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ChargePoint Comments

Additional submitted attachment is included below.

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December 20, 2024

Matthew Flynn
California Energy Commission
715 P Street
Sacramento, CA 95814

Re: Docket # 24-FADS-04 – Request for Information (RFI) on Flexible Demand Appliance Standards for Electric Vehicle Supply Equipment

About ChargePoint

ChargePoint is a world leading EV charging network with a comprehensive set of charging solutions available to customers. Since 2007, ChargePoint has been creating the new fueling network to move all people and goods on electricity. ChargePoint is committed to making it easy for businesses and drivers to go electric. ChargePoint's cloud subscription platform and software defined charging hardware is designed internally and includes options for every charging scenario from home and multifamily to workplace, parking, hospitality, retail, corridor, and fleets of all kinds. ChargePoint's primary business model is to sell our integrated charging software and hardware solutions directly to site hosts and provide services that enable them to provide charging services that align with their specific needs. Today, one ChargePoint account provides access to hundreds of thousands of places to charge in North America and Europe. To date, more than 295 million charging sessions have been delivered, with drivers plugging into the ChargePoint network on average every second.

Response

ChargePoint appreciate the opportunity to respond to selected questions in this RFP.

Foundationally, ChargePoint notes that any requirements or regulations steaming from this RFP should include sufficient timelines for manufacturers of equipment and developers of software to respond and incorporate into their products. ChargePoint also notes that while future products may have opportunities to standardize and harmonize around specific requirements and regulations, it is important to provide flexibility for the industry to react to technology advancements, any requirements or regulations should maintain enough flexibility for industry to continue to innovate and respond to the needs of EV drivers, including continuing to provide cost effective hardware and software options to make driving electric affordable. Finally, the existing installed base of EVSE is an important resource that must be considered regulations and

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requirements should be flexible enough to incorporate the existing fleet of EVSEs deployed throughout California.

When will DC charging equipment be available for residential installation? What are the expected use cases, penetration, price range and power level of DC equipment used in the residential sector? Would certain DC chargers installed at private residences require a Battery Energy Storage System to manage peak load?

> ChargePoint does not anticipate a meaningful amount of single-family residential DC charging installations in the near future. The vast majority of DC charging models focuses on high powered fast chargers which are not cost effective for single family residential applications. While there are no specific technical barriers beyond ensuring an adequate amount of power to support the equipment, AC charging is today and is expected to remain the primary charging technology for single family residential applications in the near future.

What software and hardware capabilities could enable public EVSEs to relieve/eliminate grid congestion at the Distribution (referring to Transmission and Distribution, T&D, for the grid) level? What control strategies are available to the grid operator and/or load aggregator to shift and/or curtail demand from EVSEs at the Distribution level to maintain grid reliability?

> ChargePoint does not observe any technical limitations on EVSE being configured to relieve or eliminate grid congestion. However, many publicly available EVSE installations are utilized by EV drivers to fuel and get back on the road as quickly as possible. Any efforts to utilize EVSE to relive gride congestion must be balanced with the need of drivers to prove a positive fueling experience to get those drivers back on the road as expected. Load shifting is likely a better fit for fleet, workplace, and residential charging than for public charging applications. ChargePoint notes that consumers will need to charge based on a wide variety of variables and that carrots to encourage the ideal charging behavior when possible are much better than a “one size fits no one” stick model.

Similarly, what software and hardware capabilities are best suited enable residential EVSEs to relieve grid congestion at the Distribution level? What control strategies can be deployed by the grid operator and/or load aggregator to shift and/or curtail demand from residential EVSEs at the Distribution level support grid reliability?

> Currently there are several programs across the country utilizing aggregators of EVSE for the purposes of organizing the shifting of load, throttling of power, or demand response, including programs at the California Independent System Operator. These aggregators use a variety of proprietary protocols and interfaces as well as industry standard protocols.

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ChargePoint encourages the commission to ensure flexibility for a variety of EVSE devices, including older devices which may not be capable of newer standards, to be able to participate in demand management and load shifting programs.

How can medium-duty and heavy-duty (MDHD) EVs and their EVSE fit into the CEC's goal of load shifting to avoid GHG emissions?

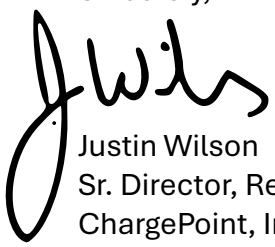
While some medium and heavy-duty fleets may have an easier time than others participating in load shifting programs, if the incentives to participate are sufficient, medium and heavy-duty fleet operators will make the appropriate economic decisions to participate. While the incentives will need to be sufficient to induce behavior, the anticipated scale of medium and heavy duty fleets creates a large opportunity for load shifting.

Which communication protocols or components of existing communication protocols are used to enable load shifting capabilities for EVs and EVSE? What is the implementation status of these communication protocols? Are industry-wide standard communications and control protocols currently in use or planned? Are there remaining gaps to enabling load shifting capabilities?

Today, a variety of communications protocols are used to enable load shifting. There may be no one protocol that can provide all the load management needs necessary to achieve energy savings goals. ChargePoint observers that aggregators are adept at managing multiple types of communications protocols enabling a wide variety of makes and models of devices to participate in programs. Designing programs and empowering aggregators to determine the best protocols has proven an effective strategy to date.

Thank you for your consideration of these comments.

Sincerely,



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