



## COUNCIL REPORT

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TO: Standing Committee on City Finance and Services

FROM: General Manager of Engineering Services  
General Manager of Planning, Urban Design and Sustainability

SUBJECT: Enabling Third-Party Investment in EV Charging Infrastructure on City Streets

### Recommendations

- A. THAT Council authorize, pursuant to Council's authority under subsection 291(g)(ii) of the *Vancouver Charter*, the General Manager of Engineering Services and the Director of Legal Services to negotiate, enter into and execute licence agreements (each a "**Licence Agreement**") with third-party entities in accordance with the terms of a new program summarized in this report to allow such third-parties to install and operate public EV charging infrastructure on City streets.
- B. THAT no legal rights or obligations will be created or arise by virtue of Council's approval of Recommendation A unless and until a Licence Agreement is executed and delivered by the General Manager of Engineering Services and the Director of Legal Services on behalf of the City.
- C. THAT staff update Council on progress in two years' time regarding the impacts, challenges and successes related to enabling third-party entities to install EV charging to expand the public charging network on City streets.

## **Purpose and Executive Summary**

The purpose of this report is to seek Council's approval under subsection 291(g)(ii) of the *Vancouver Charter* to establish a new program where the City could invite third-party companies and other organizations to apply to the City, or that could enable third parties to initiate an application to the City, for the right to install and operate public Electric Vehicle (EV) charging infrastructure on City approved locations on City streets.

If a third party is accepted, they must enter into a Licence Agreement with the City on terms that are generally consistent Appendix A of this report and that will allow them to install and operate their public EV charging infrastructure on the City-approved location.

Currently, the City has the Commercial Curbside EV Charging program and the Commercial Fleet EV charging program, however these programs only enable third-party investment in EV charging on City streets if the third party owns or occupies property adjacent to the proposed EV charging location or if the third party is a fleet vehicle operator and is establishing an EV charging hub for fleet vehicles.

The new program will not have these restrictions. This potentially opens up the opportunity to make more City-approved street locations accessible to a wider group of companies and other organizations that may be interested in investing their own resources to install and operate EV charging infrastructure for public use along City streets. This helps leverage third-party investment in order to expand the public charging network and help the City meet its Climate Emergency targets among other benefits.

An immediate opportunity for such an agreement would be BC Hydro's expansion of their Homer St charging hub, to include EV chargers on both sides of the street, bringing the total to eight DC fast chargers and four Level 2 chargers, plus a new film kiosk.

## **Council Authority/Previous Decisions**

In June 2023, Council directed staff via Recommendation E of the Climate Emergency Action Plan (CEAP) Vancouver Plan Amendment report to Council, to explore public/private partnerships to expand public EV charging infrastructure.

In January 2021, Council approved the extension of the Commercial Curbside EV charging program as well as the establishment of the Commercial Fleet Charging program.

In November 2020, Council adopted the Climate Emergency Action Plan (CEAP) which aims to cut emissions to 50% of 2007 levels by 2030 and includes objectives and actions to expand the public charging network.

## **City Manager's Comments**

The City Manager concurs with the foregoing recommendations.

## Context and Background

Transportation accounts for 39% of total carbon pollution in Vancouver and is a significant source of air pollutants that can harm human health and the environment. Accelerating the transition to EVs is one of the CEAP Big Moves and a key approach to reducing these pollutants. With an increase in EV adoption, more EV charging infrastructure is required.

Over the last several years, through investments and building requirements, the City has supported the growth of EV charging infrastructure available for light-duty vehicles. However, reliable and convenient public access to charging infrastructure continues to be a barrier. A recent report from Metro Vancouver suggested there will be a significant increase in demand for public EV charging by 2030. There are currently about 500 publicly accessible EV chargers in the City, of which the City operates 73. The Metro Vancouver report forecasts a demand for over 6,000 additional new public Level 2 EV charging stations and over 300 new DC fast chargers in Vancouver alone. The City currently has some of the most used EV charging stations in British Columbia and the public charging network in Vancouver needs to continue to expand to meet the growing demand. The City continues to prioritize off-street charging such as in City-owned parking lots and facilities. However, with the high demand for public EV charging forecasted, the City intends to pursue more on-street locations that do not conflict with other City on-street priorities (e.g. bus lanes and bike lanes).

## Discussion

In 2019, the City established the Commercial Curbside EV charging program, which enables commercial property owners to install publicly available EV chargers curbside abutting their property. To date, installations under this program have been limited, with BC Hydro's Homer St location with two DC fast chargers as the main example.

BC Hydro is currently looking to expand the number of chargers at Homer St to both sides of the street, bringing the total to eight DC fast chargers and four Level 2 chargers, plus a new clean energy kiosk for filming. These network expansions will not require any City investment.

Beyond the Homer St. expansion, BC Hydro is interested in further investing in public EV charging on City streets. Other third-parties such as Tesla, Devvstream, Parkland, Shell, Chargepoint have also expressed interest in installing EV charging in the public realm. The new program will enable the City to leverage this type of third-party interest and investment as a way to expand the public charging network on City streets regardless of whether the third-party owns or occupies an abutting property at the desired location.

If needed at a particular location, the City Engineer may designate parking for EV charging under section 4(1)(b) of the Street and Traffic bylaw.

Staff would do further work to ensure a fair and efficient process if there is competing interest or demand for the same location by multiple third parties and/or other City priorities such as public realm programs like patios (from abutting businesses) or public bike share stations. Staff will also screen out any locations that conflict with other City on-street priorities like bus lanes and bike lanes.

The City of Portland has an example of a program for third-party investment in public EV infrastructure. The Portland Bureau of Transportation is launching an EV Charging in the Right-of-way Program that will allow companies to install electric vehicle chargers in the public right-of-way in commercial centers across the city. Only utilities and EV charging companies that meet their requirements will be allowed to install EV chargers in the public right-of-way. While the Portland program is an example of a third-party right-of-way EV charging program, the City of Vancouver will develop program requirements specific to the City's context.

Appendix A sets out the key principles of the new program and high level terms to be covered in a Licence Agreement to be entered into by the City and a third-party entity.

### **Financial Implications**

As stated above, a key goal of the new program is to leverage third party interest and investment to expand the public EV charging network in Vancouver. This would reduce pressure on the City's budget to invest in public EV charging. A single level 2 charger costs \$12,000-\$20,000 to install and a single DC fast charger costs \$150,000-\$200,00 to install. These are usually installed in groups so a typical fast charging hub installation could save the City \$400,000 to over a million dollars per site depending on the size of the hub.

The City intends to charge third parties a fee to use City street in accordance with usual City practice, and such fee is contemplated to include a plan review and admin fee as well as an annual licence fee (currently in the \$200-\$400/year range charged for similar purposes under City bylaws). The main goal of the fee is to keep the City whole financially while still making it attractive for a third party to want to install and operate public EV charging on City street. For this reason, the program is not expected to generate significant revenue in the near term. Staff would review the fee annually or as needed to determine if any updates need to be made. While revenue from charging would be retained by the third-party operator, the City would retain revenue from any parking fees.

### **Environmental Implications**

This work is an important component of the Climate Emergency Action Plan. Enabling the installation and operation of more EV charging infrastructure will enable a faster shift to electric vehicles, which will ultimately reduce carbon pollution and improve air quality. A single 150 kilowatt DC fast charger operating at the average utilization of the City's fast chargers can help avoid about 109 tonnes of CO<sub>2</sub>e annually. The BC Hydro Homer Street expansion (operating at the same level of utilization) would help avoid about 873 tonnes of CO<sub>2</sub>e annually. Additionally, nitrogen oxides and particulate matter have significant impacts on air quality and human health, so reducing tailpipe emissions will reduce these pollutants and positively affect air quality and health.

### **Legal Implications**

A Licence Agreement that is generally consistent with the principles and terms set out in Appendix A will be the legal tool by which an approved third-party entity (e.g. BC Hydro) would be allowed to install and operate public EV charging infrastructure on City approved locations on

City street. If needed at a particular location, the City Engineer may designate parking for EV charging under section 4(1)(b) of the Street and Traffic bylaw.

\* \* \* \* \*

## APPENDIX A LIST OF KEY PRINCIPLES AND TERMS

**Key Principles:** The new program will adhere to the following key principles and, where necessary, one or more principles may be incorporated into a Licence Agreement to be entered into by the City and the third party entity:

1. The overall goal is to support the City's Climate Emergency Action Plan by enabling third-party investment to expand the public EV charging infrastructure in Vancouver that will help to meet the City's demand for EV charging;
2. To achieve the above goal, City staff will aim to structure projects that balance City needs (e.g. policy, financial, operational, risk mitigation) while ensuring it remains attractive and not too cumbersome for a third party to invest its resources to install and operate public EV charging on City street;
3. The program should leverage the lessons-learned from similar programs in other cities;
4. All EV charging infrastructure installed and operated under the program will be available for public use;
5. Minimize disruptions to City street or major works while retaining some flexibility in appropriate circumstances to require a third party operator to temporarily suspend its operation at a particular location (e.g. due to filming, special events or construction) or, under exceptional circumstances, permanently remove its EV charging infrastructure;
6. Ensure that the trade-offs, such as the opportunity cost of occupying City street that could be used for other City purposes, are considered and acceptable to the City. For example, the opportunity cost associated with dedicating such space for this purpose, taking into consideration, among other factors, the amount of space needed for the EV charging infrastructure, other potential City uses for a location, the duration of a particular Licence Agreement and other relevant factors;
7. Maximize electrification co-benefits with other programs and public space needs where there is demand for power connections in the public realm.
8. When selecting or approving a particular location, City staff will consider any known or potential future City uses (e.g. in 5, 10 or 10+ years) at that location in order to minimize the risk that the City may need to take back the location and require the third party operator to remove its EV charging infrastructure;
9. If City staff determine there is a reasonable chance that the City may need to take back a location in future, staff may, in consultation with Legal Services, include a clause in the Licence Agreement that complies with the following principles:
  - a. allows the City to take back the location under an agreed set of circumstances and by providing a defined period of reasonable advance notice;
  - b. any compensation payable by the City will take into consideration the unique circumstances of the project while balancing two other principles: (i) minimizing

- financial and legal risk to the City, and (ii) making it attractive and not too cumbersome for a third party to invest in on-street EV charging;
- c. any compensation payable by the City will also consider:
    - i. whether the City can offer an alternate location to the third party operator;
    - ii. the length of time EV charging was available at that location;
    - iii. sunk costs associated with project components that cannot be relocated to a different location (e.g. underground infrastructure);
    - iv. cost-recovery only and avoiding a windfall for the third party operator (i.e. take into account sunk costs, asset depreciation, revenues earned by operator, etc); and
    - v. any other factors that align with the program key principles.
10. The third party will retain the revenue generated by its EV charging equipment; accordingly, the third party will bear the financial and legal risks of each project and be responsible for all costs and obligations of a project – including costs for capital, installation and ongoing operations and maintenance, and compliance with all applicable laws, safety requirements and similar obligations;
  11. The City will retain revenue from parking;
  12. An indemnity will be provided from the third party in favour of the City against any harm or loss that may be suffered by the City in connection with the use of City street and entering into the Licence Agreement;
  13. Licence Agreements will comply with *Vancouver Charter* section 291(g)(ii) (which allows a third party entity to encroach upon or under a street for a specified length of time – i.e. the installation and operation of EV charging infrastructure) and be satisfactory to the General Manager of Engineering Services and the Director of Legal Services; and
  14. Each project and its Licence Agreement will be structured in such a way so as to avoid or minimize financial and legal risk to the City as much as possible.
  15. All solicitations by the City of third parties, or awards of Licence Agreements to third parties, under this program will comply with the City's Procurement Policy.

**General Terms:** Each Licence Agreement will contain the following general terms subject to any additional terms or minor modifications that may be added or made by City staff in consultation with Legal Services to adapt to the particular circumstances of a project provided any modifications still generally comply with the above key principles and the spirit and intent of the following terms:

1. *Revenue and Costs of EV Charger:* Licensee will retain revenue generated by its EV chargers; accordingly, Licensee will be responsible for the risks of a project and the costs of the EV charger, installation of the EV charger and all related equipment, all electricity costs and all costs and expenses to operate, maintain or repair the EV charger and all related equipment for the duration of the term of the Licence Agreement.

2. *City approval of EV Charger:* Licensee will obtain the approval of the City in respect of the type of EV charger proposed to be installed.
3. *Public Use of EV Charger:* Licensee will make EV charging available for public use.
4. *Parking in front of EV charger:* All users of the EV charger must comply with applicable parking regulations at the location including paying applicable parking fees charged by the City. The City will retain parking revenue.
5. *Temporary Suspensions due to Filming, Special Events or Construction.* Licensee acknowledges that if the site is used from time to time for filming, special events or construction and other City approved street uses, its use may be suspended by the City for a temporary period and the City will provide reasonable advanced written notice when such temporary suspension is required. No compensation will be provided in cases of these temporary closures.
6. *Safe operation of EV Charger:* Licensee must comply with all requirements of the City and all applicable laws to ensure the safe operation of the EV charger. It is also the responsibility of the Licensee to ensure a user of its EV charging equipment complies with all applicable laws.
7. *Payment of City Licence and Other Fees:* Licensee will be required to pay City licence and other applicable fees including for project Plan Review and Administration as well as for inspection, permanent restoration of the street, sidewalk, etc. These fees will generally align with similar City bylaw fees.
8. *Installation of EV Charger:* Licensee must comply with all applicable laws, including all City by-laws and inspections, in respect of the installation of the EV charger and shall provide to the City copies of any plans, designs, drawings or other information reasonably requested by the City for approval or other City purposes.
9. *Liability caused by EV Charger and Users:* Licensee will be liable for any property damage or injury caused by the EV charger or an EV charger user to the City, a third party or the EV charger user and will indemnify the City against any damages or other losses suffered by the City in connection with the foregoing.
10. *Requirement for Insurance:* Licensee will be required to add third party liability insurance to its property insurance policy and to add the City as an additional insured party under such policy. The City may determine additional insurance requirements as the circumstances may warrant.
11. *No Advertisements.* No advertising or other markings in any form other than what is approved per the City's Sign By-law are allowed on the EV Charger or in the Licence Area or the Lands except those placed by the City.
12. *Upkeep of EV Charger:* Licensee will be required to maintain and repair the EV charger to a reasonable standard set out in the agreement.
13. *Use of City street:* There will be terms governing the use of the City street upon which the EV charger will be installed.



14. *Term of agreement:* The term of the agreement will typically be for 10 years subject to the City approving a shorter or longer term depending on the particular circumstances of a project. The City will have the right to terminate the agreement under certain defined circumstances including if Licensee does not comply with its terms.
15. *Responsibility at the end of the agreement term:* Licensee will be responsible for removing the EV charger from City street at its expense, restoring the street to its existing condition and complying with all terms of the agreement and applicable City standards pertaining to work on the street.
16. *Right of City to require removal and City compensation:* Subject to consideration of the above key principles, this clause may be included in consultation with Legal Services.