OFFICE OF
AIR AND RADIATION

February 22, 2008

Dear ENERGY STAR® Computer Partner or Other Industry Stakeholder:

The U.S. Environmental Protection Agency (EPA) and the EC (European Commission) welcome your comments on the attached **Draft 1** Version 5.0 ENERGY STAR computer specification. Please note that EPA has changed the reference from Tier 2 to Version 5.0 to align with EPA's past versioning conventions regarding tiered specifications. Once final, this specification will replace the current Version 4.0 specification. The proposed effective date for this specification is July 1, 2009.

EPA would like to thank all stakeholders who shared comments on the Tier 2 Computer Discussion Guide either during the December 6, 2007, Online Stakeholder meeting or via subsequent written comments. These comments were carefully reviewed and considered while preparing this Draft 1 document.

The Draft 1 Version 5.0 specification incorporates an Energy Efficiency Performance Assessment (EEPA) approach to evaluate Desktop, Integrated Computer, Notebook, and Tablet PC product categories. With this approach, computers run a consensus "workload" of real-world applications and computing tasks and are measured for effectiveness in translating energy consumed into performance. EPA is working closely with BAPCo (Business Applications Performance Corporation) as they develop EEcoMark, a software tool designed under the guidance of an energy benchmark standard being developed by the TC38-TG2 working group of Ecma International. Both BAPCo and the Ecma working group are composed of representatives from the Computer Industry. The EPA and EC technical team is also an active participant in this effort. EEcoMark is scheduled to be finalized for use with Windows and Mac OS systems in June 2008. Should it meet EPA's AND EC'S requirements for use in Version 5.0, EPA AND EC intends to commence data collection using the finalized tool immediately upon its availability.

Draft 1 presents the structure of this EEPA approach, including EEPA tool measurement outputs and formulas, to calculate estimated annual energy consumption based on these outputs. Levels for qualification are still to be determined. EPA intends to refine definitions and structural elements of the Version 5.0 specification prior to EEcoMark availability in June, then focus on testing, data collection, and qualification level development this summer.

In addition to the assessment above, the Draft 1 Version 5.0 specification incorporates the following key elements. Note boxes are included throughout the draft specification to clarify EPA's reasoning for proposing the reflected changes:

- Update of Desktop-Derived Server definition to align with the ENERGY STAR Computer Server Specification development effort. EPA and the EC intend to begin data collection for this product category prior to the release of Draft 2;
- Inclusion of Thin Clients into the ENERY STAR Computer Specification as a new product category. Draft 1 proposes an operational mode evaluation system similar to the Version 4.0 Desktop system, with levels still to be determined. Thin Clients are evaluated separately from Desktop and Notebook product categories in this Draft 1 and are not evaluated using the EEPA approach. EPA and the EC intend to begin data collection for this product category prior to the release of Draft 2;

- Updated power supply efficiency requirements. External Power Supplies (EPS) in Version 5.0 are set to the ENERGY STAR EPS Version 2.0 requirements (currently in Final Draft form, expected to be final this November); internal power supply requirements have been adjusted in response to stakeholder requests to align with power supply efficiency requirements in the Climate Savers Computing Initiative (a component-level efficiency initiative by industry);
- Announcement of the intent to work with the Standard Performance Evaluation Corporation (SPEC) to develop and use a benchmark approach to evaluate Workstations in which associated workloads would be appropriate to workstations;
- Separation of Game Consoles into an independent product category within the computer specification. Levels and test procedures are to be determined, but EPA is working with console manufacturers to develop requirements appropriate to unique game console usage patterns, capabilities, and market conditions;
- Inclusion as proposed requirements of "Tier 2" power management requirements suggested in the Version 4.0 Specification – these include requirements for Energy Efficient Ethernet and full network connectivity maintenance while in Sleep Mode; and
- Notation that EPA is beginning review of other energy and safety-related impacts associated with this product category for discussion with stakeholders and possible inclusion in this specification.

Stakeholders are encouraged to review Draft 1 and provide written comments to Katharine Kaplan, US EPA, at kaplan.katharine@epa.gov and Evan Haines, ICF International, at ehaines@icfi.com **by March 14, 2008.** All comments received will be posted to the ENERGY STAR Product Development Web site, unless the submitter specifically requests that their comments remain confidential. **EPA will host a second web-based stakeholder meeting the week of March 31 through April 4, 2008 to discuss this Draft 1 Version 5.0 document.** Additional meeting details, including an agenda, will be distributed to Stakeholders in the coming weeks.

This Draft 1 Specification and stakeholder comments related to the Discussion Guide can be found on the ENERGY STAR Computer revision website at http://www.energystar.gov/index.cfm?c=revisions.computer_spec. Thank you for your participation in this specification development process. I look forward to your valuable feedback on the Draft 1 specification. I welcome you to contact me with any questions or concerns at (202) 343-9120 or the above email address.

Best Regards,

Katharine Kaplan, U.S. EPA
ENERGY STAR for Office Equipment

Attachment:
- Draft 1 Version 5.0 ENERGY STAR computer specification