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Holly R. Anderson, Clerk
Public Utilities Commission
112 State Street, 4th Floor
Montpelier, Vermont 05620-2701

Subject: 2021 Investigation into Rates Related to Electric Vehicles
Case number 21-5271-INV

Dear Ms. Anderson:

Thank you for the opportunity to comment on the potential content of the 2022 report. According to the order, "In 2022, the Commission plans to provide an inventory to the Legislature of existing rates related to EVs and EVSE."

I hope that the Public Utilities Commission includes a discussion of the current status of third party charging stations and how they present barriers to adoption of plug-in electric vehicles. I hope that the report covers rates that distribution utilities charge the third party stations. And that the report covers the rates that third party stations charge their customers. And whether the Commission recommends that third-party charging stations be regulated more than they now are regulated.

Legal requirements

I provide these extracts from Act 55 and statutes so that those who read these comments will have a better understanding of the basis for my comments.

Act 55 (Sec. 33)

(a) "serves to encourage . . . the timely adoption of . . . public charging through managed loads or time-differentiated price signals."
(b)(3) Electric distribution utilities shall offer PEV rates which shall encourage "travel by PEV relative to available alternatives".
(c)(1)(E) The subsection requires that rates "do not discourage EVSE available to the public".
(c)(2) The rates may "utilize . . . static or dynamic time-varying rates".
(c) This subsection omits a condition. I believe an additional condition should be that rates "do not discourage the public from using "EVSE available to the public".
(g) The reports shall address "the goals of subdivision (c)(1) . . . and any progress barriers towards the goals contained in subsections (a) and (b)".

23 V.S.A. Chapter 1

§4(85) "A 'plug-in electric vehicle' includes both a 'battery electric vehicle' and a 'plug-in hybrid electric vehicle'.

30 V.S.A. Chapter 5

§201(2). "Electric vehicle supply equipment available to the public"
(A) be located at a publicly available parking space, which does not include a parking space that is

part of or associated with a private residence or a parking space that is reserved for the exclusive use of an individual driver, vehicle, or group of drivers or vehicles including employees, tenants, visitors, residents of a common interest development, residents of an adjacent building, or customers of a business whose primary business is not electric vehicle charging;
(B) disclose all charges for the use of the electric vehicle supply equipment at the point of sale; and
(C) provide multiple payment options that allow access by the public, if a fee is required, and shall not require persons desiring to use such public electric vehicle supply equipment to pay a subscription fee or otherwise obtain a membership in any club, association, or organization as a condition of using such electric vehicle supply equipment, but may have different price schedules that are conditioned on a subscription or membership in a club, association, or organization."

Status of third-party charging stations

I use the term "third-party" because they are an intermediary between the distribution utility and the user of the vehicle. I believe these third-party stations are a form of Electric Vehicle Supply Equipment. The distribution utility sells to the third-party charging station which then sells (or gives) electricity to the user of the vehicle. (And please do not get hung up on my use of the term "sells" to the user. I have heard that it is illegal for a third party charging station to actually sell electricity. So the ones who charge actually sell something else.)

I did a limited observation of four charging stations in Montpelier.

Each station uses a different brand of equipment.

The first charging station is on a side street and can charge two vehicles. It is the only one that openly disclosed the rate. Push a button and the price is revealed on the display. The rate here was given as "FREE". It appears that one needs the brand's app on a smart phone to use the system, anyway.

The second is in a public parking lot. It requires a smart phone to use. It is appears that one needs the brand's app to use the system. It was in use. The display showed the time connected, the kW draw, the kWh transfer, and the amount of the charge. I cannot say whether one can determine the rates if one pulls up when the charger is vacant.

The third is in a private parking lot with a sign on the street that there is an EV charging station. This one accepts credit cards only. It can charge two vehicles. One vehicle was charging. I could not tell from the unused side what the rates are.

The fourth is also in a private parking lot at a business and is available to customers. There is nothing to indicate whether it may be used by non-customers. It has no display. The station has no information on how to use it. It might not require an app in order to use.

How poorly do the charging stations meet the definition of "available to the public"?

Located at a publicly available parking space. I believe all four meet this definition.

Disclose all charges at the point of sale. Only one of them disclosed charges (free) on a display at the station. A second, also free, did not disclose charges although an inquiry inside the business will

reveal that there is no charge. The other two do not appear to meet this requirement. (I do not consider having to look on an internet site or consulting an app to meet the requirement of disclosure at the point of sale.)

Provide multiple payment options. The two that charge allow only one payment option each. One is through a smart phone. The other is by credit card. Neither allows payment by cash or check.

Of the four that I observed, I believe that two do not meet the definition of publicly available.

Barriers to use of third-party charging stations

It appears that current practices at these stations is a barrier to some potential users even acquiring a plug-in electric vehicle.

Disclosure of all charges at the point of sale is lacking. The stations require users to pull up and get out of their vehicles to learn the rates. Even then, maybe, they can't learn the rates. I suggest that the disclosures be large enough so that EV users can see the rates from the road as they drive by. The EV user needs to know what the rates are before pulling into the charging station.

Time-varying rates make it difficult for a user to know the rate in advance. Will the price vary during the time it takes to charge the batteries? I would think that consumer fraud would occur if the price changes during the charging period. This means that the price should not change once the rates have been disclosed.

The stations are unstaffed and do not accept cash. So those who do not have the devices needed for payment cannot use third-party charging stations that require payment.

It appears that multiple apps are needed for payment. One for each company, I believe.

Recommendations for the contents of the report

Include all the barriers described above and provide possible means to eliminate the barriers.

Provide information on the third-party charging stations (EVSE available to the public)
- how many stations are there
- how many companies are there and how many apps are needed
- how many stations meet the requirements in 23 V.S.A. §4(85)
- how many stations allow more than one form of payment
- how many stations allow each form of payment (cash, check, credit card, debit card, smart phone app
- the barriers caused by variable rates
- the barriers caused by lack of disclosure of rates

I hope that you find these comments useful and that you include my suggestions in your report.

Sincerely,
Thomas Weiss