



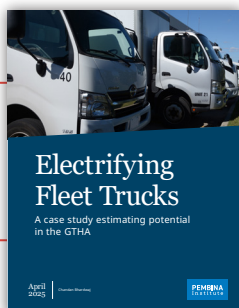
Electrifying fleet trucks

Industry-informed research makes the case for electrifying Ontario's trucks

Electrifying trucks in the Greater Toronto and Hamilton Area (GTHA) isn't a distant vision — it's a practical, cost-effective and achievable step toward a cleaner, healthier and more prosperous Ontario.

While trucks make up only about 10% of vehicles on the road, their emissions almost equal those from passenger vehicles in Ontario.

New research from the Pembina Institute, *Electrifying Fleet Trucks*, shows that a large share of trucks in the GTHA can go electric today, offering immediate benefits for business and communities.



For more details on the opportunities for electrification, see our full [Electrifying Fleet Trucks](#) report.

Electric trucks provide Ontario with a competitive edge:

- Businesses can cut fuel and maintenance expenses by up to 40%, making electrification a smart long-term investment.
- By reducing reliance on fossil fuels, electric trucks keep energy dollars in the province and strengthen energy security.
- Traffic-related air pollution leads to 700 premature deaths and 2,800 hospitalizations annually in the GTHA, costing \$4.6 billion.¹ Cutting emissions is vital for protecting public health and health care costs.

¹ Modelled results from Environmental Defence & Ontario Public Health Association, *Cleaning the air: Stakeholder Report* (2020). <https://clearingtheair.ca/wp-content/uploads/sites/12/2020/06/Cleaning-The-Air-Stakeholder-Report.pdf>

Ontario trucks are ready for electrification




The *Electrifying Fleet Trucks* report finds that most trucks in the GTHA already meet two key criteria for electrification:

Sufficient range: Most battery-electric truck models provide sufficient range to meet daily travel needs, even with up to a 50% reduction in range in very cold weather.

Accessible charging: About 40% of trucks can meet their charging needs at their home base, making electrification both practical and accessible for many operators.

Looking ahead, with advancements in battery technology and charging infrastructure, even more trucks will be able to make the switch.

Immediate opportunities

Type of vehicle	Electrifiable today	Electrifiable by 2034	Electrifiable beyond 2035
 Class 3 and 4 Light urban vans and trucks	~30%	~55%	~90%
 Class 5 and 6 City delivery or single-axle truck	~15%	~40%	~80%
 Class 7 and 8 Long-haul heavy trucks	~10%	~35%	~70%

Note: Estimates are based on real-world travel data from a sample of trucks, extrapolated to the entire truck stock in the GTHA and averaged across vehicle classes.

What's holding Ontario back?

Despite the clear benefits and technical feasibility of electric trucks, key barriers remain. Policy gaps, limited charging infrastructure and financial challenges are slowing the transition.

How Ontario can lead

Support for small businesses

The Government of Ontario should offer funding to small and medium enterprises to help purchase electric trucks and install private charging infrastructure. This will help Ontario-based fleets stay competitive by reducing long-term fuel and maintenance costs and avoid the volatile price of fuel.

Reduced electricity rates for charging operators

The Ontario Energy Board should enable utilities to offer reduced billing rates to public charging station operators, making charging more affordable and widespread. As charging infrastructure can provide services back to the utility system, this could also provide flexibility for utilities.

Standardized charging requirements

The Government of Ontario, in collaboration with the Ontario Electrical Safety Authority and the Canadian Standards Association, should develop and implement uniform standards for all new charging stations, ensuring reliability and interoperability.

Faster public charging deployment

Municipalities should prioritize key zones and streamline approvals for truck-ready public chargers. Investing in charging infrastructure will not only accelerate adoption but also create local jobs — up to 10 per charging station.

Better coordination with utilities

Fleet owners and network operators should engage utilities early to ensure grid upgrades and effective demand-side management, preventing costly delays.

Ontario, it's time to go electric

It's time for bold action. Electrifying Ontario's trucks will create cleaner cities, healthier communities and a stronger local economy.

The technology is ready, and the benefits are undeniable.

June 2025

Chandan Bhardwaj

PEMBINA
Institute

www.pembina.org

x.com/pembina bsky.app/profile/pembina.org

facebook.com/pembina.institute linkedin.com/company/pembina-institute/