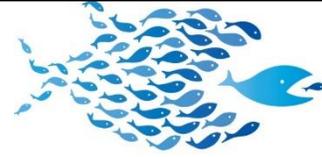


26 April 2021

VIA E-FILING

Patrick Wruck
Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3



BCPIAC
Public Interest Advocacy Centre

Reply to: Leigha Worth
ED@bcpiac.org
Ph: 604-687-3034
Our File: 7500.313

Dear Mr. Wruck,

**Re: British Columbia Hydro and Power Authority (BC Hydro) Public Electric Vehicle (EV) Fast Charging Rate Application
BCOAPO Information Request No. 1**

We represent the BC Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Together Against Poverty Society and the Tenant Resource and Advisory Centre, known collectively in this process as "BCOAPO et al."

Enclosed please find the BCOAPO's Information Request No. 1 with respect to the above-noted matter.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,
BC PUBLIC INTEREST ADVOCACY CENTRE

Original on file signed by:

Leigha Worth
Executive Director | General Counsel

Encl.

REQUESTOR NAME: **BCOAPO**
INFORMATION REQUEST ROUND NO: **1**
TO: **BRITISH COLUMBIA HYDRO & POWER
AUTHORITY**
DATE: **APRIL 26, 2021**
PROJECT NO: **1599190**
APPLICATION NAME: **BCH EV DC CHARGING RATES**

**1.0 Reference: Exhibit B-1, pages 2 and 10-11
BCH F2022 RRA, page 2-20 and Appendix C, page 4**

Preamble: The Application states: “As shown in the F2022 RRA, BC Hydro will have approximately 96 fast charging stations in operation by the end of fiscal 2021 (i.e., March 31, 2021)”.

1.1 Please provide a schedule that sets out BC Hydro’s eligible fast charging station sites as of March 31, 2021 and for each site provide; i) the number of 25kW, 50 kW and 100 kW charging stations at the site, ii) the total number of charging ports, iii) the maximum number of vehicles that can charge at any one point in time, and iv) the total demand (kW) at the site assuming the maximum number of vehicles were charging simultaneously at the same time.

1.2 If the specific sites and station numbers provided in response to the preceding question differ from those provided in the F2022 RRA, Appendix C (totaling 98 stations with two non-eligible), please explain the difference.

**2.0 Reference: Exhibit B-1, pages 2 and 10-11
BCH F2022 RRA, page 2-21 and Appendix C, page 5**

2.1 Please provide a schedule that sets out the station sites BC Hydro plans to construct and operate during F2022 and for each site provide: i) the number of 25kW, 50 kW and 100 kW charging stations at the site, ii) the total number of charging ports, iii) the maximum number of vehicles that can charge at any one point in time, and iv) the total demand (kW) at the site assuming the maximum number of vehicles were charging simultaneously at the same time.

2.2 If the specific sites and station numbers provided in response to the preceding question differ from those provided in the F2022 RRA, Appendix C (totaling 57 stations), please explain the difference.

3.0 Reference: Exhibit B-1, page 13

Preamble: The Application states: “Most interviewees supported a 20 cents per minute rate, indicating a preference for the lowest rate. They stated that the 30 cents per minute rate was too high, which would influence their decision to not use the fast charging service.”

- 3.1 Given that the “interviewees” referred to were all electric vehicle owners is it not reasonable to expect that: i) the participants would prefer the lowest rate and ii) would suggest that higher rates would influence their decision to use the fast charging service?

4.0 Reference: Exhibit B-1, pages 14-17 and Appendix D

Preamble: The referenced pages provide the quantitative results from a web-survey undertaken by BC Hydro.

- 4.1 Please confirm that the respondents to the survey were all users of BC Hydro’s EV charging stations.

- 4.1.1 If not, please segment the reported results as between those respondents who are EV users and those who are not.

5.0 Reference: Exhibit B-1, pages 19-22 and Appendix F

Preamble: The referenced pages provide the quantitative results from feedback received following a fast charging service rate design virtual workshop carried out through WebEx.

- 5.1 Were the respondents who provided feedback all EV owners?

- 5.1.1 If not, how many respondents were not EV owners?

- 5.1.2 If not, please segment the three key results reported on pages 19-21 as between EV owners and non-EV owners.

**6.0 Reference: Exhibit B-1, page 24
FortisBC, Application for Approval of Rate Design and Rates
for EV DCFC Service, September 2020, page 19**

- 6.1 Please provide a revised version of Table 2 that includes any additional jurisdictions/providers from the FortisBC Application not already captured in BC Hydro table.

- 6.2 It is noted that the rate quoted by BC Hydro for the City of Vancouver differs from those quoted by FortisBC. Furthermore, the 26 cents quoted by FortisBC reconciles with rates current posted by the City of Vancouver (<https://vancouver.ca/streets-transportation/electric-vehicles.aspx>). Please explain the basis for the 21 cents/minute rate quoted by BC Hydro.

- 6.3 Please provide the basis for the 20 cents/minute rate quoted for the City of North Vancouver. According to the City of North Vancouver’s web-site, the current rate appears to be \$16/hour which is equivalent to 27 cents/minute. (<https://www.cnv.org/city-services/streets-and-transportation/sustainable-transportation/electric-vehicles/where-to-charge-your-electric-vehicle>)

7.0 Reference: Exhibit B-1, pages 11 and 25

Preamble: The Application states (page 11): “the electricity provided to the fast charging station, including the charging equipment, lighting and ancillary equipment (e.g., heating and cooling), can be metered with current Measurement Canada approved revenue metering equipment”.

The Application also states (page 25):

“The proposed RS 1360, which is applicable to public fast charging service at 25 kW stations, is considered a Small General Service (SGS) rate and is proposed at 12 cents per minute; RS 1560, which is applicable to public fast charging service at 50 kW stations, is considered a Medium General Service rate (MGS) and is proposed at 21 cents per minute, and RS 1561, which is applicable to public fast charging service at 100 kW stations, is also considered an MGS rate and proposed at 27 cents per minute.”

7.1 Are each of BC Hydro’s EV charging sites metered?

7.1.1 If yes, for each existing site with a 25 kW station, please indicate whether the overall monthly usage for the site is such that it would be considered a Small General Service “customer”? (Note: For purposes of the response please consider the period April 1, 2019 to March 31, 2020).

7.1.2 If yes and the overall monthly usage for some/all sites with 25 kW stations exceeds that applicable to SGS customers, please explain why the SGS rate is considered applicable for BC Hydro’s 25 kW stations.

7.1.3 If yes, does the maximum demand for any of BC Hydro’s EV sites exceed 150 kW such that the site would not be considered an SGS or MGS customer? (Note: For purposes of the response please consider the period April 1, 2019 to March 31, 2020).

8.0 Reference: Exhibit B-1, pages 25-26 and page 31 FortisBC, Application for Approval of Rate Design and Rates for EV DCFC Service, September 2020, Exhibit B-5, page 20 Exhibit A-3, BCUC 7.3

Preamble: The Application states:

“BC Hydro’s longer-term rate design objective is for the fast charging service rates to collect sufficient revenues from the users of the service to recover its full costs including electricity (Energy and Demand), as well as the fast charging station maintenance and capital costs, on a portfolio (or all station) basis. However, achieving this objective will require station utilization levels to be higher than what can be expected over the near term. To encourage station utilization while maintaining a level playing field with other fast charging station operators, the Proposed Rates are designed to align with prices of other operators, to fall within the range of prices that research indicates customers are willing to pay, and to collect

sufficient revenue to recover at least the cost of electricity based on BC Hydro's General Service rate schedules as further described below."

The FortisBC Application states:

"Due to the levelized nature of the rate, there will be some (early) years where the EV charging revenue will be less than the cost of service. In these years, all other FBC customers will bear the costs in excess of revenues. Conversely, in years where the charging revenue is greater than the cost of service, all other FBC customers will benefit from the excess of revenues."

- 8.1 Please confirm that, based on Table 3, at utilization rates of 25% and 30%, an EV charging rate of 21 cents per minute would more than cover the full cost of EV charging service.
 - 8.1.1 If not confirmed, please explain why.
- 8.2 Does BC Hydro have any estimate as to when in future it will be able to set fast charging service rates at a level sufficient to recover the full costs of the service?
- 8.3 Did BC Hydro consider deferring the near term short fall in revenues vs. the full cost of service to a regulatory deferral account for future recovery from EV customers when utilization rates reach a level whereby the charging rates could be set at levels that exceed costs?
 - 8.3.1 If yes, why was this alternative rejected?
 - 8.3.2 If not, why not?
- 8.4 BCUC 7.3 asks whether BC Hydro "has considered levelized rates." If not addressed in response to BCUC 7.3 please indicate if BC Hydro considered an approach such as that taken by FortisBC where a multi-year plan for EV charging rates is established such that the rates cover the cost of service (based on net present value analysis) over the term of plan but are set such that they under recover in the early years when utilization rates are low and over recover in the latter years when utilization rates are higher? (Note: Such an approach could involve rates that are fixed in absolute terms for the period or rates that increase annually with BC Hydro general rate increases).
 - 8.4.1 If yes, why was it rejected?
 - 8.4.2 If not, why not?

**9.0 Reference: Exhibit B-1, pages 11 and 28-29
FortisBC, Application for Approval of Rate Design and Rates
for EV DCFC Service, September 2020, Exhibit B-5,
page 13 and Exhibit B-17, BCOAPO 2.35.1**

Preamble: FBC's response to BCOAPO 2.35.1 states:

"The kWh usage data provided in response to BCOAPO IR1 11.4 through 11.6 was determined from the internal metering of the DCFC stations and associated reporting software. Although this metering is not approved for billing customers on an energy basis, it is reasonable to use this information for providing the kWh deliveries as requested in BCOAPO IR1 11.4 through 11.6."

BC Hydro's Application states (page 11):

While the electricity provided to the charging station, including the charging equipment, lighting and ancillary equipment (e.g., heating and cooling), can be metered with current Measurement Canada approved revenue metering equipment, there is no Measurement Canada approved solution measuring the electricity dispensed from the station to the battery of the electric vehicle."

- 9.1 Is the individual station metering used by BC Hydro capable of providing the energy used per charging session?
- 9.2 Please provide more details regarding how the 13.1 kWh average usage per charging session (per page 29) was determined.
- 9.3 Is the Average Electricity Consumption per Charging Session of 13.1 kWh based solely on the electricity usage of the charging station or does it include an allowance for the electricity required by lighting and other ancillary equipment at the site?
- 9.3.1 If based solely on the electricity usage of the charging station, please confirm that the proposed rates do not recover the electricity usage required by lighting and other ancillary equipment at BC Hydro's EV charging sites.
- 9.3.2 If based solely on the electricity usage of the charging station, what would the usage value need to be in order to include (based on April 1, 2019 to March 31, 2020 data) an appropriate allowance for lighting and other ancillary equipment usage? As part of the response please explain how the adjustment for lighting and other equipment usage was determined.
- 9.4 It is noted that in its Application FBC used an average consumption of 20 kWh per charge event based on average historical kWh volumes per charge session at its existing stations (page 13). BC Hydro's Application states that the 13.1 kWh per charging session is based on data collected from BC Hydro's fast charging stations from April 1, 2019 to March 31, 2020.

- 9.4.1 Please provide a schedule that for each 50 kW charging station in-service for this period sets out: i) the average number of charging sessions per month and ii) the average kWh per charging session (based solely on charging station usage).
- 9.4.2 Please provide a summary schedule that sets out: i) the average kWh per charging session across all stations, ii) the median kWh per charging session across all stations, iii) the minimum and maximum station values for the average kWh per charging session across all stations, iv) the average number of charging sessions per month across all charging stations, v) the median number of charging sessions per month across all stations and vi) the minimum and maximum values for the average number of charging sessions per month across all stations.

10.0 Reference: Exhibit B-1, pages 11 and 28-29

Preamble: BC Hydro's Application states (page 11):

"While the electricity provided to the charging station, including the charging equipment, lighting and ancillary equipment (e.g., heating and cooling), can be metered with current Measurement Canada approved revenue metering equipment, there is no Measurement Canada approved solution measuring the electricity dispensed from the station to the battery of the electric vehicle."

- 10.1 Does the calculation of the charging rate to recover electricity costs use 50 kW as the value for peak demand (per Equation 1, page 28)?
 - 10.1.1. If yes, please confirm that the calculation does not include any addition "demand" attributable to lighting and other ancillary equipment associated with the charging site.
 - 10.1.2. If the calculation does not include any addition "demand" attributable to lighting and other ancillary equipment associated with the charging site, what would the demand billing determinant need to be in order to include (based on April 1, 2019 to March 31, 2020 data) an appropriate allowance for lighting and other ancillary equipment usage? As part of the response please explain how the adjustment for lighting and other equipment usage was determined.
- 10.2 Does the MGS rate include a monthly customer charge?
 - 10.2.1 If yes, please explain why this charge has not been included in the calculation of the rate to recover electricity costs.

**11.0 Reference: Exhibit B-1, pages 24 and 31
FortisBC, Application for Approval of Rate Design and Rates
for EV DCFC Service, September 2020, Exhibit B-8-1,
BCOAPO 12.5**

Preamble: The Application states (page 31): “based on a market study, we believe that the range of 3 to 5 per cent utilization is a reasonable estimate at this time for the 50 kW station.”

The Application also states (page 31): “As noted above, BC Hydro does not have enough information on which to estimate station utilization at this time.”

The referenced “market study” states (page 5) that 5% utilization is “representative of many DCFCs today”.

- 11.1 Please explain how the 3 to 5 percent range was established based on the “DCFC RATE DESIGN STUDY FOR THE COLORADO ENERGY OFFICE” (DCFC Rate Design Study) prepared by the Rocky Mountain Institute, given the Study’s statement that 5% is representative of many DCFC’s today.
- 11.2 Did BC Hydro contact either the City of Vancouver or the City of North Vancouver and inquire regarding the current utilization rates for their EV charging stations?
 - 13.2.1 If yes, what were the results?
- 11.3 Please confirm that the F2022 utilization rate for 50 kW stations used by FortisBC in its application was between 5% - 6% (i.e. 2.72 charge events per station per day at 30.2 minutes each per BCOAPO 12.5).
- 11.4 Please confirm that the DCFC Rate Design Study indicates that 30% utilization “is representative of the utilization rates that a public DCFC might experience in a mature EV market”.
- 11.5 Please confirm that, in its Application, FortisBC assumed the utilization rate for 50 kW stations would be 25% by F2030 (12 charge events per day at 30.12 minutes per event per BCOAPO 12.5).
- 11.6 Please extend Table 3 in the Application to include utilization rates of 25% and 30%.

12.0 Reference: **Exhibit B-1, page 30**
FortisBC, Application for Approval of Rate Design and Rates
for EV DCFC Service, September 2020, Exhibit B-5,
pages 15-16

Preamble: The Application states:
“Maintenance costs are those costs associated with metering, repair and other station maintenance work and are approximately \$8,000 per year per station. Not included are labour costs associated with electric vehicle infrastructure which are approximately \$800,000 per year.”

The FortisBC Application states (page 16):

“FBC estimates that the operating and maintenance cost is \$5,193 annually per station for both 50 kW and 100 kW stations. This includes

maintenance, travel, repairs outside of warranty, and FBC network management expenses including half of a full-time equivalent (FTE) employee. The operating and maintenance cost drops to \$4,900 in year 2026 as FBC expects to reduce costs related to managing network administration of FBC stations.”

The FortisBC Application also states (page 15):

“A transaction fee of 15 percent for global management services is charged by FLO and is added to the calculated EV rate before the transaction fee. This fee covers the network management services provided by FLO (station status monitoring, remote diagnostics/upgrades, etc.), 24/7 telephone support for customers using the DCFC stations, as well as payment collection and processing.”

- 12.1 How was the \$8,000 per station established and what activities does it include?
- 12.2 In what year's dollars is the \$8,000 based?
- 12.3 Please provide more details as to what the additional \$800,000 per year in labour costs is for, what year's dollars it is based on and whether it varies with the number of stations.
- 12.4 Does BC Hydro's maintenance cost of \$8,000 per station cover the same activities/items as FortisBC's \$5,193 maintenance cost per station?
 - 14.4.1 If not, what are the differences?
 - 14.4.2 If yes, can BC Hydro explain the difference in cost per station?
- 12.5 It is noted that, in the case of FortisBC, FLO provides certain service such as the network management services (station status monitoring, remote diagnostics/upgrades, etc.), 24/7 telephone support for customers using the DCFC stations, as well as payment collection and processing. Are similar service/activities required to support BC Hydro EV charging stations?
 - 12.5.1 If not, why not?
 - 12.5.2 If yes, where are the costs of these services included in BC Hydro's analysis?
- 12.6 Are there any taxes or payments in lieu of taxes associated with BC Hydro's EV sites and stations?
 - 12.6.1 If yes, what are they and are they included in the \$8,000 per year per station?
- 12.7 Are there carbon credits associated with the operation of BC Hydro's EV charging stations?
 - 12.7.1 If yes, why are they not factored into the determination of the rates?

**13.0 Reference: Exhibit B-1, page 30
BC Hydro F2022 RRA, Exhibit B-4, BCUC 1.1.3 and 1.1.5**

Preamble: In BC Hydro's F2022 RRA the following EV charging station costs were identified as being included in the Revenue Requirement:

Electric Vehicle Infrastructure Costs \$ million	Fiscal 2022 Forecast	Appendix A Reference
Operating & Maintenance Costs		
Labour	0.8	Schedule 1, Line 2
Contract Services	1.0	Schedule 1, Line 2
Total Operating & Maintenance	1.8	
Depreciation	0.5	Schedule 1, Line 5
Cost of Energy	0.4	Schedule 1, Line 1
Total EV Infrastructure Costs	2.7	

- 13.1 Does the \$800,000 in labour costs cited in the above Table from the F2022 RRA represent the \$800,000 labour costs referenced in the current Application (page 30)? If not, please explain what each \$800 k represents and why they are different.
- 13.2 The Application indicates that the maintenance cost for 50 kW charging stations is \$8,000 per station. What are the maintenance costs per station for 25 kW and 100 kW charging stations?
- 13.3 Please reconcile the \$8,000 per station in maintenance cost referenced in the current Application (page 30) and response to the preceding question regarding the maintenance cost for 25 kW and 100 kW stations with the O&M costs included in the F2022 RRA and the number of stations BC Hydro plans to have in operation in F2022 (i.e., 155 per BCH RRA, Exhibit B-4, BCUC 1.1.5).

14.0 Reference: Exhibit B-1, page 31

- 14.1 Please provide the detailed calculation supporting the 62 cents / minute associated with Scenario 2 with a 3.7% utilization rate.

**15.0 Reference: Exhibit B-1, page 30
BC Hydro's F2022 RRA, Exhibit B-4, BCUC 1.1.4 & 1.1.5
FortisBC, Application for Approval of Rate Design and Rates
for EV DCFC Service, September 2020, Exhibit B-5,
page 15**

Preamble: In BC Hydro's F2022 RRA (BCUC 1.1.4) the following capital expenditures related to EV charging stations were identified for the period F2013 to F2022:

(\$ million)	Actual								Forecast		Total
	F2013	F2014	F2015	F2016	F2017	F2018	F2019	F2020	F2021	F2022	
Gross Capital Expenditures	0.8	1.7	0.7	1.1	1.3	3.4	2.5	6.2	3.2	0.1	21.0
Less: Contributions in Aid	(0.8)	(1.7)	(0.7)	(1.0)	(0.9)	(0.4)	(2.1)	(1.7)	(1.0)	(0.3)	(10.8)
Net Capital Expenditures	-	-	-	0.1	0.4	3.0	0.4	4.5	2.2	(0.2)	10.4
Less Non-prescribed undertakings:	0.00	(0.02)	0.00	(0.02)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.0	(0.0)	0.0	0.1	0.4	3.0	0.4	4.5	2.2	(0.2)	10.4

In BC Hydro's F2022 RRA (BCUC 1.1.5) the following capital additions related to EV charging stations were identified for the period F2013-F2022:

(\$ million)	Actual								Forecast	
	F2013	F2014	F2015	F2016	F2017	F2018	F2019	F2020	F2021	F2022
Capital Additions	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.4	2.1	0.3
Less: Non-prescribed undertakings	0.00	0.00	0.00	0.00	0.00	0.00	(0.03)	0.00	0.00	0.00
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.4	2.1	0.3

The current Application states (page 30):

“Capital costs are approximately \$85,000 per dual station site, amortized over ten years net of contributions by third parties such as NRCan are included. This figure includes costs such as site selection, properties, legal, design, engineering, lighting, signage, line construction, civil construction and capital cost investments by BC Hydro. Gross capital costs are approximately \$235,000 per dual station site when contributions, which are not guaranteed, by third parties such as NRCan are not included.”

The FortisBC Application states (page 15):

“FBC’s estimates that its gross capital expenditures for the forty EV charging stations (existing and planned) across 23 sites will be \$5.17 million. To date FBC has spent \$3.48 million on EV charging stations, and plans to spend an additional \$1.69 million in 2021. These expenditures cover EV station kiosks, charger connectors, poles, towers, conductors, line transformers, civil work, installation and commissioning.”

- 15.1 Please explain what is meant by a “dual station site”? Is the number of dual station sites equivalent to the number of EV charging stations and, if not, what is the difference for F2022?
- 15.2 The Application states that “Gross capital costs are approximately \$235,000 per dual station site when contributions, which are not guaranteed, by third parties such as NRCan are not included”. Are there capital contributions from other third

parties that are “guaranteed” and, if yes, what are the gross capital costs per dual station when these contributions are also not included (i.e. what is the gross capital cost prior to any reduction for capital contributions)?

- 15.3 With respect to BCUC 1.1.4 and 1.1.5, please reconcile the total capital expenditures on prescribed undertakings (net of capital contributions) of \$10.4 M with the total capital additions over the same period of \$5.3 M.
- 15.4 As of F2022 what are the total capital additions (net of all contributions) for 50 kW charging stations consistent with the F2022 RRA?
- 15.5 Please explain how the \$85,000 and \$235,000 values quoted in the current Application were calculated and reconcile them to the capital expenditures and capital additions attributed to EV charging stations in the F2022 RRA and the number of planned 50 kW EV charging stations for F2022.
- 15.6 Please reconcile the \$0.5 M in depreciation for EV charging stations included in the F2022 revenue requirement (per BC Hydro F2022 RRA, Exhibit B-4, BCUC 1.1.3) and the 155 planned EV stations for F2022 (per BC Hydro F2022 RRA, Exhibit B-4, BCUC 1.1.5) with the \$85,000 in capital costs per dual station site and the 10 year amortization per cited in the current Application.
- 15.7 Can BC Hydro explain why its gross capital expenditures per station (\$235,000 or more if this value includes contributions that are “guaranteed”) are significantly higher than FortisBC’s (\$5.17 M/ 40 stations = ~ \$130,000 per station)?
- 15.8 Please explain why the capital-related costs BC Hydro has identified in the current Application as being associated with EV charging stations do not include any provision for financing costs (e.g., interest costs on the debt required to finance the EV stations).

16.0 Reference: Exhibit B-1, page 31

- 16.1 Please provide the detailed calculations supporting the \$1.06 / minute associated with Scenario 3 based on a 3.7% utilization rate.

17.0 Reference: Exhibit B-1, pages 10 and 32

Preamble: The Application states (page 10):

“A 50 kW fast charging station can charge an electric vehicle to 80 per cent within 30 to 40 minutes, depending on the size of the battery and how depleted the battery is when charging commences. A 25 kW charging station can take up to twice as long to charge as a 50 kW station, depending on the starting state of charge and the electric vehicle make and model. A 100 kW fast charging station may not double the charging speed of a 50 kW station unless the vehicle is capable of being charged at this higher power level.”

The Application also states (page 32):

“As discussed above, BC Hydro proposes 12 cents per minute for the fast charging service at 25 kW stations. We expect the station utilization rate of the 50 kW and 25 kW stations to be similar, because 25 kW stations will be mainly used as replacements to 50 kW stations that are under repair and when no other charging equipment for 50 kW stations is available in inventory.

Assuming the 25 kW stations have a utilization of 3.7 per cent, the Proposed Rate of 12 cents per minute will recover all of electricity supply costs and some charging station capital and maintenance costs.

BC Hydro proposes 27 cents per minute for fast charging service at 100 kW stations. The rate will collect sufficient revenues to recover at least electricity supply costs (Energy and Demand charges) under the MGS rate so long as the station utilization rate is 6.5 per cent or greater. The station utilization needed for electricity cost recovery is higher for the 100 kW station than it is for the 50 kW station because the Peak Demand is higher. BC Hydro expects that utilization will be higher at the 100 kW stations because they are expected to be used primarily at locations near primary travel corridors or where high demand for charging has been demonstrated.”

- 17.1 For F2022 will there be any charging sites where 25 kW stations will be installed on a permanent basis? If so, how many sites and how many such stations will there be at these sites?
- 17.2 Given that: i) 25 kW stations can take up to twice as long to charge and ii) 25 kW stations will be used mainly used as replacements to 50 kW stations that are under repair and when no other charging equipment for 50 kW stations is available in inventory, why is it reasonable to assume that they will have the same utilization rate as 50 kW stations? Is BC Hydro assuming that in situations where 25 kW stations are in-service, there will be the same number of charging events and each event will last the same time (as for 50 kW stations) even though EV owners are likely to receive only ½ the charge (as they would from a 50 kW station)?
- 17.3 Given that the charging speed is higher for a 100 kW station (versus a 50 kW station) what does a 6.5% utilization rate translate into in terms of number of charging events per month?

18.0 Reference: Exhibit B-1, pages 32-33 and pages 36-37

Preamble: The Application states:

“We propose to file the evaluation report and, if warranted, an application to propose new rate(s) for fast charging service, by March 31, 2024. This timeline will allow for the collection and analysis of two full fiscal years of utilization and financial data (fiscal 2022 and fiscal 2023) as well as the completion 1 of customer and stakeholder engagement informed by the results of the evaluation.”

- 18.1 Please explain why it is expected to take a full year to prepare the evaluation report.

18.2 If new rates were proposed, would BC Hydro propose that they be implemented as soon as practical or would implementation not occur until April 1, 2025 so as to correspond with annual general rate increases?

19.0 Reference: Exhibit B-1, pages 33-34 and Appendix B

19.1 With respect to Special Condition #2, please provide a schedule that for the period April 1, 2019 to March 31, 2020 indicates for each station: i) how many times BC Hydro had to disconnect, interrupt or terminate service due to one/more of the reasons listed and ii) the overall time involved.

20.0 Reference: Exhibit B-1, pages 34-35

20.1 Please explain the range of performance rankings that BC Hydro uses when assessing Proposed Rates using the Bonbright rate design criteria. For example, is “good” the highest performance rating and is “poor” the lowest performance rating?

20.2 With respect to Bonbright Criteria #1 (Price signals to encourage efficient use and discourage inefficient use), would it be correct to say that the Proposed Rates do not reflect BC Hydro’s marginal cost because they do not include/recover any marginal costs associated with the installation/operation/maintenance of the EV stations themselves?

20.3 Would it be correct to say that the ranking of Proposed Rates performance is to some extent subjective, particularly when the assessment against an individual criteria involves multiple considerations (e.g. the Proposed Rates may be considered to result in a Fair apportionment of costs among customers in that they charge a higher rate for higher kW charging stations but not so in that overall the rates do not recover the full cost EV charging from the customers concerned)?

21.0 Reference: Exhibit B-1, page 37

21.1 The discussion regarding implementation of the rates includes “Configure each charging station individually with the applicable rate based on the power level of the station on the date of implementation”. However, the discussion does not include any activities related to establishing infrastructure and processes required to determine customers’ bills for use of an EV station or to collect payment from customers. Has this already been put in place and are the associated costs include in Scenarios 2 and 3 as set out in Table 3 of the Application?

22.0 Reference: Exhibit B-1, pages 37-39

22.1 Will customers be able to use a credit card to pay for their EV charging session if they do not have a mobile phone capable of “reading” a QR code sticker? If yes, how would this be accomplished?

- 22.2 With respect to billing option #4, will BC Hydro be charged by FLO or Chargepoint if EV customers pay using their services? If yes, what will be the charge to BC Hydro per charging event?
- 22.3 With respect to billing option #4, will EV customers be levied a surcharge by either FLO or Chargepoint if they pay using FLO's/Chargepoint's services?