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EVgo Plug and Charge Comments

Additional submitted attachment is included below.

April 15, 2026

California Energy Commission
715 P Street
Sacramento, CA 95814

Re: Docket No. 22-EVI-06, Plug and Charge and Roaming Concepts

Dear Commissioners and Staff:

EVgo appreciates the opportunity to comment on the California Energy Commission's (CEC) Plug and Charge Roaming Concepts. As one of the nation's largest public fast charging providers, EVgo shares the CEC's goal of a seamless, interoperable charging experience. EVgo continues to invest in customer-centric initiatives like Autocharge+ to improve first-time charging success rates¹ while participating in industry forums such as the Charging Interface Initiative (CharIN)², the Society of Automotive Engineers³, and the National Charging Experience Consortium (ChargeX)⁴ to advance the standards foundational to seamless charging.

EVgo offers the following recommendations, with detailed responses to staff's questions attached.

1. **Any future Plug and Charge regulation should set minimum standards in terms of hardware capability.** If the CEC establishes a technical floor in any future regulation, ISO 15118-2-capable hardware is the appropriate baseline to enable core Plug and Charge functionality. It is the most widely adopted version of the standard across both vehicle manufacturers and charging equipment providers today. However, any minimum standard should be framed in terms of hardware capability rather than mandated operationalization of Plug and Charge across all bilateral commercial relationships, which would introduce obligations beyond the scope of a technical standard.
2. **ISO 15118-20 should not be the basis of a near-term mandate.** ISO 15118-20 extends the protocol to support expanded capabilities, including bidirectional energy transfer and additional cybersecurity features. These are valuable longer-term goals, but they go beyond what is needed for Plug and Charge functionality. OEM adoption of ISO 15118-20 also remains limited, meaning that any new CEC requirement would place additional compliance burdens on charging companies without a substantial customer benefit.

Additionally, the existing security framework of ISO 15118-2, including TLS 1.2 for encrypted communication between vehicles and chargers, provides a strong baseline for current Plug and Charge deployment. One capability in ISO 15118-20 that warrants near-term attention, however, is support for multiple contract certificates per vehicle, which would allow drivers to hold credentials from more than one charging service provider. EVgo encourages the Commission to monitor ISO 15118-202, a published extension that can layer on top of the

¹ <https://www.evgo.com/press-release/evgo-autocharge-surpasses-5-million-sessions-and-sixfold-enrollment-growth-delivering-seamless-ev-charging-nationwide/>

² <https://www.charin.global>

³ <https://www.sae.org>

⁴ <https://inl.gov/chargex/>

existing ISO 15118-2 standard to deliver multi-contract capability without requiring full ISO 15118-20 implementation.⁵

3. **EVgo supports OCPI 2.3 as a long-term direction for roaming, but with ample implementation time.** As CEC staff has acknowledged, no major U.S. charging network operator currently runs OCPI 2.3, and a formal certification program does not yet exist. Protocol transitions of this scale require substantial engineering work and vendor coordination, particularly when operators are simultaneously managing other regulatory and technical compliance obligations. These transitions can also lead to disruptions in the customer experience if rolled out in a rushed manner. EVgo recommends an 18- to 24-month compliance period from the effective date of any final regulation to allow operators ample time to implement and validate updated systems.
4. **Any regulation should preserve flexibility for legacy equipment and existing seamless payment methods.** The industry is already moving toward Plug and Charge adoption through a combination of funding program requirements, voluntary standards participation, and customer demand. Additionally, seamless payment methods like Autocharge+ are already delivering a reliable customer experience and high first-charge success rates today. The CEC should consider whether formal regulation is necessary to accelerate this trajectory, or whether continued use of existing tools may be more effective at this stage. If the Commission does proceed with a formal rulemaking, EVgo recommends allowing for phased deployment of new requirements, grandfathering legacy equipment as standards evolve, and ensuring that existing seamless payment methods can coexist with ISO-based Plug and Charge.
5. **Conformance approaches should reflect the current state of testing and certification programs.** The Commission can support conformance by continuing to coordinate with CARB on aligned testing requirements for chargers and vehicles, investing in neutral lab capacity such as the Charge Yard project, and engaging with industry bodies like CharIN.
6. **The CEC should avoid regulatory frameworks that inadvertently lock in a commercial structure and limit customer choice for public charging.** Many Plug and Charge implementations today use a single-certificate model, which can unintentionally tether a driver to a specific payment provider. This arrangement may limit a customer's ability to utilize their preferred charging account or access member benefits. Any future regulation should focus on technical baselines that expand customer choice and preserve the flexibility of charging network operators to deliver a seamless customer experience.

Thank you for the opportunity to provide comments. EVgo looks forward to continued engagement as this work progresses.

Respectfully submitted,

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⁵ <https://www.iso.org/standard/89759.html>

ATTACHMENT

EVgo Responses to CEC Workshop Questions

Plug and Charge

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

If the CEC establishes a technical floor for Plug and Charge, ISO 15118-2-capable hardware is the appropriate baseline. It is the most widely adopted version of the standard across both vehicle manufacturers and charging equipment providers. However, any minimum standard should be framed in terms of hardware capability rather than mandated operationalization of Plug and Charge across all bilateral commercial relationships, which would introduce obligations beyond the scope of a technical standard.

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

No. ISO 15118-20 should not be the basis of a minimum requirement at this time. OEM adoption of the standard remains limited, and the market has not yet aligned around a consistent implementation approach.

ISO 15118-20 extends the protocol to support expanded capabilities, including bidirectional energy transfer and additional cybersecurity features. While these are valuable longer-term goals, they go beyond what is needed for core Plug and Charge functionality. The existing security framework of ISO 15118-2, including TLS 1.2 for encrypted communication between vehicles and chargers, already provides a strong foundation for current Plug and Charge deployment.

Additionally, ISO 15118-2 and 15118-20 are not backward compatible. Requiring ISO 15118-20 in the near term would require operators to build and maintain two parallel systems, increasing the risk of disruptions to the customer experience while adding compliance costs without a clear benefit to drivers given the current rate of OEM adoption.

One notable feature of ISO 15118-20, however, is the support for multiple certificates per vehicle. This would allow drivers to hold credentials from more than one charging service provider, rather than being tied to a single provider's network for Plug and Charge. EVgo encourages the Commission to monitor ISO 15118-202, a published extension that delivers this multi-contract capability with a substantially narrower scope than full ISO 15118-20 implementation.⁶ Because ISO 15118-202 layers on top of the existing ISO 15118-2 standard, it offers a practical near-term path to multi-contract capabilities without requiring operators or OEMs to implement ISO 15118-20 in full.

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

From a hardware standpoint, current-generation charging equipment is generally capable of supporting ISO 15118-2. The greater complexity lies in managing the certificate infrastructure that Plug and Charge depends on (authenticating vehicles, validating credentials, and coordinating trust

⁶ <https://www.iso.org/standard/89759.html>

across networks at scale). Any conformance framework the CEC develops should account for these operational requirements.

Legacy equipment is also an important consideration. Any future regulation should allow for phased deployment to avoid stranding legacy equipment while grandfathering chargers deployed under earlier requirements as minimum standards evolve.

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

From a protocol standpoint, implementation is broadly similar across AC and DC charging. EVgo's operational focus is public DC fast charging, so we defer to other stakeholders for more detailed comments on AC deployment considerations.

5. How should CEC support public key infrastructure (PKI) for Plug and Charge?

The CEC can support coordination around certificate trust by encouraging the industry to align on trust list approaches, such as the SAE EV PKI trust list, while recognizing that integration timelines will vary across operators.⁷ Convening industry stakeholders to work through governance and operational responsibilities would be a constructive role for the Commission.

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

Vehicle interoperability remains a significant challenge in implementing Plug and Charge. With Autocharge+, EVgo manages customer accounts, authentication, and billing directly through its own platform. In many Plug and Charge implementations, however, vehicle manufacturers serve as their own eMobility Service Provider (EMSP) and manage their customers' charging accounts themselves. This requires charging network operators to integrate with multiple OEM-specific systems, adding complexity and making it harder to deliver a consistent customer experience.

Another challenge is managing technical transitions across multiple regulatory programs, as evolving state and federal requirements simultaneously place competing demands on the same engineering teams, impacting the customer experience. The CEC should consider these overlapping compliance priorities when setting timelines for any future Plug and Charge regulation.

Roaming

1. Is OCPI 2.3 appropriate as a minimum?

OCPI 2.3 is a reasonable direction for future interoperability, but any requirement should include a realistic compliance timeline. As CEC staff has acknowledged, no major U.S. charging network operator has adopted OCPI 2.3, and a formal certification program does not yet exist. Protocol transitions of this scale require substantial engineering work and vendor coordination, particularly when operators are simultaneously managing other regulatory and technical compliance obligations, which can lead to disruptions in the customer experience if rolled out in a rushed

⁷ <https://www.sae-itc.com/programs/evpki/pub/certificate-trust-list-requirements>

manner. EVgo recommends an 18- to 24-month compliance period from the effective date of any final regulation to allow operators to implement and validate updated systems.

2. What challenges exist with transitioning to OCPI 2.3?

Major protocol transitions are substantial engineering efforts. They require backend updates, coordination across vendors and partners, extensive testing, and a transition period during which multiple protocol versions may need to run in parallel.

OCPI is a two-party protocol that only works when both the sending and receiving network are running the same version. A charging network operator would not be able to use OCPI 2.3 with a roaming partner that is on OCPI 2.2.1. As a result, the practical benefits of a 2.3 requirement depend on the pace of adoption across the industry.

The absence of a mature OCPI 2.3 certification program also means operators would be implementing against a standard without formal validation tools in place. The CEC should ensure that conformance expectations align with the actual availability of testing programs, and the pace of industry-wide adoption of OCPI 2.3.

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

Roaming can improve customer access by allowing drivers to charge without maintaining accounts on multiple networks. However, maintaining roaming agreements with multiple partners while also ensuring compatibility across OEM systems introduces operational complexity that can directly impact reliability.

A roaming session with Plug and Charge can involve at least three parties: the network operator, the roaming partner, and an OEM. Each additional party involved in processing a transaction introduces a potential point of failure. Roaming customers who encounter payment issues, for example, may need to contact the roaming partner rather than the network operator.

Additionally, roaming customers may not be able to access pricing, loyalty benefits, and direct customer support that would otherwise be available when charging directly with the network operator. The CEC should account for these operational and customer experience tradeoffs when considering any future roaming requirement, particularly where additional intermediaries can increase transaction failure points and reduce the reliability of the charging experience.

4. What challenges with roaming implementation merit additional discussion?

Several roaming-related issues would benefit from further discussion as the Commission develops its framework. These include how identifiers like e-Mobility Account Identifiers (EMAIDs) are validated across networks, how roaming sessions interact with Plug and Charge credentials issued by OEMs or other networks, and how operators handle fallback when roaming authorization fails. EVgo would welcome the opportunity to discuss these implementation considerations with staff in more detail.

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?

Interoperability relies on a robust, consistent conformance framework for both chargers and vehicles. EVgo encourages the CEC to develop this framework in coordination with CARB and industry bodies like CharIN, whose test development reflects input from automakers, charging network operators, and EVSE manufacturers. Public investment in neutral lab capacity, including projects like the Charge Yard, would further accelerate real-world interoperability testing while lowering the testing burden on individual operators.

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

ISO 15118-4 contains many test cases, and identifying a meaningful minimum set requires technical input from operators with direct deployment experience. Some test cases are essential, some are appropriate but optional, and a small number can produce misleading results if applied without context.

Rather than fixing a specific list in regulation at this stage, EVgo recommends that the Commission convene a focused technical working group with charging networks and automakers to identify a practical minimum set. This approach would give the resulting framework durability as the underlying standards continue to evolve. EVgo would be glad to share its observations with Commission staff directly.