



STAFF REPORT TO COMMITTEE

DATE OF REPORT August 28, 2020

MEETING TYPE & DATE Community Services Committee of September 9, 2020

FROM: Facilities & Transit Division
Community Services Department

SUBJECT: Level 2 Electric Vehicle (EV) Charging Station Management and Usage Fees at CVRD Owned Facilities

FILE: 5460-07

PURPOSE/INTRODUCTION

The purpose of this report is to present a proposed usage fee for public use of the Level 2 Electric Vehicle (EV) charging stations at CVRD owned facilities.

RECOMMENDED RESOLUTION

That it be recommended to the Board:

- 1) That a usage fee for the CVRD's publicly accessible Level 2 Electric Vehicle (EV) charging stations be established at a rate of \$1.00 per hour effective January 1, 2021; and
- 2) That a public notification period of 60 days be provided as described in the September 9, 2020 staff report pursuant to the 'inform' level of public engagement as specified within CVRD's Public Engagement Policy.

BACKGROUND

On March 11, 2020, the Community Services Committee (CMSC) was presented the attached staff report seeking direction on management and implementation of usage fees for public use of the Level 2 EV charging stations at CVRD owned facilities. At its March 25, 2020 meeting, the Board made the following resolution:

"That staff report on the resources required to develop a long-term plan for management and operation of publicly accessible EV charging stations including the option to discontinue Level 2 Chargers at the end of their lifecycle".

This report summarizes the findings with respect to existing roles and responsibilities of the CVRD as it relates to EV charging stations, EV station management, usage fees, and future requirements.

This report does not discuss the CVRD's fleet or EV charging station(s) at the Ingram Street office (which are not intended for public use) or the Direct Current Fast Charge (DCFC) station at the Cowichan Community Centre (CCC). Fees for charging at the DCFC have been in place since 2017, with a fee increase having been implemented on February 4, 2020 from \$0.35 per kWh and \$2.00 minimum fee, to \$0.55 per kWh with a minimum fee of \$2.50.

ANALYSIS

CVRD Roles and Responsibilities: In 2012/2013, CVRD installed a dual port Level 2 EV charging station at four CVRD-owned recreation facilities in order to demonstrate leadership and help support the transition to EVs, as well as provide service to customers of the respective facilities. The EV charging stations have been free for usage since they were installed. Additionally, EV

charging stations were necessary to provide charging service for the CVRD-owned electric vehicle at the CVRD recreation facilities.

As stations have become more prolific and the private sector is increasingly providing more EV charging stations, the CVRD’s role with respect to stations is assumed to be one of complementary service to customers. As such, CVRD’s assumed role is to maintain the existing stations and continue to provide this service to customers. However, at this time there is no intention to further increase the number of stations or expand into new areas.

EV Station Operation and Management: The four stations at the recreation centres experience different usage based on their locations, with CCC reporting the most usage. Individual facilities pay for the costs of the station, its maintenance and the electricity through their respective budgets. For ease of implementation, no changes are proposed to the current operation and management of the EV charging stations.

Capital Replacement and Future Requirements: The four stations at the recreation centres were replaced in 2019 at a promotional cost of \$4,062+GST per facility, approximately seven years after the first ones were installed, as the supplier was discontinuing the former model in favour of new technology. Discussion at the March 11, 2020 CMSC meeting indicated interest in CVRD having the option to consider improved EV charging station technologies in the future, potentially considering significantly more expensive DCFCs.

Usage Fees: Considering EV charging stations as a service to be provided now and in the future, it is appropriate to consider a method of cost recovery to continue funding the service. Many services provided by CVRD are not based on full cost recovery; therefore, partial and minimal cost recovery options are included for comparison and consideration.

Table 1.0: Levels of Cost Recovery

Full	Capital replacement, network licensing fee, warranty, maintenance and administration, 10% collection service fee, electricity.
Partial	Capital replacement, network licensing fee, 10% collection service fee, electricity.
Minimal	Network licensing fee, 10% collection service fee, electricity

While the significant majority of local governments have not established a usage fee for their EV charging stations, there is increasing interest in doing so in alignment with the provision of other services that are provided on a user-pay basis, as well as to provide funding for station replacement and manage demand for charging and parking.

Usage fees are considered a best practice as it reduces ‘opportunity charging’ associated with unnecessarily charging a vehicle or using the station to access a premium parking space. Decreasing ‘opportunity charging’ may benefit the availability and wait time for drivers who need the charging on arrival and for those without access to an EV charger at their place of residence. If a fee is implemented and usage decreases significantly, adjustments may be required to the pricing.

FINANCIAL CONSIDERATIONS

The following table summarizes estimated costs of the stations, the usage at the four facilities and corresponding usage fee rates required to achieve varying levels of costs recovery. In the interest of consistency and equity from the customer’s perspective, one consistent fee for usage at any CVRD station is recommended. While this approach will prevent some facilities from achieving its

full or partial costs entirely, this method is still preferred over the alternative scenario where each facility establishes its own usage fee.

Table 2.0

Cost Information	Cowichan Community Centre	Kerry Park Recreation Centre	Shawnigan Lake Community Centre*	Cowichan Lake Sports Arena	Total Stations Combined
Estimated Station Replacement Cost) (prior to any promotional discounts)	\$8,124	\$8,124	\$8,124	\$8,124	\$32,496
Estimated Annual Capital Amortization and Operating Costs					
Annual Capital Amortization (5 year service life)	\$1,625	\$1,625	\$1,625	\$1,625	\$6,500
Annual Operating Costs (Network Licensing, Warranty, Maintenance and Administration)	\$1,899	\$1,817	\$1,810	\$1,748	\$7,274
Electricity Costs (2019)	\$1,810	\$996	\$923	\$312	\$4,041
Total Annual Costs	\$5,334	\$4,438	\$4,358	\$3,685	\$17,815
2019 Usage Data**					
Energy (kWh)	21,299	11,451	8,397	3,626	44,773
Hours of charging time	4,373	2,702	1,985	743	9,803
Estimated Rates at Varying Levels of Cost Recovery – Including Service Provider’s 10% Collection Fee					
Full cost recovery (\$/hour)	\$1.34	\$1.80	\$2.41	\$5.46	\$2.00
Partial cost recovery (\$/hour)	\$1.00	\$1.30	\$1.74	\$3.70	\$1.43
Minimal cost recovery (\$/hour)	\$0.59	\$1.29	\$0.82	\$1.29	\$0.70

*2019 – Based on data from January – October and projected to the remainder of year as data was unavailable due to station repairs associated with vandalism.

**The BC Hydro rate for electricity varies slightly between facilities, and vehicle models vary in the speed at which they can accept charging (i.e. some vehicles charge more quickly than others) which both affect electricity costs.

No minimum fee is proposed as the fee is based on the time spent at the station, and the network fee collection service is based on a percentage of the fees collected at each session, whereas with the DCFC there is a fixed fee per session.

For comparison, Township of Esquimalt charges \$1 per hour; City of Victoria has approved a usage fee of \$1 per hour beginning in January 2021; Vancouver and North Vancouver apply a usage fee of \$2 per hour. The Capital Regional District (CRD), Regional District of Nanaimo and Comox Valley Regional District have not implemented usage fees for their Level 2 EV charging stations. Local municipalities within the CVRD also do not charge a usage fee at their EV charging stations.

The CRD developed an EV and electric bike infrastructure planning guide, which found that 57% of survey respondents would be willing to pay between \$1 – \$2 per hour for EV charging with 21% supporting \$1 per hour and 14% supporting \$2 per hour for charging. In addition, it was recommended that proposed usage fees continue to be less than the equivalent in a gasoline powered vehicle to maintain an incentive towards electric vehicles. For reference, please see Attachment B.

COMMUNICATION CONSIDERATIONS

For the Committee’s consideration, there are two levels of public engagement presented, depending on the desired level of public input.

Inform	Consult
Public notification period prior to implementing a usage fee. Resources would be dedicated towards education and outreach.	Seek public input prior to a decision whether to implement a fee. A simple poll through PlaceSpeak would be developed to gauge drivers’ willingness to pay for EV charging and identify the level of public support for an EV charging station usage fee. The Committee would be responsible for considering this information prior to any decision.

In both options, stakeholders would be informed of the current funding arrangement whereby the facilities and contributing areas subsidize the EV charging stations.

As noted, best practices consider usage fees as a means to manage demand and fund/provide continuity to the service. Many of the services provided at CVRD facilities are not based on a model of full cost recovery. As a complementary service to clients, the same approach can be applied to EV charging stations: that they are partially user pay and partially CVRD-funded. As there is no usage fee currently in place, the CVRD could consider collecting less than full or partial costs as this would align with the fees in other Vancouver Island locations and continue to provide public funding as a service associated with the recreation centres.

Three options are provided below. Please note that Option 1 is recommended.

Option 1: Partial Cost Recovery

- 1) That a usage fee for the CVRD’s publicly accessible Level 2 electric vehicle charging stations be established at a rate of \$1.00 per hour effective January 1, 2021;
- 2) That a public notification period of 60 days be provided as described in the September 9, 2020 staff report pursuant to the ‘inform’ level of public engagement as specified within CVRD’s Public Engagement Policy.

Note: While partial cost recovery of capital replacement, network licensing fees, 10% collection service fee and electricity equals \$1.43 per hour, it is recommended that a fee of \$1.00 per hour be charged to be consistent with neighboring jurisdictions.

Option 2: Full Cost Recovery

- 1) That a usage fee for the CVRD’s publicly accessible Level 2 electric vehicle charging stations be established at a rate of \$2.00 per hour effective January 1, 2021;
- 2) That a public notification period of 60 days be provided as described in the September 9, 2020 staff report pursuant to the ‘inform’ level of public engagement as specified within CVRD’s Public Engagement Policy.

Option 3: Public Engagement to Determine Level of Support for EV Charging Station Usage Fees

That a public engagement process to determine the level of support for EV charging stations be undertaken as described in the September 9, 2020 staff report pursuant to the ‘consult’ level of public engagement as specified within CVRD’s Public Engagement Policy.

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

This initiative largely intends to fulfill the sound fiscal management objective of the CVRD strategic plan by reviewing the provision of services to ensure effective use of resources. CVRD continues to support initiatives aimed at reducing greenhouse gas emissions (GHG), including provision of EV charging stations at various locations within the region.

GENERAL MANAGER COMMENTS Not Applicable

Referred to (upon completion):

- Communications & Engagement
- Community Services *(Cowichan Community Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- Land Use Services *(Community Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*

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Resolution:

Financial Considerations:

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ATTACHMENTS:

Attachment A – March 11, 2020 Staff Report to Community Services Committee

Attachment B – Capital Region District EV Infrastructure Guide Excerpt (pp. 50 – 52)