

From: Foster, Donnie [mailto:donnie.foster@powerassure.com]
Sent: Tuesday, March 18, 2008 4:47 PM
To: Duff, Rebecca M.
Subject: EPA EnergyStar DRAFT Program Requirements for Computer Servers

Hello Rebecca,

I read through the draft and have the following comments:

1. you say "The ENERGY STAR mark must be clearly displayed on the front or side of the product". It should be on front or back as most servers are rack mounted and the side is not usually visible.
2. you say "Partner must submit the total number of ENERGY STAR qualified computer servers shipped"... should say to end users or for actual deployment and many shipments go to resellers and are deployed later. This problem is that you will not have an accurate count. Most manufacturers can distinguish this difference.
3. you say "In order to receive additional recognition and/or support from EPA for its efforts within the Partnership, the ENERGY STAR Partner may consider the following voluntary measures" and ask for a quarterly update without specifics. Creating a simple count and percent of total servers bought, facilities with ES marks, etc. will give you REAL data and not marketing blah-blah
4. Nice set of definitions, good job!
5. You didn't define the "loaded state", where the server is doing the most productive work. Intel and others can help you with this definition, but we've found generally that a fully loaded server, running 100% CPU cycles will demonstrate the maximum load (when measured at the output plug). We have also observed that most servers, running at 75-85% utilization are 3 times more energy efficient than those running less than 75% utilized.
6. you say "Server power supplies must meet the minimum efficiency requirements contained in Table 1, below. Power supply efficiency must be tested and reported at 230 VAC/60Hz.", I agree strenuously with you that sizing the power supply is one of the most critical measures and SHOULD BE KEY CRITERIA FOR AN energy star rating. Even if you put in an 80+ power supply and it is over-rated for the server, you have not accomplished the goal.
7. you say "5. Power and Performance Data -Idle power from SPEC power output - Maximum power and throughput (using manufacturer selected benchmark) -Estimated yearly kWh and \$ consumed (based on an agreed upon set of assumptions)" and again, this will vary based on the configuration in the server, so a min/max for each category makes sense...e.g. minimum max power and throughput and maximum power and throughput. I know it's complex, but that's the life we live.

Let me know if you have questions. I will take a more thorough review and get back to you if I see more. Do keep me informed of the progress,

Best,

Donnie K Foster (DK)

President & CEO

cell: 650 302-3219 fax: 408 980.9700

email: DKFoster@powerassure.com www.powerassure.com Linked in profile

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