

DOCKETED

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80 PLUS Program Comments

Additional submitted attachment is included below.

**Comments to California Energy Commission
on**

Docket NO 14-AAER-2

From

ECOVA / EPRI

The proposed rule making from the California Energy Commission regarding Desktop Computers challenges the designers and manufacturers of the equipment to reduce idle power consumption to 50kWh/yr. To do that several components within the equipment will need to be redesigned and improved to provide the minimal power consumption under idle conditions. Foremost is the internal power supply.

To achieve the desired result, the power supply must achieve the highest possible efficiency at extremely light loading conditions. After 12 years of leading the transition of computer internal power supply to high energy efficiency the 80 PLUS® program, led by Ecova and supported by EPRI, is in a unique position to provide comments on the proposed rule making.

For the internal power supply to provide the low power efficiency required to meet the goal, there needs to be an agreed set of conditions, a testing protocol, and an agreed means of reporting performance.

Ecova and EPRI are ready to participate in the effort to develop these in cooperation with all the stakeholders.

Recognizing the fact that input power draw is limited we propose that a test for internal power supplies be defined as:

- A specific condition that fixes the input power draw to specific value (say 12 Watts).

- A specific input voltage and frequency.
- A proportionate loading on all voltage output rails.
- Data to be recorded includes input voltage, current, frequency, power factor, THD, and output voltages and currents.
- The test result is not a pass/fail criteria it is simply a report of what output power can be delivered by an internal power supply drawing the equivalent of 50kWh/yr. This allows designers of computer systems to know what power is available at idle state.

Then a test method can be agreed and defined within the existing Generalized Test Protocol referenced by the Energy Star for power supply testing, and available to all for reference.

80 PLUS will include the testing result in the existing Test Report format that can also be posted on the 80 PLUS program website.