



National Council on Weights and Measures
Chair Andrei Moldoveanu, Jeff Gibson, Juana Williams, and the NTEP Electric Vehicle Supply
Equipment Work Group
9011 South 83rd Street
Lincoln, Nebraska 68516

January 7, 2026

Re: Non-Integral Screens in Weights & Measures for Level 2 Electric Vehicle Charging

Dear NTEP Electric Vehicle Supply Equipment Work Group,

We understand that jurisdictions are applying differing interpretations of Section S.1.2, *EVSE Indicating Elements*, in the National Institute of Standards and Technology's Handbook 44 EVSE chapter. From our perspective, however, the plain language of Section S.1.2 unambiguously allows for non-integral primary indicating elements. S.1.2 states:

"S.1.2. EVSE Indicating Elements. – An EVSE used to charge electric vehicles shall include an indicating element that accumulates continuously and displays, for a minimum of 15 seconds at the activation by the user and at the start and end of the transaction, the correct measurement results relative to quantity and total price. Indications shall be clear, definite, accurate, and easily read under normal conditions of operation of the device. All indications and representations of electricity sold shall be clearly identified and separate from other timebased fees indicated by an EVSE that is used for both the sale of electricity as vehicle fuel and the sale of other separate time-based services (e.g., vehicle parking).

S.1.2.1. Multiple EVSEs Associated with a Single Indicating Element - A system with a single indicating element, for two or more EVSEs, shall be provided with means to display information from the individual EVSE(s) selected or displayed, and shall be provided with automatic means to indicate clearly and definitely which EVSE is associated with the displayed information."¹

The language does not require the primary indicating element to be integral to the EVSE. Indeed, **we strongly support including new language** in Handbook 44 clarifying inclusion of primary indicating elements on means non-integral to the device, such as **"S.1.2.2 Primary**

¹ Natl. Inst. of Standards & Technology, Handbook 44: Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices § 3.40 (NIST HB 44-2026) (Dec. 10, 2025), available at <https://www.nist.gov/system/files/documents/2025/12/30/3-40-26-HB44-20251210.pdf>.

indicating element. The primary indicating element shall be provided by means integral to the device (e.g., an embedded screen) or by means non-integral to the device (e.g., a mobile application or vehicle dashboard)."

We not only believe that S.1.2. allows for non-integral screens, such as a mobile application or vehicle dashboard, but we also purposefully do not include embedded screens on our Level 2 curbside chargers.

It's Electric, Inc. ("It's Electric") is an electric vehicle (EV) charging station owner-operator, purpose-built for cities, with a mission to unlock access to clean vehicles for all urban drivers. Millions of drivers lack home or private garages and cannot transition to electric vehicles due to the lack of on-street charging. It's Electric accelerates the adoption of EVs with its scalable and simple curbside charging solution, ensuring that every community has access to clean, sustainable transportation options – all at no cost to our city partners.

Working with lauded industrial design firm Billings Jackson, we specifically designed our charging hardware to complement (and withstand) the urban landscape. While most other U.S. EV charging equipment is designed for installation in garages, parking lots, or highway rest stops, It's Electric chargers are sleek and unobtrusive at just 7"W x 7"D x 43.5"H, and the first in North America to feature a bring-your-own charging cord configuration. Not only does a detachable cord help us meet reliability/uptime requirements, it also ensures accessibility, with the majority of the sidewalk kept clear of obstruction.

We stripped our charging post down to the bare minimum: we removed the credit card swipers, touchpads, integrated cable, and – most importantly – the screens. All that's left is a slim, stainless-steel encased charging bollard with a J3068 socket-outlet connector² and an RFID card reader. We have eliminated everything that could be vandalized, damaged, or broken, to make a piece of street furniture that is as ubiquitous and long-lasting as a fire hydrant (at least for its expected useful life of 10 years). Indeed, this hardware form factor is a key reason cities are interested in working with us.

Requiring Level-2 electric vehicle chargers to have an embedded screen is misaligned with the practical realities of public curbside charging. Unlike off-street stations, which may have attendant support, shelter, and higher-powered equipment, curbside Level-2 chargers are typically lower-cost, unattended units embedded into the urban environment. Failure to include non-integral primary indicating elements like mobile applications as a viable, accessible option is

² A charging post with a J1772-compatible "universal" J3068 socket-outlet can be used to charge any vehicle with a driver-provided cable, whether the EV has a J1772 or J3400 charging inlet.

a mistake. Mandating an embedded screen introduces additional components that are susceptible to failure.

Moreover, the absence of an embedded screen does not impede consumer access or understanding in this context. For context, our detachable charging cable is not proprietary and may be purchased through widely available retail channels. We provide a free cable to customers who download our mobile application and verify their EV model, allowing us to ensure the correct connector is provided. Customers who have already requested and received a cable are, by definition, familiar with the application required to initiate and manage a charging session. Requiring an embedded screen in these circumstances is therefore duplicative and unnecessary. The regulatory premise that curbside Level-2 charging must accommodate a hypothetical EV-driving customer without a smartphone does not reflect current market realities or actual user behavior.

An integrated screen significantly increases the overall cost of the charger. We estimate our hardware costs would increase by about \$300 if we include an integrated screen. This cost represents the added material, labor, and complexity required to accommodate a screen that is suitable for a sidewalk use case. This cost does not include an investment into industrial design, tooling, and engineering required to make the product market ready, along with additional costs associated with regulatory testing and certifications. This upfront cost could easily exceed \$250,000. Once the integrated screen has been integrated into our hardware, we will need to invest in firmware, software, user interface, and graphic design work that adds additional cost and operational complexity. The graphic elements shown on the screen must be continuously monitored and updated, and workflows created to ensure the information we currently share on the app is consistent with the information shown on the integrated screen. We do not expect the high costs to reduce, due to limited suppliers. Finally, we are certain that these screens, even with all care given to design a robust and hardened system, will inevitably become points of hardware failure across our fleet. Curbside chargers are (by definition) maximally exposed to the elements, and are most vulnerable to human-caused damage, intentional or otherwise. Our drivers rely on our chargers to fuel their EVs, and in many cases our curbside chargers are the only public options available. This requirement places an undue burden on the deployment and maintenance of chargers that are critical to expanding equitable and widespread public charging access. While robust embedded screens and payment systems may be appropriate for DC Fast charging sites that serve longer-distance travel and higher-throughput use cases, applying the same standard to Level-2 chargers discourages cost-effective, widespread deployment in the urban environments where they are most needed. A more flexible standard that explicitly allows for a single, reliable non-integral screen like a mobile application would better support the viability of curbside infrastructure while maintaining ease of use for drivers.

Mandating a screen to serve a speculative user profile – an EV driver without a smartphone – imposes real costs, increases failure points, and undermines deployment of reliable curbside infrastructure without delivering a corresponding public benefit.

As such, **we recommend incorporation of new language** in Handbook 44 clarifying inclusion of primary indicating elements on means non-integral to the device, **“S.1.2.2 Primary indicating element. The primary indicating element shall be provided by means integral to the device (e.g., an embedded screen) or by means non-integral to the device (e.g., a mobile application or vehicle dashboard).”**

Please feel free to use us as a resource and reach out with any questions. Thank you for your leadership and dedication to promoting sustainable transportation solutions. We look forward to working together to build a cleaner, greener future for all.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nathan King', with a stylized flourish at the end.

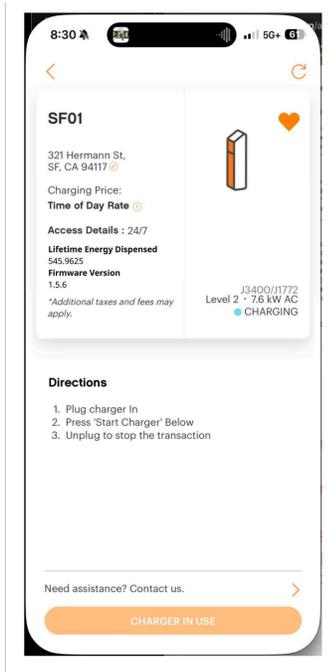
Nathan King, AIA
Co-Founder & CEO, It's Electric, Inc.
nathan@itselectric.us | 646-203-6604

It's Electric Charging Posts

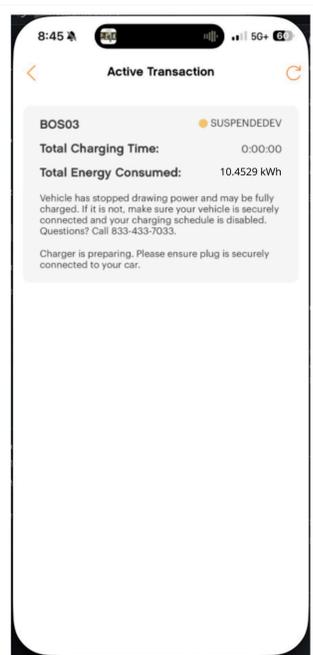


San Francisco, installed April 2025.

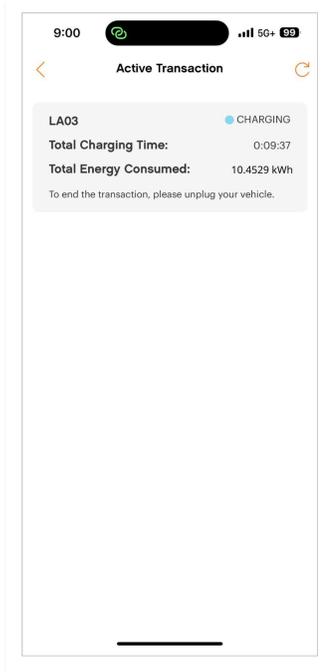
Proposed User Interface



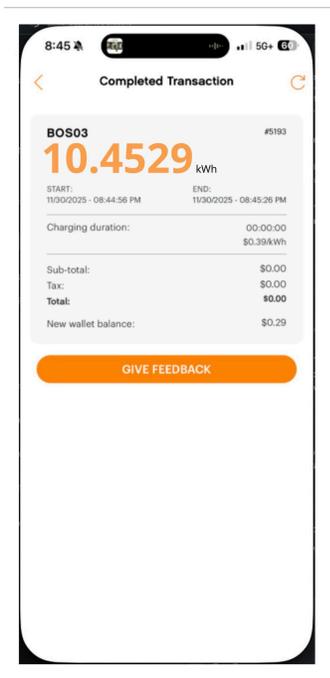
Charger Screen



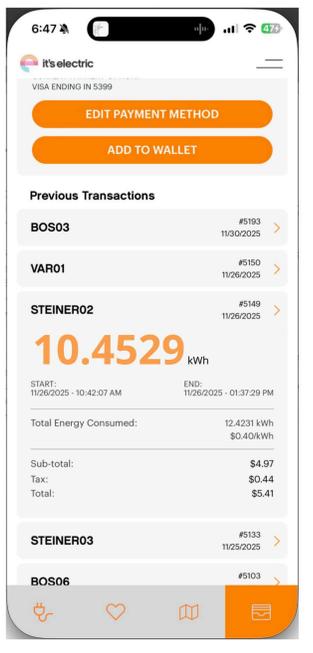
Transaction Screen



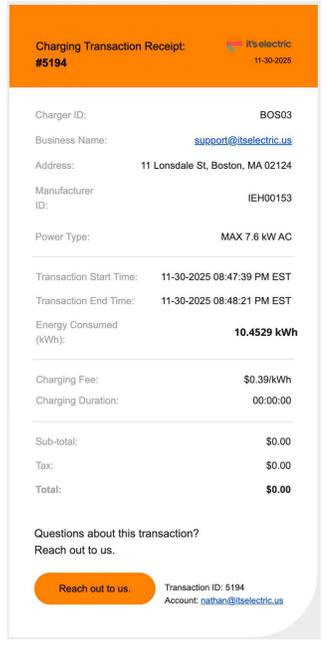
Active Transaction Screen



Transaction Summary



Transaction History



Transaction Receipt