



CITY OF HAMILTON
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division

TO:	Chair and Members Planning Committee
COMMITTEE DATE:	September 3, 2019
SUBJECT/REPORT NO:	EV Chargers in Hamilton Municipal Parking System Lots (PED18250(a)) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Allen Hand (905) 546-2424 Ext. 5441
SUBMITTED BY:	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department
SIGNATURE:	

RECOMMENDATION(S)

- (a) That staff be directed to apply for a Natural Resources Canada Grant which funds up to 50% of the cost of Electric Vehicle Charging Stations, conditional on a minimum of 20 chargers being purchased;
- (b) That, if successful on the application, staff be directed to install 20 Electric Vehicle Chargers in selected Hamilton Municipal Parking System lots or other suitable locations;
- (c) That the estimated cost of \$252,000 for 20 chargers, after the 50% rebate, be funded through a combination of Ward Reserve funds and the Parking Reserve Account No. 108021;
- (d) That the matter respecting Electric Vehicle Chargers in Hamilton Municipal Parking Lot Systems be identified as complete and removed from the Planning Committee Outstanding Business List.

EXECUTIVE SUMMARY

At its meeting on December 11, 2018, Planning Committee directed staff as follows:

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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- (b) That staff request the Ministry of Transportation to provide statistics on how many electric vehicles currently exist in Hamilton;
- (c) That staff report back to the Planning Committee regarding projected future electric vehicle ownership in Hamilton.

This report provides information on current electric vehicle ownership as well as a brief future outlook.

In addition, since the initial Report in December 2018 (PED18250), an opportunity to potentially receive funding for the installation of electric vehicle charging stations has emerged. The Government of Canada, under the Department of Natural Resource Canada (NRCAN) has released a Rebate Program for “Zero-Emission Vehicles” that will provide up to 50% off the total Project Costs for Level Two or Level Three public Electric Vehicle (EV) charging stations. A minimum of 20 charging stations must be purchased.

Given the rise in EV ownership, together with the need to transition to a low-carbon transportation future, it is appropriate to take advantage of the current opportunity to accelerate the installation of electric charging stations in various City of Hamilton Parking lots in order to improve the current state of charging availability.

Alternatives for Consideration – See Page 5

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Staff is recommending Level Two Charging Stations be purchased and installed. The total cost is estimated at \$252,000, after the 50% rebate. This would include the necessary hardware, software and electrical fees required.

The estimated on-going annual maintenance fee for the charging infrastructure of approximately \$500 would be absorbed within the Operating Budget.

Staff would seek funding from individual Councillor Ward reserve funds to off-set the initial Capital investment from the Parking Reserve Fund.

Staffing: N/A

Legal: N/A

Cost Recovery

At this time, staff does not recommend an end-user-fee for use of the EV Charging Stations.

EV Charging Stations would be installed in City of Hamilton parking lots and the set parking fees would continue to off-set a portion of the charging costs.

Staff recommends a pilot for 24 months, at which time, a new report to Council with a further recommendation for any changes that may include the adoption of user fees for cost recovery.

HISTORICAL BACKGROUND

At its meeting of December 11, 2018, the Planning Committee directed:

- (b) That staff request the Ministry of Transportation to provide statistics on how many electric vehicles currently exist in Hamilton;
- (c) That staff report back to the Planning Committee regarding projected future EV ownership in Hamilton;

Based on data that could be obtained from the Ontario Ministry of Transportation (MTO), there were 467 EVs registered within the City of Hamilton as of the end of 2018. In comparison, there were approximately 320,000 vehicles owned by households in Hamilton as of 2016.

City staff also requested information on future projected Electric Vehicle ownership in Hamilton from the MTO and Ministry of Environment, Conservation and Parks (MOECP). The MOECP provided staff with a report authored by the Independent Electricity System Operator (IESO) in 2016. This report includes projections only at the provincial level and not at the City level as requested. Staff could not find a source for City only projections.

The IESO report forecasts a range between 55,000 to 109,000 EVs in Ontario by year 2022 and between 145,000-334,000 by year 2025.

Electric Mobility Canada is a national membership-based not-for-profit organization which indicates that over 35,000 EVs have been sold in Ontario as of Q1 2019. (For reference, 100,000 EVs have been sold in Canada to-date).

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

There are no policy implications around the basic installation of EV charges in municipal parking lots. One potential area that may require a policy change is around the cost of use. For the present time, staff are not recommending any special pricing policies. However, after a 24-month EV Charging Station pilot, staff would submit a further report to Council with recommendations that would include:

- (a) Data on location usage, average charge time and lessons learned for future locations;
- (b) Recommendations for user-fees based on similar industry practices;
- (c) Parking by-law amendments required to implement payment; and,
- (d) Enforcement recommendations to maintain reasonable turnover.

RELEVANT CONSULTATION

Consultation included with the following:

- (a) Ministry of Transportation – current Data on number of EVs in Hamilton as of end of 2018;
- (b) Ministry of Environment, Conservation and Parks – included report from IESO for future outlook of EVs;
- (c) City of Hamilton: Planning and Economic Development Department, Real Estate Division; Public Works Department, Parks Division; Public Works Department, Office of Energy Initiatives; Planning and Economic Development Department, Transportation Planning and Parking; Corporate Services Department, Finance and Administration; and, Corporate Services Department, Procurement;
- (d) City of Hamilton Corporate Contract Vendor, Merlo Electric Inc.; and,
- (e) Alectra Utilities – Hydro utility provider.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

One of the major barriers to the adoption of EVs is “range anxiety” due to the availability of charging infrastructure.

Compared to 18 area municipalities with a population over 100,000, Hamilton ranks last with respect to the number of EV chargers per capita.

An opportunity has emerged to expand EV charging capacity in the City. The existing Government grant is targeting public places and on-street parking. Based on the rise of EV ownership, staff recommends the submission of an application for the available

rebate, and, if approved, installation of a minimum of 20 Level Two electric charging stations throughout the City of Hamilton.

ALTERNATIVES FOR CONSIDERATION

Although the rebate allows for Level Three charging stations, staff recommends Level Two charging stations would make better use of the costs for greater coverage area at this time.

Another alternative would be to purchase fewer EV chargers than 20; however, the current 50% rebate would not be available.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

N/A

AH:cr