July 12, 2023

Jason Glass, Chair
Specifications and Tolerances Committee
National Conference on Weights and Measures
1135 M Street, Suite 110
Lincoln, NE 68508

Re: Item EVF-23.6

To the Specifications and Tolerances Committee:

The undersigned companies include the four largest networks of fast direct current chargers ("DC chargers") for electric vehicles ("EVs"). Collectively, we operate nearly 90% of the DC chargers in the United States today. We write to provide our joint views on Item EVF-23.6, to which the Committee has assigned Voting status for NCWM's upcoming Annual meeting.

As you know, EVF-23.6 would revise the accuracy tolerance provisions in section 3.40 (the "EV code") so that DC chargers placed into service prior to 2024 may be allowed an accuracy and maintenance tolerance of +/- 5.0%. "Prior to 2024," to be specific, would mean that a charger was both installed and placed in service before January 1, 2024. Such chargers would be allowed to operate at up to a 5.0% tolerance, but would not automatically receive that tolerance, because as an additional criterion, to be under the 5.0% tolerance a charger would have to bear an appropriate notification (using language specified in a new provision). Under the provision a pre-2024 charger that displays the 5% notification would be eligible for the 5.0% tolerance until 2034. As previously noted, this would apply solely to eligible DC chargers.

The companies signing this letter do not have identical business models, or market positions. Some of us manufacture our own chargers, and others do not. Some of us typically own the chargers that we operate, while others typically operate chargers owned by others. Some of us have been in operation for nearly as long as there has been a public charging market, and others are newer arrivals. Some of us have had chargers capable of 1% tolerance for some time, and others have not. Given the differences between these companies, we have sometimes expressed differing views about various past proposals to revise the EV code.

But we are unified in our position on EVF-23.6, and we urge the Committee, and the Conference, to pass it, with a small revision as set forth below.

Our views are as follows:

1. DC chargers installed and placed in service before January 1, 2024, should be allowed the 5.0% tolerance. As the justification materials for EVF-23.6 explain, many legacy chargers are not capable of satisfying a 1.0% acceptance / 2.0% maintenance tolerance without expensive upgrades or replacements. The 5.0% tolerance is the same level as required under California regulations for new chargers installed during the next 10 years, so a 5.0% tolerance for legacy chargers in the rest

of the country will not divide the marketplace. We are all in agreement that the EV code should permit this 5.0% tolerance, for eligible chargers, in the manner set forth in EVF-23.6.

2. The Committee should adopt the recommendation of the Central Weights and Measures Association ("CWMA") to add one further sentence to the proposal. This sentence would go in paragraph S.5.2.1 (on the S&T Committee's report from the NCWM interim meeting, page 353 lines 4 and 5), and would make those lines read (new text in underline):

This marking shall be conspicuously and legibly displayed in a position plainly visible to a person accessing a charging port of the EVSE. <u>The indicating element may be used to display this notice, provided the notice is presented to the customer prior to the beginning of the transaction.</u>

We believe this change is a minor, but valuable addition to the proposal. It relates to the notification a charger must provide if it is to be under the 5% tolerance. The proposal (both as submitted, and in the Committee's modification) can be read, already, to allow the notification to be displayed on the screen of a charging station (its "indicating element"). This reading is sensible because, while paragraph S.5.2 has long said certain information must be marked "conspicuously, legibly, and indelibly," the proposed paragraph S.5.2.1 only requires the "5% notification" to be "conspicuous[] and legibl[e]"—not indelible or permanent. But an inadvertent consequence is that, in principle, the "5% notification" could be shown to a customer only while the charging session is in progress. In keeping with the general principle that a customer should be informed before choosing a transaction, we believe the notification must be presented before the customer decides whether to undertake a charge. The text that CWMA recommended, and that we support, would clarify that the notification can be on a screen, but only if the notification is presented before the customer chooses to enter the charging transaction. Because this change is well within the scope of the proposal; it simply eliminates an unintended ambiguity; and both the Central and Northeastern regional associations have had the opportunity to review it, we respectfully suggest that the Committee can make this change while putting EVF-23.6 forward for a vote at the upcoming annual meeting.

We are united in asking the Committee to make this change in accordance with the CWMA recommendation.

3. The Committee should preserve the language in EVF-23.6 regarding the exemption, for all DC chargers, from the accuracy tolerance until 2028. This exemption is the *status quo*, after NCWM adopted that exemption in July 2022 as part of putting the EV code in force. EVF-23.6 simply repeats that text, with a change to the cross-reference to reflect the additional sub-paragraph on tolerance that EVF-23.6 adds.

A suggestion was made at the Northeastern regional meeting that this 2028 date should be changed to 2024. But that change would be well beyond the scope of the item, and the Committee should not use EVF-23.6 as a vehicle for that debate.

The reasons for the exemption were different, all along, from the reasons for EVF-23.6. When NCWM put the EV code in force, there was not adequate field testing equipment, for DC chargers, readily available. Consequently, regardless of whether any given charger is capable of a

1% or any other tolerance, neither inspectors nor RSAs have ready means to test DC chargers in the field. Putting the EV code into force made this a critical issue, because in many states, a device cannot be used until it has been inspected by an RSA or by a government inspector (depending on the jurisdiction). When the S&T Committee deliberated in July 2022 on whether to include the DC charging accuracy exemption in the priority item to bring the EV code into force, the Committee contemplated that the 2028 date could be adjusted, once it has been shown that adequate field testing equipment is readily available, so that regulators, RSAs, and device users can actually implement the accuracy testing protocol in the EV code.

At some point, the equipment will become readily available, and a proposal will be made, presenting evidence about the availability of field testing equipment for DC chargers, to adjust the 2028 accuracy exemption. A proposal was before the Committee this January to adjust the accuracy exemption, and the Committee designated it for withdrawal, in part because that proposal included no information about field testing equipment at scale and within a reasonable cost. So far as the undersigned companies are aware, it is still the case that adequate field testing equipment is not readily available for DC chargers.

We are united in asking the Committee to maintain the *status quo* with respect to the accuracy exemption for DC chargers, and not to inject questions about testing equipment into EVF-23.6, which is purely about the accuracy capabilities of the chargers themselves.

In sum, the undersigned companies jointly ask the Committee to make the modest change to EVF-23.6 that CWMA recommended, and to advance the item in that form for a vote this July—at which point, we hope the item will pass.

Sincerely,

Electrify America
David Appelbaum

Tesla
Francesca Wahl

ChargePoint
Jared Ballew

EVGo
Alex Beaton