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ChargePoint Comments on CEC Interoperability Vision State

Additional submitted attachment is included below.



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California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
Docket No. 22-EVI-06

Re: ChargePoint Comments on CEC Interoperability Vision Statement

ChargePoint has reviewed the CEC's Interoperability Vision Statement and greatly appreciates the opportunity to submit comments. Since 2007, ChargePoint has been committed to making it easy for businesses and drivers to go electric with one of the largest electric vehicle (EV) charging networks and a comprehensive portfolio of charging solutions.

ChargePoint is dedicated to providing an excellent driver experience, and the interoperability of California's charging network is crucial in doing so. We share the CEC's vision for *a future where any driver with any EV can easily charge at any charger on any network*, and we acknowledge the valuable role that the Interoperability Vision Statement will serve in guiding California's policy efforts to advance interoperability across the ecosystem. While the CEC is exploring a variety of actions to address the different links in the interoperability chain, our comments here focus on the questions presented by CEC Staff during the December 1st Workshop.

CharIN is developing a "CCS Extended" certification that verifies ISO 15118-2 conformance. CEC staff believes CharIN CCS Extended may be an appropriate future requirement for certain CEC projects. Are there other available ISO 15118 certifications or conformance procedures that would be more appropriate?

ChargePoint supports requiring chargers to conform with existing standards at an appropriate time in the future, and it will be appropriate for the CEC consider a requirement for CCS Extended or other 15118-2 certifications after it is finalized and available. ChargePoint supports the availability of multiple routes for conformance testing. As a matter of practicality, it is essential for industry to have ample time to review the final certification requirements, self-test, troubleshoot, submit a request to a testing lab, and receive testing results before the requirements come into effect to ensure smooth, cost-effective, and timely implementation.

While adoption of ISO 15118-2 by automakers is continuing to increase, ISO 15118-2 is not uniform across every automaker model, and it may take years before uniformity is possible, if ever possible for existing vehicles. For this reason, ChargePoint encourages the CEC to continue to monitor the development of the certification and align the timeline for software-side ISO 15118 requirements on the charger side with the timeline for widespread ISO 15118-2 compatibility on the vehicle side and once conformance testing is finalized and reached adequate scales with testing facilities.

CEC staff proposes potentially allowing ISO 15118-20 and OCPP implementation and certification costs as eligible costs in certain CEC projects. Would this be an effective use of public funds, or would funds be more effective elsewhere to support broad interoperability?

ChargePoint questions the value of including ISO 15118-20 and OCPP implementation and certification as eligible costs for certain CEC projects. Private businesses are already investing significant engineering resources into developing products that comply with the ISO 15118-20 and OCPP protocols, both to meet existing technical standards and to remain competitive in the market for EV charging services as standards evolve. Additionally, non-industry efforts to promote e-mobility and expand interoperability for EV chargers are already underway. For example, EVERest is a project of an open-source foundation to develop software stacks for EV charging stations that accelerate implementation of open protocols such as ISO 15118-20 and OCPP.¹

It is not clear how implementation costs would be enumerated as eligible costs for specific project grants, as such costs are generally not associated with a single project, but spread across a company's engineering resources. We believe industry actors should continue to be responsible for investing in their own capabilities, managing their resources, and potentially utilizing open access resources to meet technical requirements established by the state at lowest cost.

Existing regulations require CSOs to maintain OCPI capability. Is OCPI the preferred protocol to enable roaming agreements? Are there limitations within OCPI that should be addressed?

OCPI is the preferred protocol to implement roaming agreements. OCPI is a free, open-source, and non-proprietary protocol that supports authorization, information exchange, and the exchange of smart charging commands. ChargePoint is involved with the continued improvement of OCPI via the EV Roaming Foundation, and we believe OCPI will serve as an appropriate common baseline for roaming with room to evolve improve over time via updated versions. One limitation of OCPI is that there is currently no conformance testing available, and ChargePoint would welcome an effort by the CEC to accelerate the development of conformance testing.

How should the CEC support the development of roaming agreements? Alternatively, should potential roaming requirements be structured in a certain way to support replicability of agreements, a level playing field, and/or the inclusion of smaller CSOs?

ChargePoint is a leader in the expansion of roaming across Europe and North America, and we have negotiated and executed roaming agreements with many major EV charging networks serving both as a charge point operator (CPO) and e-mobility service provider (eMSP). Widespread roaming will be essential for the success of every player in the EV charging ecosystem:

- **For drivers.** When an EV driver uses the ChargePoint app, they can see not only ChargePoint stations, but also the stations operated by our roaming partners. Roaming agreements reduce the number of tools an EV driver needs to find, initiate, and pay for a charging session, creating confidence that drivers will be able to easily charge wherever they travel.
- **For CPOs and eMSPs.** Regardless of how they arrive and use a station, all drivers should have superior experience using a ChargePoint station. Further, drivers using the ChargePoint app should enjoy a seamless and quality experience when using partner stations. When customers may freely select their preferred method to find, authorize, and pay for charging, all actors in the industry

¹ See <https://lfenergy.org/projects/everest/>

will be motivated through competition to deliver the best driver experience and attract users, applying upward pressure on quality.

- **For station owners.** Roaming serves station owners by improving location visibility, site traffic, and utilization. Further, by improving a key element of the EV ownership experience, roaming is essential to increase EV adoption and therefore, the demand for public EV charging services.

We applaud the direction of the CEC to consider measures to facilitate the growth of roaming. However, unlocking the benefits of roaming will require upholding a high quality of experience for drivers and preserving the open market for charging products and services. We urge the CEC to consider the following principles:

1. Recognize the value of peer-to-peer agreements.

Peer-to-peer agreements are ChargePoint’s preferred method of establishing roaming partnerships in Europe and North America. Peer-to-peer agreements allow for direct cloud-based communication between CSOs and eMSPs. A seamless roaming experience is predicated on the timely and accurate exchange of information between CSOs and eMSPs, including but not limited to: session initiation, billing, driver support, availability, pricing, and access restrictions. It is worth noting that, though OCPI establishes a common language for cloud communication, the varying functionalities and technical capabilities among different CSOs and eMSPs make it essential to formulate direct relationships for smooth execution. Direct communication between roaming partners not only enables more seamless integration but also simplifies the day-to-day work of a successful roaming partnership, such as settling billing and error resolution, which translate to a superior drive experience. Peer-to-peer agreements also encourage greater collaboration within the industry, scale effectively as the number of roamable stations grows, and unlock advanced and new features when roaming partners collaborate to take advantage of their shared capabilities.

2. Maintain flexibility and discretion.

Roaming is a business-to-business relationship that requires parties to securely transfer and exchange customer data, sensitive station information, and funding for the purposes of bill settling. From the driver’s perspective, every session must be secure, reliable, and high-quality, because every session initiated on a ChargePoint station or by the ChargePoint app is reflective of our network. ChargePoint is committed to ensuring that roaming partners handle and protect customer data appropriately in every exchange. For these reasons, while ChargePoint is interested in increasingly roaming with more providers, parties such as ChargePoint must have the flexibility to evaluate potential partners and ensure they meet quality specifications before entering a roaming agreement. CPOs must have flexibility to negotiate the specifics of their partnerships and to select their roaming partners – including the discretion not to roam with a particular network – to protect driver security and quality of experience.

3. Discourage transaction fees.

A core benefit of widespread roaming is that it improves the EV driver experience. Transaction fees applied on a per-session basis directly contradict this benefit by increasing costs and discouraging roaming through price discrimination. Drivers should be encouraged to use the app of their choice and should not be surprised by transaction fees when they roam on a partner station. In ChargePoint’s experience, peer-to-peer agreements are an effective tool to enable roaming without baking in transaction fees for drivers or CPOs.

4. Preserve a level playing field.

Managing roaming relationships often requires technical capacity that is challenging for smaller companies or newcomers to accommodate by virtue of their size. Policies established by the CEC, therefore, should

refrain from establishing burdensome requirements on smaller companies. Based on Alternative Fuels Data Center (AFDC) data, the eleven largest CSOs are responsible for 97% of the installed public networked ports in California. This indicates that the widespread use of roaming agreements among the largest providers would be sufficient to deliver the benefits of roaming to drivers, without tilting the playing field against the smaller providers.

5. Apply to publicly available chargers.

Roaming relies on sharing of private, customer sensitive data. While ChargePoint takes care to ensure strict limitations on data usage and access for public chargers within roaming agreements, there are broad privacy concerns associated with roaming on private chargers, such as those serving multi-family housing or workplaces. Further, because private-access stations are intended to be used by specific drivers, roaming on private chargers does not serve the same purpose of helping drivers locate, initiate, and pay for charging. Only stations listed by the owner as publicly available should be roamable.

To explore these ideas in depth, we encourage the CEC to host a workshop dedicated to the topic of roaming in 2024. If possible, the workshop should invite a representative from the EV Roaming Foundation, the entity responsible for managing and maintaining the OCPI protocol, to answer questions regarding OCPI and to provide insight on the status of the roaming market in Europe.

Conclusion

Thank you for the work the CEC has done to establish a comprehensive vision on interoperability. While there are many aspects of the CEC's interoperability vision statement we did not address in these comments, we hope our responses are helpful to guide CEC's consideration of appropriate next steps. We look forward to continuing to engage on this topic and others in 2024 to continue to accelerate driver confidence in the growing EV charging network.

Sincerely,



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