



## Invitation to a Technical Workshop on:

### The Energy Efficiency of External Power Supplies & Battery Chargers: A Discussion of Test Methods, Efficiency Metrics & Measured Performance

Pacific Energy Center  
851 Howard Street  
San Francisco, CA

November 7, 2003  
8:30 a.m. to 4:00 p.m.

#### Who should come?

You are invited to attend a technical workshop to discuss ways to measure the energy efficiency and technical performance of single voltage external AC/DC power supplies and consumer battery chargers. This invitation has been extended to companies that make external power supplies and battery chargers and their components, companies that incorporate these devices into their finished products, energy efficiency researchers and advocates, and government officials and regulators. Topics related to external power supplies will be discussed from 8:30 a.m. to 12:00 p.m. Topics related to battery chargers will be discussed from 1:00 p.m. to 4:00 p.m. You are welcome to attend either or both sessions at no charge. The workshop location is downtown San Francisco, a block from the Moscone Conference Center.

As the nature of the discussions will be highly technical and limited to test methods, we recommend that interested organizations send technical or engineering staff, as opposed to marketing or government affairs staff. RSVPs should be sent by email to [g Vance@ecosconsulting.com](mailto:g Vance@ecosconsulting.com) or by fax to 970-259-8585 no later than October 27, 2003.

#### Background

Various researchers have identified AC/DC power supplies as a major opportunity for reducing energy consumption around the world. About 3 billion power supplies are in use in the United States. Highly efficient power supplies could cut national electricity use by 1-2%.

Numerous policy measures, including voluntary labeling programs, are now in development in the U.S. and internationally to encourage the sale of more energy efficient power supplies. These measures depend for their success on the creation of standardized terminology and test methods for determining the *active mode* energy efficiency of power supplies. This will supplement procedures already in development through IEC and other organizations regarding standby mode. On behalf of its clients, Ecos Consulting has drafted a proposed test

procedure for measuring the energy efficiency of single voltage external AC/DC power supplies. It has been posted for comment at [www.efficientpowersupplies.org](http://www.efficientpowersupplies.org). Ecos and EPRI-PEAC have also collected hundreds of energy efficiency measurements for power supplies. These findings and others from industry will be shared and considered at the workshop.

At the same time, NRDC, PG&E, and the CEC have funded research into the energy efficiency of battery chargers, including both stand-alone types and those embedded into consumer products like cordless phones and laptop computers. Battery chargers also present significant energy savings opportunities, but lack standardized test procedures for measuring power use in standby, idle, and active operating modes. Ecos will circulate a proposed draft test procedure for battery charger efficiency to interested parties prior to the workshop and is collecting data on measured battery charger efficiencies according to this proposed method. These findings and others from industry will be shared and considered at the workshop.

The goal in both cases is to standardize the way energy efficiency is characterized and measured in these two product categories worldwide. These workshops are intended as an opportunity for interested parties to suggest improvements to the test methods where warranted and share measured data. All of the meeting hosts (CEC, EPA Energy Star, NRDC, PG&E) value your input in that process and look forward to seeing you at the workshop!

#### Draft Agenda

##### POWER SUPPLY WORKSHOP

8:30 – 8:45 Welcome and introductions  
8:45 - 9:30 Presentations on power supply efficiency and test methods  
9:30 - 10:15 Discussion  
10:15 - 10:30 Break  
10:30 - 11:00 Presentations on power supply measured data  
11:00 – 12:00 Discussion and next steps  
12:00 – 1:00 Lunch

##### BATTERY CHARGER WORKSHOP

1:00 – 1:15 Welcome and introductions for new attendees  
1:15 – 2:00 Presentations on battery charger efficiency and test methods  
2:00 – 2:30 Discussion  
2:30 – 2:45 Break  
2:45 – 3:15 Presentations on battery charger measured data  
3:15 – 4:00 Discussion and next steps

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#### Attendance Form

fax form to 970-259-8585 or email info to [gvance@ecosconsulting.com](mailto:gvance@ecosconsulting.com) by **October 27, 2003**

Name \_\_\_\_\_ Company Name \_\_\_\_\_

Title \_\_\_\_\_ Email Address \_\_\_\_\_

Phone # \_\_\_\_\_ Please mark the session(s) you plan to attend:  
Power Supplies \_\_\_\_\_ Battery Chargers \_\_\_\_\_