

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

March 1, 2016

Dear Electric Vehicle Supply Equipment Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the following ENERGY STAR Draft 1 Version 1.0 Specification for Electric Vehicle Supply Equipment (EVSE) and Draft 3 Test Method. This letter introduces the Partner Commitments and draft performance requirements, and outlines changes made to the test method in response to stakeholder feedback on the previous Draft 2 proposal.

ENERGY STAR Partner Commitments

The Partner Commitments describe ENERGY STAR requirements for partner participation that apply across all product categories. This document includes requirements for using the ENERGY STAR mark, submitting annual data to EPA, and conducting consumer education and outreach. It also features opportunities partners can elect to undertake for special distinction.

Draft 1 EVSE Specification

This Draft 1 Version 1.0 specification introduces energy efficiency criteria for non-active modes and reflects some changes to the definitions provided in the Draft 2 Test Method:

- **Partial On and Idle Modes:** EPA proposes criteria to reward efficiency in both Partial On and Idle Modes. To determine power consumption levels that reflect the top performing products on the market, EPA assembled Partial On data for 20 models, three of which contain network connectivity, from 10 manufacturers. Under the proposed criteria, 5 products from three manufacturers would meet the proposed levels. EPA seeks to recognize the top quartile of models from more than one manufacturer to ensure a good selection of models for consumers. At this time, EPA invites stakeholders to submit additional data to further inform EPA's analysis. EPA also invites stakeholders to submit data for Operation Mode to determine if additional opportunities for efficiency have emerged since EPA developed its scoping report for EVSE.
- **Auto Power Down (APD):** EPA proposes APD requirements to encourage power management in EVSE, building on ENERGY STAR's experience with incentivizing low power states in other electronics. As APD is known to effectively reduce a product's energy consumption, EPA has proposed one option for products to employ APD in less than or equal to 30 minutes in lieu of meeting the Idle State requirements. EPA has proposed that APD functionality be available on all products.

- **Demand Response:** Based on feedback, EPA proposes criteria applicable only to EVSE with connected functionality that address open standards, open access and consumer override functionality to strike a balance between incentivizing beneficial functionality and recognizing that such functionality is still evolving. EPA has also included a requirement for each Partner to submit a demand response capabilities summary that will be available for each qualified EVSE on the ENERGY STAR website to help educate consumers. Finally, EPA has reverted to using the term ‘demand response’ in lieu of the term ‘grid response’ to harmonize with the new FERC definition of demand response.

Draft 3 EVSE Test Method

Based on stakeholder feedback and test data received, EPA proposes the following changes to the test method:

- **Test Setup:** When the unit is in operation mode, limitations in measurement instruments when multiplied by a large current and voltage result in significant measurement uncertainties. EPA has updated the test setup with additional points of measurement and the measurement of *differential* voltage and current to minimize this uncertainty. Draft 3 includes an equation for calculating power loss.
- **Illuminance Condition:** EPA has updated the dark light condition for the illuminance test to 10 ± 1.0 lux to align with a report on Lighting for Parking Facilities that recommends 10 lux for concrete parking facilities during normal operating hours.
- **APD Testing:** EPA has added an APD test for EVSE in States A and B1 to account for any differentiation in APD response in various modes.
- **Warm-up Period:** EPA has shortened the warm-up period to 5 minutes to reduce testing time; however, the unit must be kept at ambient temperature for 30 minutes prior to testing to prevent any changes in resistance due to temperature.

Certification Requirements

To ensure consumer confidence in the ENERGY STAR label and to protect the investment of ENERGY STAR partners, EPA requires all ENERGY STAR products to be third-party certified. Products are tested in an EPA-recognized laboratory and reviewed by an EPA-recognized certification body before they can carry the label. For more information on EPA’s third-party certification process, visit www.energystar.gov/3rdpartycert.

Upcoming Webinar

The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Stakeholder participation is key to the ENERGY STAR specification development process and is strongly encouraged. EPA plans to hold a webinar on **March 16, 2016 from 2:00pm - 5:00pm Eastern Time** to discuss the Draft 3 Test Method and Draft 1 Specification. To participate in this webinar, please [register](#) prior to this date and time.

Submitting Feedback

Stakeholders are encouraged to submit any feedback to EPA on the Draft 3 Test Method and Draft 1 Specification **no later than March 30th**. Comments should be submitted to EVSE@energystar.gov. All documents related to this specification development are posted on the [ENERGY STAR EVSE product development page](#).

If you have any questions about the ENERGY STAR program and this effort in particular, please contact me at Radulovic.Verena@epa.gov and (202) 343-9845 or Matt Malinowski, ICF International, at Matt.Malinowski@icfi.com and (202) 862-2693.

Thank you for your support of ENERGY STAR. I look forward to working with you during the specification development process

Sincerely,

A handwritten signature in cursive script that reads "Verena Radulovic".

Verena Radulovic, Product Manager

Enclosures:

Draft ENERGY STAR EVSE Partner Commitments

Draft 1 ENERGY STAR Specification for EVSE

Draft 1 EVSE Specification Data Analysis

Draft 2 ENERGY STAR Test Method for EVSE Comment-Response Document

Draft 3 ENERGY STAR Test Method for EVSE