October 15, 2022

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

Re: Item EVF-23.6

To the Specifications and Tolerances Committee:

We are the submitters of proposal EVF-23.6, to amend section 3.40 of Handbook 44.

The proposal would revise the accuracy tolerances for DC electric vehicle chargers, so that chargers installed before January 1, 2024, are eligible for a 5% tolerance. To qualify for the 5% tolerance, a charger would have to satisfy two criteria—installation before January 1, 2024, and being marked with the 5% tolerance. A charger missing either criterion would be under the 1% (acceptance) / 2% (maintenance) tolerance. The proposal expresses this concept by saying a charger is subject to the 5% if it was installed before January 1, 2024, *and* it bears the specified marking; and a charger is subject to the 1% / 2% tolerance if it was installed after January 1, 2024, *or* it lacks the marking.

In our submission, we said the proposal attracted a general consensus at the U.S. National Work Group, EV Subgroup, convened by NIST. As we also noted, the Subgroup voted on such a proposal from June 17 to July 9, 2022; but as of NCWM's submission deadline (on August 15) NIST had not announced whether the proposal actually passed. On October 4, 2022, NIST announced that in fact, the June 17 vote did approve that proposal. Unfortunately, this information was unavailable prior to the submission of our proposal; but we hope the Subgroup's supportive recommendation can be taken into consideration at the 2023 interim meeting.

For your convenience, we have attached the proposal that the EV Subgroup approved. EVF-23.6 is nearly identical. The principal substantive change is to make the 5% tolerance expire on January 1, 2034. This expiration was a request of the only Subgroup member voting against the proposal, who wrote that he would have voted yes with this feature included. We believe there would be no opposition to this modification amongst the Subgroup members who voted on this proposal, and we accordingly submit that EVF-23.6 bears the Subgroup's approval.

Sincerely,

Hal Prince
Florida Department of Agriculture and Consumer Services

David Appelbaum
Electrify America, LLC

Francesca Wahl
Tesla

Jeremy Whaling
EVGo

Chris King
Siemens

[EXT] Ballot-16JUN2022 EVFE SG Proposed-HB 44 3.40 DC EVSE-S.5.2 Marking of Accuracy & T.2 Load Test Tolerances

Williams, Juana S. (Fed) [redacted]

Fri 6/17/2022 7:05 PM

To:Williams, Juana S. (Fed) <[redacted] Butcher, Tina G. (Fed) [redacted]

Greetings EVFE Subgroup and Other Interested Parties:
This message is intended for the U.S. National Work Group on Electric Vehicle Fueling and Submetering's, Subgroup that addresses **Electric Vehicle Fueling Equipment (EVFE)** requirements and test procedures. Today's message is sent to ballot the Subgroup.
During the latter part of its June 16, 2022 Meeting, the EVFE Subgroup developed a proposal (see below) to address DC EVSEs in NIST Handbook 44 Section 3.40 Electric Vehicle Fueling Systems – Tentative Code. The proposal modifies:

- paragraph T.2. Load Accuracy Test Tolerances to expand the accuracy tolerances to ± 5 % for DC EVSEs installed prior to 2024; and
- paragraph S.5.2. EVSE Identification and Marking Requirements to require the marking of accuracy limits in a *new* sub paragraph S.5.2.1. Marking of Accuracy Limits, DC EVSEs Installed Prior to 2024.

Some members may not have had the opportunity to fully participate in this session and we did not have a quorum present when the group arrived at the final language. In accordance with the operational guidelines, the Subgroup is being electronically balloted for its approval of the proposed modifications of the EVSE code. Although the guidelines require you cast your ballot in 21 days or by July 8, 2022, we *encourage your earliest reply*; this will allow time to prepare the ballot results for membership attending the July 10-14, 2022, 107th NCWM Annual Meeting in Tacoma Washington.
You are requested to **return your ballot by July 8, 2022**. Please indicate in the ballot box below if you approve the proposed modifications to NIST Handbook 44 Section 3.40 Electric Vehicle Fueling Systems – Tentative Code: paragraph T.2. Load Accuracy Test Tolerances and paragraph S.5.2. EVSE Identification and Marking Requirements to include new sub paragraph S.5.2.1. Marking of Accuracy Limits, DC EVSEs Installed Prior to 2024. Please also provide your recommended changes and/or comments if you oppose the proposal that is shown below the ballot box.

Ballot (DUE 08JUL2022)	
REQUEST FOR THE ELECTRIC VEHICLE FUELING EQUIPMENT SUBGROUP'S APPROVAL OF THE PROPOSED MODIFICATIONS TO NIST HANDBOOK 44 SECTION 3.40 ELECTRIC VEHICLE FUELING SYSTEMS – TENTATIVE CODE: PARAGRAPH T.2. LOAD ACCURACY TEST TOLERANCES AND PARAGRAPH S.5.2. EVSE IDENTIFICATION AND MARKING REQUIREMENTS TO INCLUDE NEW SUB PARAGRAPH S.5.2.1. MARKING OF ACCURACY LIMITS, DC EVSES INSTALLED PRIOR TO 2024	
	MARK THE APPROPRIATE BOX (X)
(1)(a) – Approve the Proposal	(1)(a)
(1)(b) - Approve the Proposal with Comments (include comments in this box)	(1)(b)
(1)(c) - Oppose the Proposal (include comments in this box)	(1)(c)
(1)(d) – Abstain from voting on the Proposal (include comments in this box)	(1)(d)

Pleas

T.2. ~~Load~~ Accuracy Test Tolerances.

T.2.1. EVSE ~~Load~~ Accuracy Test Tolerances for AC Systems. – The tolerances for EVSE load tests **for**

AC systems ~~are~~shall be as follows:

(a) Acceptance Tolerance: 1.0 %; and

b. Maintenance Tolerance: 2.0 %.

T.2.2. EVSE Accuracy Test Tolerances for DC Systems. – The tolerances for EVSE load tests on DC systems shall be as follows:

(a) For DC systems installed prior to 2024 and that bear the notice specified in paragraph S.5.2.1. Marking of Accuracy Limits, DC EVSEs Installed Prior to 2024, acceptance and maintenance tolerances are: 5.0 %.

(b) For DC systems installed on or after January 1, 2024 or that do not bear the notice specified in paragraph S.5.2.1. Marking of Accuracy Limits, DC EVSEs Installed Prior to 2024 tolerances are:

(1) Acceptance Tolerance: 1.0 %; and

(2) Maintenance Tolerance: 2.0 %.

S.5.2. EVSE Identification and Marking Requirements. – In addition to all the marking requirements of Section 1.10. General Code, paragraph G-S.1. Identification, each EVSE shall have the following information conspicuously, legibly, and indelibly marked:

(a) voltage rating;

(b) maximum current deliverable;

(c) type of current (AC or DC or, if capable of both, both shall be listed);

(d) minimum measured quantity (MMQ); and

(e) temperature limits, if narrower than and within – 40 °C to + 85 °C (− 40 °F to + 185 °F).

S.5.2.1. Marking of Accuracy Limits, DC EVSEs Installed Prior to 2024. - DC EVSEs installed prior to 2024 shall be marked with the following:

NOTICE:

"This charger operates at a tolerance of +/- 5 percent versus newer chargers which operate at a maximum tolerance of +/- 2 percent."

This marking shall be conspicuously, legibly, and indelibly marked, in a position plainly visible to a person accessing a charging port of the EVSE.

This marking requirement does not apply to DC EVSEs that are capable of meeting an acceptance tolerance of 1 % and a maintenance tolerance of 2 %.

(Added 202X)

(Amended 2021)

Please contact Juana Williams by email at: [redacted] by telephone at: [redacted] if you have questions or need copies of related documents.
Best regards,
Juana Williams
EVFE Subgroup Technical Advisor

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