

Electric Vehicle Strategy Action Summary Webinar

Welcome, we will begin at 2 pm

Gaby Kalapos | September 25th



Clean Air Partnership



Actions build upon Amazing Work from NRCan, Pollution Probe, BC & Quebec Municipalities, Dunsky's work with Toronto on their EV Strategy development (Toronto's EV Strategy expected to go to Council in Q 4 of 2019), etc...

Municipal Zero Emission LDV Matrix of Actions

Fueling & Charging Infrastructure	Education & Awareness	Incentives	Complementary Mechanisms
Public charging network partnerships (including inter-municipal) M C U A D I R P C	Public education programs and campaigns M C U A C S	Vehicle and/or charger voucher or rebate M C U D I	Advocate for changes to provincial/federal regulations: MURBs M C U P C S
Public charging stations and charging hubs including on-street parking M U I	Curriculum at local schools, colleges, and universities M C C S	E bike/scooter voucher or rebate M C A	Advocate for changes to provincial/federal regulations: other regulatory barriers M C
Charging at municipally owned facilities M U I	Information at charging points M C I C S	Vehicle scrappage incentives M C D C S	Amend or introduce local bylaws to address barriers (e.g., anti-ICEing bylaw) M C
Seek external infrastructure funding opportunities M C U	Promotion at workplaces, Workplace Charging Challenge M P C S	Multi-unit residential building retrofit and load management incentives M C P	Explore adding ZEV infrastructure to Community Amenity Contributions M B
ZEV-ready new single-family homes M C U I D	Address knowledge gaps surrounding home charging M U A D I C S	Preferential or free parking M P	Research partnerships, innovation, and field testing M D A C S
ZEV-ready new commercial and institutional buildings M C U I R D P	Provide information on city website (including charging/fueling infrastructure locations; total cost of ownership calculator) M	Toll discount M C	Collect data on usage of charging facilities, ZEV purchases, infrastructure availability M U D I
ZEV-ready new multi-unit residential buildings M C U I R D P	Create resource connecting EV owners and their experiences to potential adopters M C C S	Explore instituting congestion charges for non-ZEVs in priority areas M C S	Seek regulatory clarity on charging for charging M C U I P
Address challenges and barriers to charging for multi-unit residential buildings and garage orphans M C R P C S	Troubleshooting assistance for homeowners and building managers (especially regarding charging infrastructure) M U I	Carpool lane access (HOV/HOT lanes) M G	Analyze data to enhance the availability of charging where most needed M U C S

Category 1: Charging Availability (1 of 3)



Levers	Actions	Barriers Addressed	Impact
Home (Single Family) Charging	Financial Incentives (rebates, tax incentives) to support EVSE installation		HIGH
	Maintain building code requirement of EV ready / capable new construction*		HIGH
	Develop policies to support EVSE in existing buildings*		MED
	Incorporate EVSE into development permits evaluation criteria*		MED
	Provide financing option for EVSE installation (e.g. integrate into HELP)		MED
Home (MURB) Charging	Financial Incentives (rebates, tax incentives) to support EVSE installation		HIGH
	Amend building codes requiring a proportion of parking be EV ready / capable*		HIGH
	Establish building retrofit threshold that triggers EVSE requirement*		MED
	Pilot program for car-sharing in existing MURB		LOW
	Maintain existing condominium act standard for "right-to-charge"*		MED
	Provide financing option for EVSE installation (e.g. integrate into Hi-RIS)		MED

References

Pollution Probe: [Framework for Municipal ZEV Deployment Report](#)

Dunsky: Toronto EV Strategy

EV Resources Hub

CAP EV Guides

A one-stop shop of resources that can support the development of Municipal EV strategies and provide links to existing Municipal EV strategies across Canada and the USA

Clean Air Partnership



Clean Air Partnership
EV Strategies Guide

Introduction

Resources for creating EV Strategy

Plugging In: EV Charging Data for Municipalities

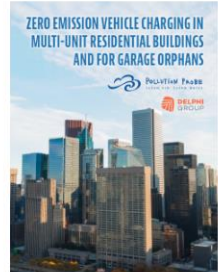
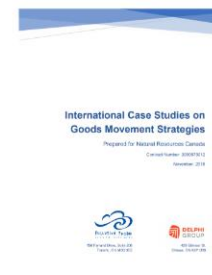
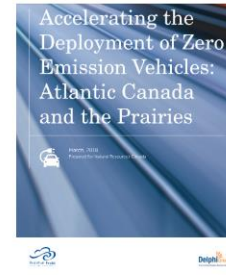
Municipal EV Strategy Workshop

Municipal EV strategies/actions across Canada and the US

- Toronto, ON
- Vancouver, BC
- Richmond, BC
- Calgary, AB
- Edmonton, AB
- Montreal, QB
- Los Angeles, CA

Resources for creating EV Strategy

This section provides a variety of resources to support the development of Municipal EV Strategies. This includes: municipal vehicle purchases, operations and behaviors; EV charging policies; business cases; municipal matrix of actions, and more. Please click on the pictures below to access the documents.



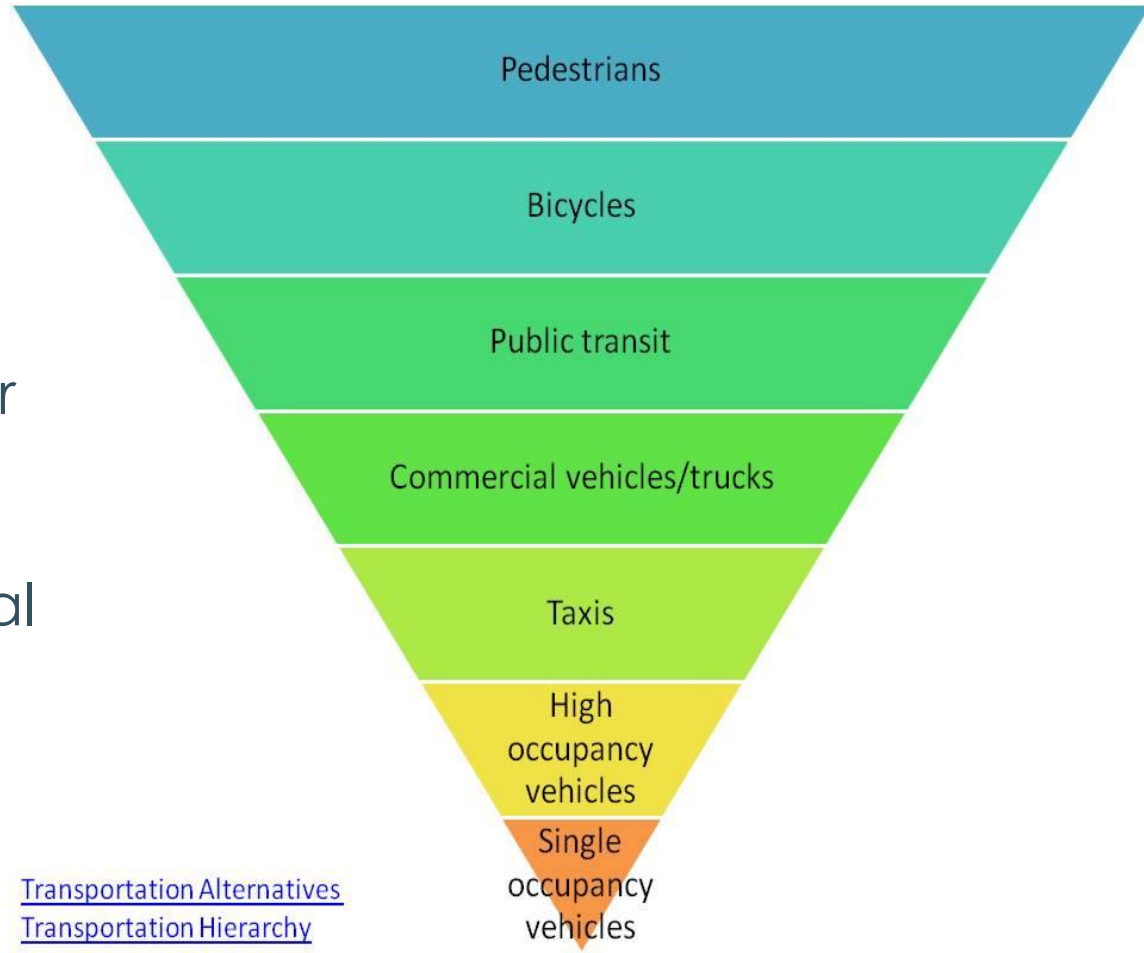
Past Actions

- May 2016 - [Electric Vehicles CAC Discussion](#)
- Nov 2018 - [Low Emission Transportation Workshop](#)
- June 2019 - [Municipal EV Strategy Workshop](#)

Transportation & GHG Emissions

- Growing % of Emission Profile
- Increasing EV options
- Municipalities very interested in understanding what they can do to ensure the EV readiness and uptake within their communities
- Within the corporation (fleets, employee charging policies)
- Levers to influence EV uptake within the community

- What actions could be considered for a Municipal Electric Vehicle Strategy?
- What makes sense for different community archetypes?
- Urban/Suburban/Rural combinations



SECTION 1. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

1. Residential: Explore providing financial incentives (rebates, tax incentives) to support the installation of electric vehicle charging infrastructure in homes, apartments and condominiums (e.g. [Federal EV Incentive](#), [Provincial EV incentive](#), [Dorval\(QB\)home charging station rebate](#))
2. Residential: Advocate for building codes to require a portion of parking spaces be electric vehicle ready/capable in new construction of single family homes (e.g. [Zoning Bylaw's Parking & Loading - New Buildings EV charging requirements](#))
3. Residential: Ensuring EV readiness for new residential buildings via municipal green development standards/parking requirements. (single family/MURB)
4. Residential: Develop policies to support EV charging infrastructure in existing residential buildings (e.g. require buildings to install electric vehicle infrastructure when existing homes and apartments/condominiums undergo major renovations)(e.g. [British Columbia retrofit incentives](#))

SECTION 1. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

5. Residential/Financial: Provide financing options for electric vehicle charging infrastructure installation. Ex. LIC/PACE program EV charging eligibility
6. Commercial: Ensuring EV readiness for new commercial buildings
7. Commercial: Develop policies to support electric vehicle charging infrastructure in existing commercial buildings
8. Public: Explore providing and/or increasing awareness of financial incentives (financing, rebates, tax incentives) to support the installation of public, workplace and fleet electric vehicle charging infrastructure (e.g. [Los Angeles Department of Water & Power \(LADWP\) Charge Up LA! Program](#))

SECTION 1. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

9. Public: Install City-owned electric vehicle charging infrastructure for public use ([Kingston EV Strategy](#))
10. Public: Make municipal workforce and/or fleet electric vehicle charging infrastructure available to the public
11. Innovation: Explore and/or support vehicle-to-grid-integration technologies (e.g. technologies that allow communication with the grid to sell demand response services by returning electricity to the grid)
12. Policy: Support utilities in establishing a process for developers/property owners to alert the utility re: installation of charging infrastructure to support electricity system planning
13. Lead by Example: Develop a workplace charging program for your municipality staff and harmonize policies and standards

SECTION 2. Fleet

1. Policy: Establish targets/develop plans for fleet conversion (ex. prioritize EV buses in areas with air quality issues)
2. Enabling: Work with utilities to evaluate/understand electric grid capacity and upgrades needed; ensure access, readiness, and resilience for corporate charging requirements.
3. Business Case: Partner with local stakeholders to create a group purchase program that would allow buyers to build supply and possibly purchase vehicles at a discounted cost (Municipal ZEV purchase; ZEV –first procurement policy)

SECTION 2. Fleet

4. Vehicle: Integrate active transportation, e-vehicles into public transit and shared mobility (bikes, e-bikes, e-scooters, EV-car shared vehicles). Ex. Transit and Active Transportation Integration
5. Financial: Develop a funding mechanism to address the upfront costs for EV chargers and city vehicles that are paid back from operational savings (access fees or rate structures)
6. Lead by Example: Develop a workplace charging program for your municipality staff and harmonize policies and standards

SECTION 3. RAISE AWARENESS AND EDUCATE THE PUBLIC ABOUT ELECTRIC VEHICLES

1. Lead by Example: Convert the municipal's corporate vehicle fleet to electric vehicles
2. Lead by Example: Explore systems and processes to avoid waste/support end-of-life vehicle use/circular economy (e.g. exploring new uses for batteries after the useful life of the vehicle)
3. Lead by Example: Apply an equity lens to your community's EV Strategy
3. Outreach: Create/support an Electric Vehicle Community Champions network
4. Outreach: Develop policy or work with others to support e-bikes and e-scooters
5. Education: Provide information and resources to support and encourage the electrification of for-hire vehicles (taxis, ridesharing, car-sharing) (e.g. [NYC clean fleet](#) - Engagement with taxi, ride/car sharing companies and providing fast chargers for taxis)

SECTION 3. RAISE AWARENESS AND EDUCATE THE PUBLIC ABOUT ELECTRIC VEHICLES

6. Education: Provide information and resources to businesses, fleet owners to encourage and support electrification of medium and heavy-duty vehicles/fleets
7. Education: Advance GHG and health co-benefits of EV uptake and acceleration.
8. Education: Develop toolkits with information and resources on electric vehicles (for building owners, condominiums, employers, architects /developers, dealerships)
8. Education: Partner with non-governmental organizations and others to implement education and outreach to engage the public
9. Education: Promote existing rebates for new and used electric vehicle purchases (e.g. Federal new vehicle rebate, Plug'n Drive used vehicle rebate)
10. Education: Develop/promote a website that acts as a centralized information hub on electric mobility (provide links to existing resources, e.g. Plug'n Drive website)

SECTION 3. RAISE AWARENESS AND EDUCATE THE PUBLIC ABOUT ELECTRIC VEHICLES

11. Training: Fund/provide strategic guidance/in-kind support for university-based EV research
12. Training: Work with specific sectors ex. school boards to bring electric vehicle awareness to school boards, teachers, and students ex. discuss job opportunities with students
13. Training: Create/support job training for electric vehicle industry-related skills; work with colleges, universities and provincial ministries for training/skill readiness
14. Training: Work with electric vehicle-related businesses and other appropriate stakeholders on how the EV sector could increase opportunities for the precariously employed. Skills/employment development

SECTION 4. REGIONAL SCALE OPPORTUNITIES RELATED TO ELECTRIC VEHICLE STRATEGIES

1. Partnership: Convene working groups with key industry stakeholders to support electric vehicles (e.g. charging infrastructure deployment, MURB, training, job growth, equity, grid integration, etc.). Sector based outreach.
2. Partnership: Collaborate with regional partners (e.g., combined stakeholder engagement, co-promote supports/actions, support bulk purchases to leverage economies of scale)
3. Partnership: Support efforts to host/promote EV industry conferences in your municipality and/or EV outreach events.

Next Steps: EV Strategy

- September 26th: Sending survey to municipalities requesting prioritization of actions they believe are most relevant to their municipality/community.
- October 26th: Deadline for survey completion. Results of survey will guide November 8th workshop topics and discussion
- Nov 8th: Workshop will advance workplan on the high priority actions that came out of the survey. Share insights on EV Strategy archetypes (urban/suburban/rural) ([register in person](#))
- Dec 9th: Webinar that will report back from November 8th EV Workshop and Workplan Development and gather additional input([register](#))

Next Steps: Series of Webinars

- Sept 30th: Electric Vehicle Charging Infrastructure Webinar by Suzanne Goldberg from Chargepoint, from 2-3pm ([register](#))
- Oct 8th: Electric Vehicle Charging Infrastructure in New Buildings Webinar by Brendan McEwen from AES Engineering, from 2-3pm ([register](#))
- Oct 17th: Smart Mobility for Public Transportation Webinar, case study of Belleville, ON, by Remi Desa (Pantonium Inc.) & Paul Buck (Belleville) from 1-2pm ([register](#))
- Nov 27th: Active Transportation Webinar - Increasing Cycling in Canada: A Guide to What Works by Dr. Beth Savan, (UfT) & Yvonne Verlinden (TCAT) from 2 - 3 pm ([register](#))

Thank you!

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[CAP EV Guides](#) (if you have suggestions for resources that you find useful that isn't there please do let us know)

