

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



OFFICE OF  
AIR AND RADIATION

October 25, 2011

Dear ENERGY STAR<sup>®</sup> Uninterruptible Power Supply Stakeholder:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the attached Draft 3 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 **Tuesday, November 22, 2011**.

The Draft 3 specification was developed based on comments received on the Draft 2 specification as well as subsequent discussions with stakeholders and research conducted by EPA. The following key changes were made in this draft:

- **Efficiency Requirements:** As a result of stakeholder input and EPA research, Ac-output UPS efficiency requirements have been revised for VFI products with output power  $\leq 1.5$  kW to be consistent with the requirement for VFI products in the other output power ranges. The requirements for Ac-output VI and VFD UPSs as well as for Dc-output UPSs remain unchanged. Lastly, the descriptive labels "Consumer", "Commercial", and "Data Center" have been removed to avoid confusion; both the efficiency requirements and loading profiles remain dependent solely on the output power of the UPS.
- **Refurbished UPSs:** Refurbished units have been removed from the specification. Stakeholders expressed concerns with consistency of these products and lack of supporting information; these concerns have prompted the change.
- **RoHS Requirements:** It is EPA's understanding that UPS systems are excluded from the RoHS requirement, the only known standard for toxicity in electronics. As such, EPA will forgo addressing such requirements in this version of the specification.
- **Power and Performance Datasheet (PPDS):** EPA has incorporated stakeholder feedback on the data fields into a revised PPDS for UPSs and is developing an interactive "widget" that will allow the publication of this performance information for qualified products in an easily accessible, dynamic format.
- **Effective Date:** Due to the need for a Draft 3, the specification effective date has been moved to April 1, 2011. The Final Specification will be preceded by a Final Draft in December, incorporating any feedback received from stakeholders on this Draft 3 document. The Final Specification should be complete by January 1, 2012, but EPA understands that some extra time may be necessary to ensure that CBs and labs are lined up to begin testing.
- **Metering:** After extensive discussions with stakeholders, EPA has implemented a 2% efficiency credit for UPSs with output greater than 10kW that are sold with meters either internally or as an external, bundled accessory. This credit maintains flexibility for manufacturers, provides data center operators with more options for measuring PUE, and further promotes ENERGY STAR's programmatic energy savings opportunities.

- **Test Method:** EPA and DOE received numerous stakeholder comments on proposed test procedure changes and also conducted calls with manufacturers and other stakeholders. A number of modifications have been made to the test procedure, bringing it more closely in line with both stakeholder desires and ENERGY STAR program needs. The most notable changes include updated guidance on energy storage system connectivity, a simpler method for power stability verification, and a shift to measurement of accumulated energy over a 15 minute time period, from which average power can then be calculated. Further details are contained within the attached Draft 3 Test Procedure.

EPA received several comments on the list below either supportive of or advocating for change in these items. EPA considered this feedback carefully and proposes to maintain the Draft 2 proposals in this new draft.

- Loading profiles
- Efficiency requirements for Ac-output VI and VFD UPSs and for all Dc-output UPSs
- Number of units required for qualification testing
- Treatment of Multiple-normal-mode UPSs

EPA's rationale for the proposals in Draft 3 are noted in the Draft 2 comment summary included with this cover letter.

### Online Stakeholder Meeting

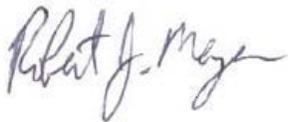
EPA will host another online meeting on **Tuesday, November 8, 2011, from 10:00 AM to 3:00 PM, Eastern Time** to discuss this Draft 3 specification. To participate in this online meeting, **please RSVP by Thursday, November 3, 2011**, by emailing [UPS@energystar.gov](mailto:UPS@energystar.gov) with the subject "RSVP – ES UPS November 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 3 specification to [UPS@energystar.gov](mailto:UPS@energystar.gov) by **Tuesday, November 22, 2011**. For further information on specification development activities to date, visit the ENERGY STAR Product Development website at [www.energystar.gov/NewSpecs](http://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](mailto:Meyers.Robert@epa.gov), or 202-343-9923, or Matt Malinowski, ICF International, at [mmalinowski@icfi.com](mailto:mmalinowski@icfi.com) or 202-862-2693.

Sincerely,



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

### Enclosures:

Draft 3 Version 1.0 ENERGY STAR Partner Commitments for UPSs  
Draft 3 Version 1.0 ENERGY STAR Specification for UPSs  
Draft 3 Version 1.0 ENERGY STAR Test Method for UPSs  
Draft 2 Comment Summary  
Revised Power and Performance Datasheet (PPDS)