

**U.S. DEPARTMENT OF ENERGY
PUBLIC MEETING ON**

**TEST PROCEDURES FOR BATTERY CHARGERS AND EXTERNAL
POWER SUPPLIES (STANDBY MODE AND OFF MODE) AND FOR
MULTIPLE-VOLTAGE EXTERNAL POWER SUPPLIES**

Issues on Which DOE Seeks Comment

Comments are welcome on all aspects of the battery charger and external power supply standby and off mode test procedure rulemaking. However, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

1. Standby Mode and Off Mode

DOE invites stakeholder comments on the proposed approach for defining standby mode and off mode for both battery chargers and external power supplies. DOE also invites comment on the proposed test methods for measuring standby mode and off mode energy consumption for external power supplies, including whether the duration of the measurement is sufficiently long. (See section III.A of notice.)

2. Definitions in the Test Procedures

DOE proposes to revise certain existing definitions and to add several new definitions to harmonize with ENERGY STAR test procedures and enhance the clarity and transparency of DOE's test procedure. DOE also proposes some new definitions that are

necessary for the multiple-voltage external power supply test procedure proposed in today's notice. DOE invites comments from stakeholders on all the definitions proposed in today's notice. (See section III.C of notice.)

3. Measurement Resolution and Uncertainty

DOE seeks comment on its proposal to allow measurement resolution to scale with the magnitude of power measured, which would make DOE's test procedure consistent with IEC Standard 62301. More specifically, DOE proposes changing the measurement equipment minimum resolution to 0.1 watts for measurements taken that are greater than 10 watts up to 100 watts and 1 watt for measurements taken that are greater than 100 watts. In making this change, the DOE proposal maintains a resolution of 0.5 percent or better at all times. DOE proposes to fully qualify the uncertainty of measurement specification by requiring a 95-percent confidence level on the measurement resolution requirements. DOE invites comments from stakeholders on this proposed change, and any possible impacts of these changes on testing burden and measurement accuracy. (See sections III.B.1.i and III.D.1 of notice.)

4. AC Source Voltage Requirements

DOE seeks comments on the proposed changes to the specification regarding regulation and harmonic distortion of the AC input voltage source. In particular, DOE welcomes comments on the impacts of the changes on the testing burden or measurement accuracy and repeatability. (See sections III.B.1.ii, III.B.1.iii, III.D.2 and III.D.3 of notice.)

5. Test Lead Loss Measurement

DOE seeks comments on the proposed requirement that the testing laboratory explicitly account for losses due to the test leads. In particular, DOE invites comments on the impacts of this requirement on measurement accuracy and testing burden. (See sections III.B.1.iv and III.D.4 of notice.)

6. Power Measurement Stability Requirements

DOE invites stakeholder comments on its proposed requirements that measured power stabilization to within 1 percent before measurements are recorded. The proposal allows for average measurements in case sufficient stability cannot be achieved. DOE welcomes comments on the impacts of this proposal on testing burden and measurement accuracy and repeatability. (See sections III.B.2.i and III.D.5 of notice.)

7. Loading Conditions for Multiple-Voltage External Power Supplies

DOE seeks comments on all issues pertaining to loading of multiple-voltage external power supplies. In particular, DOE invites comments on the nominal loading conditions (100 percent, 75 percent, 50 percent, and 25 percent of nameplate output current), the proportional allocation method for derating load currents, possible further adjustments to loading conditions due to minimum output current requirements, and no-load mode testing requirements. (See section III.B.2 of notice.)

8. Single-Voltage External Power Supply Test Procedure

DOE seeks comments on the changes under consideration to the single-voltage external power supply test procedure, specifically whether these changes would improve the accuracy and repeatability of measurements, bringing the test procedure more in line with current industry standards and test methods. (See section III.D of notice.)

9. Switch-Selectable Single-Voltage External Power Supplies

DOE invites comments on its proposed method for testing switch-selectable single-voltage external power supplies. In particular, DOE welcomes comments on its proposal for testing such units at both their highest and lowest voltage settings, and requiring they meet appropriate standards at both settings. (See section III.E of notice.)

10. Submission of Certification Test Data to DOE

DOE seeks comment on whether manufacturers should be required to file paperwork on every basic model or whether they should be allowed to form “design families” and only certify the highest and lowest voltage design within each family (while still being held accountable for compliance of all basic models within that family). (See section III.F of notice.)