

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



OFFICE OF  
AIR AND RADIATION

September 22, 2006

Dear Computer Equipment Manufacturer, ENERGY STAR<sup>®</sup> Partner, or Other Interested Party:

EPA is pleased to submit the **Final Draft Version 4.0 specification for ENERGY STAR qualified computer equipment** for your review. EPA is providing stakeholders with a final opportunity to review the content of this specification via this Final Draft. If there are any questions concerning this draft, please send them no later than **October 13, 2006**. In addition, for EPA to consider any new data to support stakeholder requested revisions regarding consideration of active network switches in the dataset and desktop-derived server levels, it must be received by **October 4, 2006** (please see page 13 of the attached program requirements document for details).

The final Version 4.0 computer specification will be distributed on **October 20, 2006**, and will take effect on **July 20, 2007**. Following the release of the Final specification, EPA will provide all stakeholders with separate correspondence that explains how to transition to the ENERGY STAR Partnership Agreement for computer equipment. Sample documents will be provided at that time for your review, including the Partnership Agreement, Commitment Form, and an outline of the data that manufacturers will need to report for individual product qualification under this Version 4.0 specification.

Enclosed, you will find the Final Draft Version 4.0 ENERGY STAR Partner Commitments and Eligibility Criteria for computer equipment as well as the final test conditions and procedures. Based on stakeholder feedback, the following key changes are reflected in this Final Draft specification, with details about each change included in note boxes in the relevant specification sections:

- **Electronic Labeling Option:** Manufacturers have the option of using an electronic labeling approach as an alternative to physical product labeling if the electronic label meets minimum requirements. The minimum duration for displaying the mark has been reduced to 5 seconds.
- **Computer Definition:** The computer definition has been amended to indicate that computers do not necessarily ship with input devices (keyboards and mice) or external displays (monitors).
- **Effective Date:** The effective date has been extended to **July 20, 2007**, to allow manufacturers a full nine months after the specification is finalized.
- **Wake On LAN (WOL):**
  - An adder has been provided from the Sleep mode for both desktops and notebooks.
  - Text was included to clarify that notebooks only need to have WOL enabled when connected to ac power, thereby giving them the opportunity to disable this functionality when operating on their portable power sources.
- **Notebooks:**
  - A second Category for notebooks that accommodates higher capability machines, especially those with discrete graphics solutions, has been added.
  - The Idle level for Category B has been raised to 20 watts to allow for advanced functionality and higher end graphics.
- **Workstations:** A model has been included to account for the differences between the various workstation architectures and their approaches to energy efficiency. EPA has also included in this Final Draft Specification a scalable classifier based on the maximum power of the system to ensure a broad range of machines with various capability levels can qualify for ENERGY STAR. EPA has also included a proposed test procedure for measuring the maximum power of these systems.

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- EPA Dataset:
  - Power supply adjustments to low power levels (Sleep and Standby) have been removed as the power supply requirements do not specify standby rail efficiencies.
  - Idle adjustments based on power supply efficiency for Idle values less than 20% of power supply loading have been removed as efficiency drops off sharply below 20% load.
  - Duplicate configurations tested with and without 80% power supplies were left in the dataset for the previous analysis and have now been removed from the dataset.
  - Based on the above described changes to the dataset, proposed levels included in this Final Draft Specification result in qualification rates of 22.7% for desktops and 26.9% for notebooks, with a qualification percentage of 24.4% for desktops and notebooks combined.
- Tier 2: As indicated in previous draft specifications, EPA intends to include two tiers in the revised ENERGY STAR specification for computers (Version 4.0). At this time, it is EPA's intent to sunset Tier 1 and then implement Tier 2 in January 2009. This Draft Final Specification provides a link to recently updated information regarding EPA's development of an energy and performance assessment approach that the Agency hopes to apply to all products covered by the Tier 2 specification.
- Testing:
  - Clarification regarding verification testing has been included. Manufacturers may initially test a single unit for qualification. If the initial unit tested meets the eligibility criteria but falls within 10% of the criteria level for Idle, one additional unit of the same model and configuration must also be tested.
  - A 100V testing condition for the applicable markets has been added.
  - The option of testing notebooks with a fully charged battery has been added.
  - Power management settings for computers with external displays have been adjusted to ensure the display is on for the duration of the Idle test.

On behalf of EPA, I appreciate your participation in the development of this specification and look forward to working with each of you as you qualify and market your energy-efficient computer equipment. If you have any questions or concerns about the Final Draft specification, accompanying test procedures, or the future partnership process, please feel free to contact me at +1-(202)-343-9120 or [osdoba.katharine@epa.gov](mailto:osdoba.katharine@epa.gov).

Thank you for your continued efforts and support of ENERGY STAR.

Best Regards,



Katharine Kaplan Osdoba  
ENERGY STAR for Office Equipment

Enclosures:

ENERGY STAR Program Requirements for Computers, Final Draft  
Computer Dataset, September 22, 2006