State of California Air Resources Board

Board Item Summary

Item # 22-6-2: Public Meeting to Hear an Informational Update on the Electric Vehicle Supply Equipment Standards Technology Review

Staff Recommendation:

This is an informational item only; no Board action is necessary.

Discussion:

Pursuant to the Electric Vehicle Charging Stations Open Access Act, Senate Bill (SB) 454 (Corbett, Ch. 418, Stats. of 2013), CARB adopted the Electric Vehicle Supply Equipment (EVSE) Standards Regulation in 2019 to establish requirements for electric vehicle service providers (EVSP), including minimum requirements for payment methods they must allow, with the goal of enabling drivers to access public charging infrastructure confidently and reliably.

Consistent with Board direction, staff conducted a Technology Review to better understand drivers' experiences accessing public charging stations and evaluate the availability and use of different payment methods. This item will be an informational update to present the findings and recommendations from the Technology Review.

In undertaking the Technology Review, staff conducted informal working meetings with stakeholders, surveys of different stakeholder groups, and a review of relevant research. Staff published the Technology Review for a 21-day public review and comment period and conducted a public workshop on February 15, 2022.

Key findings from the Technology Review include:

- Inoperable stations and payment issues are barriers for drivers.
- Membership requirements may be a perceived barrier for drivers.
- Multiple payment methods exist on chargers today, but most EVSPs rely on contactless "tap" methods of payment.
- Tap-enabled cards represent a small segment of cards in use today nationally, but deployment is accelerating.
- Tap technologies, once more widely deployed, have the potential to expand payment options for under and unbanked drivers, but barriers remain.

Based on these findings, Technology Review recommends that CARB:

 Revisit the EMV chip requirement in the EVSE Standards when tap technologies are more broadly available in California.

- Conduct ongoing monitoring of public charging market trends, including use of payment technologies.
- Continue to evaluate barriers to charging for all users.
- Work with the California Energy Commission to develop metrics and a process for tracking station up/downtime.
- Consider a study or pilot to evaluate how people, especially low-income drivers, pay for transportation services, including public EV charging.

Summary and Impacts:

This is an informational update. Based on the Technology Review, staff believe the current regulatory requirements are responsive to the Open Access Act and will continue to result in greater charging station access and use by both current and future plug-in electric vehicle drivers. Staff did not complete a new economic impact analysis as part of the Technology Review.