

DOCKETED

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**FLO Comments on docket 17-EVI-01-Future Equipment Requirements for
CALeVIP Presentation**

Additional submitted attachment is included below.



Via E-mail

Ms. Patricia Monahan
Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

December 20, 2019

**Re: FLO Comments on Future Equipment Requirements for CALeVIP Presentation
Docket: 17-EVI-01—Block Grant for Electric Vehicle Charger Incentive Projects**

Dear Commissioner Monahan:

Thank you for the opportunity to comment on the potential future equipment requirements discussed at the CEC presentation held on November 18, 2019 (the "FTR Presentation"). We apologize for the delay in providing our comments and hope they will still be useful to you in your evaluation of the matters set out below.

FLO¹ is one of the largest electric vehicle (EV) charging networks in North America. FLO's parent company, AddEnergie, is one of the largest charging station manufacturers in North America. We have sold 25,000 charging stations across North America for public, commercial and residential use and we have entered into roaming agreements with a number of major North American charging station networks to support a more seamless EV-driver experience. Since AddEnergie's founding in 2009, we have supported almost 3.5M networked charging events and enabled the transfer of 29 GWh of electricity.

FLO would like to congratulate the California Energy Commission ("CEC") on its work to expand EV charging infrastructure via the CALeVIP program and, by extension, support achievement of California's zero emission vehicle ("ZEV") and long term emission reduction targets. FLO is also strongly supportive of the role the CEC has played in the advancement and improvement of the EV charging industry not just in California, but across the world, because of the influential leadership role California plays as a policy leader in our industry.

We are in favor of the refined goals set out on slide 20 of the FTR Presentation, namely interoperability; competition and customer choice; cost control; and convenience and also support the overall direction of the future technology objectives CEC has identified, but would like to provide the following recommendations based on our experience as a network operator

¹ FLO Services USA Inc. d/b/a FLO Charging Solutions USA Inc.



in other high-adoption EV charging markets, such as the provinces of British Columbia and Quebec and as a charging station manufacturer. Our company also supports the letter to be submitted by the Electric Vehicle Charging Association (EVCA), which we understand will be submitted following this letter.

(1) We support requiring open standards-based network and network-to-charging station communication but suggest avoiding prescriptive specification of only one protocol.

We understand from slide 47 that you are proposing to allow multiple means of achieving open, standards-based network communication including direct load control, energy management systems and aggregator-managed charging stations, using a variety of possible protocols. We support this approach because it promotes competition and consumer choice. In addition to OpenADR, we have worked on a variety of managed charging and demand response projects across North America involving control via BACnet/IP, as well as the use of aggregators, via OpenADR and application programming interface (API). We believe that all of these options can be useful, depending on the site and the utility program involved, so long as they support CEC's load management and distributed energy resources objectives.

We further understand that you are considering continuing to allow multiple network-to-charging station communication protocols to be eligible. We also support this approach. Providing for open network-to-charging station control is essential to avoiding risks associated with stranded assets, in the event of a network failure. We caution, however, that we believe specifying only one station control protocol would be premature at this point and reduce competition and consumer choice, without guaranteeing achievement of intended gains in interoperability or convenience. As noted at the November 18, 2019 workshop, an international standards development process is taking place to develop a standard for network-to-charging station communication (IEC 63-110). We suggest waiting for this process to conclude before selecting a sole standard. We note further that, having integrated numerous charging stations onto our network via the OCPP 1.6 protocol, it does not guarantee full charging station portability. Many charging stations that advertise OCPP controllability still require additional customization, because OCPP is not uniformly implemented, and because many manufacturers often still require separate hardware management licenses to achieve full charging station functionality (including monitoring and remote upgrades).

We are concerned that, if you specify a specific protocol, such as OCPP 1.6, some charging stations will not be eligible for the CALeVIP program, reducing competition and station consumer choice. To give just one example, while our network supports control of stations via OCPP and many of our charging stations support OCPP, our soon-to-be launched Smart DC v.3™ charging station operates currently only via the ONP-I open charging protocol. This protocol is published using the same creative commons license as OCPP, and we believe it achieves the same outcome CEC is trying to achieve, while also providing a range of benefits that support



station diagnostics, functionality and control that are highly prized by our customers. We would like to bring this station to California as a CALeVIP-eligible product, if CEC's open protocol requirement permits us to do so.

(2) We support ISO 15118, but advise caution on specific deadlines.

FLO believes that ISO 15118 represents an important step forward for the EV charging industry and will offer new opportunities associated with bidirectional charging management that will support optimization of load management. We also support elements of ISO 15118 focused on achieving "plug-and-charge" functions, but, as one of the leading global manufacturers of robust public charging stations with locking mechanisms to protect the charging connector from vandalism and weathering, we advise caution in assuming that all charging will necessarily be "plug-and-charge". Our suggestion, therefore, is to implement ISO 15118 once clarification of use cases, a clear testing protocol and certification process are in place, with sufficient time for manufacturers to make any needed modifications to their designs and production, and obtain new safety certifications, once the testing process is finalized.

We hope to convey to you our strong support for the direction of the future technology objectives identified, while also highlighting some of the challenges that manufacturers, particularly those that are new to the California market like us, will face in complying until there is a clear testing protocol and certification program in place.

Sincerely,

[Provided by e-mail]

Travis J. Allan
VP. Public Affairs, FLO