

EV Adoption in Canada

*Best practices from municipalities
leading EV adoption*



Ontario Auto Mayors

May 2025

Agenda

- EV Adoption White Paper: Background
- EV Adoption in Canada: Update
- Top Barriers to EV Adoption in Canada
- Municipal role in EV Adoption
- Best Practices and Call To Action from a municipal lens

EV Adoption White Paper: Background

- The Auto Mayors Group, in 2023, approved the 2023 Action Plan and chose the Mayor of Oshawa to lead the EV Adoption and Technology Focus Area.
- Under Mayor Carter's direction, City of Oshawa staff led the creation of a working group to undertake the EV Adoption White Paper Project.
- A truly collaborative effort that brought together 13 different organizations over a period of 6 months for researching the best practices and use cases of global communities leading in EV adoption.



A Truly Collaborative Effort

Working Group Members



General Motors
Canada



Ivy Charging Network



Canadian Vehicle
Manufacturers' Association



Town of Oakville



An OPG Company

PowerON Energy Solutions



City of St. Catherine's



City of Stratford



Region of Durham



Oshawa Power



Festival Hydro



Region of Niagara



City of Oshawa

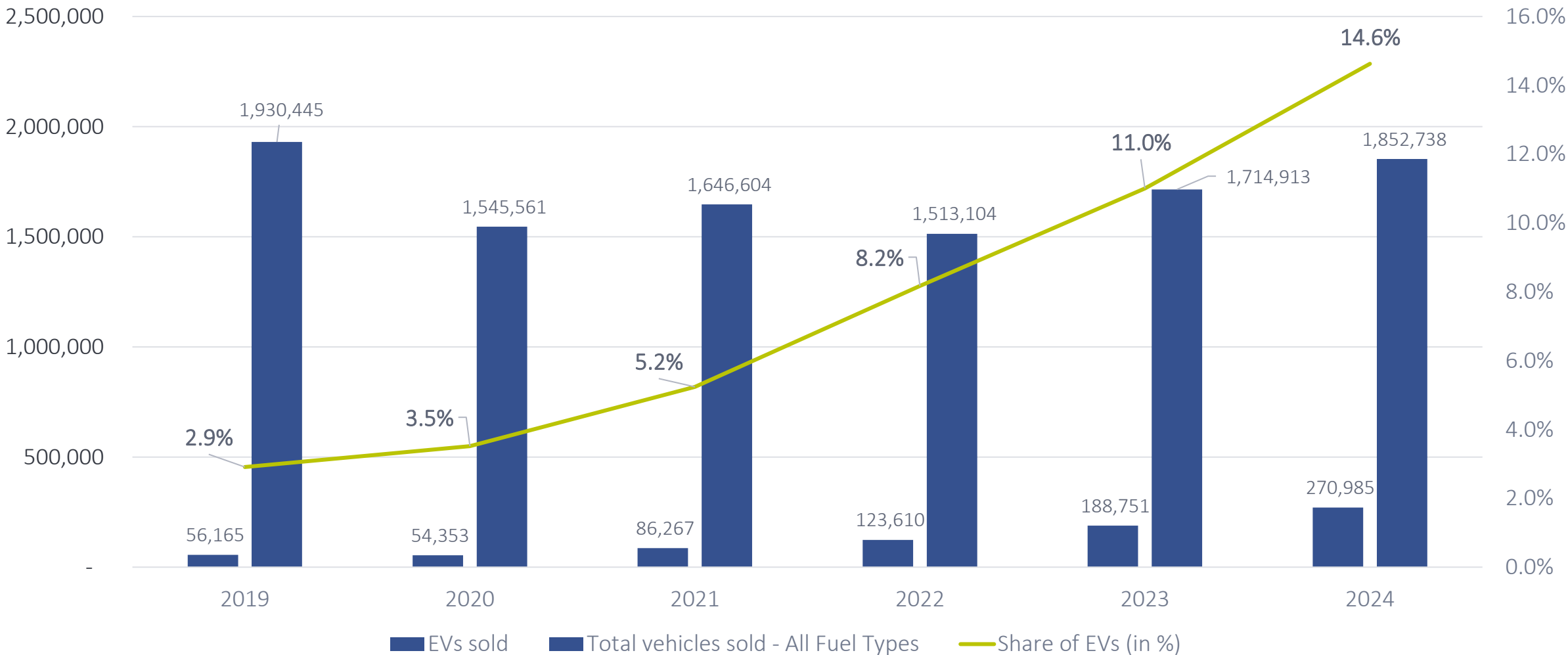


Invest Stratford



Ontario Tech University

EV Adoption in Canada: Updated Chart



Statistics Canada. [Table 20-10-0024-02 New motor vehicle registrations, annual sum](#)

Top Barriers to EV Adoption in Canada

The top barriers to EV adoption continue to be:

- **Cost of the vehicle** together with high interest rates
 - Update: In Canada, the [federal incentives program \(iZEV\) ran out of funding earlier in 2025](#), ending the \$5,000 incentive that motivated EV purchases. Incentives might be critical, especially until price parity between EV and gas-powered vehicles is met.
- **Range and charging anxiety**, caused by lack of charging ports and national standards for charging stations
- **Lack of awareness**, misperceptions, concerns of electricity costs, and lack of familiarity with new consumption currency of Kilowatt hours (kWh)
- **Impact of tariffs on EV prices** may act as a deterrent to EV adoption



EV Charging Infrastructure in Canada

- Continued growth in EV adoption would require that barriers to EV adoption are reduced.
- Since the time of writing the paper, Canada has added 7,390 EV charging ports. Considering NRCan's projections, over 400,000 ports are still needed by 2035*
- In absence of high access to home and overnight charging, the investment needed on additional L2 and DCFC chargers is expected to be double of what is needed to retrofit most of the existing buildings.
- There continues to be a business case for taking concrete actions to improve consumer access to home charging.

* Assuming a scenario of high access to home charging.



Collaboration is the key!

Role of municipalities in EV Adoption

- Municipal governments have a special role to play in EV adoption as they have the ability to develop bylaws, policies, and programs that encourage the necessary steps towards EV adoption in Canada.
- Their most important task is to bring together various stakeholders to work cohesively on common EV adoption goals.
- Improved EV adoption without involvement of the private sector is not possible. The government's role is to ensure its financially feasible for the private sector to participate.

EV Adoption Paper: Key topics of research

The key opportunities presented in the paper fall across the following areas:



1. Municipal collaboration with electric utilities
2. Charging infrastructure in buildings, new and existing
3. EV charging on-street, parking spaces, and commercial spaces
4. Leveraging the use of predictive analytics in demand planning
5. Incentivizing the use of EVs through land-use policies
6. Electrification of municipal fleets
7. Spreading EV awareness





Summary: Best Practices/Call to Action

Through the lens of Municipal Governments



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- ❑ Work with Local Distribution Companies (LDCs) and other stakeholders to gather future EV charging needs of the community, ideally at a granular level. While planning, it is important that equity consideration is given to lower-income areas that may not currently have a high EV adoption, which might pick up as the EV costs are lowered in time.



- ❑ Advocate for mandating EV-readiness in new buildings in the Ontario Building Code or allow lower-tiers' authority on the matter. Even if not mandated, municipalities should promote, to the real estate developers, the “political desire” for enable EV charging in all or most parking spaces in new buildings.
- ❑ Advocate for Ontario-wide rebate program, similar to BC's EV Ready Rebate Program, which covers end-to-end EV charger installations in Multi-Unit Residential Buildings (MURBS). This standardizes the process and makes it more convenient for residents to give their buy-in for the projects.
- ❑ As EV adoption continues to grow, electrical upgrades are necessary. Municipal governments should work with other stakeholders in helping the community understand on who bears the costs related to both home panel updates and transformer upgrades.

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- ❑ Municipalities in Ontario should access the EV ChargeON Program, where eligible, to implement public charging stations. The EV ChargeON Program supports public EV charging projects, that provide charging stations accessible to public 24/7 and in communities with population under 170,000.

❑ Municipalities should work with LDCs not just to plan and deploy EV infrastructure but also advocate for regulatory modernization to ensure that the provincial electricity pricing structure encourages use EV chargers. OEB has highlighted the concern of demand charges in Ontario on EV adoption.

- ❑ Most municipalities have control over investing in electrification of their fleets. Doing so signals the community of a positive political desire for EV adoption and helps in creating an environment conducive to EV adoption. Municipalities can access programs, such as the Zero Emission Transit Fund and The Canada Community Building Fund, that support public infrastructure projects.

❑ Municipalities should explore creating low-to-zero-emission zones that incentivize the use of EVs. Those looking to explore LEZs or ZEZs should first focus on improving its public transit, service levels, and multi-modal integration. A successful example is that of City of London's Ultra-Low Emission Zone (ULEZ), which now covers 44% of London's population. ULEZ's success can be attributed to London's excellent public transit.

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- ❑ Lack of consumer awareness about EVs is still a roadblock in EC adoption. Municipalities should explore collaborating with LDCs, post secondaries, and EV technology companies to design and implement EV-awareness campaigns in the local communities. They should advocate for continuation for funding programs, such as the Education and Awareness Project Funding from NRCan.

- ❑ For a more organic growth in awareness, municipalities can advocate for incorporating EVs in driver's license training courses and incentivizing automotive-training schools to incorporate training on EV technology.

- ❑ Municipalities should develop their EV strategies and plans to ensure appropriate allocation of funds. A phase-in approach can be considered, i.e. deploying EV chargers in a manner that allows to implement a comprehensive maintenance plan that mitigates the risk of dysfunctional chargers.

- ❑ Municipalities should work with LDCs and undertake EV charging infrastructure projects in their communities. Doing so signals the community of a positive political desire for EV adoption.