



ChargePoint, Inc.

254 East Hacienda Avenue | Campbell, CA 95008 USA  
+1.408.841.4500 or US toll-free +1.877.370.3802

June 24, 2019

Ms. Elise Keddie  
Ms. Stephanie Palmer  
Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Re: Electric Vehicle Charging Station Open Access Act Rulemaking – Comments on Draft Regulatory Language**

Dear Ms. Keddie and Ms. Palmer,

ChargePoint offers the following comments on the Electric Vehicle Charging Station Open Access Act draft regulatory language. We greatly appreciate staff's efforts to develop draft language and the time taken to meet with stakeholders. We hope that our comments help inform the process by providing the perspective of a company that designs, manufactures, and operates a network of electric vehicle (EV) charging stations.

ChargePoint is the world's largest electric vehicle charging network with more than 66,000 Level 2 EV and direct current fast charging spots, including 29,000 public and semi-public ports in California. ChargePoint's customers include major employers, municipalities, universities, utilities, real estate developers and parking garage facility owners and operators that provide EV charging and related services to EV drivers.

Our comments address 1) required payment methods, 2) facilitation of roaming agreements, and 3) reporting for electric vehicle service providers.

**1) Section 2360.2: Payment Method Requirements for Electric Vehicle Supply Equipment Should Allow for Contactless Credit Card Payment rather than EMV Chip Readers, if a Credit Card Reader Mandate Must Be Proposed by ARB**

The proposed regulation order states that all electric vehicle supply equipment (EVSE) subject to the regulation, "shall have a credit card reader physically located on the EVSE...[and that] the credit card reader shall accept, at a minimum, Euro Mastercard Visa chip."<sup>1</sup> While the enabling legislation, SB 454, provides *an option* to pay via credit cards, it does not mandate that physical credit card readers be installed in all stations. Specifically, it states, "An electric vehicle charging station that requires payment of a fee shall allow a person desiring to use the station to pay via credit card **or** mobile technology, or both."<sup>2</sup> Nowhere in SB 454 does it mandate a physical credit card reader.

---

<sup>1</sup> Page 6: [https://www.arb.ca.gov/regact/2019/evse2019/isor.pdf?\\_ga=2.1786422.626746724.1557179841-1031538767.1513113614](https://www.arb.ca.gov/regact/2019/evse2019/isor.pdf?_ga=2.1786422.626746724.1557179841-1031538767.1513113614)

<sup>2</sup> CA Health & Safety Code § 44268.2(a)(1) (2018); see also SB 454 Senate Transportation analysis: "The author believes this bill will provide the framework for electric vehicle charging stations to operate similarly to gas stations,



ChargePoint, Inc.

254 East Hacienda Avenue | Campbell, CA 95008 USA  
+1.408.841.4500 or US toll-free +1.877.370.3802

**There is no data showing EMV chip readers will increase low-income access to EV charging stations.** Page six of the proposed regulation order states that all EVSE subject to the regulation “shall have a credit card reader physically located on the EVSE... [and that] the credit card reader shall accept, at a minimum, Euro Mastercard Visa chip.”

EV charging companies have shared data with the California Air Resources Board (ARB) showing extremely low utilization rates for credit card readers on chargers that have them, sometimes as little as 1% of transactions<sup>3</sup>. In those instances, consumers have primarily used mobile applications or RFID cards to initiate their charging sessions. ARB staff has not provided quantitative data demonstrating that session usage will increase as EV penetration grows, and in fact, a 2018 report published by ARB titled, “Overcoming Barriers to Clean Transportation Access for Low-Income Residents”, which states “many low-income residents lack credit cards and bank accounts”<sup>4</sup>. Given ARB’s own acknowledgement that credit cards are a barrier for low-income households, it is clear that a credit card reader mandate would not expand access for low income consumers.

**Credit card readers are becoming an outdated technology.** US and worldwide payment technology trends show contactless and mobile payment options are becoming more ubiquitous. As of 2017, 77 percent of Americans owned a smartphone. This statistic holds relatively strong across multiple demographics. The costs of the smartphones are now comparable to flip phones and the data plans come at no additional costs<sup>5</sup>. Additionally, the payment industry has increasingly deployed mobile and contactless forms of payment to handle transactions. Not only has American Express, Capital One, and Citi already been using contactless credit cards, but Chase and Wells Fargo have announced that they will roll out contactless credit cards throughout 2019. Chase plans to have all of its credit cards be contactless by summer 2019, with debit cards becoming contactless in the second half of the year. Furthermore, Visa expects 100 million contactless cards to be issued by the end of 2019, and contactless cards will constitute 2/3rds of Mastercard’s payment volume in the next two years.

Contactless credit cards are prevalent worldwide. These trends are consistent with Europe and Canada, where ChargePoint actively sells charging stations and operates a charging network, which are not mandating the use of credit card readers for EV charging. This mandate as proposed will force charging companies to develop an international product for the California market specifically, thus creating an island in payment standards globally.

**Credit card readers expose consumers to increased credit card fraud.** Consumers are frequent victims of credit card skimming at gas stations and the potential for skimming creates severe liability issues for electric vehicle charging network operators and the businesses that host these charging stations for their customers, and thus can be a disincentive to installing public stations with these readers.

A recently released report by the Digital Citizens Alliance (DCA), a consumer-focused nonprofit charged with educating the public and policymakers about cyber-risks, warns of the risks involved when public

---

allowing drivers to use their credit cards or phone to pay for charging,” available at:

[http://leginfo.ca.gov/faces/billAnalysisClient.xhtml?bill\\_id=201320140SB454#](http://leginfo.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201320140SB454#)

<sup>3</sup> Based on testimony by EVgo available at: <https://docket.images.azcc.gov/0000197379.pdf> page 3.

<sup>4</sup> Available at: <https://ww2.arb.ca.gov/resources/documents/carb-barriers-report-final-guidance-document> (page 26).

<sup>5</sup> Based on Sprint and T-Mobile rate plans.



ChargePoint, Inc.

254 East Hacienda Avenue | Campbell, CA 95008 USA  
+1.408.841.4500 or US toll-free +1.877.370.3802

charging ports – often not overseen by an attendant -- accept traditional credit card payments via the magnetic stripe on the back side of the card, or even the “chip” on the front.<sup>6</sup>

Too often, say the study’s authors, cybercriminals will covertly install malicious devices onto the card readers, capable of swiping the card user’s information. DCA would like to see transactions at public EV chargers remain “contactless,” where payment is made via smartphone app, a contactless point-of-sale application such as ApplePay, GooglePay, or an RFID-type device.

**Mandating credit card readers will undermine public investments.** For the last 10 years the California Energy Commission has invested nearly \$100 million in EV charging stations, half of which has supported publicly available chargers. Furthermore, the investor-owned utilities plan to spend tens of millions of dollars to deploy EV charging stations. If this regulation goes into effect as is, not only will these existing investments be compromised, and the private capital spent to match these public funds, but future investments from ratepayers and the state will only go half as far – undercutting the amount of infrastructure the state could deploy. Given the scope of the climate crisis before us, and the immense need for infrastructure to support the state’s transportation electrification goals, this is not a good use of state and ratepayer resources for charging infrastructure. The state needs to increase EV charger deployment—this regulation would undermine that effort.

**Recommendation:** ChargePoint requests that EVSE be allowed to accept credit card payment in the method of the EVSE’s choice, whether that be contactless credit card or EMV chip cards (per SB 454). This would provide adequate flexibility to charging station providers to choose a payment technology they prefer without jeopardizing consumer access to charging stations.

## 2) Section 2360.3: Roaming Should be Aligned with Global Standard and Peer-to-Peer Agreements Already Announced and Implemented by Industry

Page 8 requires ESVP to meet the “California Open Charge Point Interface Interim Test Procedures for Networked Electric Vehicle Supply Equipment for Level 2 and Direct Current Fast Charge Classes.” Over the past year, charging networks have announced peer-to-peer roaming agreements based on Open Charge Point Interface (“OCPI”), the global standard under development for roaming. This proposed rule would develop a California-specific version of OCPI, which is unnecessary given the status of the global standard and roaming agreements in the industry.

As of June 21, 2019, ChargePoint has announced roaming agreements with FLO<sup>7</sup>, EV Box, Greenlots, EV Connect<sup>8</sup>, EVgo<sup>9</sup>, and Electrify America<sup>10</sup>. Collectively, EVSE roaming agreements have been signed or announced across 90% of smart charging networks in the US, thereby allowing drivers with one account or tap card to access these networks. None of these roaming agreements have any roaming fees associated with roaming transactions.

<sup>6</sup> Available at: [https://www.digitalcitizensalliance.org/clientuploads/pdf/Charging\\_in\\_the\\_Crosshairs.pdf](https://www.digitalcitizensalliance.org/clientuploads/pdf/Charging_in_the_Crosshairs.pdf).

<sup>7</sup> <https://insideevs.com/news/340313/chargepoint-and-flo-initiate-roaming-agreement-in-north-america/>

<sup>8</sup> <https://cleantechnica.com/2019/06/18/evgo-chargepoint-ev-connect-enter-into-new-interoperability-agreement/>

<sup>9</sup> <https://electrek.co/2019/06/18/evgo-roaming-chargepoint-evconnect/>

<sup>10</sup> <https://electrek.co/2019/06/11/chargepoint-electrify-america-partnership/>



ChargePoint, Inc.

254 East Hacienda Avenue | Campbell, CA 95008 USA  
+1.408.841.4500 or US toll-free +1.877.370.3802

Developing, mandating, and testing for California OCPI is an unnecessary administrative cost for ARB. Furthermore, it may set back or negate the roaming agreements already announced and implemented by ChargePoint and other companies. ARB should seek to support implementation locally of global standards and global roaming agreements already underway, rather than developing their own.

**Recommendation:** Allow charging networks to continue to enact peer-to-peer roaming agreements developed using global standard, such OCPI.

### 3) Section 2360.4 Reporting for Electric Vehicle Supply Equipment (EVSE) Should be Optional

Pages 11 and 12 of the proposed regulation require EVSEs to report annually the following EVSE payment usage information:

- Total number of charging sessions started with a credit card;
- Total number of charging stations started with an NFC;
- Total number of charging sessions started with a toll-free number;
- Total number of charging sessions started with membership RFID card;
- Total number of charging sessions started with service provider application, and;
- Total number of other methods of payment, including sessions that did not require payment.

These requirements as written would jeopardize sensitive customer and business data, and reduce the value of charging networks' data to customers. This will also impose high administrative burdens and costs on charging networks and their customers to collect and process their data to provide it to ARB in a useable format. There are millions of transactions happening annually<sup>11</sup> at charging stations through various forms of payment. This data processing will require increased staffing internally at charging companies and added costs to customers, which would make it more expensive and difficult for EV drivers to charge their vehicles and slow down the industry's deployment of charging stations.

**Recommendation:** ChargePoint respectfully requests that ARB allows for these reporting requirements to be optional, but not required.

We greatly appreciate the opportunity to provide these comments. If you have any questions or seek further clarification, please contact Alex Leumer, [alexandra.leumer@chargepoint.com](mailto:alexandra.leumer@chargepoint.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Alexandra Leumer".

Alexandra Leumer  
Director of Public Policy  
ChargePoint

---

<sup>11</sup> To date, ChargePoint has initiated over 58 million charges worldwide.