

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



OFFICE OF  
AIR AND RADIATION

December 7, 2010

Dear Battery Charging System Manufacturer or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the attached Draft 1 Version 2.0 ENERGY STAR<sup>®</sup> Battery Charging System (BCS) specification ("Draft 1"). EPA is revisiting the ENERGY STAR specification for BCSs to (1) account for energy consumption of BCSs in active mode; and (2) include energy efficiency criteria for a broader set of BCSs for products previously not included in the Version 1.0 specification.

On October 27, 2010, EPA released an announcement to update stakeholders on the progress of the BCS specification revision. The release of the Draft 1 specification is the first step in the specification development process that will result in a final specification in June 2011. Throughout this time, EPA welcomes stakeholder involvement through participation in meetings and Webinars, written comment, and submission of test data.

The Draft 1 specification included with this cover memo was informed by parallel efforts being conducted by other government entities along with EPA's ongoing research and communication with industry participants.

Key elements of the Draft 1 specification include:

- **Definitions:** The majority of definitions are based on those in the proposed amendments to Appendix Y to 10 CFR Part 430 (i.e., the proposed DOE test procedure), with some additional clarifications; this is intended to harmonize testing.
- **Included Products:** The scope includes the widest practical range of galvanically connected, AC input, DC output BCSs, since EPA has found that this scope presents the greatest energy savings opportunity. This includes products within the scope of the original specification, i.e., low-power BCSs for detachable batteries, standard-size batteries, and heat, light, and motion products. Also included in the scope are BCSs for cellular telephones and other handheld devices, as well as BCS for golf cars and industrial equipment.
- **Excluded Products:** EPA is proposing to exclude BCSs for products covered under other ENERGY STAR specifications (e.g., notebook computers), with the exception of cordless telephones as well as cordless phone-answering machine combination products, which EPA is proposing to bring over to this BCS category from the telephony product category. Also excluded are BCSs for inductively-coupled products, for on-road electric and hybrid-electric vehicles, and for stationary and emergency applications.
- **Product Class Divisions:** EPA is proposing to divide battery chargers into classes based on battery energy and voltage, as presented by DOE in its recently published Preliminary Analysis of Battery Chargers.

- Qualification Criteria: This portion of the document specifies unit energy consumption and modal limits.
  - For BCSs with battery energy less than or equal to 10 kilowatt-hours, EPA is proposing to harmonize the usage profiles and methodology for calculating unit energy consumption presented in DOE's Preliminary Analysis of Battery Chargers.
  - EPA is also further incentivizing the elimination of nonactive energy consumption through a credit that can be applied to active energy consumption.
  - For BCSs with battery energy greater than 10 kilowatt-hours, EPA is proposing a multi-metric approach with efficiency and power limits for each mode.
  - EPA did not propose levels for BCSs with battery energy greater than 3 kilowatt-hours and less than 10 kilowatt-hours (typically used for golf cars) due to insufficient data. EPA would welcome assistance from stakeholders in developing a dataset (according to the below test procedures) to support the establishment of levels. EPA will include in its analysis all information added to the dataset by January 15, 2011.
  - EPA is also considering accounting for non-use phase environmental impacts of BCSs, including battery disposal impacts, and seeks stakeholder feedback on this topic in the enclosed Draft 1 specification.
- Test Procedure: The specification references two test procedures, depending on the battery energy:
  - For battery energy less than or equal to 10 kilowatt-hours: Proposed amendments to Appendix Y to 10 CFR Part 430 (i.e., the proposed DOE test procedure)
  - For battery energy greater than 10 kilowatt-hours: Part 2 of "Energy Efficiency Battery Charger Test Procedure," Version 2.2. (California Energy Commission battery charger test procedure, available at [www.efficientproducts.org](http://www.efficientproducts.org))
- Effective Date: Two effective dates are proposed depending on the type of BCS:
  - BCSs not currently covered under the Version 1.0 specification could begin qualifying as of June 1, 2011.
  - BCSs currently covered under the Version 1.0 specification and cordless telephones would have until March 1, 2012 to begin qualifying under this Version 2.0 specification.

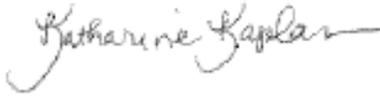
In-line with the draft program requirements you will find notes set off from the text in boxes. These notes are used throughout the development of specifications to provide context and highlight topics on which EPA would especially like stakeholder feedback. Please pay special attention to these note boxes during your review of the document. As always, the exchange of ideas and information among EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Manufacturers are strongly encouraged to e-mail feedback on Draft 1 Version 2.0 specification to [batterychargers@energystar.gov](mailto:batterychargers@energystar.gov) by **January 15, 2011**. Any test data submitted by that date will be considered by EPA when developing the Draft 2 specification.

EPA plans to host a Webinar to discuss preliminary product testing results and stakeholder feedback on the Draft 1 specification on Tuesday, **December 14, 2010**, from 11 am to 2 pm Eastern Time. Please RSVP to [batterychargers@energystar.gov](mailto:batterychargers@energystar.gov) by December 10 to receive Webinar information.

Please direct any specific questions to Katharine Kaplan, at [kaplan.katharine@epamail.epa.gov](mailto:kaplan.katharine@epamail.epa.gov), or 202-343-9120, or Matt Malinowski, ICF International, at [mmalinowski@icfi.com](mailto:mmalinowski@icfi.com) or 202-862-2693.

We look forward to working with you.

Sincerely,

A handwritten signature in cursive script that reads "Katharine Kaplan". The signature is written in dark ink and includes a horizontal line at the end.

Katharine Kaplan  
U.S. Environmental Protection Agency  
ENERGY STAR for Battery Charging Systems