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Plug & Charge and Roaming Regulatory Concepts

See attached Tesla's comments in response to CEC workshop on Plug & Charge and Roaming Regulatory Concepts.

Additional submitted attachment is included below.

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April 15, 2026

California Energy Commission
715 P Street
Sacramento, CA 95814
Docket No. 22-EVI-06

RE: Tesla Comments on CEC Workshop on Plug & Charge and Roaming Regulatory Concepts

Dear CEC Staff:

Thank you for the opportunity to participate in the Plug & Charge and Roaming Regulatory Concepts Workshop on March 25, 2026. The workshop presented several regulatory concepts under consideration, as summarized below:

- 15118-2 as potential minimum standard for Plug & Charge
  - DC—effective immediately for DCFC installed on or after July 10, 2023
  - AC—applicable 3 years after effective date of regulation
- OCPI 2.3 as potential minimum standard for roaming
  - Applicable - 12 months after effective date of regulation
- Conformance tests for both OCPI2.3 and 15118-2 expected
  - Applicable - 12 months after effective date of regulation

Tesla supports staff's position that Plug & Charge offers a superior EV charging experience in terms of convenience and reliability, especially when compared to traditional card-based payments. The CEC has established a longstanding requirement for ISO 15118-2-ready hardware in its grant programs, and the proposed regulatory concepts seem to be a reasonable exercise of the CEC's authority and directives under SB123 and AB2697. We offer the following responses to support the CEC's exploration of these regulatory concepts.

Responses to Staff Questions

ISO 15118 and Plug & Charge

1. **Is ISO 15118-2 appropriate as a minimum?**

Should CEC staff pursue a rulemaking on this topic, ISO 15118-2 ("-2") is appropriate as a minimum payment standard and standard to enable Plug & Charge. Though it has taken several years to build momentum, there are already vehicle-charger combinations capable of Plug & Charge using -2 today. If there is to be a standard, doubling down on -2 would compound existing momentum and accelerate Plug & Charge functionality for today's drivers.

2. **Is the industry ready for ISO 15118-20 for Plug and Charge today, or will it be soon?**

No, industry is not yet ready to deliver Plug & Charge functionality via ISO 15118-20 ("-20"). In the workshop, staff suggested conformance testing to ensure -2 conformance. There is no

conformance test yet available for -20, suggesting it is not ready for widespread industry adoption or appropriate as a minimum given the interest in conformance testing.

3. **Are there cybersecurity, hardware, backward/forward compatibility, or other concerns to consider as part of a proposed minimum?**

ISO 15118-2 and -20 are not backwards compatible for enabling Plug & Charge. Mandating -20 on the charger side does not advance Plug & Charge functionality because vehicles on the road today are generally not capable of -20.

4. **How does the implementation of Plug & Charge for AC differ from DCFC (if at all)?**

AC and DC products need separate attention to deliver Plug & Charge functionality. Staff suggested a three-year phase-in period for AC chargers to demonstrate conformance. It would be appropriate to phase-in requirements for the minimum standard applicable to AC chargers to allow industry to manage multiple workstreams at reasonable cost and effort.

5. **How should CEC support public key infrastructure (PKI) for Plug and Charge (this may include certificate authorities and certificate trust lists)?**

In the workshop, CEC staff indicated that -20 is advantageous in that it allows for handling of multiple contract certificates. However, -2 is sufficient if there is a universally accepted system for PKI. SAE is developing a certified trust list (CTL) to fill this gap. Tesla recommends that CEC coordinate with SAE on supportive actions for ongoing industry-led efforts to establish a CTL for Plug & Charge transactions.

6. **What challenges with Plug and Charge implementation merit additional discussion?**

There are three challenges for CEC staff to consider in the context of a rulemaking process:

Provide clarity on timing. It is a substantial amount of effort for technical staff to plan work, deliver functionality, and conduct conformance testing. It is unclear how long a potential rulemaking will take until new requirements are effective for all public DCFC. In the workshop, CEC staff suggested 12 months after a potential rule's effective date to ease in requirements for conformance testing for –2 for all public DCFC installed on or after July 23, 2023. Should CEC staff pursue a rulemaking, there should be further investigation as to whether 12 months after the rule's effective date is adequate time, due to the number of industry actors that will pursue conformance testing. Additionally, new products launched after the effective date should have an ongoing, multi-month phase-in period to avoid delaying new product launches; conformance testing should not become a regulatory barrier that delays new product entry into the market.

Prioritize functionality. It is important to note that both vehicle and charger must be using the same protocol to unlock Plug & Charge functionality. There is, and will continue to be, a patchwork of readiness for -2, -20, and other standards between vehicle models and charger models,

especially for legacy products. A charger capable of -2 cannot deliver on Plug & Charge to a legacy vehicle that is incapable of -2, for example. It is not possible to deliver Plug & Charge experience using -2 to all existing vehicles overnight. -2 is an appropriate minimum standard, but a requirement for -2 should not pre-empt industry from innovating and taking advantage of other shared capabilities to deliver a Plug & Charge experience to drivers sooner than would otherwise be possible.

Exempt heavy duty. Charging networks for heavy-duty EVs are nascent and not yet widely available compared to light-duty charging. Although Tesla believes Plug & Charge is the future across vehicle duty types, applying these regulatory concepts to heavy-duty charging is not appropriate at this stage of market development. Further, user experience, payment methods, and needs of commercial fleets may be different from the light-duty charging segment. Should CEC staff pursue a rulemaking, new standards should not apply to public or private DCFC exclusively serving heavy-duty vehicles.

OCPI

1. **Is OCPI 2.3 appropriate as a minimum?**

Whether OCPI 2.3 is appropriate as a minimum depends on when a potential regulation will take effect. Staff acknowledged in the workshop that OCPI 2.2.1 is widely utilized by industry today. Transition to OCPI 2.3 is possible, given sufficient time for development, as well as sufficient time to conduct conformance testing. 12 months after effective date of regulation, as suggested in the workshop, is unlikely to be sufficient, especially given multiple simultaneous potential requirements that will be competing for resources to execute.

2. **What challenges exist with transitioning to OCPI 2.3?**

The primary challenges with transitioning to new versions of OCPI are (1) managing staff resources given multiple competing priorities, and (2) alignment of new versions with product development cycles.

3. **What challenges exist to developing or implementing roaming agreements between providers or networks?**

Roaming is both a technical integration and a business relationship that automakers, network operators, and mobility service providers (MSPs) have varying levels of expertise to execute. To maintain high levels of customer satisfaction and reliability, potential roaming partners must work together to establish agreement terms and capabilities appropriate for both parties. There is no one-size-fits-all agreement, though consensus on the use of a common protocol (OCPI) is necessary first step.

4. **What challenges with roaming implementation merit additional discussion?**

No comments at this time.

Conformance testing:

1. **Beyond ISO 15118 –2 and OCPI 2.3 conformance as a minimum, what other areas should be considered to accelerate availability of interoperable Plug and Charge?**

No comments at this time.

2. **What are the recommended minimum set of must-test cases from ISO 15118-4?**

No comments at this time.

Thank you for the opportunity to submit comments. We appreciate attention on these issues and look forward to working with CEC staff to improve customer experience for EV charging.

Sincerely,

Mal Skowron
Sr. Policy Analyst, Charging
Tesla, Inc.