

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



OFFICE OF  
AIR AND RADIATION

March 30, 2017

Dear ENERGY STAR® Uninterruptible Power Supply Partner or Other Interested Stakeholder,

With this letter, the U.S. Environmental Protection Agency (EPA) is launching a revision of the ENERGY STAR Uninterruptible Power Supply (UPS) specification. Draft 1 of the Version 2.0 specification and the ENERGY STAR Test Method for Uninterruptible Power Supplies are provided for review and comment. In the meantime, EPA is proposing an update (Version 1.1) to the current specification to allow for use of the U.S. Department of Energy (DOE) test method for covered UPS products. The Version 1.0 specification has been in effect since 2012 and ENERGY STAR partners have made great strides in bringing efficient UPS products to the market. With market penetration believed to be near 100%, revised ENERGY STAR criteria are necessary to effectively differentiate the most energy-efficient UPS products.

The Draft 1, Version 2.0 specification incorporates the following key elements:

UPS Energy Efficiency Criteria

EPA proposes revised efficiency requirements for voltage and frequency dependent (VFD), voltage independent (VI), and voltage and frequency independent (VFI) UPSs. EPA is not proposing to change the UPS loading assumptions in Draft 1, but is soliciting comment on proposals that certain stakeholders have made regarding the 100% load in datacenter VI products. EPA estimates that approximately 21% of products would meet the proposed levels, representing a broad range of products across all rated output power levels. EPA also proposes an adder for modular products, which the Agency understands offer unique utility to end-users, such as making N+1 or N+2 redundancy easier.

Communications and Measurement Requirements

In Draft 1, EPA has removed the communications and measurement requirements and the one percentage point efficiency incentive for metering. EPA notes that many products have metering capabilities and removing the incentive will not negatively affect presence of this capability. EPA is willing to consider retaining some of the communication and measurement requirements as part of wider-reaching, optional "Connected Functionality."

Test Method

In light of the new DOE test method for UPSs capable of operating at 115 V and 60 Hz that use a National Electrical Manufacturer Association (NEMA) 1-15P or 5-15P plug, EPA now references Appendix Y to Subpart B of 10 CFR Part 430. All other UPSs will be tested to the ENERGY STAR Test Method for Uninterruptible Power Supplies.

EPA is proposing some minor edits to the ENERGY STAR Test Method for Uninterruptible Power Supplies, including a separate reference test method for high-voltage Dc-output UPSs and requiring thermal stabilization only at the 100% reference test load.

Version 1.1

The proposed update to the current specification incorporates references to the DOE test method for those UPSs capable of operating at 115 V and 60 Hz that use a NEMA 1-15P or 5-15P plug. Along with the test procedure references, this update adds levels for products tested to the DOE test method. These levels are calculated from the current ENERGY STAR test method with the intent being to maintain the current stringency of the specification. Not yet certified UPSs capable of operating at 115 V and 60 Hz

that use NEMA 1-15P or 5-15P plug, may wish to certify to ENERGY STAR using the DOE test method to avoid retesting should they meet the Version 2.0 eligibility criteria when that specification takes effect. Please note that for both Version 1.1 and Version 2.0, products must be tested in an EPA-recognized laboratory and reviewed by an EPA-recognized certification body before they can carry the label.

#### Comment Submittal

EPA welcomes stakeholder input on the attached Draft 1, Version 2.0, Draft 1, Version 1.1 specifications, and the Draft 1 ENERGY STAR Test Method for Uninterruptible Power Supplies. Stakeholders are encouraged to submit any comments to [ups@energystar.gov](mailto:ups@energystar.gov) by April 28, 2017. All comments will be posted to the ENERGY STAR Product Development website unless the submitter requests otherwise.

#### Stakeholder Webinar

EPA will host a webinar to answer any questions on this discussion guide on **April 13, 2017 from 12-2 PM Eastern Time**. Please register [here](#) if you plan on attending.

The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Specifications and meeting materials will be distributed via email and posted on the ENERGY STAR website. To track EPA's progress on this specification, please visit the product development website at [www.energystar.gov/RevisedSpecs](http://www.energystar.gov/RevisedSpecs) and navigate to "Uninterruptible Power Supplies."

Please contact me at [Fogle.Ryan@epa.gov](mailto:Fogle.Ryan@epa.gov) or 202-343-9153 or Matt Malinowski, ICF, at [Matt.Malinowski@icf.com](mailto:Matt.Malinowski@icf.com) or (202) 862-2693 with questions or concerns. For any other UPS related questions, please contact [ups@energystar.gov](mailto:ups@energystar.gov). Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Ryan Fogle  
EPA Manager, ENERGY STAR for IT and Data Center Products

#### Enclosures

[Draft 1, Version 1.1 ENERGY STAR Specification for Uninterruptible Power Supplies](#)  
[Draft 1, Version 2.0 ENERGY STAR Specification for Uninterruptible Power Supplies](#)  
[Draft 1 ENERGY STAR Test Method for Uninterruptible Power Supplies](#)