



TO: Evan Haines, ICF International 1725 Eye Street, NW, Suite 1000 Washington, D.C. 20006
ehaines@icfi.com

CC: Una Song EPA song.una@epa.gov

FROM: Ed Sarrat, Cirrus Logic, Inc. 2901 Via Fortuna, Austin, TX 78746
ed.sarrat@cirrus.com
512-947-9558

Re: Comments by Cirrus Logic on Draft 1 for the Energy Star Specification for Computer Servers Version 2.0

Cirrus Logic, Inc. appreciates the expansion of Energy Star Specification for Computer Servers in Version 2.0. We are especially encouraged by the inclusion of section 5C specifically related to Energy Measurement Accuracy. While we understand that there is end customer value in providing energy measurement data which is accurate to +/-5%, we believe that increasing this accuracy to a level comparable to a utility power meter would increase this end customer value significantly.

The power supply measurement market is able to benefit from the established power measurement market for utility meter. This market which demands an accuracy of <+/-1%, has grown tremendously over the last 10 years and is expected to be around an annual market of 100M units in 2010. The utility power market has paved the way with innovation in accuracy, reliability, and cost reduction that can directly benefit the power supply measurement market. The existing measurement ICs in utility meters have proven reliability in extremely rugged environments with wide temperature variation, and lifetimes of 20+ years. The high meter volumes in the utility market have also driven down cost and increased competition, so that these measurement Analog Front End ICs are available from multiple suppliers at less than one dollar.

We have collaborated with multiple power supply manufacturers and have proven that a system-level accuracy of <+/-1% can easily be achieved in both a cost-effective and reliable manner. Beyond that, there is tremendous end customer benefit in having accuracy comparable to that of the utility company's meter. This enables the operator of a server farm to audit their electric utility bills as they have comparable measurement accuracy resident in their own systems.

We therefore ask Energy Star to refine the measurement accuracy to <+/-1% is as readily achievable with low-cost Analog Front End solutions available today.

Sincerely,

Ed Sarrat