

Accelerating Electric Mobility

Scaling Up and Scaling Out through Municipal Peer Networks

Municipal EV Leadership Exchange Proposal
Submitted by CUSP in collaboration with the Clean Air Partnership and BC Hydro
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Current Investments and Prospects for Low Carbon Transformation of Transportation

- **Codifying charging infrastructure requirements**
 - Deferred to next update of NBC in 2025, thus earliest date adopted by provinces is 2026, and first buildings to comply will be constructed in 2027.
- **Consumer demand and sales of EVs**
 - \$300M in federal rebates on EV purchases
 - EV sales targets jumping from 10% by 2025 to 30% by 2030 (2018 = 2.2%)
 - EV price parity anticipated to be reached in 2024.
- **Investments in charging infrastructure**
 - \$300M in federal grants and contributions for charging infrastructure and refuelling stations
 - Without code requirements in place and right to charge legislation, private investment is only able to be leveraged through significant federal contributions of up to 50% of project costs.

Issues:

1. Based on timing of sales targets and price parity of EVs, 2020-2025 are critical years for infrastructure buildout and necessitate policy and planning by cities now.
2. Absent intentionality in program and network design, lower income households may not have access to EVs, and low income neighbourhoods may become charging deserts further reinforcing inclusion and access issues even as a secondary market for affordable EVs emerges.



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Vision of an Accelerated Model for Mobile Electrification

By 2022

- 75% of building permits for new construction require 100% of all parking spaces to be charge-ready.
- 75% of population live in cities with comprehensive public EV charging network in development.
- Right to charge legislation exists in all 10 provinces.

Propose we set this (or similar) end game for community charging and then back cast to identify what local capacity building is needed beginning today, in addition to existing federal incentives.



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Vision of an Accelerated Model for Mobile Electrification

How will this vision be achieved?

Through partnership with existing networks of municipal climate and sustainability practitioners from leading cities

- **CUSP network**
 - Core members are the sustainability directors (or equivalent) from 17 cities across Canada, 50% of the population (18M) and 55% of GDP (\$1T)
 - All Canadian cities in global networks like [USDN](#), [CNCA](#), [C40](#), [100RC](#) are CUSP members.
- **Clean Air Council**
 - 27 municipalities in the GTHA and southwestern Ontario (London, Waterloo Region, Windsor) accounting for 60% of Ontario population (7M) and majority of Ontario's GDP of \$860M.
- **BC Hydro's Local Govt EV peer network**
 - 25 cities in the EV peer network, making up roughly 85% of total population of 5M in BC. 15 of these cities are further supported by BC Hydro through funded staff positions in their Community Energy Manager program.



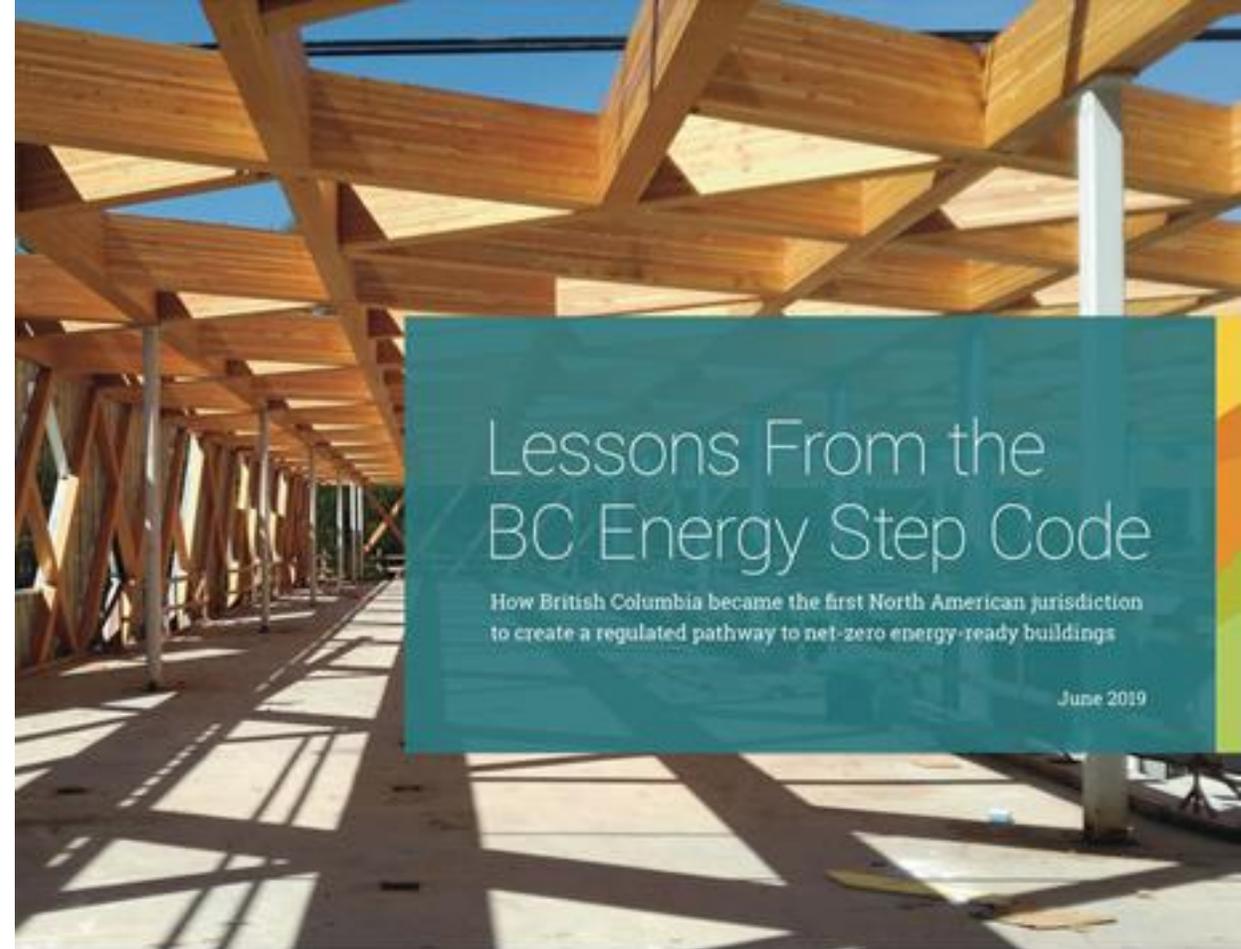
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Why will this work?

This EV proposal is modeled on the approach taken and lessons learned from the BC Energy Step Code which funded dedicated positions within local government and then connected them with peers and other sector players.



DOWNLOAD REPORT:

[Lessons From the BC Energy Step Code](#)

READ BLOG: [“Three Lessons from British Columbia’s Trailblazing Energy Step Code,” MEDIUM](#)

WATCH RECORDED WEBINAR:

[Lessons from the BC Energy Step Code](#)



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Lessons from the Step Code



Pitch a Big Tent, and Embrace Shared Leadership
Advance innovation and market transformation by supporting and working with large cities and smaller leading communities that are ready to move.

Fear not Local Governments
Given clear guidance, bandwidth, resources, and peer support channels, local governments can be powerful and collaborative thought leaders and will prudently and responsibly help drive market transformation.



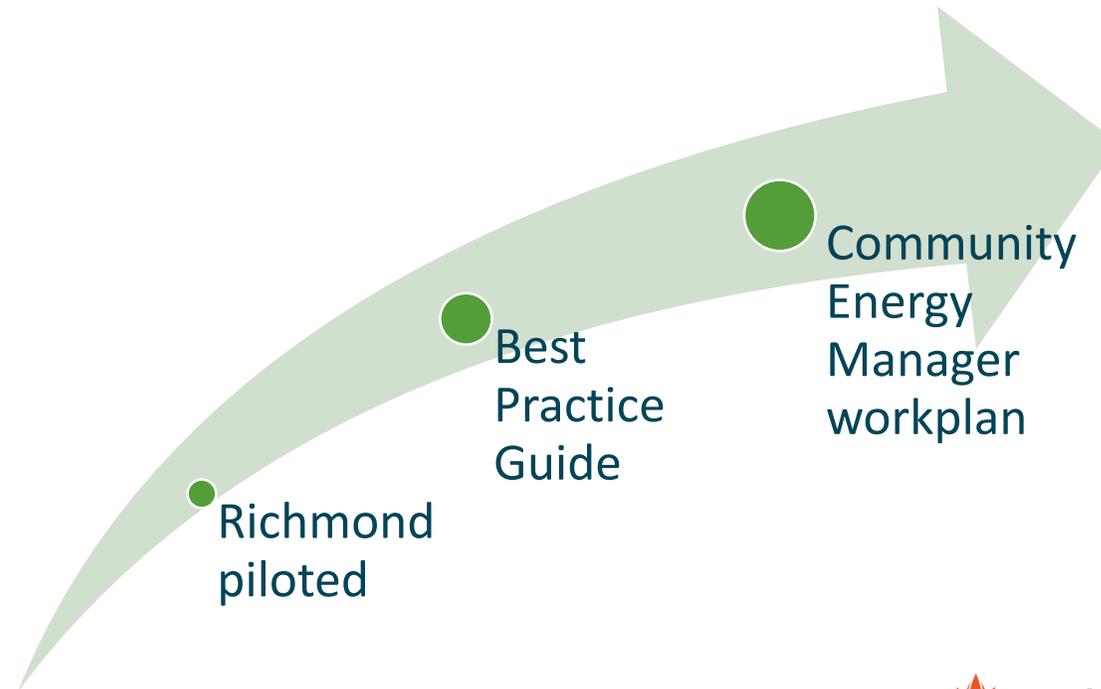
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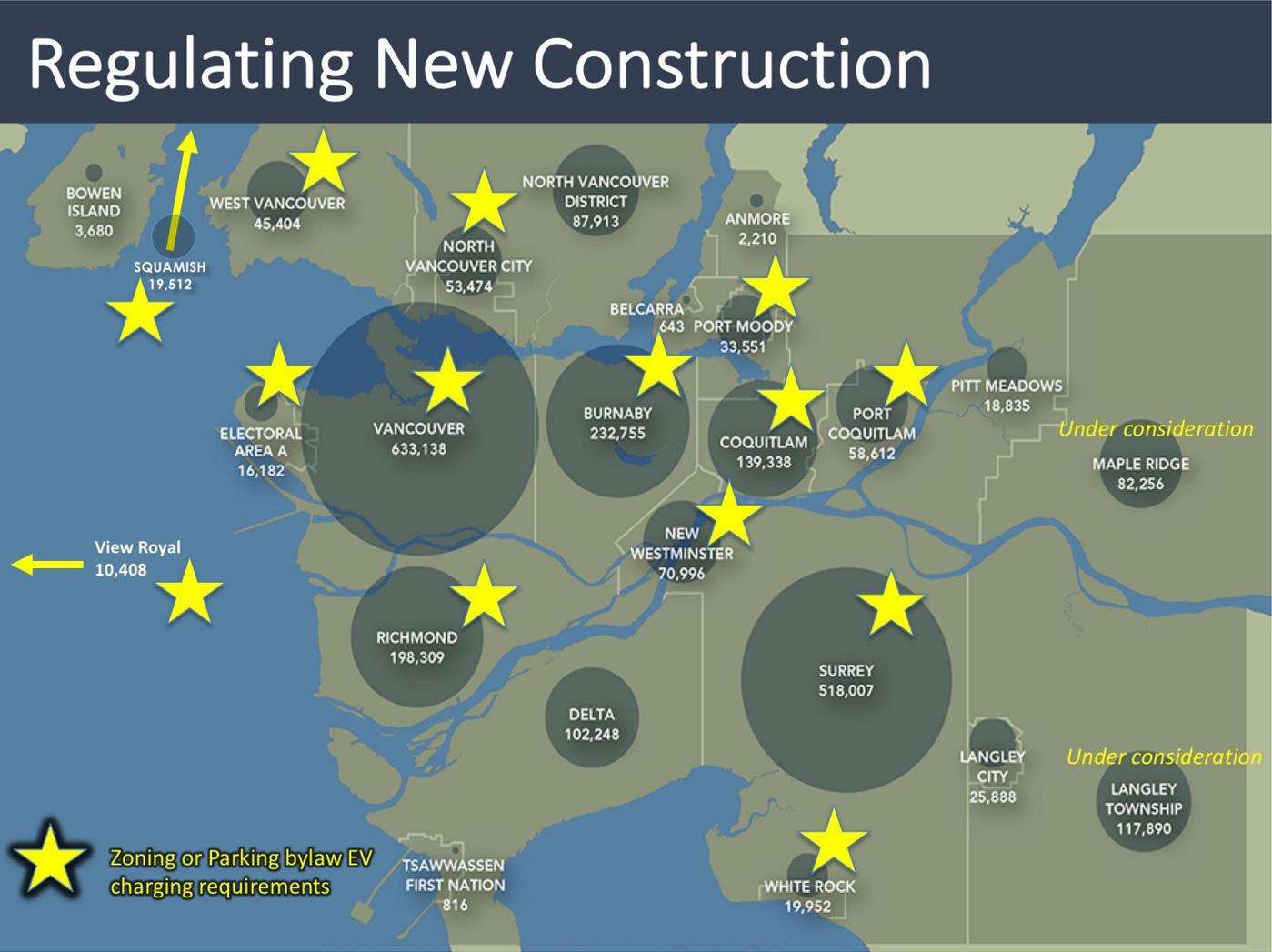
BC Hydro Local Government EV Peer Network Strategy

BC Hydro Strategy: The utility partner funds large and leading municipalities, providing them with funding for positions and funding for the studies cities deem necessary to support their policy development.



Within 6 months of Richmond's guide 8 BC local govts adopted similar EV charging requirements accounting for >45% of all building permits in the province.

Proof of Concept through Proliferation of EV Charging Infrastructure Requirement Bylaws in BC



Trusted networks will innovate and accelerate

As evidenced by the charging infrastructure bylaw guidance produced by the City of Richmond and funded by BC Hydro.

Through BC Hydro’s CEM network, most of BC large cities are well underway to having this best practice bylaw in place.

(graphic as of May 2019)

What is Required to Achieve these Targets?

- Creation of a **Municipal EV Leadership Exchange** (a Community of Practice for staff from Canada's large and leading cities)
- Funded, dedicated positions in LG over 2 years (30 perhaps across Canada) to accelerate adoption of best practice EV charging infrastructure policy and comprehensive EV strategies
- 1 FTE funded in each of the CUSP, BC Hydro, and CAP networks to support members in Leadership Exchange and dissemination to other network members and FCM regional facilitators.
- Consultant(s) to provide training, one-on-one coaching, and develop model policies, briefing notes, and other tools/resources for the Leadership Exchange
- Legal reviews of enabling authority in all 10 provinces
- Annual two-day EV conference of Leadership Exchange participants and host networks, senior levels of government, FCM's regional facilitators, and all interested municipalities.



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Preliminary Estimate of Annual Budget

Staffing

Salaries of 30 funded local government positions \$3M *

Support

Salaries of 1 dedicated FTE in each of CUSP, BC Hydro, and CAP \$300K

Consultant(s) to develop tools/resources and deliver cohort training and one-to-one coaching. \$300K

Studies

Legal reviews (enabling authority for each of 10 provinces) \$200K

Additional studies to be commissioned by participating LGs based on the needs they determine. \$1M **

Sharing

Annual two day in-person exchange and conference. \$200K ***

Per year

\$5M

For two-year Leadership Exchange

\$10M

* Funding of up to \$100K per year per participating municipality

** Budget for studies could be as low as \$500K or as much as \$1.5M annually

*** Cost estimate includes \$2,500/participating municipalities, host networks and consultants, and \$100K for event planning and other meeting costs. Depending on size of conference, additional funding or registration fees may be required.



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Benefits of the Municipal EV Leadership Exchange

Alignment to and municipal awareness and partnership building for:

- Pan-Canadian Framework on Clean Growth and Climate Change
- Global EV Pilot City Program (PCP)
- Advancing Equity and Affordability Objectives in Canadian Cities



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Pan-Canadian Framework on Clean Growth and Climate Change (PCFCGCC)

Federal, provincial and territorial governments will be supporting the actions outlined in the [Pan-Canadian Framework](#) through policies and investments

The PCFCGCC's approach to transportation includes:

1. setting and updating vehicle emissions standards and improving the efficiency of vehicles and transportation systems;
2. expanding the number of zero-emission vehicles on Canadian roads;
3. supporting the shift from higher to lower-emitting types of transportation, including through investing in infrastructure; and
4. using cleaner fuels.

Municipalities play a role in the decarbonization of transportation through charging requirements (at home, at work and on the go); car share (regulation of business and on-street parking); electrification of transit and fleet; engagement, promotion and perks (HOV/bus/EV lanes, parking priority, low emissions zones, etc).



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Electric Vehicle Initiative's Pilot City Program

The proposed Municipal Leadership Exchange:

a) Is aligned with the goals of the Electric Vehicles Initiative (EVI) and the Canadian city members to the Global EV Pilot City Programme (PCP).

- The Canadian signatories to the PCP are all CUSP member cities (Toronto and Mississauga within York Region) with the exception of the community in PEI.
- The Clean Air Council includes the member municipalities within the York Region, a PCP signatory.
- BC Hydro's CEM and EV peer network include all the BC signatories to PCP.

b) Could be used to build awareness among Canadian municipalities for the PCP.

- A condition of participation in the Municipal Leadership Exchange could be joining the PCP and signing on to EVI's EV30@30 Campaign with an aspirational goal of reaching a 30% market share for electric vehicles in the total of all passenger cars, light commercial vehicles, buses and trucks by 2030.
- The Municipal Leadership Exchange could be used as a conduit for communicating with Canadian PCP cities thereby alleviating the need for NRCan to build and manage this collaborative infrastructure.



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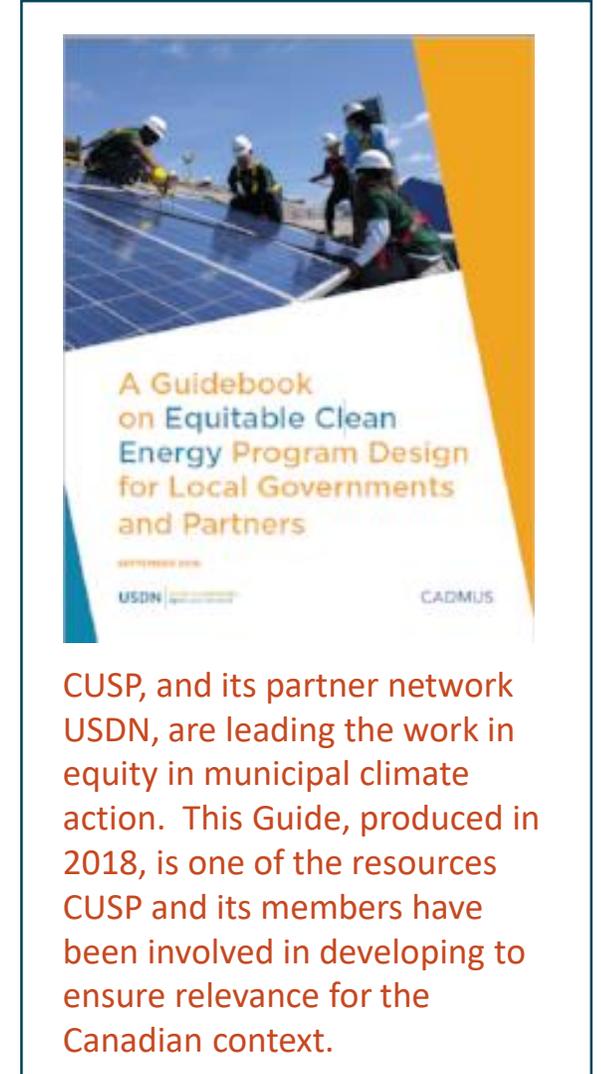
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Advancing Equity and Affordability in Cities

- Cities generate the majority of Canada's greenhouse gases as they are home to three quarters of the population and the majority of economic activity. The impacts of climate change will not be felt evenly across communities, with historically disadvantaged and underserved populations being especially vulnerable due to the risks inherent to where many of these households live, but also due to the daily stressors experienced by these households which make these households less resilient to the additional (or enhanced) shocks and stressors caused by climate change.
- Cities also face some of the most negative impacts of transportation, including noise and air pollution. These burdens are disproportionately experienced by low and moderate income and racialized households. Compounding this disproportionate high burden is a disproportionately low benefit for these households from clean energy programs, transit services and active transportation facilities due to barriers to access and inclusion in these programs and services and lower investments in marginalized neighbourhoods.
- Cities need to be intentional in the design and implementation of EV strategies and other climate change actions to integrate positive equity, public health, and economic outcomes especially for traditionally marginalized households. This will require close collaboration with businesses and communities, when it comes to the placement of, and investment in, infrastructure, and the structure of regulations and pricing policies because voluntary programs alone will not achieve the scale of change required. This will help to drive maximum community benefit and build trust in government, even as decisionmakers need to act with imperfect knowledge about costs, consumer behavior, and the pace of technological innovation, while also considering time and budget constraints.

Through the Municipal EV Leadership Exchange, education and resource sharing of best practices for equitable clean energy program design, including for EVs, can be delivered thereby centering equity and affordability in municipal systems and processes.



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Precedent for the Municipal EV Leadership Exchange

For federal funding of networked municipal staff to advance climate action and energy efficiency.



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Precedent for direct federal funding of municipal staff: NRCan Energy Manager Program

- **\$3.1M** in 2019-2020 for a new Energy Manager Program.
- Increase capacity in organizations to identify and adopt energy efficiency solutions by offering program funding for energy managers, energy assessments, and fleet energy assessments.
- Eligible to small and medium-sized enterprises, municipalities, universities, colleges, schools, hospitals, and non-profit organizations.
- Applies in Saskatchewan, Manitoba, Ontario and New Brunswick.
- Funding will be provided from the proceeds of the federal carbon pollution pricing system.

Due to eligibility for this funding the prospective members of the Municipal Leadership EV Exchange are unlikely to be recipients of this funding or participants in this CoP due to one or both of their size and location.



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Precedent for indirect federal funding of municipal staff and 'Communities of Practice' – FCM's Staff Support Grants from Municipal Climate Innovation Program

2019/2020 Staff Support Grants

- **\$6.8M for 60 funded positions** in municipalities across Canada to date
- **\$250K Community of Practice host contract** (plus expenses) to establish and coordinate a new, temporary cohort network managed by Community Energy Association (CEA)
- **Grants of up to \$125,000 over 2 years, covering up to 80% of staff costs**, of a new or existing municipal employee to work on climate change initiatives.
- **Limited eligibility** – Staff support grants only available to municipalities with populations of 150,000 or less.

Due to FCM's eligibility for this funding the prospective members of the Municipal Leadership EV Exchange would not be recipients of this funding or participants in this CoP.



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Transportation Commitments and Plan Actions of the Pan-Canadian Framework on Clean Growth and Climate Change

Government's Investment



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Current Funding for Low Carbon Fuels and EVs

Budget 2019 includes more than \$600M to decarbonize transportation in pursuit of commitments and plan actions of the Pan-Canadian Framework on Clean Growth and Climate Change

- **\$300M** for EV incentive rebates of \$5K each (Launched May 1, 2019).
- **\$130 million** over five years (2019-2024) for [Zero-Emission Vehicle Infrastructure Program](#) to deploy a network for public level 2 and higher EV charging and refuelling stations in public areas and commercial and residential buildings. Current phase focus on public areas and on-street. Support in future years for electric vehicle and/or hydrogen infrastructure for corporate fleets, last-mile delivery fleet, and mass transit. NRCan's contribution through this Program will be limited to fifty percent (50%) of Total Project Costs up to a maximum of five million dollars (\$5,000,000) per Project. **Closes Sept 18, 2019.**
- **\$96.4M** through the [Electric Vehicle and Alternative Fuel Infrastructure Initiative](#) for 1,000 fast chargers, 22 natural gas stations and 15 hydrogen fuel cell stations. Repayable contributions limited to fifty percent (50%) of Total Project Costs up to a maximum of five million dollars (\$5,000,000) per project (**RFPs are closed**).
- **\$76.1M** for [EVID program](#) to support the demonstration of next-generation charging technologies for both EV charging and hydrogen (H2) refuelling infrastructure. Non-repayable contributions of up to 50% of Total Project Costs, up to a maximum amount of three million dollars (\$3,000,000) per demonstration project. **Closes Oct 18, 2019.**
- **\$10M** for the development of binational (Canada and the United States) codes and standards for low-carbon vehicles and infrastructure.



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