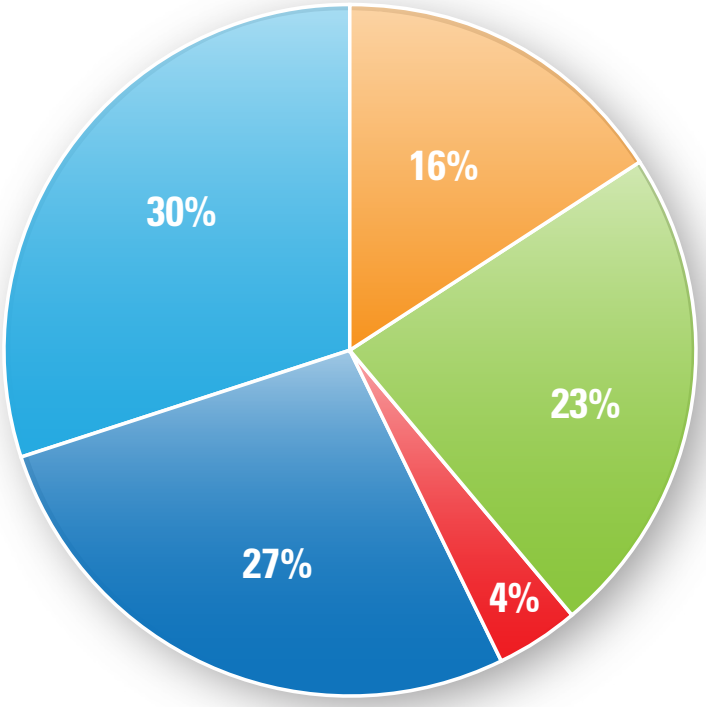
- limiting growth on undeveloped land
- increasing population in already developed areas
- increasing density along transit corridors and nodes
- supporting the development of walkable, shoppable, transit-supportive suburban communities
- redirecting investments toward transit and away from highway projects that service "sprawl" development

Improve Commuter Choices. The province can improve and introduce new policies that provide commuters with cleaner, safer and faster options to get to work and school, such as:

- introducing road-pricing strategies to reduce congestion and help fund transit and smart growth
- providing incentives to increase transit use and safer streets for walking and cycling
- installing high-occupancy vehicle lanes on all 400 series highways
- providing options to leave the car at home with "pay-as-you-drive" insurance and financial incentives to live closer to work

Photo: Ontario Growth Secretariat, Ministry of Energy and Infrastructure

Figure 3: Additional GHG emissions reductions from policy improvements proposed by *Driving Down Carbon*



Source: The Pembina Institute, *Driving Down Carbon*

Get Efficient. The federal government is introducing national vehicle emission standards beginning with modest targets in 2011 and improving until 2016. Further GHG savings can be achieved by:

- continuing to improve these standards past 2016
- expanding Ontario's green licensing program to include highly fuel-efficient vehicles in addition to electric vehicles

Power My Ride. Ontario announced a plan to strive for 5% electric vehicles by 2020. Moving towards this goal involves:

- ensuring building codes and permits support the operation of plug-ins
- ensuring federal vehicle emission standards include electric vehicles in calculations of fleet efficiency
- accelerating and improving Ontario's green licensing incentive program
- ensuring electric vehicles are powered by renewable energy

GO, Electrically. Ontario has already made a commitment to electrify municipal buses. Electrifying the GO Transit train network is the next step.

Commuters need faster, safer, cleaner options to get to work.

Commuters hold the keys to GHG reductions

In 25 years the average driver in the Greater Golden Horseshoe will spend less time behind the wheel than they did in 2006 — but only if the province's effective planning and transit initiatives, the Growth Plan and The Big Move, are fully implemented and receive sustained provincial funding and financial contributions from the federal government.

Even so, Ontario's planning and transit policies need to get tougher still. Population growth is expected to add 1.6 million vehicles to regional roads by 2031, increasing GHG emissions, traffic congestion and smog. *Driving Down Carbon's* proposed improvements to current policies will reverse this trend.

Figure 4: Average amount of driving per person in the GGH

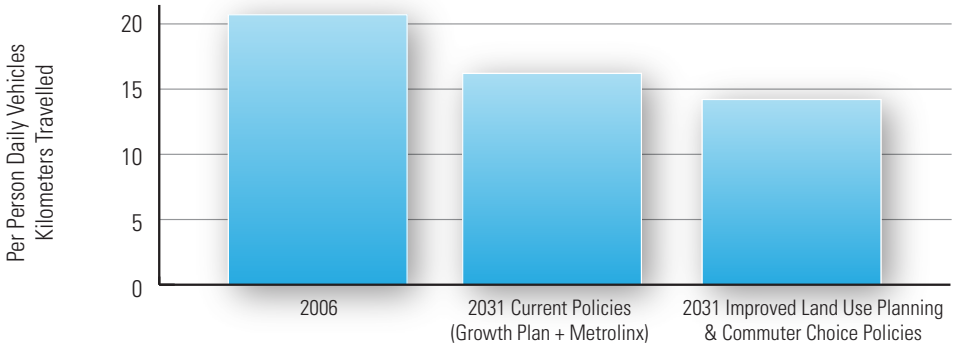


Figure 5: Total amount of personal driving in the GGH

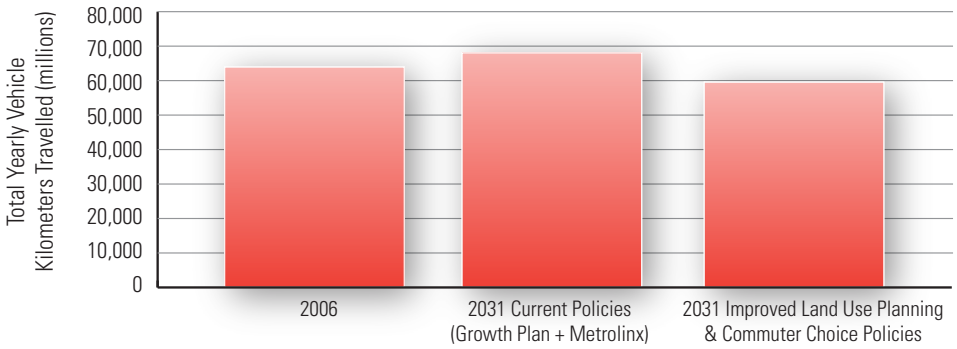


Figure 4 illustrates the effectiveness of The Big Move and the Growth Plan in reducing the amount of driving done by each person in the Greater Golden Horseshoe.

Figure 5, however, shows that even with The Big Move and The Growth Plan fully implemented and funded, overall driving, GHG emissions and congestion will continue to increase because of population growth in the region.

Long term funding is needed for transit. But limits on sprawl and tougher land use policies must ensure that people will have access to this transit.

Kick-starting Ontario's personal transportation future now

To ensure that GHG emissions from transportation begin declining immediately, the province can begin with these policy actions that are quick to deploy and do not require significant capital investment:

1. **Transit Funding:** Develop and implement a strategy to fund the expansion, operation and electrification of transit, considering options such as a fuel tax, road-pricing mechanisms, revenue from carbon pricing, and redirecting investments from highway projects that service sprawl to transit.
2. **Commuter Choice:** Introduce policies that influence commuter choice and result in less time spent behind the wheel. Types of policies include live-where-you-work incentives, pay-as-you-drive insurance, congestion charges and employer incentives for transit use and active transportation.
3. **Urban Planning:** Strengthen targets in the Growth Plan to limit sprawl on undeveloped land, working with municipalities to reward development that reduces auto dependence and encourages walkability.
4. **Vehicle Efficiency:** Implement policies and incentives that encourage the manufacture and uptake of more efficient vehicles, including electric vehicles and EV infrastructure.

Want More Information?

To learn more about how changes to personal transportation policy can help Ontario reach its GHG reduction targets, download the full report *Driving Down Carbon: Reducing GHG Emissions From the Personal Transportation Sector in Ontario* at ontario.pembina.org.

This report was prepared by Cherise Burda, Alison Bailie and Graham Haines of the Pembina Institute.

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