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To: RJ Meyers, Energy Star Product Team

From: Jeff Hailey, Dell Inc.

Dell appreciates the opportunity to participate in the development of the next phase of the ENERGY STAR specification for Computer Servers. The following are Dell's comments in regards to Draft 2 of the Version 2.0 ENERGY STAR for Computer Servers Specification.

SECTION 1.H – Product Family Definition:

Dell supports the definition of a product family given by the EPA. The updated definition more accurately depicts how servers are configured and used in today's environment. However, when discussing the Product Family Tested Configurations (Sec. 1.H.2), we have the following comments.

Dell is concerned with the wording of the Low-end Performance Configuration and the High-end Performance Configuration. The use of the words "Lowest" and "Highest" in the definitions could restrict the choice of configuration, and cause overlap with the Minimum and Maximum Power configurations. We would suggest that the EPA use the wording "lower-price or lower-performance" and "higher-price or higher-performance" in the definitions of Section 1.2.a.1 & 1.2.a.2.

SECTION 3.5 – Active State Efficiency Criteria:

For active mode data collection and information only assessments, Dell recommends that the data be visible to the public *ONLY* as an anonymous data set. Holding the data anonymous allows investigation of the data and trends without premature assessments of these numbers or association with energy efficiency. Consolidation of this information into a single grading method would be expected after analysis of the collected data and in preparation for future versions of ENERGY STAR for Computer Servers.

To facilitate the data set remaining anonymous, the certifying body (CB) would submit the SERT benchmark without the supplier or manufacturer identification, and without any information that would identify the supplier. The actual supplier or manufacturer identification for this information would be held by the CB.

SECTION 3.6 – Idle Mode and Full Load Efficiency Criteria – 1S and 2S Servers:

The EPA raised the question on whether or not the “Additional Power Supply Adder” should be revised in Version 2 (Line 409). Dell believes that a 20W adder remains appropriate. This adder was used in the analysis of the data collected for Version 2, as well as Version 1. The data set is consistent with the original analysis and supports the 20W adder. Please note that the adder is based on PSU (redundancy) technologies and topologies, which haven’t changed. As observed in the original assessment the value does not typically scale to the system configuration.

SECTION 3.9.1 – GPGPUs:

Dell supports the EPA’s inclusion of GPGPUs in the scope of ENERGY STAR. We agree with the method of including one additional test point for inclusion into a product family.

SECTION 4.1.2.vi – Power and Performance Datasheet:

Dell would request that the EPA allow for any benchmark selected by the partner, and not restrict the benchmarks to an EPA list. If the EPA is going to insist on a list of benchmarks, Dell would request that the list be provided ASAP.

SECTION 6.1 – Test Methods:

The test method released with Version 2.0 allows for blade testing with either a full-chassis or half-chassis. Dell would request that the EPA select the half-chassis configuration for the data collection effort of the ENERGY STAR for Computer Servers Version 2.0, and not require full-chassis configuration. The reason that half-chassis is preferred to the full-chassis is due to the cost of resources. For the highly-configured family configurations (High-end Performance and Maximum Power), the cost of the equipment could extend into multi millions of dollars. The ability to fund this activity may not be achievable for most cases.

Dell would prefer that all data be assessed evaluated equally, and that the standard is that all blade systems be required to test and submit at half-chassis population. However, if some partners would like to additionally submit full-chassis data for future evaluation, Dell would not object.