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Comment Received From: Chris King on behalf of Siemens
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Siemens Additional Comments on Future Equipment Requirements for CALeVIP - Submetering

Additional submitted attachment is included below.

VIA ELECTRONIC FILING

January 21, 2020

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Comments on Future Equipment Requirement for CALeVIP - Submetering

Siemens appreciates the opportunity to file these additional comments regarding future equipment requirements for CALeVIP on the topic of submetering.

Siemens has been a strong supporter of using submeters built into EV chargers to deliver greater benefits to both EV drivers and the grid. Most EV chargers sit behind utility meters that measure consumption for the entire premise, whether commercial or residential. This prevents the customer from knowing how many kWh are being used to charge the EV, because the charging consumption is embedded in the whole premise consumption.

In contrast, metering consumption of only the EV charger, and using that result to bill such consumption, achieves three key benefits:

- Customers can charge EVs on time-varying rates without exposing the home or business to price volatility
- EV drivers know exactly how much they are paying to charge their vehicles and how much electricity is being consumed, because the bill is separate from the premise bill
- EV owners can earn and help the grid by more effectively participating in demand response programs

However, separate metering with a standard meter requires installation of a separate service, meter socket and meter, typically costing $500 to $1,500 or more. This negates the business case.

Submeters provide a better alternative, provided the implementation challenges can be overcome. Most EV chargers come equipped with a submeter that measures EV charging consumption. This submeter can be used for billing, providing the charger has communications to send the data back to the utility (either directly or through a third party EV Services Provider). Also, the submeter must be verifiably calibrated for accuracy at the time of manufacture and some form of ongoing

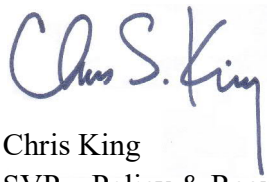
monitoring. Such validation is typically done according to rules established by utilities, though regulatory approval is required in some states.

Most of the issues associated with submetering – meter accuracy, testing, validation, audit trails, etc. – have been addressed previously for utility billing meters. Submeters are really no different than whole premise meters conceptually – though details, such as specific accuracy thresholds, may differ. For example, meter accuracy has been addressed through certification and testing procedures for utility billing meters, both in the factory and in the field. Regarding accuracy, we support utilizing the accuracy standards required by California's Department of Measurement Standards.

In addition, data quality and reliability issues have been addressed in the rules developed for Meter Data Management Agents (MDMAs) certified to provide metering data for Direct Access customers. Similarly, business processes for who is responsible for data quality and availability, and how exceptions are handled, have been developed for MDMAs. These existing processes and requirements should be considered for use in submetering use cases.

Regarding actual implementations, SDG&E is utilizing submeters for billing in its Power Your Drive program, and Xcel Energy, Minnesota is using them for billing in its residential pilot programs. Siemens is a participant in Power Your Drive and endorses the processes SDG&E utilized in approving submeters for use in the program. We encourage the CEC to reach out to both utilities for details regarding how they dealt with submeter issues such as accuracy testing and data transfers.

Siemens appreciates the opportunity to comment.



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