

**From:** DK Foster [mailto:donnie.foster@powerassure.com]  
**Sent:** Tuesday, November 25, 2008 4:58 PM  
**To:** Duff, Rebecca M.  
**Subject:** RE: Update on ENERGY STAR Server Initiative

Rebecca,

This note will serve as our feedback on version 3 of the Energy Star server spec. Please let me know if you have questions or need clarification.

Section 3B (Page 10, beginning with line 442):

Idle power description and levels seem appropriate, but specification needs to include, on line 445 the following additional clarification

“power levels for its category, per Tables 3 and 4, below **without clock-speed reductions or other voluntary optimization techniques**. Specifically, to determine the maximum Idle”

We expect this to provide consistent analysis of idle that could be expected in unsophisticated environments, thereby increasing chances of more consistent information and comparison.

Section 3C (Page 10, beginning with line 510):

Comment: We whole-heartedly endorse minimum, normal and maximum configurations, as defined in this section

**We believe the data collection of performance score using SPECpower@\_ssj2008 is misleading, for ssj\_ops and ssj\_ops/watt.**

**SPECpower@\_ssj2008 runs based on java and the java-machine installation will influence the number of ops that will be recorded, and as a result, comparison of this information (which will invariably occur) will lead end-users and purchasing to make incorrect decisions when comparing server information from different virtual machines. THIS NEEDS TO BE LABELED IN THE DATA SHEETS AS A WARNING or the data should not be collected and displayed. Alternatively, SPECpower@\_ssj2008 for each java-machine could be calibrated to insure consistent information (we don't know the technical possibility of this)**

Underwriters Laboratories is using a native mode CPU measurement technique that may be an alternative that can identify a consistent measurement method across multiple all operating systems and any number of installed CPUs. Contact Kevin Ravo at [Kevin.L.Ravo@us.ul.com](mailto:Kevin.L.Ravo@us.ul.com) for more information

Section 3D (page 12, beginning with line 551):

Comment: Realtime, sub-minute level data collection is critical for ongoing monitoring, reporting, and management/control functions, so this feature is critical for demand management and control and we applaud your efforts, but there are some concerns with the way the spec is written:

**Line 558 talks about “out of band technology”, which could be interpreted broadly to suggest to the server provider to ONLY provide instructions**

to the data center operator to install smart plugs or third party meters to accomplish the measurements. We recommend that this be clarified to include something like “out of band technology shipped with the server” to insure that it is covered.

Line 559 should clarify that dissemination of data over a standard network to ALL(or ANY) third party management system to avoid the potential Of single vendor, proprietary solutions.

Line 562 should begin with “openly” to stress this same need and reflect “openly available”.

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