3. CORPORATE ELECTRIC VEHICLE CHARGING STATION POLICY

POLITIQUE MUNICIPALE SUR LES BORNES DE RECHARGE POUR VÉHICULE ÉLECTRIQUE

COMMITTEE RECOMMENDATION

That Council approve the Corporate Electric Vehicle Charging Station Policy attached as Document 1.

RECOMMANDATION DU COMITÉ

Que le Conseil approuve la Politique municipale sur les bornes de recharge pour véhicule électrique ci-jointe en tant que document 1.

DOCUMENTATION/DOCUMENTATION

1. Director's report, Economic Development and Long Range Planning, Planning, Infrastructure and Economic Development Department dated 14 November 2017 (ACS2017-PIE-EDP-0044)

   Rapport du Directeur, Développement économique et planification a long terme, Direction générale de la planification, de l'infrastructure et du Développement économique daté le 14 novembre 2017 (ACS2017-PIE-EDP-0044).

2. Extract of Draft Minute, Environment and Climate Protection Committee, 21 November 2017.

   Extrait de l'ébauche du procès-verbal du Comité de l'environnement et de la protection climatique, le 21 novembre 2017.

Report to
Rapport au:

Environment and Climate Protection Committee
Comité de l'environnement et de la protection climatique
21 November 2017 / 21 novembre 2017

and Council
et au Conseil
13 December 2017 / 13 décembre 2017

Submitted on October 23, 2017
Soumis le 23 octobre 2017

Submitted by
Soumis par:
John Smit,
Director / directeur Economic Development and Long Range Planning / Développement économique et Planification à long terme

Contact Person
Personne ressource:
Jennifer Brown, Project Manager – Environmental Programs / Gestionnaire de projet – programmes environnementaux; Planning, Infrastructure, and Economic Development / Direction général de la planification, de l'infrastructure et du développement économique
(613) 580-2424, 27914, Jennifer.Brown1@ottawa.ca

Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE

File Number: ACS2017-PIE-EDP-0044

SUBJECT: Corporate Electric Vehicle Charging Station Policy

OBJET: Politique municipale sur les bornes de recharge pour véhicule électrique

REPORT RECOMMENDATION

That Environment and Climate Protection Committee recommend Council approve the Corporate Electric Vehicle Charging Station Policy attached as Document 1.

RECOMMANDATION DU RAPPORT

Que le Comité de l'environnement et de la protection climatique recommande au Conseil d'approuver la Politique municipale sur les bornes de recharge pour véhicule électrique ci-jointe en tant que document 1.

BACKGROUND

In 2014, Council approved an update to the City's Air Quality and Climate Change Management Plan (AQCCMP), a framework for how Ottawa will mitigate and adapt to climate change over the next 20 years (ACS2014-COS-ESD-0011). The AQCCMP is guided by the following principles:

- Everyone has a responsibility to manage energy consumption and to mitigate risks
- Collaboration is needed amongst various levels of government, utilities, stakeholders, and the broader community to effect change.
- Municipal leadership is needed to ensure an integrated and comprehensive approach across the corporation and the community.

The 2015-2018 City Strategic Plan identified the AQCCMP as a term of Council strategic initiative, and identified additional initiatives that support the goals and objectives of the AQCCMP. One of these initiatives was the development of a corporate policy for electric vehicle (EV) charging stations on City property.

Furthermore, the 2015-2018 City Strategic Plan identified a new strategic initiative for a renewable energy strategy, subsequently renamed the Energy Evolution: Ottawa's Community Energy Transition Strategy. Direction to staff was to "…assess options, in collaboration with community partners, for all such partners to advance energy conservation, energy efficiency, and renewable energy generation within their respective areas of control/influence." A key part of the strategy will be to advance

energy conservation and efficiency within the transportation sector, which will include exploring the advancement of EVs in Ottawa. The Corporate EV Charging Station Policy complements the Energy Evolution initiative.

In February 2016, Council approved a long-term target to reduce greenhouse gas (GHG) emissions by 80 per cent below 2012 levels by 2050 (ACS2016-CMR-ENV-0001). This target complemented the existing short-term target as set in the AQCCMP to reduce GHG emissions by 12 per cent below 2012 levels by 2024. In Ottawa, transportation emissions account for 40 per cent of the total city-wide emissions.

DISCUSSION

The purpose of this policy is:

- to support the use of electric vehicles (EV) through the provision of charging infrastructure on City property
- to support the use of EVs in Ottawa to reduce greenhouse gas (GHG) emissions in the transportation sector.

EVs are defined as any vehicle that is partially or entirely propelled by electricity and plugs in to recharge. There are three types of EV charging stations:

- Level 1 charging stations, which use a 120 volt (V) standard wall plug and can supply up to 2.4 kilowatt (kW) of power
- Level 2 charging stations, which use a 240 V special plug and can supply up to 9 kW of power
- DC Fast Chargers, which use a 480 V special plug and can supply upwards of 50 kW of power

EVs are found to be more energy efficient than internal combustion engines and have a very small carbon footprint. As of July 31, 2017, there were over 11,500 EV sales in Ontario. The slow adoption of EVs has been attributed to driver range anxiety, which is the fear of the EV running out of battery before reaching its destination. Driver range anxiety can be brought on by the absence of a widespread network of charging stations, and the current inability of some EV owners to charge at home.

Ontario's Electric Vehicle Chargers Ontario (EVCO) Program

In 2016, Electric Circuit, a subsidiary of Hydro Quebec, was awarded funding through the Ministry of Transportation's EVCO Program to install Level 2 charging stations on City property, as well as DC Fast Chargers (a first for Ottawa). A total of seven Level 2 charging stations and six DC Fast Chargers have been installed by Electric Circuit on five City sites and are available to the public. These charging stations are in addition to the existing Level 1 and Level 2 charging stations already publically available at City sites.

Key Recommendations of the Policy

a) Ownership

Staff are recommending that the City prioritize agreements with third parties to own and operate charging stations over ownership and operation by the City. This is due to the rapid nature in which EV technology is changing, and avoids additional staff resources and expertise being required to operate and maintain the charging stations.

b) Capital Costs

Capital costs for the purchase and installation of charging stations are to be borne by the project budget. Under the policy, only new City facilities or major expansions of City facilities are mandated to install Level 2 charging station. Level 2 charging stations typically start at $5,000. Level 1 charging stations and DC Fast Chargers are to be installed on a case-by-case basis through staff consultations.

c) Fee Structure

Staff are recommending introducing a user fee structure for all charging stations installed after December 2017. Currently, only Goulbourn Recreation Centre and charging stations installed by Electric Circuit charge a user fee; all other charging stations on City property are free to use. Future fee revenues are to be allocated to the affected utility budget and maintenance of the EV charging station / parking space, and will be the responsibility of the department managing the site. Parking fees, if applicable, are independent and will be in addition to user fees for the charging stations. The fee structure proposed is in keeping with the current fee structure introduced by Electric Circuit:

Type of Charging Station	Per Use Fee
Level 1	• No per use fee • To be offered based on permit, through sponsorship, or free at City staff-only facilities
Level 2	• $3.50 flat rate for Park and Ride parking lots • $2.00/hour at all other City sites (regardless of breaker status)
DC Fast Charger	• $0.28/minute (regardless of breaker status)
Note: Electricity costs change based on time of use but average $0.13/kWh.	

The fee structure will periodically be reviewed to ensure that they are in keeping with best practices. Charging stations installed prior to December 2017 are exempt from the fee structure.

d) Roles and Responsibilities

Infrastructure Services staff are to be responsible for ensuring that new City facilities and major expansions of existing facilities meet the requirements of this policy. Any day-to-day maintenance and operations activities (e.g. snow clearing, garbage collection, etc.) not delegated to outside vendors will be the responsibility of the City department managing the site.

Economic Development and Long-Range Planning staff will be responsible for undertaking a three-year review of the policy to assess its effectiveness and to ensure that the policy is compliant with best practices and legislative requirements.

Periodic review for compliance with legislative requirements and best practices will be undertaken by Economic Development and Long-Range Planning staff. Any changes resulting from this review will be approved by the General Manager of the Planning, Infrastructure, and Economic Development Department.

Other Considerations

a. Ontario's Climate Change Action Plan (2016)

Ontario's Climate Change Action Plan set a Province-wide target to have EV and hydrogen vehicles make up 5 per cent of passenger vehicle sales by 2020. To achieve this target, the Province is:

- Extending Ontario's rebate program for leasing or buying an electric vehicle (up to $14,000), including for the purchase or installation of home charging stations (up to $1,000 per charging station) until 2020.
- Amending the Building Code to require buildings to provide EV supply equipment (EVSE) in no less than 20 per cent of the building's parking spaces, and have the remaining spaces be EV ready (multi-unit apartment buildings are excluded). This amendment goes into effect January 1, 2018.

b. Green Building Policy for the Construction of Corporate Buildings

This policy will assist in meeting the requirements of the Green Building Policy to obtain LEED Certification.

c. Zoning By-law

In September 2017, Council approved the following amendments to the Zoning By-law (ACS2017-PIE-EDP-0031).

- *Section 100 – General Provisions (Parking, Queuing, and Loading):* Parking spaces set aside for an EV charging station may be included in the total parking spaces required for the land use.
- *Section 112 – Provisions for Drive-through Operations*: Queuing spaces for a charging station are excluded from the drive-through facilities provisions.

d. Traffic and Parking By-law

An update to the Traffic and Parking By-law was approved by Council in September 2017 (ACS2017-TSD-TRF-0005). The update included language pertaining to enforcement around EV charging stations and EV parking spaces. The in-force date for the updated By-law is June 1, 2018.

Timeline

The policy would be enacted following approval by Council on December 13, 2017.

RURAL IMPLICATIONS

There are no rural implications associated with this report.

CONSULTATION

Staff consulted with the following City service groups on the policy: Corporate Real Estate Office; Economic Development and Long-Range Planning; Infrastructure Services; Legal Services; Legislative Services; Right-of-Way, Heritage and Urban Design Services; Roads Services; Transit Customer Systems and Planning; and Transportation Planning.

COMMENTS BY THE WARD COUNCILLORS

This is a City-wide report – not applicable.

LEGAL IMPLICATIONS

There are no legal implications associated with the Committee and City Council's approval of the Corporate Electric Vehicle Charging Station Policy.

RISK MANAGEMENT IMPLICATIONS

There are no risk implications.

ASSET MANAGEMENT IMPLICATIONS

Comprehensive Asset Management (CAM) is an integrated business approach involving planning, finance, engineering, maintenance and operations geared towards effectively managing existing and new infrastructure to maximize benefits, reduce risk and provide safe and reliable levels of service to community users. This is accomplished in a socially, culturally, environmentally and economically conscious manner. The recommendations documented in this report are consistent with the City's Comprehensive Asset Management (CAM) Program objectives.

CAM recognizes the Corporate Electric Vehicle Charging Station Policy is an important component necessary to fulfill the City's obligation to deliver quality services to the community and meet the goals and objectives of the AQCCMP.

FINANCIAL IMPLICATIONS

Capital costs for the purchase and installation of charging stations are to be borne by the project budget. Facility operating budgets will manage the charging station agreements and user fees through the annual budget process.

ACCESSIBILITY IMPACTS

There are currently no provincial or municipal accessibility guidelines for EV charging stations and parking spaces, and the EV market has not reached the point where EV accessible vehicles are being manufactured on a large-scale, However, to encourage long-term EV adoption and to ensure that EV parking spaces accommodate all future users, staff are recommending that EV charging stations be designed to Type A parking space standards per the City's *Accessibility Design Standards*. It is also recommended that no signage designating the EV parking space as an accessible space be included in order to make the parking spaces available to all EV owners. These recommendations were made in consultation with the City's Accessibility Office.

ENVIRONMENTAL IMPLICATIONS

In February 2016, Council approved a long-term target to reduce greenhouse gas (GHG) emissions by 80 per cent below 2012 levels by 2050. This target complemented the existing short-term target approved in 2014 to reduce GHG emissions by 12 per cent below 2012 levels by 2024. This policy will help to support the use of EVs in Ottawa to reduce GHG emissions in the transportation sector, which account for 40 per cent of city-wide emissions.

Additionally, the policy will help achieve the goals and objectives of the following City strategic initiatives:

- Air Quality and Climate Change Management Plan
- Energy Evolution: Ottawa's Renewable Energy Transition Strategy

TERM OF COUNCIL PRIORITIES

This work aligns to the Sustainable Environmental Services (ES) Strategic Priority:

To provide sustainable environmental services that balance protection of our natural resources and support the planned growth of the city with the duty to ensure fiscal sustainability and meet legislative requirements in the delivery of municipal services.

SUPPORTING DOCUMENTATION

Document 1 Corporate Electric Vehicle Charging Station Policy *(Previously distributed to all Members of Council and held on file with the City Clerk and Solicitor.)*

DISPOSITION

Following approval by Council, staff in the Planning, Infrastructure, and Economic Development and the Recreation, Culture, and Facility Services Departments will carry out the recommendations of the report, as appropriate.