



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

OFFICE OF
AIR AND RADIATION

July 15, 2011

Dear ENERGY STAR® Uninterruptible Power Supply Stakeholder:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the attached Draft 2 ENERGY STAR Version 1.0 Uninterruptible Power Supply (UPS) specification and revised draft test method. Stakeholders are encouraged to submit comments on these proposals to EPA no later than **Thursday, August 11, 2011**.

The Draft 2 specification was developed based on comments received on the Draft 1 specification as well as subsequent discussions and research. The following key changes were made in this draft:

- **Efficiency Requirements:** AC-output UPS efficiency requirements have been revised. New categories are proposed for products based on output power ranges: Consumer (≤ 1.5 kW), Commercial (>1.5 kW and ≤ 10 kW), and Data Center (>10 kW). A single level is proposed for all Consumer UPS systems, while multiple levels differentiating by input dependency are proposed for Commercial and Data Center systems.
- **Multi-Mode UPSs:** EPA is proposing an efficiency allowance for test results in the lowest input dependency mode for multi-mode UPSs that also test in their highest input dependency mode. These units must ship with the highest input dependency mode enabled by default. The efficiency of a multi-mode unit that tests in its lowest and highest input dependency modes is calculated as a weighted average of the two modes and then compared to the efficiency level set for the lowest input dependency mode. This weighted efficiency is used only for qualification and the normal efficiencies of each tested mode are reported in the PPDS. EPA remains open to further comment on various methods for incorporating multi-mode UPSs into the efficiency requirements.
- **Refurbished UPSs:** Refurbished units will continue to be included in the specification. Partners wishing to label refurbished units will qualify them to the ENERGY STAR UPS requirements in effect at the time of refurbishment. Similar to other ENERGY STAR product categories with a large market for refurbished units, EPA is proposing that refurbished UPSs be qualified based on a standard combination of original unit and a refurbishment kit; the combination of original unit and kit will be treated as a separate model and must be tested for ENERGY STAR qualification.
- **DC-Output UPSs/Rectifiers:** Efficiency levels for DC-output UPSs have been added. Required measurements and an efficiency equation have been incorporated based on the ATIS-0600015¹ series of standards applicable to rectifiers operating as a power supply. EPA encourages manufacturers to share additional efficiency data for DC-Output UPSs/Rectifiers using the attached Data Form.
- **Revised Test Method:** Further guidance on the IEC 62040-3² implementation has been provided to clarify the test setup, battery charge state, thermal stability, and reference test load. EPA seeks

¹ Alliance for Telecommunications Industry Solutions. ATIS-0600015.2009: Energy Efficiency for Telecommunication Equipment: Methodology for Measurement and Reporting—General Requirements. ATIS-0600015.04.2010: DC Power Plant—Rectifier Requirements.

² International Electrotechnical Commission (IEC). IEC Standard 62040-3. "Uninterruptible power systems (UPS) – Part 3: Method of specifying the performance and test requirements." Ed. 2.0

stakeholder comment on concerns with UPS input and output power stability during testing, as well as proposed methods to verify the stability of units under test. The ATIS-0600015 series of standards have also been incorporated for testing DC-output UPS/rectifier units.

- **Delivering Consumer Value:** In the interest of offering features that consumers value, EPA would like to ensure that the ENERGY STAR label is associated only with those products that meet minimum expectations for materials toxicity, recyclability, and recycled content where existing standards can be referenced. EPA is proposing that ENERGY STAR qualified UPSs contain a minimal amount of certain toxic materials, including lead and mercury.

Specification Effective Date

EPA appreciates the feedback received thus far on the Version 1.0 specification and test method, and looks forward to continuing work with industry stakeholders to improve the ENERGY STAR Version 1.0 UPS specification. Its proposed effective date is currently **Friday, October 14, 2011**.

Online Stakeholder Meeting

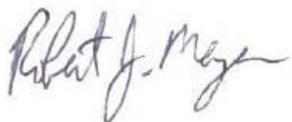
EPA will host an online meeting on **Monday, August 1, 2011, from 10:00 AM to 3:00 PM, Eastern Time** to discuss this Draft 2 specification. To participate in the meeting virtually, **please RSVP by Thursday, July 28, 2011**, by emailing UPS@energystar.gov with the subject "RSVP – ES UPS July Meeting." EPA will also provide opportunities for brief stakeholder presentations; if interested, please indicate a proposed topic in your RSVP email.

Submittal of Written Comments

Stakeholders are encouraged to submit written comments on the Draft 2 Version 1.0 ENERGY STAR UPS specification to UPS@energystar.gov by **Thursday, August 11, 2011**. For further information on specification development activities to date, visit the ENERGY STAR Product Development website at www.energystar.gov/NewSpecs and follow the link to "Uninterruptible Power Supplies."

Thank you for your continued support of the ENERGY STAR program. Please direct any specific questions to RJ Meyers, EPA, at Meyers.Robert@epa.gov, or 202-343-9923, or Matt Malinowski, ICF International, at mmalinowski@icfi.com or 202-862-2693.

Sincerely,



Robert Meyers
U.S. Environmental Protection Agency, Climate Protection Partnerships Division
ENERGY STAR Program