PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC

June 27, 2024 **VIA E-MAIL**

Nancy Marconi
Registrar
Ontario Energy Board
Toronto, ON

Dear Ms. Marconi:

Re: Electric Vehicle Integration (EVI) Initiative (EB-2023-0071)
Staff Discussion Paper re Electricity Delivery Rates for Electric Vehicle (EV) Charging
Submission of the Vulnerable Energy Consumers Coalition (VECC)

Please find attached VECC's submission on the above referenced matter, pursuant to the Board's letter of May 30, 2024. Please contact me if any clarification is required (bharper.consultant@bell.net)

Yours truly,

William Harper
Consultant for VECC/PIAC

cc. J. Lawford, PIAC

ELECTRIC VEHICLE INTEGRATION (EVI) INITIATIVE (EB-2023-0071)

VECC'S COMMENTS RE OEB STAFF PRPOSAL RE:

ELECTRIC DELIVERY RATES FOR EV PUBLIC CHARGING

A. INTRODUCTION

The OEB commissioned a consultant, Power Advisory, to analyze the impact delivery costs have on EV charging and explore alternative delivery rate designs to support EV adoption while adhering to sound ratemaking principles. Power Advisory's report, Electricity Delivery Rates for EV Charging, was released on April 13, 2023. The OEB held a stakeholder meeting on May 24, 2023, to get feedback on the report and subsequently also sought written feedback from stakeholders.

Based on stakeholder feedback, and additional analysis conducted by its consultant, OEB staff developed a proposal for an electricity delivery rate for public EV charging stations that have a low load factor. A stakeholder meeting was held on June 13, 2024 to discuss the proposal and solicit feedback. Participants were also invited to provide written comments by June 27, 2024.

Set out below are VECC's written comments.

B. VECC's COMMENTS

VECC's comments have been organized in response to the specific questions set out in the June 13th OEB Staff presentation.

1. EVC RATE MANDATORY TO OFFER BY DISTRIBUTORS, OPTIONAL TO SIGN UP FOR[1]

    a) What do you think of the voluntary opt-in nature of the proposed EVC Rate?

In its June 14, 2023 comments[2] VECC expressed the view that reduced rates for public EV charging should be optional. VECC continues to support this approach. Indeed, VECC submits that making the rates mandatory for public EV charging stations is impractical. In order to know which customers the proposed public EV charging rate would be applied to Ontario's electricity distribution utilities would have to have insight into the end uses of electricity for behind its customers' meter. However, this is not information that the utilities currently collect and maintain. Furthermore, making the proposed rate optional will likely make the implementation of the rate easier for electric distribution utilities to administer as owners/operators of public EV charging stations are not likely to all apply at the same time.

    b) Should there be a limit on how frequently a participant may opt in and out of the EVC Rate?

Given that the proposed rate reduces the overall electricity bill for operators/owners of public EV charging stations, VECC does not anticipate the participants themselves choosing to opt-out when they would otherwise be eligible for the rate. This being said,

[1] OEB Staff Presentation, June 13, 2014, page 13

[2] Pages 25-26

such circumstances could arise. However, what is more likely is a situation where: i) a public EV charging station has opted into the rate, ii) after a period of time, the utility's regular eligibility review determines that the customer's monthly load factor has exceeded the 15% threshold, iii) the customer is removed from the rate and iv) the customer's circumstances change (i.e. the load factor declines) such that the customer seeks to reapply for the rate.

While the OEB Staff Discussion Paper[3] clarifies that the 15% load factor cut-off refers to a monthly load factor (e.g., not a seasonal, annual or other kind of load factor), it does not clearly indicate over what period the monthly load factors would be assessed (e.g., is it an annual average of the monthly load factors). However, the Report does indicate that the attestation provided by those applying for the rate must indicate that "over the next 12 months, the charging station demand is expected to be between 50 kW and 4,999 kW, the station will be publicly accessible, the station will have a load factor of 15% or lower, and the station will be separately metered"[4] (emphasis added). The Report also states that "distributors would be required to periodically review the ongoing eligibility of participating EVC Rate customers, consistent with how they periodically review ongoing eligibility for customers within the General Service 50 kW to 4,999 kW classes".[5] In this regard, the Distribution System Code (DSC) states[6]:

> "A distributor shall, at least once in each calendar year, review each non- residential customer's rate classification to determine whether, based on the rate classification requirements set out in the distributor's rate order, the customer should be assigned to a different rate class." (emphasis added)

Consistent with these practices, VECC submits that participants who have opted out of the EVC Rate or been disqualified based on their historic load factor should be able re-apply after 12 months (or more) have passed.

c) Other Issues

Effective Date for Those "Opting In"

The Staff Discussion Paper[7] states that "electricity distributors in Ontario would be required to offer the EVC Rate to qualifying EV charging stations as of January 1, 2026." However, the Report does not provide any expectations as to when a qualifying EV station should expect to start being billed using the EVC Rate after acceptance of its application. VECC submits that the approach adopted with respect to timing of the initiation of billing based on the EVC Rate once an application has been "accepted" should be similar to that currently used for customers opting-in or out of the RPP TOU rate.

[3] Page 9
[4] Page 11
[5] Page 9
[6] Section 2.5.1
[7] Page 2

2. ELIGIBILITY REQUIREMENT 1: DEMAND BETWEEN 50 KW AND 4,999 KW[8]

a) Do you have any advice on measuring demand for purposes of this EVC Rate?

VECC agrees with Staff's Proposal[9] 's that the measurement of demand for purposes of the EVC Rate (e.g. for purposes of both determining load factor and billing using the EVC Rate under Options A or B) should be based on the same approach as used by the electricity distributor for purposes of measuring demand when billing its General Service customers in the relevant customer class. Such an approach would be easiest for the distributor to apply and the easiest for the customer to understand.

b) Do you have any advice on assessing a participant's ongoing eligibility for the EVC Rate?

As part of a distributor's annual review of an EVC Rate customer's General Service classification (as required by the DSC) the distributor should also confirm the load factor eligibility (i.e. less than or equal to 15%). With respect to these items (and particularly the latter), it will be important that the distributor's practices as to how such assessments are done and the circumstances under which any required reclassifications will occur be clearly documented and publically available. To this end, distributors should be encouraged (required) to publish their review criteria on their web sites. One option in this regard would be to include them as an appendix to their Conditions of Service document. Absent such transparency, VECC anticipates that distributors will face objections/complaints when customers are removed from the EVC Rate, particularly when the monthly load factor has not continuously exceeded 15% in the preceding calendar year. Indeed, absent clarity in this regard, the OEB could find itself adjudicating customer complaints regarding reclassification.

However, VECC notes that eligibility for the EVC Rate includes more than just having a demand between 50 kW and 4,999 kW and a load factor of 15% or lower. It also requires[10]:

- Publicly accessibility, and
- Separate metering, with only specified equipment allowed behind the meter.

Further, the Staff Discussion Paper[11] and the OEB Staff Presentation[12] have both raised the issue as to whether, for EVC Rate eligibility purposes, a limit should be prescribed on the share of charging station load that may come from non-DCFC chargers.

As part of the ongoing eligibility assessment, participating EVC Rate customers should be required to attest to: i) the ongoing public accessibility of their charging stations, ii) any charging stations added/removed during the year (including type and power rating), iii) any additional behind the meter equipment added/removed during the year and iii) the expectation that the monthly load factor will continue to be 15% or less over the next 12 months. They should also be required to provide the kWhs delivered during the year

[8] OEB Staff Presentation, June 13, 2014, page 14
[9] See Q&A #14
[10] Staff Discussion Paper, pages 8 and 10
[11] Page 11
[12] Slide 17

to EVs[13]. The requirement for such information could be timed so as to align with the distributor's annual review of the participant's General Service classification. This information, along with the review of the participating EVC Rate customer's monthly demand levels and monthly load factor would then be used by the distributor to assess continued eligibility for the rate. The distributor should be expected to exercise due diligence and follow-up with the EVC Rate customer if changes in overall monthly demand levels cannot be reconciled with information provided regarding the additional charging stations and auxiliary equipment added.

c) Other Issues

Charging Station vs. Charging Site

Throughout the Staff Discussion Paper the discussion of eligibility requirements makes reference to the eligibility of EV charging "stations"[14]. However, EVs are actually charged through a charging port. An EV station may have one or more ports, where in some cases only one can be used at a time[15] whereas in other cases more that one can be used simultaneously (but then the power output of each is reduced). Finally, an EV charging site may have one or more charging stations. It is at the charging site level that electricity use is typically metered and billed. It is therefore at the site level that eligibility requirements such as qualification as a GS customer, load factor, auxiliary load uses need to be determined. For purposes of these comments VECC will continue to use the term "station" so as to be consistent with the Staff Discussion Paper. However, in most instances the comments will actually be referring to the EV charging site.

Treatment of DERs (generation or storage)

During the June 13th stakeholder meeting questions were raised as to whether distributed energy resource (e.g., generation or storage) could be connected alongside EV charging stations and whether net metering rules apply[16]. While not providing a definite answer Board Staff indicated that they were "open-minded and welcomed feedback from stakeholders".

VECC notes that the Staff Discussion Paper proposes[17] that other low load factor customers within the General Service 50 kW to 4,999 kW classes not be eligible for the EVC Rate on the basis that the rate was designed based on the load profiles and coincident peak contributions of public DCFC stations. Similarly, the proposed eligibility criteria for the EVC Rate regarding the need for separate metering of charging sites, the restriction on the types of additional load that can be included behind the meter and the suggested need to limit the inclusion of non-DCFC stations are all designed to ensure that the load profiles of eligible EV charging station sites closely align with the DCFC load profiles used in the development of rate.

[13] These kWhs will be less than those metered by the utility and represent usage by non-charging equipment
[14] For examples see pages
[15] One advantage of such an arrangement is that the ports can offer a different types of connectors
[16] See Q&A #12
[17] Pages 7-8

VECC can understand that parties interested in promoting/encouraging DERs would suggest that their installation alongside EV charging stations should not make such stations ineligible for the EVC Rate. However, the installation of generation or storage behind the meter at EV charging stations is likely to materially change the load profile of the EV charging station site as seen by the distributor at the meter, particularly since load management if frequently one of key reasons for customers to install DERs. As result, VECC submits that it would not be appropriate to permit EV charging sites/stations that have any material[18] DER capacity behind the meter to be eligible for the EVC Rate. To so would undermine principle that the rate is based on cost causality and also undermine industry acceptance of the other EVC Rate eligibility requirements.

3. ELIGIBILITY REQUIREMENT 2: PUBLICLY ACCESSIBLE[19]

   a) Should charging stations be required to provide service to all EV models to be eligible for the EVC Rate? Why?

It is VECC's understanding the types of connectors used by EVs for purposes of DCFC charging have been evolving over time and currently vary by auto manufacturer[20]:

- SAE Combo connectors (CSS) which are used by most automakers except Tesla and deployed at most non-Tesla DCFC stations.
- CHAdeMO connectors which are not widely used by vehicle manufacturers, except some Japanese manufacturers but often deployed at non-Tesla stations in conjunction with CSS connectors, and
- North American Charging Standard (NACS) connectors which were developed and deployed by Tesla at its DCFC stations.

At the same time, VECC also understands that electric vehicle charging systems continue to evolve towards greater compatibility for all connector types.[21].

Based on these observations, VECC does not consider it practical (or necessary) to require charging stations to be able to provide service to all EV models in order to be eligible for the EVC Rate.

   b) Would it be feasible for charging stations to provide universal service? How would it be accomplished?

In VECC's view it would be technically feasible for charging stations to provide universal service by making all three types of connectors available at a charging site. However, such a requirement could negatively impact the business case for owning/operating such stations and is not necessary given that comments in part 3 a) above.

   c) Other Issues

Public Accessibility Requirements

The Staff Discussion Paper states[22]:

[18] See section 5 b) below
[19] OEB Staff Presentation, June 13, 2014, page 15
[20] Biennial Snapshot of Canada's Electric Charging Network and Hydrogen Refuelling Stations for Light-duty Vehicles (see Footnote 20 in Power Advisory's April 13, 2023 Report), pages 10 and 29 and
[21] https://natural-resources.canada.ca/energy-efficiency/transportation-alternative-fuels/electric-vehicle-charging/25049

> "The EVC Rate would only be available to EV stations that are publicly accessible". This is meant to exclude charging stations that only or primarily serve corporate and/or public sector fleets, which would be expected to have different load profiles."

The Staff Discussion Paper then goes on to state:

> "Examples of eligible use cases include, but are not necessarily limited to, the following (provided that all other eligibility requirements are met):
> • Charging stations on or just off highways (e.g., 400 series highways)
> • Charging stations on the site of a retail establishment, plaza, shopping centre
> • Charging stations on the site of a municipal, university, school or hospital building
> • Charging stations associated with multi-unit residential buildings
> • Charging stations associated with condominiums[23]
> • Charging stations on employee parking lots[14]."

In VECC's view publicly accessible means that any EV owner can have access to the station and use it subject to being able to physically connect (see parts (a) and (b) above) and paying the standard fees applicable for use of the EV charging station. As a result, VECC considers the last three examples to be incompatible with the principle of "public accessibility". In the cases where the charging stations are associated with multi-unit residential buildings and condominiums the charging stations are most likely to be located in areas that are restricted to just residents. Similarly, in the case of employee parking lots access is more than likely to be restricted to employees of the company/organization providing the service. Indeed, such restrictions may also apply to some charging stations on the sites of municipal, university, school or hospital buildings.

In VECC's view the need for stations eligible for the EVC Rate to meet this definition of public accessibility is strengthened by the fact that Power Advisory's analysis is based on the load profiles of public charging stations and, more specifically public DCFC (i..e. Level 3) stations, as evident from the data sources used by Power Advisory[24].

DCFC stations range in power requirements from 25 kW to 350 kW[25]. They generally found on highways (for EV owners to recharge quickly during periods of extended travel) or in locations where EV owners will only be stopping for a short period of time[26]. In terms of usage profile, Power Advisory's April 2023 Report notes that[27]:

> "In a normal day, a public DCFC will spend most of its time drawing nearly zero power. This will be punctuated by several short charging sessions. In Canada, public DCFC usage sessions average 28 minutes. Occasionally, both ports at a 2-port station will be in use and the station may draw its maximum demand. Averaging many independent stations together yields a load profile that picks up

[22] Page 9
[23] OEB Staff further confirmed during the Stakeholder Meeting that EV stations associated with condominiums and employee parking lots would be eligible = see Q&A Question #9 and #10
[24] Power Advisory Addendum #1, pages 6-7 and Power Advisory's April 2023 Report, pages 14-15
[25] Biennial Snapshot of Canada's Electric Charging Network and Hydrogen Refuelling Stations for Light-duty Vehicles (see Footnote 20 in Power Advisory's April 13, 2023 Report), page 8
[26] Ibid
[27] Page 15

in the morning and peaks in the late afternoon, with higher load on Fridays and weekends."

In contrast, the usage patterns of EV charging stations located in multi-residential building, condominiums and employee parking lots are likely to be materially different as charging will typically take place at different times and over a longer period of time (e.g. overnight in the case of multi-residential buildings and condos and during work hours in the case of employee parking lots). Indeed, the charging stations involved in such situations are more likely to be Level 2 chargers with power requirements of usually from 3.8 kW to 7.7 kW[28] such that charging time is considerably longer[29]. As a result, they are likely to have a fundamentally different load profiles than DCFC stations.

Finally, VECC notes that the estimates provide by Power Advisory (and referenced in the Staff Discussion Paper) as to the impact on other customers of offering the EVC Rates customers are based on expected growth in public DCFC stations[30]. If the eligibility for the EVC Rate is expanded to other forms of EV charging then the expected impacts would likely increase significantly.

For these reasons VECC submits that eligibility for the EVC rate should generally[31] be limited to DCFC stations that are accessible to the public at large.

4. ELIGIBILITY REQUIREMENT 3: LOAD FACTOR UP TO 15%[32]

   a) What do you think of the proposed approach in which distributors would apply their existing procedures for dealing with participants whose monthly load factors occasionally exceed 15%?

VECC considers it appropriate that distributors apply the same procedures for EVC Rate participants whose monthly load factors occasionally exceed 15% as they currently apply for dealing with GS customers whose monthly demands occasionally fall above or below those used to define the GS class they have been assigned in order to determine continuing eligibility for the EVC Rate. As discussed in Section 2 b) above, the only caveat is it that electricity distributors will need to fully document and publish publicly what their procedures are.

   b) Other Issues

Eligibility Cut-Off at 15%

During the June 13th stakeholder meeting a question was raised as why the EVC Rate is limited to charging stations with monthly load factors of 15% or less. Figures 5 and 6 in Power Advisory Addendum #1show the range of load factors in the U.S. dataset used to determine the relationship between load factor and contribution of DCFC stations

[28] Biennial Snapshot of Canada's Electric Charging Network and Hydrogen Refuelling Stations for Light-duty Vehicles (see Footnote 20 in Power Advisory's April 13, 2023 Report), page 8

[29] https://natural-resources.canada.ca/energy-efficiency/transportation-alternative-fuels/electric-vehicle-charging/25049

[30] Power Advisory Addendum #1, page 16; Staff Discussion Paper page 20 and Q&A #3

[31] Please see section 5 b) & c) of VECC's comment regarding inclusion of non-DCFC charging stations in sites eligible for the EVC Rate.

[32] OEB Staff Presentation, June 13, 2014, page 16

peak demand to the system coincident peak. From both figures it is clear that most of the observations for DCFC stations are based on load factors of less than 5% and that the number of observations in each subsequent five percentage point range decreases significantly. Given the lack of data points with a load factor of more than 10% (and even less with a load factor exceeding 15%), the validity of the regression analysis results and their applicability for DCFC stations with load factors in excess of 10% let alone 15% becomes questionable. As a result, VECC supports limiting the eligibility for the EVC Rate to charging stations with a load factor of 15% or less.

5. ELIGIBILITY REQUIREMENT 4: SEPARATELY METERED[33]

   a) Is the set of eligible auxiliary loads identified in the discussion paper appropriate? Are there others that you'd recommend?

The Staff Discussion Paper identifies the following as eligible auxiliary loads[34]:

- Lighting,
- Tire inflation,
- Vacuuming,
- Washrooms,
- Snacks/refreshments, and
- Seasonal/administrative/safety

In general VECC agrees that the set of identified auxiliary loads is appropriate with the following caveats:

- The availability of snack and refreshments should only be via vending machines and not via a convenience store or similar retail outlet.
- While pay phones are no longer widely available, they should be allowed as an eligible auxiliary load if the site owner/operator wishes to have them installed on the site.
- It is not clear what types of load would be included under "Seasonal/Administrative/Safety". VECC assumes it is meant to capture loads that would be required to support the operation of the DCFC charging stations (e.g., communications equipment to facilitate bill payments, etc.) during all seasons of the year (which may require some heating of certain facilities/equipment) and in a safe manner. Staff may want to provide examples so that owners/operators will understand what types of load are and are not permitted under this category.

   b) Should stations that have some or no DCFC chargers be eligible for the EVC Rate?

Given that the analysis supporting the design of the EVC Rate is based on the load profile of public DCFC stations, it is VECC's view that eligibility of EV charging sites should be limited to those where charging is provided primarily through DCFC charging stations. Sites with no DCFC stations should not be eligible for the rate. As previously noted Level 2 charger will have a fundamentally different load profile.

[33] OEB Staff Presentation, June 13, 2014, page 17
[34] Page 11

However, VECC does recognize that owners/operators of sites with DCFC stations may choose to also install Level 2 chargers so as to make an additional alternative available to EV users. In VECC's view sites that include both DCFC stations as well as Level 2 chargers should be eligible for the rate as long as the DCFC stations represent most of the total power requirements (i.e, kW) for the stations on site. In VECC's view it would be reasonable to require that DCFC stations make up at least 90%-95% of the site's charging station power requirements. VECC notes that even with percentages this high the difference in the power requirements of Level 2 vs. Level 3 chargers would permit sites with 100 kW or more of Level 3 charging capability to have one Level 2 charger.

c) Should a limit be prescribed on the share of charging station load that may come from other types of EV chargers that are not DCFC chargers? If so, what should that limit be?

VECC's comments in preceding section address this issue.

d) Other Issues

Need for Separate Metering

In VECC's view separate metering is a critical and necessary eligibility requirement, particularly when the intent[35] is to limit the applicability of the EVC Rate to charging stations and not expand it to other low load factor customers.

Establish Allowable Auxiliary Load as Percent of Station's Peak Demand

During the June 13th stakeholder meeting it was suggested[36] that customers be permitted to have auxiliary loads up to a percentage of the charging station's peak demand. The problem with this approach is that the total peak demand for the charging stations on a specific site could vary significantly depending on the power requirements of the individual stations and the number of stations on the site. In contrast the power requirement for auxiliary load such as lighting and washroom facilities are more than likely be the same regardless of the power rating of the individual charging stations or even the number of stations. Therefore, it would be difficult to establish a percentage of peak station demand that would be reasonable in all circumstances.

6. CUSTOMER TO ATTEST TO ELIGIBILITY UPON OPTING IN[37]

a) What do you think of this approach of self-declaring eligibility for the EVC Rate?

VECC understands the attractiveness of having customers self-declare their initial eligibility for the EVC Rate from an administrative perspective. However, VECC is concerned that this could lead to potential abuse of rate by parties attesting to eligibility when they do not meet the prescribed requirements. This concern is heightened by the fact that, should this abuse be uncovered, and the customer is subsequently removed from the rate there is no provision for a penalty or reference to the distributor being able to back bill based on the full RTSR rate. In VECC's view such circumstances should be

[35] Staff Discussion Paper, page 7
[36] Q&A #25
[37] OEB Staff Presentation, June 13, 2014, page 18

treated the same as billing errors made in the favour of the customer and subject to back billing on the same basis.

In addition, to help confirm that those applying are actually eligible for the EVC Rate VECC suggests that:

- The initial attestation provided by the owner/operator of the public EV charging station should include: i) an outline of the equipment that will be behind the meter, including details as to the number of charging stations by type (i.e., Level 2 and Level 3) and their rated power levels as well the other auxiliary uses of power that will be metered and ii) confirmation that the site/stations behind the meter are publically assessable.
- In cases where the load has historically been separately metered, the historical monthly load factor should be reviewed and, if it exceeded 15%, the customer questioned as to the basis for the attestation that the load factor will not exceed 15% in the coming years.
- In cases where the customer is new and or installing an additional meter to separate the EV charging station load, an assessment should be made as whether the load requirements of the equipment that the customer has identified as being behind the meter falls will fall within the 50 kW to 4,999 kW range.
- In both cases, the auxiliary uses of power identified in the attestation should be reviewed to confirm they align with the eligibility requirements for the EVC Rate.

VECC considers the above requirements as being consistent with the Staff Discussion Paper statement that[38]:

> "Electricity distributors would be expected to take reasonable steps and due diligence in accepting the attestation of eligibility provided by customers who opt into the EVC Rate."

b) Is it appropriate that the attestation should come from a "representative" of the customer, or should something more specific be required? For example, should the attestation be signed by someone like a professional engineer?

VECC does not see any particular advantage to having the attestation come from someone like a professional engineer as opposed to a legal representative of the customer. The important issue is that the "representative" be familiar with the equipment that will be behind the meter.

c) Are there any existing distributor processes for opting in that can be leveraged?

In the case of a new customer who will require a connection and meter or where a separate meter needs to be installed for an existing customer in order to separately meter the EV charging load, a site visit will likely be required by a representative of the electricity distributor. In such circumstances, verification of eligibility (in terms of the equipment installed behind the meter) could be provided the utility's representative.

[38] Page 11

7. NO NEW RATE CLASSES[39]

   a) Do you agree with the proposed approach of not establishing new rate classes for participating EV charging stations upon implementation of the EVC Rate?

VECC agrees with the proposed approach of not establishing new rate classes for participating EV charging stations upon implementation of the EVC Rate. VECC's rationale for this view was set out in its June 14 2023 comments[40] and is summarized below:

- For many LDCs, initially there are likely to be a limited number of customers in the eligible EV charging station class or maybe none at all. As a result, the data required to determine the load characteristics of the new class for purposes of the OEB's Cost Allocation model may be limited/unavailable.
- Also, the load characteristics of the customers on the EV Rate could change materially as the number of customers increases.
- Finally, implementing the EVC Rate using new rate classes would impact the distribution costs allocated to all other classes on an NCP basis and as such would have a wider impact on other class than the proposed approach with just affects the RTSRs.

8. EVC RATE OPTIONS: A, B AND C[41]

   a) What are your thoughts on the three EVC Rate design options?

In assessing the suggested EVC Rate design options VECC has considered the following:

- Alignment with the principle of cost causality,
- Ease implementation and administration, and
- Customer understanding and acceptability.

Options A, B and C all rely on the same underlying derivation as to the relationship between the load factor for DCFC stations and the contribution of DCFC stations to system peak. The main difference is the degree to which each option captures changes in this relationship as the load factor for DCFC stations increase from 0% to 15%. In this regard, Option C best aligns with the principle of cost causality, followed by Option B and then Option A.

VECC views Option A as being the easiest to implement and administer as: i) it uses the same RTSR billing determinant (i.e. kW) and therefore only requires the applicable rate to be changed a distributor's billing system and ii) once a customer has been eligible for the rate there is no need to change the customer's rate classification unless the load factor exceeds 15%. In contrast Options B and C each present their own unique challenges. Option B also uses same billing determinant and should therefore be relatively easy to implement in a distributor's billing system. However, Option B will likely lead to the distributor having to change the customer's rate "classification" more frequently (i.e., when the load factor crosses the any of the 3%, 7%, 11% or 15%

[39] OEB Staff Presentation, June 13, 2014, page 19
[40] Page 25
[41] OEB Staff Presentation, June 13, 2014, page 20

thresholds). In contrast, while Option C does not create such issues with respect to customer rate re-classification, it does use a different billing determinant (i.e. $/kWh as opposed to $/kW) as well as a different rate, necessitating more initial changes to the distributor's billing system. Based on these observations, VECC considers Option A the easiest to implement and administer, followed by Option C and then Option B.

In VECC's view Options A and B are likely the easiest to understand as the basis for each is simple, i.e. a lower load factor qualifies for lower RTSR rate. However, VECC anticipates that Option B will present more challenges and customer issues than Option A as the RTSR rate applicable to a specific DCFC station is likely to change more frequently (i.e. when the load factor crosses the any of the 3%, 7%, 11% or 15% thresholds).

b) Which option would you recommend and why?

Based on the assessment set out in the preceding section, VECC would recommend Option A. VECC recognizes that Option A does not align as well as the other two options with the principle of cost causality. However, Power Advisory has acknowledged[42] that there are limitations regarding the analysis it has performed suggesting that one should not ascribe to the analysis and resulting links to cost causality a level of accuracy that does not exist. In this regard, the simplicity of Option A communicates the correct message.

c) How strong is your preference for the option that you recommend compared to the other EVC Rate design options?

VECC does not have an overwhelming preference for Option A over Option C. However, VECC does consider Option B go be the least desirable. This is primarily due to ongoing issues it will create for both the distributor and DCFC station owners/operators due to the need to more frequently adjust the applicable RTSR rate.

d) Do you have any other advice on what to consider when choosing the EVC Rate design option?

In VECC's view the factors discussed in the previous sections are the appropriate ones to consider when choosing the EVC Rate design option.

9. PROVINCE-WIDE PARAMETER FOR NOW[43]

a) What do you think of the approach of starting out with the RTSR reduction parameter issued by the OEB initially, but allowing the opportunity for distributors to propose more territory-specific EVC Rates in the future if they wish?

Use of a Province-wide RTSR Reduction Parameter to Start

In VECC's view starting out with a province-side RTSR reduction factor issued by the OEB is the only practical way to implement the rate at this stage. Electricity distribution utilities are not in a position to develop their own specific reduction parameters based on the characteristics of the DCFC stations in their service area. There are a number of reasons for this:

[42] Power Advisory Addendum #1, page 22
[43] OEB Staff Presentation, June 13, 2014, page 21

- First they are not necessarily aware of all of the DCFC stations currently operating in their service area.
- Second, even if they were, for many distributors the number of DCFC stations in their service area would likely be insufficient to support a robust analysis of the relationship between the load factor of a DCFC station and its contribution to the distributor's transmission costs.
- Finally, even if there were sufficient DCFC stations identified, many distribution utilities would not have the internal resources and/or capability to undertake the required analysis[44].

Furthermore, it is unlikely that most distributors could even use the DCFC station data sources employed by Power Advisory to develop their own specific reduction factors without support from external consultants and extensive direction from the OEB.

However, there are drawbacks to using a province-wide RTSR reduction parameter, particularly the one calculated by Power Advisory. Power Advisory's determination of a generic province-wide reduction parameter (or set of reduction parameters in the case of EVC rate Option B) is based on an assessment of the contribution of DCFC stations to the overall system peak[45]. This relationship varies from across the hours when the system peak typically occurs and Power Advisory has chosen to use the average value for purposes of determining the reduction parameter(s) [46]. However, Network, Line Connection and Transformation Connection related charges applicable to a particular electric distribution utility are not all based on the utility's contribution to the system peak:

- For distributors billed for Provincial Transmission Service (PTS) by the IESO, the charges for Line Connection and Transformation Connection are based on the utility's monthly non-coincident peak demand for the associated facilities. Also, even in the case of Network Service, the IESO charges are based on the higher of (a) customer coincident peak demand (MW) in the hour of the month when the total hourly demand of all PTS customers is highest for the month, and (b) 85 % of the customer peak demand in any hour during the peak period 7 AM to 7 PM (local time) on weekdays, excluding the holidays as defined by IESO.
- For those distributors that are embedded within another distributor, the RTSR charges for Network, Line Connection and Transformation Connection are all based on the embedded distributor's non-coincident peak demand as recorded by the host distributor.

This means that the applicable hour on which the reduction parameter should actually be based is likely to vary from distributor to distributor based on the timing of each distributor's non-coincident peak demand. The result is that for some distributors the province-wide reduction factor will overstate the actual value of the reduction parameter while for other distributors it will understate the actual value of the reduction parameter if calculated using utility specific data.

[44] VECC bases this view on the number of distribution utilities that contract with 3rd parties to undertake the analysis required to develop the Load Forecasts and/or Cost Allocation Load profiles used in their cost of service-based rate applications

[45] Power Advisory Addendum #1, pages 3 and 10

[46] Power Advisory Addendum #1, page 10

b) Does the potential distribution-specific customization of the EVC Rate in the future influence or change your thoughts on which EVC Rate design option (A, B or C) should be selected for now? For example, is one EVC Rate design option likely to be more amenable to customization than another?

The potential distribution-specific customization of the EVC Rate does not influence/change VECC's views or previously expressed preferences regarding the EVC Rate design options.

10. EXISTING DVAS SHOULD CONTINUE TO BE USED BY DISTRIBUTORS TO RECORD AND RECOVER ANY RTSR REVENUE SHORTFALLS[47]

a) Does anything need to be clarified about RTSR DVAs before OEB staff's proposal is finalized?

Calculation of RTSR DVA Variances

The Staff Discussion Paper states[48]:

> "The difference between the RTSR that participating customers pay upon implementation of the EVC Rate and the base RTSR that would otherwise have applied to them could drive an RTSR revenue shortfall for distributors. Distributors should continue to use their RTSR variance accounts to record RTSR revenue variances."

In VECC's view no further clarification is required with respect to how RTSR DVA balances will be calculated as a result of the implementation of the EVC Rate. This statement correctly confirms that for purposes of the RTSR DVAs the revenues to be recorded are the revenues based on the RTSRs actually charged to customers, including customers on the EVC Rate.

Refund/Recovery of RTSR DVA Balances

The balances in the RTSR DVA (USOA #1584 and #1586) are allocated to customer classes based on each class' total metered kWh. Assuming this is the intent of the Staff Proposal then no further clarification is required.

b) What, if anything, is missing from the proposal discussion paper about RTSR DVAs that needs to be added before OEB staff's proposal is finalized?

In VECC's view nothing further needs to be added about the RTSR DVAs.

c) Other Issues

RTSR Revenue Shortfalls

Both the OEB Staff Discussion Paper[49] and the OEB Staff's response to the questions posed[50] during the June 13 stakeholder meeting indicate that there will be an RTSR revenue shortfall when the EVC Rate is first implement (i.e. in 2026) but that this shortfall will be eliminated when the RTSR rates are subsequently reset. However, it is not immediately evident to VECC that revenue shortfalls due to the lower EVC Rate will

[47] OEB Staff Presentation, June 13, 2014, page 22
[48] Page 18
[49] Pages 18-19
[50] Q&A 27

not occur in subsequent years. First both the RTSR Workform (Tabs 3 and 8) and the IRM Rate Generator Model (Tabs 10 and 15) use actual historic RTSR billing units. As a result, in both cases the data used in unlikely to reflect the implementation of the EVC rate until rates are set for 2028. Furthermore, as discussed below, even then revenue shortfalls may continue to occur depending upon how the standard RTSR s are determined.

Currently, the RTSR Workform resets the RTSR rates for a test year by: i) determining the RTSR revenues generated by each class in the most recent year for which actual data is available (i.e. the actual RTSR billing units for each customer class multiplied by the class' approved RTSRs for year), ii) identifying the IESO's and/or Host Distributor's billing units for Network, Line Connection and Transformation Connection service for the same year, iii) determining the distributor's cost for Network, Line Connection and Transformation Connection in the test year using the IESO's and/or Host Distributor's applicable rates for the test year and the historical year's billing units per Step (ii) and iv) for each of Network, Line Connection and Transformation Connection service calculating the adjustment in the approved rate used in Step (i) to recover the costs determined in Step (iii).

The Staff Discussion Paper indicates[51] that the RTSR Workform will be revised so as to not only calculate the "standard" RTSRs but to also calculate the adjusted RTSRs (i.e. the EVC Rates) applicable to customers determined to be eligible for the EVC Rate. Further, it appears that this will be done after the standard RTSRs have be determined following the process outlined above. As a result, VECC anticipates that shortfalls in RTSR revenue will continue to occur if, in Step (i), the RTSR revenues generated by the GS customers with loads in the 50 kW to 4,999 kW range do not account for the lower revenues that are generated those customers eligible for the EVC Rate. Otherwise, in Step (iii) the resetting of the standard RTSRs will be done without recognizing the lower revenues that will accrue from the EVC Rate and, all else being equal, a RTSR revenue shortfall will occur.

11. THE EVC RATE WOULD BE IMPLEMENTED THROUGH CHANGES TO THE RTSR WORKFORM AND IRM RATE GENERATOR MODEL[52]

    a) Does anything need to be clarified about the RTSR workform and/or IRM Rate Generator Model before OEB staff's proposal is finalized?

Consistent with VECC's comments in section 10 c) above, the RTSR Workform and the IRM Generator Model both need to be revised so as to incorporate in the determination of the standard RTSRs the lower revenues that will accrue due to the implementation of the EVC Rate.

    b) What, if anything, is missing from the draft proposal discussion paper on the subject of the RTSR Workform and/or IRM Rate Generator Model that needs to be added before OEB staff's proposal is finalized?

[51] Pages 21-22

[52] OEB Staff Presentation, June 13, 2014, page 23

As noted in part 11 a), the draft proposal discussion paper needs to set out precisely how the RTSR Workform and the IRM Rate Generator Model in order to account for the lower revenues that will be generated by the EVC Rate.

12. OTHER ISSUES/CONSIDERATIONS

a) Transition Back to Standard GS Rates

The Staff Discussion Paper indicates that total bill savings due to the EVC rate are estimated to range between 8% and 22% under Option C assuming a load factor of 15%[53]. This suggests that when the load factor for customers on the EVC rates exceeds 15% and the customers are billed using the standard General Service rates, the total bill impacts for some customers could exceed 10%. A question then arises as to whether some form of bill impact mitigation (e.g. in the form of a transition period) should be made available.

b) Annual Reporting/Attestation Updates

In Section 2 b) VECC provided suggestions regarding the information customers should be required to provide the distributor in order to confirm their continuing eligibility for the EVC Rate. However, the Board may wish to establish also establish its own reporting requirements for distributors with customers on the EVC Rate in order to monitor the overall level of participation in the rate and whether sufficient information would be available to either re-set the provincial adjustment factor using Ontario based data or expect distributors to be able to develop their own specific adjustment factors. To this end, annual reporting requirement with respect to the EVC Rate could include distributors reporting by GS rate class:

- The number of customers on the EVC Rate at year end, and
- The sum of the monthly billing kW and the annual kWhs on for those customers on the EVC Rate.

c) Future Evaluation

The Staff Discussion Paper states[54]:

> "The OEB might initiate a review of the EVC Rate after some experience has been gained with it, likely within several years of its implementation."

The Discussion Paper then goes on to state:

> "The review might consider distributor and customer experiences, lessons learned, other relevant considerations and next steps. The timing and scope of such a review would be informed by stakeholder input."

Given the limitations Power Advisory has identified[55] with its analysis as well as those noted by VECC, VECC believes the OEB needs to commit to: i) reporting on a regular basis as to the overall take-up of the rate (e.g., number of utilities with EVC Rate customers, total number of EVC Rate customers, etc.) and ii) reviewing the EVC Rate once sufficient data is available to confirm the appropriateness of the parameters used in designing the rate.

[53] Page 20
[54] Page 22
[55] Addendum #1, page 22

Further, the OEB needs to clearly set out the data that it expects distributors to record and maintain regarding its EVC Rate customers in order to: i) support the development of utility-specific EVC Rates and ii) facilitate any future province-wide evaluation/review of the EVC Rate.