

DOCKETED

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PowerFlex Comments EVSE Reliability

Additional submitted attachment is included below.



November 11, 2022

California Energy Commission

Re: Docket: 22-EVI-04

Submitted via electronic commenting system for Docket: 22-EVI-04

Re: Electric Vehicle Infrastructure Reliability Workshop and Proposal

PowerFlex appreciates the opportunity to comment on the California Energy Commission's (Commission's) Electric Vehicle Reliability Workshop, held in response to Assembly Bill 2061. PowerFlex has installed and operates nearly 10,000 level 2 (L2) electric vehicle supply equipment (EVSE) in California and seeks to provide customers with a reliable charging experience. Based on our experience operating and monitoring all of our EVSE, PowerFlex offers the following comments regarding the Commission's proposed reporting and maintenance requirements.

Maintenance Logs

The Commission proposes that EVSE providers keep maintenance logs which would include the total number of maintenance dispatch events and a description of maintenance challenges. PowerFlex comments on each of the following:

Number of dispatch events – PowerFlex suggests having fields to detail why dispatch events occurred as well. While reporting the number of maintenance dispatch events is not difficult, PowerFlex is concerned that this metric on its own could be misinterpreted by the Commission or others. For example, if an EVSE Provider has a significantly higher number of dispatch events than other companies, it could be seen as that EVSE Provider having more reliability issues than others, or it could be seen as that EVSE Provider providing more preventative care. Thus, additional information as to why maintenance dispatch events occur could be helpful in better understanding the data.

Description of significant maintenance challenges: PowerFlex proposes that there are standardized categories that EVSE operators use for descriptions. Free form text descriptions are not scalable, can be time consuming to enter and read, and leave room for misinterpretation or other errors. PowerFlex suggests developing a list of the most common maintenance challenges and if additional explanation is needed or if a challenge came up that is not listed, EVSE operators have the opportunity to input additional information.

Maintenance Requirements

The Commission proposes several maintenance requirements, including annual preventative maintenance, corrective maintenance completed within 5 business days, and all maintenance conducted by technicians certified by manufacturers. PowerFlex comments on each of the following:

Annual preventative maintenance: PowerFlex understands the need to keep EVSE in working order and the importance of preventative maintenance. However, preventative maintenance will not necessarily decrease EVSE downtime in all situations; EVSE models, company software, and individual site conditions can impact the need for more or less preventative maintenance. PowerFlex closely monitors each of its ~10,000 charging stations and has seen that certain sites

or EVSE models it has used have higher or lower reliability due to various reasons. As a result, PowerFlex suggests that EVSE models, providers, and/or sites that are not prone to EVSE downtime should have flexibility in determining when to complete preventative maintenance. This would save EVSE providers considerable time and money on sites that are in good working order and do not require maintenance at that time. However, if certain EVSE models or installers face persistent outages, they should perform annual preventative maintenance that will increase uptime.

Corrective maintenance completed within 5 business days: PowerFlex supports the need to require EVSE corrective maintenance, and in many cases, 5 business days is a reasonable requirement. However, there may be certain types of outages or circumstances that require more than 5 business days. For example, the type of hardware needed to repair a charger might take longer than 5 business days to arrive or there could be a natural disaster preventing access to sites. PowerFlex does not suggest that this is the norm, but we recognize that there may be factors beyond an EVSE providers' control, and there should be exceptions for certain types of situations or corrective maintenance. PowerFlex suggests that if an EVSE provider needs more than 5 days, they should include this in their quarterly report to the Commission. The report would include lists of reasons why a repair took longer than 5 days that EVSE providers would select or an open text option where they could describe the reason if the existing choices are insufficient.

All maintenance conducted by technician(s) certified by manufacturer: PowerFlex is not clear how the certification process will be governed. For example, how is certification granted, does it expire, and who maintains a list of eligible technicians? To simplify the process, PowerFlex recommends that each EVSE installer can certify their technicians based on preset criteria. If there is a set of skills that the Commission wants technicians to have, companies can train and certify their technicians to provide these services. With quarterly reports each company could send a list of the technicians that have been trained to provide maintenance.

PowerFlex appreciates the efforts of the Commission to improve EVSE reliability and the charging experience for customers. PowerFlex supports these efforts and provides these comments in response to our experience monitoring and servicing our fleet of EVSE.

Respectfully submitted,

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