Date of Hearing: April 2, 2024

ASSEMBLY COMMITTEE ON PRIVACY AND CONSUMER PROTECTION
Rebecca Bauer-Kahan, Chair
AB 2453 (Villapudua) – As Introduced February 13, 2024

**SUBJECT**: Weights and measures: electric vehicle chargers and electric vehicle supply equipment

## SYNOPSIS

*Over the next few years, California aims to make 250,000 commercial electric vehicle (EV) chargers available to EV owners across the state. Just as Californians trust gas pumps to accurately dispense fuel for internal combustion engine vehicles, these EV chargers will be expected to accurately dispense fuel – electricity – for EVs. County sealers and their nonpublic counterparts, the registered service agents (RSAs), are responsible for testing and verifying as correct all weighing and measuring devices in California. At present, there are 58 county sealers and 2,622 RSAs spread throughout the state – however, only 15 of California's 534 service agencies are certified and equipped to test EV chargers. The numbers simply do not add up: 15 service agencies and a handful of county sealers cannot install and maintain 250,000 EV chargers.*

*When a weighing or measuring device is installed for the first time, a sealer or RSA must test and verify it as correct before it can be used commercially. According to the sponsor of this bill, Chargepoint, the cost of testing a weighing and measuring device is approximately $500 per charging port (of which a single EV charger can have several) – expensive, but not entirely unreasonable for a one-time fee. However, state law also requires weighing and measuring devices to be retested each time they undergo repairs. A weighing and measuring device may be repaired many times over the course of its commercial life. The costs facing the owners and operators of these devices quickly add up.*

*With one hand California plans to install hundreds of thousands of EV chargers; with the other, it requires each of these chargers to be tested by a relatively small number of sealers and RSAs before their initial use and following each repair. This bill would attempt to bridge the gap between the state's ambitious goals and its limited capacity to realize those goals by exempting EV chargers from the requirement to be tested after receiving what the bill calls "routine maintenance" – in other words, maintenance that is not expected to affect the correctness of a device. This is a creative work-around, but ultimately a band-aid solution to a much more serious problem. In the near future, California will need to train and equip a dedicated workforce to maintain the infrastructure demanded by the state's ambitious climate goals.*

*This bill is sponsored by Chargepoint and supported by a number of EV charging organizations and EV manufacturers. It is opposed by Advanced Test Equipment Corporation.*

**SUMMARY**: Until January 1, 2028, allows "electric vehicle supply equipment" (EVSE) to be used commercially after undergoing routine repairs that do not affect the EVSE being correct, without requiring the EVSE to first be placed into service by a county sealer or RSA. Specifically, **this bill**:

1) Defines EVSE to mean a device that is used in connection with the sale of electricity as a motor vehicle fuel for controlling the electricity supply from an electric vehicle charging station to a vehicle during a charging session and that includes a measuring instrument.

2) Defines "routine repairs" to mean maintaining, adjusting, reconditioning, or serving an EVSE in a manner that does not affect the EVSE being correct.

3) Allows an EVSE that has previously been placed into service by a county sealer or RSA to be used commercially without needing to again be placed into service after undergoing routine repairs.

4) Remains in effect only until January 1, 2028.

**EXISTING LAW**:

1) Establishes in each county the office of county sealer of weights and measures. (Bus. & Prof. Code § 12200.)

2) Extends the jurisdiction of a county sealer to the entire territorial limits of their county. (Bus. & Prof. Code § 12206.)

3) Requires a county sealer to test all weighing or measurement devices and accessories used for commercial purposes within their jurisdiction. (Bus. & Prof. Code § 12210.)

4) Allows a county to collect a fee from an owner or user of a commercial weighing and measuring device if each of the following criteria are met:

    a) The county inspects or tests the weighing or measuring device at the request of the owner or user of the device.

    b) The inspection or testing could legally be performed by an RSA.

    c) Collection of the fee is authorized by the county board of supervisors. (Bus. & Prof. Code § 12210.5.)

5) Limits how much county sealers can charge for their services. (Bus & Prof. Code § 12240.)

6) Prohibits the use of commercial weighing and measuring devices that is not of a type approved by the Department of Food and Agriculture. (Bus & Prof. Code § 12500.5.)

7) Requires any person who uses a weighing or measuring device for commercial purposes to have the device sealed before use, unless the device has been sealed before sale. (Bus & Prof. Code § 12501.1.)

8) Allows a sealer to mark an incorrect weighing or measuring device with an "out-of-order" tag if they are capable of being repaired. (Bus & Prof. Code § 12506.)

9) Prohibits the use of weighing and measuring devices that have been marked "out-of-order," and grants the owners of these devices 30 days to repair or correct them. (Bus & Prof. Code § 12507.)

10) Requires a county sealer to remove an "out-of-order" tag from a device they reinspect and find correct. Requires the county sealer to seal and mark the device accordingly. (Bus & Prof. Code § 12509.)

11) Allows any weighing or measuring device that has been sealed to be used without further testing for a specified duration. (Bus & Prof. Code § 12511.)

12) Allows any weighing and measuring device found correct by an RSA to be used commercially pending reinspection by a county sealer. (Bus & Prof. Code § 12511.1.)

13) Requires a person who has made repairs or adjustments to a weighing or measuring instrument, or who has sold, rented, leased, loaned, or installed an instrument, to notify a county sealer with 24 hours of doing so. (Bus & Prof. Code § 12515.)

14) Defines "service agency" and "RSA." (Bus & Prof. Code § 12531.)

15) Allows an RSA to register with the Secretary of Food and Agriculture. Requires that a device may only be placed in service by a county sealer or RSA. (Bus & Prof. Code § 12532.)

**FISCAL EFFECT**: As currently in print, this bill is keyed fiscal.

**COMMENTS**:

1) **County sealers and Registered service agents (RSAs).** Each of California's 58 counties employs a county sealer to oversee the installation and repair of weighing and measuring devices within their jurisdiction. The county sealer's seal is affixed to many measuring devices encountered in the course of daily life in California. County sealers guarantee that if the readout at the gas station says that seven gallons of gasoline have been pumped, then the pump in question has actually dispensed seven gallons; that if the scale at the supermarket says a steak weighs two pounds, then the scale accurately measured two pounds; and that if a natural gas submeter in an apartment says that 2,000 cubic feet of natural gas were used last month, then 2,000 cubic feet of gas were actually provided.

Each county employs a single county sealer, and these individuals are responsible for overseeing a great number of weighing and measuring devices. Recognizing this discrepancy, AB 376 (Floyd, 1999) established a licensing scheme that allows independent "RSAs" to repair weighing and measuring devices with the blessing of the county sealers. As of March 22, 2024, there are 2,622 RSAs employed across 534 service agencies in California.[1] RSAs play a critical role in furthering consumer protection in California: given that they outnumber county sealers 45-to-1, the vast majority of testing done in the state is performed by RSAs rather than county sealers.

Unlike county sealers, whose service fees are defined in statute, the prices that RSAs can charge for their services are not capped. Simple weighing and measuring devices may have many RSAs competing to test them, which drives down costs for the businesses. But some weighing and measuring devices are rare or complicated, and the equipment needed to test them can be expensive. Such is the case with EV chargers. Only 15 of California's 534 registered service agencies possess the necessary equipment to test EV chargers. According to the sponsor of this

[1] California Department of Food and Agriculture, *Registered Service Agencies/ Agents Listing*, https://www.cdfa.ca.gov/dms/programs/rsa/rsalistings/rsaListings.html

bill, Chargepoint, a single EV charger testing device costs approximately $40,000-$55,000. Faced with a high demand for EV charger testing and a low supply of appropriate testing equipment, RSAs find themselves in a position to charge exorbitant fees for their services. According to Chargepoint, testing a single port of an EV charger costs $400-500. Commercial EV chargers usually have at least two ports.

2) **California's EV charger installation goals.** California has set ambitious goals for expanding its EV charging infrastructure to support its zero-emission vehicle initiatives. Recently, the state achieved the milestone of installing over 100,000 public and shared private EV chargers.[2] In a significant push to further expand this network, California plans to install 250,000 public chargers by 2025.[3] This effort is supported by a record investment, including a recent $1.9 billion funding approval aimed at deploying zero-emission vehicle infrastructure across the state. However, the state has not made a commensurate investment in the workforce needed to certify and maintain this infrastructure.

3) **Superficial repairs.** The large number of EV chargers California intends to place into service over the next several years, when combined with the high costs and low availability of qualified RSAs, threatens to create exorbitant costs for the owners and operators of these devices. It is worth considering measures to reduce the burden on these parties, many of whom are small business owners. At the same time, however, care must be taken to protect consumers. EV chargers already have a reputation for being unreliable, as described in a recent *LA Times* article:

> Ask around and many EV owners will agree, public chargers have a bad reputation. Those operated by companies including ChargePoint, Electrify America, Blink, and EVgo don't work 20% to 30% of the time, according to studies from UC Berkeley and data firm J.D. Power.[4]

How can costs be lowered for California's businesses without compromising reliability? It may be possible to thread a needle here. EV chargers have a number of parts and functions unrelated to their ability to accurately measure electricity: their screens, for example, may become cracked and unusable over time due to weathering or vandalism. Upon repairing a damaged screen the charger becomes immediately usable, and at no point during the device's dormancy or repair is its accuracy compromised. According to Chargepoint, the components that allow these chargers to accurately dispense electricity are calibrated and sealed at the devices' point of origin. They are designed such that tampering with superficial features does not impact their core function.

EV chargers must be tested and verified as correct by a county sealer or RSA each time they are repaired. A given charger is installed only once, but may be repaired many times over the course of its life. One way to reduce the financial burden on the owners and operators of these chargers may be to create a new classification for non-substantive repairs, and to exempt repairs of this nature from testing and verification before the device is able to be returned to commercial use.

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[2] Office of Governor Gavin Newsom, "California Hits Another EV Milestone: 100,000 Public Chargers," Mar. 1, 2024, https://www.gov.ca.gov/2024/03/01/california-hits-another-ev-milestone-100000-public-chargers/
[3] Office of Governor Gavin Newsom, "California Building Bigger, Better Zero-Emission Charging Network," https://www.gov.ca.gov/2024/02/14/california-building-bigger-better-zero-emission-charging-network/
[4] Russ Mitchell, "Broken chargers, lax oversight: How California's troubled EV charging stations threaten emission goals," *LA Times*, January 24, 2024, https://www.latimes.com/environment/story/2024-01-24/california-ev-charging-stations-broken.

4) **What this bill would do.** This bill would create a new class of repairs termed "routine repairs" that do not impact the accuracy of an EV charger. When a charger undergoes a routine repair, this bill would exempt that device from the requirement to be tested by a county sealer or RSA before being used commercially, as long as the device has previously been placed into service by a county sealer or RSA. The provisions of this bill would sunset on January 1, 2028.

This is a band-aid solution at best, through no fault of the author or sponsor. California's system of weights and measures is simply unequipped to handle a sudden influx of 250,000 EV chargers. Going forward, the Legislature should consider making a serious investment in a dedicated workforce that is trained and equipped to maintain the infrastructure demanded by California's ambitious climate goals.

5) **Author's statement.** According to the author:

> As California continues to transform its transportation sector to be zero emission, we must do all that we can to ensure that we reduce any and all barriers inhibiting the rollout of much-needed infrastructure. The California Energy Commission has estimated that the state needs 1.01 million chargers by 2030. To achieve this, we must install approximately 359 chargers per day between January 1, 2024, and December 31, 2030. While a significant number of chargers have already been installed in the state, we still have much work to do. The experience of the industry indicates that the existing capacity for accuracy testing to meet DMS requirements is not sufficient to keep pace with the state's anticipated infrastructure needs. If nothing is done to address the bottleneck, the capacity constraints imposed by the scale of testing required will impede the state's transition to zero emission fuels.
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> While maintaining enforcement powers for County Sealers, the elimination of unnecessary testing requirements for charging stations that undergo routine maintenance or repair, will help to significantly reduce cost for maintenance and repairs for EV charging stations and encourage even greater rollout of this infrastructure by reducing the bottleneck that having to test for every routine repair instance causes, thus encouraging greater EV adoption.

6) **Repair requirements?** This bill is predicated on a supposed statutory requirement for weighing and measuring devices to be taken out of service following repair. However, this requirement is not explicitly stated in code. Why do the owners and operators of these devices believe they must be retested after being repaired? The commercial use of a weighing and measuring device can be prohibited in one of three ways:

1. The device is not of a type approved for use by the Department of Food and Agriculture.[5]
2. The device is labeled "out-of order" by a county sealer.[6]
3. The device is not sealed.[7]

[5] Bus. & Prof. Code § 12500.5.
[6] Bus. & Prof. Code § 12507.
[7] Bus. & Prof. Code § 12501.1.

If a device is required to be taken out of service following a repair, it must be the result of one of these three prohibitions. Point 1 can be discounted, as repairing a device has no effect on its "type" as far as the Department of Food and Agriculture is concerned.

With respect to point 2: when a county sealer tests a device and finds it to be incorrect, they are directed to label the device "out of order."[8] Receiving an "out-of-order" indication prevents a device from being used commercially, and grants its owner 30 days to conduct repairs.[9] Once a device has been repaired, a county sealer is able to reauthorize it for commercial use by removing the "out of order" label.[10] It is therefore the testing of the device that causes it to be labeled "out-of-order" and taken out of service, rather than the repair.

This leaves point 3, which prohibits unsealed devices from be used for commercial purposes. Devices are considered "unsealed" until they have been sealed by a county sealer, but existing law does not specifically describe how a sealed device can subsequently become "unsealed." However, it appears to be possible: upon removing an out-of-order tag from a device, county sealers are directed to "**seal** and mark that weight, measure, or weighing and measuring instrument . . . where, upon inspection, it is found correct."[11] So at some point between the application of an "out-of-order" tag and the removal of said tag, a weighing and measuring device becomes unsealed. It is likely, but not explicitly stated, that unsealing occurs when the owner or operator of a device conducts a repair. It is not clear what types of repairs result in a device becoming unsealed, or even whether repairs performed outside of the context of Section 12509 can result in unsealing.

Lacking clarity, the author and sponsors of this bill are justified in seeking a clear exception for repairs that do not affect a device's correctness. More generally, the specific circumstances under which sealed devices become unsealed should be clarified by future legislative action.

7) **Related legislation.** AB 2037 (Papan, 2024) expands the jurisdiction of county sealers to include EV chargers that are owned and operated by public agencies.

***ARGUMENTS IN SUPPORT:***

Blink Charging writes:

> To accomplish the goals of the state, it is imperative that we remove any barriers and avoid added costs that can unnecessarily decrease available chargers for drivers. AB 2453 is an important measure that will help keep current chargers online without the need for retesting when minor repairs or routine maintenance is performed. AB 2453 also keeps costs of ownership reasonable, while increasing available chargers for drivers in California. Lastly, this bill continues to maintain counties' enforcement authority, and authority to test EV charging stations at their discretion, along with an automatic trigger to retest a station should a consumer issue a formal complaint.

CALSTART writes:

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[8] Bus. & Prof. Code § 12506.
[9] Bus. & Prof. Code § 12507.
[10] Bus. & Prof. Code § 12509.
[11] Bus. & Prof. Code § 12509.

> AB 2453 is an important measure that will help to increase the number of EV charging stations in the state by removing unnecessary barriers that are costly and time consuming. This bill removes those barriers while simultaneously ensuring consumer protection is upheld by continuing existing testing requirements and certification by DMS for chargers that are sealed in the factory. This also maintains counties' enforcement authority, and authority to test EV charging stations at their discretion.

Rivian writes:

> Overall, AB 2453 is an important measure that will support robust EV charging station repair and maintenance by removing unnecessary barriers that are costly and time consuming. This bill removes those barriers while simultaneously ensuring consumer protection is upheld by continuing existing charger testing requirements and certification to CTEP as well as maintaining counties' enforcement authority under current law to require regular testing of chargers at its discretion. This bill is a thoughtful approach to streamlining the process of installing EV chargers in California, a critical building block to achieving the state's overall transportation electrification goals.

***ARGUMENTS IN OPPOSITION:***

Advanced Test Equipment Corporation writes:

> In the case of AB-2453 and EVSE, periodic calibration would be nothing other than standard. Electronic equipment requires verification of its measurements if results expected are to be accurate. This bill is being driven by the OEMs for EV and EVSE that are looking to cut corners and costs by nullifying the need for re-calibration. I would recommend not approving AB-2453.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

Blink Charging Company
California Apartment Association
Calstart INC.
Electric Vehicle Charging Association
Rivian
Valley CAN (Clean Air Now)

**Opposition**

Advanced Test Equipment Corporation

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