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ChargePoint ViGIL Comments May 2020

Additional submitted attachment is included below.

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May 27, 2020

Ms. Patricia Monahan,
Commissioner, Energy Commission
1516 Ninth Street
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RE: ChargePoint Comments on ViGIL Draft Concept

ChargePoint is the leading electric vehicle (EV) charging network in the world, with scalable solutions for every charging need and for all of the places that EV drivers go: home, work, around town, and on the road. ChargePoint's network offers more than 112,000 places to charge, including more than 44,000 spots in California, and those numbers continue to grow. With thousands of customers in several verticals including workplaces, cities, retailers, apartments, hospitals, and fleets, ChargePoint provides an integrated experience enabling consistent performance, efficiency and reliability at every touchpoint whether one is using a mobile app, plugging into a charger, managing the station or analyzing charging data. On the network, drivers have completed more than 78.3 million charging sessions, saved upwards of 89 million gallons of fuel, and driven more than 2.1 billion electric miles.

ChargePoint appreciates the opportunity to comment on the Vehicle Grid Integration Lab ("ViGIL") proposal. At a high level, we appreciate the intent to advance EV charging in California. However, the details of this proposal presuppose specific standards are ready for testing, which could cause damage to the market. Moreover, this funding could be used in other ways to expand manufacturing and supply chains in the state, deploy additional charging stations, or support jobs during this pandemic. With the pandemic grinding charging station installations to a halt and limited resources available, it does not feel like testing should be the priority at this time.

Below are responses to the questions posed in the ViGIL draft solicitation:

1. **Is $3M sufficient for a project that expands capacity ($2M) and provides vouchers to test ten new charger models ($1M)?**

   Our top concern about this proposal is that it aims to create testing procedures for standards or protocols that are not yet market-ready and therefore do not have existing testing procedures in place. $3M may not be enough and/or lead to inadequate testing. And providing vouchers for testing charger models incentivizes the lab to move quickly, perhaps too quickly, to put procedures in place to get paid. At a minimum, ViGIL should only consider testing of actual standards to avoid enabling certifications that are not ready, do not meet the security or safety requirements needed to become a full standard yet, or could cause market distortions as the result of being place.

2. **Will this proposal reduce the cost, time, and resources needed for testing of charging equipment and help create a robust, diverse market in California?**

This funding could create a new testing procedure where it is not needed and where the market has not yet determined if it is necessary. Our concern is that this testing facility will be used by CEC staff to legitimize their call for moving forward with requirements in CALeVIP and other CEC funding programs that are not yet ready for market. This will add costs for our companies to meet this additional testing, spending valuable engineering time and resources, and creating a competitive issue where companies are forced to get unnecessary or premature certifications to win business in California. These new requirements will negatively impact one of the main goals of CALeVIP, providing a mechanism that speeds up the installation, reporting, and funding processes.

3. **Are there other metrics you would use to define expansion differently from those listed above?**

   There should be a metric for considering need and where there are gaps in available testing. Funding for a testing lab should not cause a protocol or technology to move forward prematurely simply because there is interest of the CEC, rather than the market, to put that protocol in place.

4. **How should the CEC define the applicant eligibility requirements such that the final recipient is a trustworthy, independent laboratory that provides excellent, objective, and rigorous technical testing necessary to achieve interoperability in the market?**

   If ViGIL moves forward, an important qualification should be previous experience specifically testing charging stations and/or electric vehicles. This experience will be valuable to understanding the unique features of these products, ensuring testing procedures are developed efficiently and effectively.

5. **What is the most appropriate way to publicly share the specifications of products that have been supported by this solicitation? Is there a standard format that should be used for specifications? Should a public repository of completed charging equipment be created?**

   ChargePoint is concerned that this proposal gets beyond funding testing capabilities and into the process of certifying equipment by requiring that products "publish their specification sheets after successful testing" *and* demonstrate four policy objectives: interoperability, competition and customer choice, cost control, and convenience. While it is clear in the draft solicitation that the test results would be sent to a certification body to make the actual certification, this added step of positing results and demonstrating policy objectives is creating a certification process in and of itself. Vendors will be expected to prove that they meet these policy objectives and specifications, and post it online, in order to win business or qualify for a state funding program even when many of the products proposed by ViGIL are not ready for market or in some cases, aren't even standards yet. This will add new costs and requirements on the industry beyond those required (if any requirement exists) by a certification or rulemaking body. For example, by enabling testing of ISO 15118, which currently does not exist, ViGIL could be creating a new testing requirement that could force companies to prove certification to compete in the state. Then that product would also need to show why meeting ISO 15118 certification enables "interoperability" which presumes that ISO 15118 is even available on multiple vehicles and a standard that promotes this policy concept. While this may be the intent of this funding proposal, it is our opinion that this goes well beyond the goals of

the California Energy Commission and could cause damage to the market beyond this state.

If a "public repository" is created, then it must align with the authority of the California Energy Commission to mandate such product specifications through CALeVIP or other funding sources.

6. **Are the product model requirements (i.e. standards, interfaces, and use cases) representative of current and likely future needs of light, medium, and heavy-duty vehicles in California?**

ChargePoint does not believe that all proposed requirements are representative of current and likely future needs of electric vehicles in California. Establishing funding for ISO 15118 testing is premature and should not be prioritized for this limited $3M funding. The rollout of this standard has not been stalled by available testing; vehicles have not been available with ISO 15118 to even enable testing and development of charging station communication. Furthermore, there are serious shortcomings with ISO 15118 right now that must be addressed internationally before charging products should be certified. The Society of Automotive Engineers (SAE) recently announced that it would be addressing one of these shortcomings, related to PKI security.[1] The Energy Commission should be wary of causing negative market impacts by jumping ahead of international processes. At a minimum, provisions for establishing digital trust between a vehicle and the charging infrastructure should be out of scope for ViGIL funding to enable this SAE process to continue. The scope should also remove bidirectional charging, which does not address a current need and will not be in the market any time soon.

Second, the list appears include some things that are standards and some that are not. The scope should include all standards-based EV charging technologies currently in the field or on the horizon. If ViGIL moves forward, ChargePoint would suggest adding CHAdeMO 2.x and 3.0 (ChaoJi).

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Thank you for considering our comments. Please contact me at anne.smart@chargepoint.com if you have any questions.

Sincerely,

Anne Smart
Vice President, Public Policy

[1] https://www.sae.org/news/press-room/2020/05/sae-international-to-launch-industry-driven-sae-ev-charging-public-key-infrastructure-project