

ENERGY STAR Servers v. 2.0 Specification Draft 2

Comments from the European Commission

We provide in the following comments from the European Commission to draft 2 of the specification.

Line 287 – Power Supply Requirements: We recommend considering a requirement on right sizing of power supplies. This could be addressed for example by a requirement requesting that for product families covering a certain range of power demand, several power supplies of different capacity must be provided to support right sizing.

Line 319 – Power Management Requirements: The document does only consider basic power management features at processor and core level respectively at hypervisor level. Thus the consideration of power management options seems rather weak. We propose to consider at least the following power management options to be promoted by ENERGY STAR requirements:

- Power monitoring features
- Power management features supporting management at the server unit level and system level (standby and reactivation options in racks etc., e.g. for virtual migration)
- Chassis power management features (for blade servers only)
- Standby power feature for redundant power supplies
- Power capping

A minimum option would be to include these requirements as information criteria to be provided in the product information. If implemented as information criteria only, suppliers should indicate the functionality in the product information in brief and provide an online link to more detailed description.

Going beyond that option, it could be required that ENERGY STAR servers support at least a subset of the features indicated. Not to make requirements too strong for very small entry level servers, these could be excluded from a mandatory requirement.

In addition to power management also the right sizing of power supplies could be further supported. This could be addressed for example by a requirement requesting that for product families covering a certain range of power demand, several power supplies of different capacity must be provided to support right sizing.

Line 350 – Active State Efficiency Criteria: We support using active power as an information criterion for this version without involving any mandatory levels. We recommend using SERT – as it is the plan – and finalise the software as soon as possible. The testing results should be made publicly available and easy to compare.

The Austrian Energy Agency (AEA) has tested the BETA1 release with positive results however with some important conclusions, which should be confirmed by more comprehensive testing: Inclusion of five levels in addition to idle and considering reducing the number of CPU worklets. AEA can provide more details of the testing.

Line 363 – Idle Mode and Full Load Efficiency Criteria – One-Socket (1S) and Two-Socket (2S) Servers: The idle mode requirements are basically the same as included in the 2009 requirements version, which indicates that there have been no efficiency developments in idle mode. We recommend to base the idle mode requirements on mainly newer servers from 2011 and onwards. Furthermore, the values should be checked against idle values for new equipment reported from SPEC.

Line 454 – Power and Performance Datasheet (PPDS): We support use of a centralized and open database for easy comparison and use for both the industry and the purchasers. We recommend including thermal data in the PPDS.