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Hubject Charge Yard Concept Comments

Additional submitted attachment is included below.

California Energy Commission
Dockets Office
1516 9th Street
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RE Charging Interoperability and Collaboration Yard Funding Concept; Docket #22-EVI-06

Hubject is pleased to provide comments to the California Energy Commission's (Commission) Charging Interoperability and Collaboration Yard Funding Concept (Charge Yard). We thank the Commission and staff for their time and consideration on the critical topic of interoperability in the EV charging sector.

Founded in 2012, Hubject's technology platform allows our partners to make EV charging reliable, accessible, and seamless for all EV drivers. To date, we have over 1,000 partners comprised of OEMs, CPOs, EMPs, and EVSEs across 52 countries. We have facilitated over 350,000 interoperable charging ports and connected over 450,000 EVs. Our Intercharge platform is the largest global roaming platform for EV charging, providing a scalable, secure, and interoperable marketplace ecosystem for infrastructure and software providers. In addition, Hubject supports the only operable ISO 15118-based Plug&Charge ecosystem and PKI in North America.

We are delighted to see the Commission considering the Charge Yard for interoperability testing and we are in full support of this much needed concept. While it might not be directly visible to the driver, interoperability is the backbone to an easy and seamless EV driver experience. However, charging networks are not interoperable across North America, and there are currently limited options for neutral interoperability testing laboratories to ensure true interoperability. While the Charge Yard is still in a concept phase, we strongly urge the Commission to move forward with developing a funding solicitation around Charge Yard to support interoperability.

Guiding Questions

1. Should CEC specify minimum square footage and/or electrical capabilities? If interoperability is the focus, does lower power suffice (say, 50 kW)? What about testing at higher powers (>=150 kW)?

- We believe the Commission should specify a minimum square footage for the Charge Yard, but should also support the maximum square footage possible that funding could allow. A Charge Yard facility will be in high demand and could reach participant capacity quickly. Regarding power capacity, we believe 150kW and below is appropriate. If interoperability is the true focus of the Charge Yard, power outputs at 350kW are not needed and will only raise the project's cost. However, if Charge Yard is intended for fleet purposes, a higher kW output might be necessary.

2. Is CharIN CCS Extended the appropriate certification to require? Are there other certifications for ISO 15118 CEC should consider instead?

- It is our understanding that CharIN CCS Extended is currently not a live certification to require. Currently, there is also no active certification process for ISO 15118. Hubject does compliance checks on ISO 15118 for EVSEs, but we do not provide certifications. If Charge Yard required certifications, Hubject could support the certification process moving forward, if the CEC would like to develop this.

3. How should CEC specify “support” for multiple roots? Is it sufficient to simply have different EVSE using different V2G Roots? Are there other PKI related requirements needed?

- We do not believe the Commission can mandate the use of different roots as EVSEs will most likely have one V2G root installed, as chosen by the charging point operator. However, the Commission can require that the EVSEs select and install a root from a list of approved V2G root certificates, as decided by the industry. The approved V2G roots would conform to a set of industry approved processes and guidelines. If multiple PKIs are available and approved by the industry in the future, there should be cross-recognition between each approved V2G root for harmonization and continuity.

5. How should “neutral” be defined? Is this important?

- The Charge Yard being a “neutral” facility for interoperability testing is imperative to the success of the concept. However, defining “neutral” in the EV sector can be challenging with the diverse array of business models across the industry. We believe the Charge Yard should be operated by a third party that is not-for profit and that does not have revenue expectations.

7. Is accelerated development of ISO 15118-2 certification needed or appropriate? CEC notes the current lack of ISO 15118-2 certification testing procedures for AC chargers. Should this include vehicle side certification too?

- The accelerated development of a certification process for ISO 15118 is both needed and appropriate. As previously stated, there is no active certification process for ISO 15118 to date. Yet, being ISO 15118 enabled is a requirement for federal and state EV incentive programs. Developing a certification process will help bring clarity and certainty to an industry that is rapidly evolving.

9. Given that ISO 15118-20 support bidirectional charging, certification procedures may have implications for future interconnection requirements. How should certification procedures for -20 be developed to support future interconnection requirements?

- Currently, Hubeject performs compliance and security audits for ISO 15118 -2 and this could be easily extended to a certification by working closely with industry organizations and government agencies. We believe that ISO 15118 -20 implementations are still 3-5 years in the future but a similar certification can be developed for -20. Given that there is no proof of concept for -20 available yet, it is likely not possible to develop a certification procedure for it at this time.

10. Is complete vehicle-to-home testing needed or appropriate? Should CEC specify additional or other requirements to support bidirectional charging?

- At a minimum, the auto OEM should have a charge controller and battery management system in the vehicle that can support bidirectional charging, but this may be difficult given that no implementation of -20 exists today.

12. Will industry feel confident using Charge Yard if data is anonymously collected?

- While we cannot speak for industry as whole, Hubeject believes data collection is imperative for Charge Yard to ensure interoperability, learn best practices for the future, and ensure an easy and seamless charging experience.

18. Should Charge Yard prohibit certain types of entities from applying / participating?

- Hsubject does not want any entity in the EV industry prohibited from applying or participating in Charge Yard. However, we do believe participants must have aligned technology that would require testing in the laboratory.

20. Is \$3M in CEC funding enough funding to kick off Charge Yard? Is this too much?

- We believe \$3 million is an appropriate funding disbursement to start Charge Yard. Depending on the size and scope, we do anticipate it will require additional funding sources to keep it operational long into the future.

22. Is a 4 year project term appropriate?

- Charge Yard needs to be an ongoing initiative that operates long past a four-year term. The need for interoperability testing is high and demand will grow with EV market penetration. As mentioned above, we believe additional funding will be needed to keep it operational, but that funding will need to be self sustainable, industry led, and not reliant on government support.

Hsubject appreciates the opportunity to provide comments and thanks the Commission and its staff for their time and consideration. We look forward to continuing our engagement with the Commission to make EV charging easy, seamless, and equitable for all. Please feel free to contact me if you have any further questions.

Thanks – Brad Groters

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