

April 5, 2004

## **Opportunity to Participate in Efficiency Challenge 2004 – an International Energy Efficiency Competition**

Dear ENERGY STAR® Partners,

Research funded by the EPA ENERGY STAR program and the Energy Commission's Public Interest Energy Research (PIER) program has identified ac-dc power supplies as a major opportunity for reducing global energy consumption and greenhouse gas emissions. More than 3.1 billion power supplies are currently in use in the U.S., consuming about 3 percent to 4 percent of the nation's entire electricity bill. More efficient designs could cut total U.S. electricity use by 1 to 2 percent, saving \$2.5 billion to \$5 billion per year.

To help achieve those energy savings, the California Energy Commission and the U.S. Environmental Protection Agency's ENERGY STAR program are jointly sponsoring Efficiency Challenge 2004, an international design competition for energy efficient ac-dc power supplies. The contest was officially announced at the APEC Conference on February 23, 2004, in Anaheim, CA and runs through November 2004. After the judging concludes, the winners will be announced at APEC 2005 and promoted in the trade and consumer press.

The purpose of Efficiency Challenge 2004 is to achieve dramatic improvements in the energy efficiency of the most widely purchased types of power supplies by showcasing the economic, performance, and environmental benefits of winning designs. The contest seeks not only the most cutting-edge technology submitted in prototypes, but also those highly efficient designs that are ready for immediate adoption in popular consumer electronics products.

We are pleased to offer the opportunity for ENERGY STAR partners to become Industry Champions for the competition. To ensure that winning power supply entries meet the demands of the marketplace, Industry Champions will provide form factor specifications, voltage rail requirements, current loading guidelines, and other market-relevant design constraints for the following power supply-containing product categories:

- Desktop computers
- CRT televisions
- LCD televisions
- Set top boxes such as HDTV tuners, cable TV decoders, satellite receivers, etc.

Power supply designers will compete to meet the Industry Champions' specifications with highly efficient designs that minimize total cost of ownership. However a full **12 to 17 percent of the total score will depend on the system efficiency of the device in which the internal power supply is installed**. The contest sponsors and judges are seeking particularly innovative designs where the manufacturer of a computer, television, or set top box has taken advantage of the high efficiency and small form factor of a new power supply design to achieve greater efficiencies and synergies in the product as a whole. This also provides an opportunity for Industry Champions to showcase innovative new product concepts in concert with their power supply vendors.

Intel has agreed to act as an Industry Champion for desktop computers and has released various design guides for more efficient internal power supplies (see [www.formfactors.org](http://www.formfactors.org)). Who else would like to take the Efficiency Challenge?

If you are interested in becoming an Industry Champion, please contact Suzanne Foster at (970) 259-6801 ext 302 or [sfoster@ecosconsulting.com](mailto:sfoster@ecosconsulting.com) as soon as possible. **Industry Champions will be announced to competition participants April 19, 2004.** Rules and guidelines for

Efficiency Challenge 2004 are available at [www.efficientpowersupplies.org/competition.html](http://www.efficientpowersupplies.org/competition.html) and [www.energystar.gov/powersupplies](http://www.energystar.gov/powersupplies).

Your involvement in ENERGY STAR's consumer electronics initiatives is making a difference to your customers and the world we all share. I invite you to join EPA and the California Energy Commission in tackling a new and equally vital Efficiency Challenge for power conversion. If you have any questions, please contact me via email at [fanara.andrew@epa.gov](mailto:fanara.andrew@epa.gov) or by telephone at (202) 343-9019.

Best regards,

Andrew Fanara, US EPA  
ENERGY STAR Specification Development

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