

From: Gary Eldridge, P.E.

To: Abhishek Jathar

Subject: ChargePoint Public Comments Energy Star Revision 1.2

Dear Abhishek,

Thank you for the opportunity to collaborate and provide the comments below regarding the proposed revisions to the Energy Star Specification for EVSE.

Regards,

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1 (a) . Line107, Item 10), Credit Card Reader:

The definition only includes magnetic strip credit cards. Contactless Credit Cards should be covered by the RFID allowance, since such cards are essentially RFID cards. However, the CARB rule requires credit card readers that can read EMV CHIP credit cards. Magnetic strip is not required by the CARB rule. Magnetic strip is a technology that we anticipate will be phased out within the next 5 years by the card brand companies (e.g. VISA / Mastercard).

Proposed change:

Credit Card Reader: A scanner, reader, or any other electronic device that is used to access, read, scan, obtain, memorize, or store, temporarily or permanently, information encoded on the electronic chip of a payment card.

1 (b) . 5 W Allowance for Credit Card Reader (line 196 Table 2, line 241 Table 3, line 263 Table 4)

The allowance for "In-use credit card reader" is stated as 5W. Please confirm that this is correct.

2. Definitions Line 112, item 12), Definition for Revenue Grade Meter.

The metering in charging stations meets utility requirements for accuracy, CTEP requirements, NTEP requirements, and in other countries, MID (Measurement Instrument Directive), Measurement Canada (coming soon), and Eichrecht (German metering law) for things like accuracy, resistance to environmental conditions and noise (immunity) , and many other items related to robust and accurate metering. However, EVSE and metering embedded within EVSE does not literally meet ANSI C-12 and cannot be certified as a C12 meter. Therefore, we would recommend changing the definition to include the legally applicable requirements for metering in EVSE:

Proposed change:

Revenue Grade Meter (RGM): An embedded meter that meets the requirements outlined in NIST Handbook 44: Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, Section 3.40, Electric Vehicle Fueling Systems.

3. Testing with LED's off:

Earlier discussions included omitting station lighting from the Energy Star certification measurements as it did not pertain to the EVSE function, instead being a civic or public function. We recommend adding the following test condition to the test method and the specification:

Proposed change:

Station lighting, i.e. any lighting that is not the display, may be turned off during the Energy Star compliance testing. The manufacturer may provide a means, either software or hardware, to disable such lighting.

4. Meaning of "in-use"

All the new features are given allowances in tables 2 thru 4 as long as they are "in use." Does this mean that the feature is present, enabled and ready to provide its function or is the intent that power consumption be evaluated "in-use" i.e. when the feature is active (speaker playing music, RFID reading a card etc.)

5. No acceptance criteria for new features

How do we show that we are entitled to a particular feature allowance? We recommend basic functionality testing primarily, followed by documentation review where testing is not feasible. We propose the following acceptance criteria:

Acceptance criteria for new features, demonstrating compliance.

| Feature | Acceptance Criteria |
|-------------------------------|---|
| In use speaker | Demonstrate by rendering a sound such as music or speech with good fidelity to be recognizable. (not simple tone alert/alarm etc.) Manufacturer can choose what storage and playback format is used (don't force the use of a specific technology; mp3 or mp4 for example) |
| In use credit card reader | Credentials for card reader module, swipe a card? |
| In use revenue grade metering | Require a certification for at least one of CTEP, NTEP, MID, Measurement Canada, or Eichrecht. |
| In use PLC Boards | Demonstrate by review of schematics or inspection of PCBAs. |
| In use RFID systems | Credentials for card reader module, tap a card? |
| In use occupancy sensing | Manufacturer shall provide a method to trigger the occupancy sensor and a method to observe the response to the trigger. E.g. an indicator illuminates to indicate the station is busy, or a message from the station can be received and displayed in a human readable form. |

6. Applicability to DC Chargers

Shouldn't the same feature allowances be available to DC chargers? It would be a shame to disqualify a product that would have passed if it wasn't for including these enhanced features. We propose adding the same feature allowances to line 273 – Equation 4, line 285 - table 5, line 295 - Equation 5, line 307 - Table 6.