

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF  
AIR AND RADIATION

March 15, 2013

Dear Servers Partner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is pleased to provide you with the Final Version 2.0 ENERGY STAR Servers Specification and the Final ENERGY STAR Servers Test Method. EPA and The U.S. Department of Energy (DOE) would like to thank the many stakeholders who have invested time and effort over the past year to contribute feedback to this specification revision process. The effective date for the Version 2.0 ENERGY STAR Servers specification is December 16, 2013. This letter highlights key features of the new specification and outlines the process for qualifying products to it.

The Version 2.0 Specification introduces new Active State Efficiency criteria, requiring all server products to run the Standard Performance Evaluation Corporation's (SPEC) Server Efficiency Rating Tool (SERT) and report the results. These results will be used in a later Version 3.0 Specification to set active efficiency levels. It also greatly increases the scope of products covered, now including the majority of the server market by adding blade, multi-node, and resilient servers on top of existing coverage of rack and pedestal servers from Version 1.0.

In addition, this specification:

- Introduces a new approach to product families that requires significantly fewer tests of individual configurations to qualify.
- Cuts memory adders by more than half, to reflect rapid improvements in this component's energy efficiency, and maintains rigorous idle power requirements for one and two socket rack and pedestal servers.
- Includes the option of testing systems with Auxiliary Processing Accelerators (APAs), allowing systems to be shipped with GPGPUs or similar components.
- Allows products with 3 phase power supplies to qualify.
- Updates requirements for power and temperature sampling, including an allowance for systems that implement time stamping of data.

The Version 2.0 Servers Specification was developed through extensive engagement with stakeholders including numerous draft specifications and meetings. Stakeholder comments, draft versions of the specification, and related materials are available on the ENERGY STAR website at [www.energystar.gov/RevisedSpecs](http://www.energystar.gov/RevisedSpecs) under the link for "Enterprise Servers."

Changes to the Version 2.0 Specification from the Final Draft include:

- An expansion of the rounding rules for blade chassis. Based on stakeholder input on the Final Draft, EPA and DOE have relaxed the requirements to allow for rounding to the nearest power domain.
- An expansion of form factor restrictions in product families, to enable products that differ only by superficial mechanical differences to be qualified within the same product family.
- Changed Section 4.1 to detail general reporting rather than focus on the PPDS, as EPA does not intend to use the PPDS for Version 2.0.

Changes to the Version 2.0 Test Method from the Final Draft include:

- Additional three-phase voltages for the European Market. Based on stakeholder input on the Final Draft, DOE has included 400 V ac 50 Hz in the list of supply voltages for European market.
- Input frequency option of 50 Hz or 60 Hz for the Japanese market to reflect the voltage standards of Japan.
- The same expansion of rounding rules for blade chassis as stated in the Specification.
- Change in section 5.2 F) to clarify that the controller system and the Unit Under Test (UUT) should be connected to the same network switch and must be configured to communicate via the network.
- Change in section 5.1 J) to ensure that the UUT offers at least one Ethernet port for the purpose of testing. Based on stakeholder input DOE has deleted the requirement of setting up the UUT with minimal I/O add-in cards.
- General Test Method updates to be consistent with SERT requirements.

### **Timeline and Next Steps:**

EPA shares its partners' desire for a smooth transition from one ENERGY STAR specification to the next, so that users can expect ENERGY STAR labeled products to fully meet the latest requirements upon their effective date. With this in mind, EPA has established the following timeline:

- Effective today, manufacturers may begin testing eligible products against the Version 2.0 requirements.
- On the week of March 18<sup>th</sup>, the QPX forms will be distributed to stakeholders for review.
- By April 5<sup>th</sup>, manufacturers and Certification Bodies (CBs) should submit comments on the QPX forms, for review by EPA
- In April, EPA will finish creating the data submission forms for CBs. CBs must successfully complete a test submission in order to retain their ENERGY STAR recognition. Once the above are completed, product test results will begin appearing on the ENERGY STAR website.
- After August 30<sup>th</sup>, CBs will be instructed to stop certifying new product submittals to the Version 1.1 specification. Existing certification to Version 1.1 will remain valid for purposes of ENERGY STAR qualification until December 16, 2013.
- In September, EPA will organize an "off-season" meeting to review SERT data submission and discuss a variety of topics relating to future versions of the servers specification.
- As of December 16, 2013, all servers will have to meet the Version 2.0 requirements to bear the ENERGY STAR mark. All certifications of products to the Version 1.1 specification will be invalid for purposes of ENERGY STAR qualification.

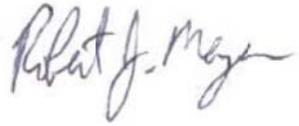
### **Third-party Certification:**

As a reminder, all new products must be certified by an EPA-recognized CB before being labeled and marketed as ENERGY STAR qualified. Upon satisfactory completion of all certification requirements, a CB will notify the partner that the product is ENERGY STAR qualified and will submit qualified product data to EPA for listing on the ENERGY STAR website. For more information on the Third-party Certification program, please visit [www.energystar.gov/3rdPartyCert](http://www.energystar.gov/3rdPartyCert).

EPA thanks stakeholders who provided feedback during the specification revision process and looks forward to working with you as you qualify and market your energy-efficient servers. Please direct any questions about the specification or partnership process to RJ Meyers, EPA, at [Meyers.Robert@epa.gov](mailto:Meyers.Robert@epa.gov), or 202-343-9923; or John Clinger, ICF International, at [John.Clinger@icfi.com](mailto:John.Clinger@icfi.com), or 215-967-9407. For any questions related to the Test Method, contact Bryan Berringer, DOE, at [Bryan.Berringer@ee.doe.gov](mailto:Bryan.Berringer@ee.doe.gov), or 202-586-0371.

Thank you for your continued support of ENERGY STAR.

Sincerely,

A handwritten signature in black ink that reads "Robert J. Meyers". The signature is written in a cursive style with a large initial 'R' and 'M'.

Robert Meyers  
Data Center Product Manager  
ENERGY STAR for Servers