

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street
Sacramento, California 95814

Main website: www.energy.ca.gov



In the Matter of 2011 Rulemaking on Appliance Efficiency Regulations)	Docket No. 09-AAER-2
)	
California Code of Regulations, Title 20, Section 1601 through Section 1608)	EFFICIENCY COMMITTEE
)	WORKSHOP
)	RE: 2011 Rulemaking Proceedings
)	Phase II on Appliance Efficiency Regulations

Notice of Efficiency Committee Workshop

The California Energy Commission's Efficiency Committee (Commissioner Karen Douglas, presiding member) will conduct a public workshop to discuss and seek comments from interested parties regarding draft regulations – including efficiency standards and labeling and certification requirements – for battery chargers. These topics are to be considered as possible amendments to the Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through Section 1608). The public is invited to attend the workshop, which will be held on:

THURSDAY, May 19, 2011
10:00 a.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room B
Sacramento, California
(Wheelchair Accessible)

Purpose

The purpose of this workshop is to provide industry, other stakeholders and the public the opportunity to discuss draft amendments to the Appliance Efficiency Regulations for proposed battery chargers.

On October 11, 2010 and March 3, 2011, the Energy Commission conducted Staff Workshops to seek comments related to battery chargers and lighting controls. Staff reviewed comments and conducted subsequent meetings with various stakeholders to discuss and clarify issues raised. After careful consideration, staff has made amendments to the draft proposed regulations for battery chargers. These changes are described in detail in the following paragraphs.

Scope

The scope has been changed to exclude illuminated exit signs, high input voltage battery chargers, and battery analyzers. It has been determined that high input voltage battery chargers and battery analyzers are not within the scope of the staff analysis, which focuses on typical residential, commercial, and industrial line voltage chargers.

Definitions

Clarifying definitions, many taken from the *Energy Efficiency Battery Charger System Test Procedure Version 2.2*, were added to the draft proposed regulations. Definitions for “battery backup”, “battery analyzer products”, “charge return factor”, and “power conversion efficiency” were added.

Test Procedure

Seven proposed changes have been made to the manner in which battery chargers are to be tested:

- 1) Staff is considering an optional methodology to isolate the battery charger from other product components. Manufacturers already have the option of “turning off” extra features per the adopted test procedure. However, stakeholders have commented that there may be some features for which a consumer accessible on/off switch would be inappropriate. While there is no proposed language in the proposed regulations, the concept will be discussed in the workshop.
- 2) The charge mode test for multi-port chargers is to be conducted with all ports charging, instead of one.
- 3) The large battery charger test procedure has been changed to allow fewer tests.
- 4) Language regarding battery safety during testing has been added.
- 5) Language has been added to allow test laboratories to use the discharge voltages of batteries specified by the battery manufacturer rather than those provided in Table D of the test procedure. This will avoid conflict with the test procedure for batteries with uncommon voltages.
- 6) Batteries shall be tested only to U.S. transmission standards (i.e. 115V @ 60 Hz); the requirement for testing to European transmission standards has been removed.
- 7) The test procedure requires two tests for single port small battery chargers, one with a high capacity battery and one with a low capacity battery. The proposed regulations now specify to use the highest results of the two tests for 24 hour efficiency, maintenance mode, and no battery mode to determine compliance.

Standards

Large Battery Chargers

- 1) Changes were made to the large battery charger standards. Tier 1 standards have been dropped in favor of moving directly to Tier 2. This leads to a loss of energy savings associated with Tier 1 and its earlier implementation date. However, based on feedback from large battery charger manufacturers, the two-tiered approach was infeasible in a short timeframe.
- 2) The draft proposed regulations now include a maintenance mode power standard that scales with battery capacity, similar to the approach taken for small chargers.
- 3) Power factor requirements for large chargers have been changed to a level between Tier 1 and Tier 2. Information provided by stakeholders demonstrated that the Tier 2 levels were technically feasible but difficult to achieve, while providing minimal benefits to energy savings.

Small Battery Chargers

- 1) Power factor requirements have been removed for all small chargers. The power factor requirements were technically feasible and cost effective as a standalone measure; however when combined with the overall requirements of the regulations it was found that power factor had a large impact on the time needed to reach compliance.
- 2) To provide greater compliance flexibility to manufacturers, the draft standards have been revised to combine the results from the maintenance and no-battery mode test results into a single standard.
- 3) As discussed in the March Staff Workshop, a scaling factor for maintenance power has been added to accommodate the association between battery capacity and maintenance mode power requirements.
- 4) New language has been added that allows the consumption allowance for multi-port chargers to be multiplied by the number of charger ports.
- 5) Staff proposes extending the compliance date for non-consumer battery chargers (under both the small and larger battery charger standards) by an additional year, to July 1, 2013, in response to concerns raised by industry stakeholders regarding product cycle and backward compatibility differences between consumer and non-consumer products.
- 6) Staff proposes more stringent 24 hour efficiency levels for high capacity batteries. Consistent with findings for large battery chargers, small battery chargers designed to charge high capacity batteries are more efficient.

Increasing the stringency of the regulations for these products more closely aligns the proposed regulations with the DOE approach to golf cart chargers. In addition, it mitigates the discontinuity at the point of transition between large and small chargers.

Certification

Certification requirements have been added to the draft proposed regulations. This is consistent to the Commission's approach to other appliances and consistent with the DOE approach to battery chargers.

To accommodate the large number of chargers initially required to be certified, and the lengthier and more difficult testing for large chargers compared to small chargers, the draft proposed regulations now allow large charger manufacturers to certify product families for a short, initial period of time. This is intended to minimize the initial test burden created by the transition from a non-regulated to regulated product.

Labeling

The draft proposed regulations more clearly define the labeling requirements for battery chargers. The new requirements allow manufacturers to affix labels on packaging rather than on products for those products that have exceptionally small nameplates. As a result of the proposed changes to the standards, the energy saving will be recalculated based on the formulas and methodology used in Appendix B. This information, which includes the model used to calculate the energy savings, is accessible through http://www.energy.ca.gov/appliances/battery_chargers/documents/. If you need further assistance, please contact Appliance Efficiency Staff.

Written Comments

Proposals or other written comments submitted prior to the workshop are requested by 5:00 p.m. on May 17, 2011. Written comments to be considered after the workshop are due by 5:00 p.m. **on May 31, 2011**. Please include the docket number 09-AAER-2 and indicate "2010 Rulemaking Proceeding Phase II on Appliance Efficiency Regulations" in the subject line or first paragraph of your comments. Please hand deliver or mail an original copy to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 09-AAER-2
1516 Ninth Street
Sacramento, CA 95814-5512

The Energy Commission encourages comments by e-mail. Please include your name or organization's in the name of the file. Those submitting attached comments by electronic mail should provide them in either Microsoft Word format or as a Portable

Document (PDF) to [docket@energy.state.ca.us]. **One paper copy** must also be sent to the Energy Commission's Docket Unit.

Participants may also provide an original and 10 copies of their comments at the beginning of the workshop. All written materials relating to this workshop will be filed with the Dockets Unit and become part of the public record in this proceeding.

Public Participation

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this forum, please contact the Public Adviser's Office at (916) 654-4489 or toll free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at PublicAdviser@energy.state.ca.us. If you have a disability and require assistance to participate, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

Please direct all news media inquiries to the Media and Public Communications Office at (916) 654-4989, or by e-mail at mediaoffice@energy.state.ca.us.

If you have questions on the technical subject matter of this meeting, please call Harinder Singh at (916) 654-4091 or by e-mail at hsingh@energy.state.ca.us.

Remote Attendance

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924 556 831
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Date: May 6, 2011