



ADMINISTRATIVE REPORT

Report Date: March 27, 2018
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Meeting Date: April 17, 2018

TO: Vancouver City Council

FROM: General Manager of Finance, Risk and Supply Chain Management in consultation with the General Managers of Planning, Urban Design & Sustainability and Engineering Services

SUBJECT: Funding Application to Natural Resources Canada's Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative

RECOMMENDATION

THAT Council approve a funding application to Natural Resource Canada's Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative for \$300,000 towards the City of Vancouver Electric Vehicle Charging Corridor Enhancement Project.

REPORT SUMMARY

The City's [2015-2018 Capital Plan](#) funding strategy contemplates securing of senior government contributions toward a number of Council priorities. This application supports climate change adaptation and the City's Renewable City Action Plan as well as the Electric Vehicle Ecosystem Strategy, adopted by the City's Sustainability group in November 2016.

This report seeks Council's approval for submitting a funding application to Natural Resource Canada's Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

Federal funding programs typically require a resolution of Council as part of the application package.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The General Managers of Finance, Risk and Supply Chain Management, of Planning, Urban Design & Sustainability and of Engineering Services recommend approval of the report.

REPORT

Background/Context

The Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative (“the Program”) is a Natural Resources Canada program meant to increase capacity to supply and use lower carbon transportation options. Phase 2 of this program is a four year, \$80 million program announced in the 2017 Federal Budget. The objective of the program is to increase the awareness, availability and use of lower-carbon vehicles and fuels in Canada by supporting the installation of electric vehicle fast chargers, as well as natural gas and hydrogen refuelling stations.

This report is seeking Council approval for an application to the program for funding towards the installation of six Level 3 DC fast charging stations at 3 locations as part of the City of Vancouver Electric Vehicle Charging Corridor Enhancement project.

The program will provide funding of up to 50% of total project costs to a maximum of \$50,000 per charging station. The deadline for the application was March 22, 2018.

A resolution of Council is required for the funding application and can be submitted after the application submission deadline.

Strategic Analysis

In November 2015, Vancouver City Council committed to achieving 100% renewable energy use before 2050, extending an existing goal to reduce community-based greenhouse gas emissions 33% below 2007 levels by 2020. The installation of publicly accessible electric vehicle charging stations is a key item in the City's Renewable City Action Plan to reduce the community-based greenhouse gas emissions of the City of Vancouver.

To facilitate the uptake of electric vehicles (EV) in Vancouver, Council unanimously adopted the EV Ecosystem Strategy in 2016. This strategy seeks to remove barriers to EV uptake through:

1. Accessibility: Improved access to charging infrastructure
2. Affordability: Reduced cost barriers to electric vehicle uptake
3. Economic Opportunity: Develop a market large enough to support private sector operation of electric vehicle charging infrastructure.

The City presently operates a network of 72 public Level 2 charging stations, along with a single DC Fast Charging station at Empire Fields, which is operated in partnership with BC Hydro. A number of projects to expand the public charging network are presently

underway, including the replacement of the Empire Fields station with two DC Fast Chargers and a Level 2 station, to be run solely by the City; and the addition of a DC Fast Charger and a Level 2 station at Science World.

The EV Ecosystem Strategy envisions expanding the public charging network such that, by 2021, a hub of multiple DC Fast Chargers and Level 2 stations (“EHubs”) is located within a ten-minute drive of anywhere in Vancouver. In addition, it envisions placing Level 2 charging stations at all public-facing, City-owned buildings.

In support of this strategy, staff proposes adding six DC fast charging stations at three sites, augmented with funding from the NRCan program.

An analysis of potential sites determined that the three proposed sites were the best candidates for the NRCan application.

Each of these sites is owned by the City of Vancouver and was selected because of proximity to major highway routes and gaps in the existing public network, ensuring exposure and usage.

Site #1 - 701 National Ave, Vancouver

This site is near Clark Drive, a Major Road Network in Vancouver providing truck access to the port. This is an advantageous location to encourage usage by heavy duty electric trucks, including freight vehicles and tour buses.

Site #2 - 455 W 10th Ave, Vancouver

This site is near Cambie and Broadway, one of the prominent arterial intersections in the City. This location will be highly visible and provide an important charging connection for passers through and local Vancouver residents alike.

Site #3 - 1220 Pacific Blvd, Vancouver

This site is near the Highway 99 corridor through the City. This location provides an important connection along the Pacific Coast Collaborative connecting Whistler to San Diego.

Implications/Related Issues/Risk (if applicable)

Financial

The installation of the six DC fast charging stations at the three locations noted above is estimated to cost approximately \$1.1 million. This estimate is based on past projects conducted throughout the City with similar parameters.

Table 1 below outlines the funding sources.

Staff are recommending that the City request the maximum \$50,000 per charging station for a total of \$300,000.

Electric vehicle fast charger Projects located in British Columbia and selected for funding under Natural Resource Canada's Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative are automatically eligible for provincial funding of 25% of total project costs up to a maximum of \$25,000 per electric vehicle fast charger. This could provide an additional \$150,000.

The City will contribute the remaining funding of up to \$650,000, with the source of funding being the Plant and Equipment Account. This will be addressed through a quarterly capital budget adjustment.

TABLE 1: ESTIMATED PROJECT BUDGET AND FUNDING SOURCES

Funding Source	Amount
Federal Funding	\$300,000
Provincial Funding	\$150,000
City of Vancouver Funding	\$650,000
Total Project Budget	\$1,100,000

CONCLUSION

By applying to the Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative, the City has the opportunity to access external funding of up to \$450,000 to support the installation of six new DC fast charging stations to support the Electric Vehicle Ecosystem Strategy and the City's goal of achieving 100% renewable energy use before 2050.

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