OFFICE OF
AIR AND RADIATION

November 14, 2008

Dear ENERGY STAR® Computer Partner or Other Industry Stakeholder:

This version of the cover memo reflects a correction to and replaces the version distributed November 14.

I am pleased to inform you that the Version 5.0 ENERGY STAR Specification for Computers has been finalized and will take effect on July 1, 2009, pending adoption by the European Union. Stakeholder feedback throughout the development process has been appreciated and has been closely considered in development of the Final V5.0 requirements. Stakeholder feedback, all drafts, and related materials are available on the ENERGY STAR *Revisions to Existing Product Specifications in Development* page at www.ENERGYSTAR.gov/productdevelopment.

Enclosed with this cover memorandum is the Version 5.0 ENERGY STAR Specification for Computers and associated information, which includes the final V5.0 Dataset used to create levels for Desktops, Notebooks, and Thin Clients, as well as a summary of comments received.

Below is a list of changes reflected in the Final Specification, based on Stakeholder feedback:

- Qualification Laboratory Requirements: ENERGY STAR remains committed to ensuring testing for ENERGY STAR qualification takes place in competent labs. EPA believes it is essential to the viability of ENERGY STAR as a self-certification program and to ensure a level playing field among partners to establish reasonable requirements for labs completing qualification testing. However, EPA also recognizes that this concept and how it is achieved in the field would benefit from further discussion with stakeholders. Thus, EPA has removed the proposed requirement for accreditation for test labs completing qualification testing from the Final Version 5.0 Computer Specification. EPA will refine program options for ensuring the competence of qualification labs during discussion with stakeholders involved in the Display Specification revision and will apply concepts to other specifications, such as the computer specification, in the future;
- Full Network Connectivity/Proxying: The Full Network Connectivity definition was clarified in response to stakeholders' comments;
- Desktops: Categories for Desktops were maintained from the Draft Final, with a clarification to the core count requirement for Category B to avoid overlap with Category C. A sliding scale for graphics capability was included to provide a more even and

technology-appropriate application of allowances for Discrete GPUs and associated capability. The TEC Category B level in this Final Specification is 175kWh as submitted data indicated was warranted. **The attached version corrects an error in the graphics capability adjustments reflected on page 11, and thus replaces the final specification distributed on November 14**;

- Notebooks: Categories for Notebooks were not changed from the Draft Final. EPA closely reviewed TEC requirements with respect to the dataset, impacts of test voltages, effect of gigabit Ethernet on results, and other factors. Final requirements reference a balance of these factors. For Category C, the 3.0 kWh graphics adder, which applied to all systems in C by definition, was removed and applied to the overall TEC limit, simplifying the requirements without an effect on the mix of systems meeting Category C requirements;

- Test Procedure: Minor clarifications based on stakeholder comments have been added to the test procedure, including guidance on wireless radio and hard drive power management status during idle testing, result reporting format, and clarification to section references for IEC 62301; and

- Sample Calculations: In response to industry requests, the calculation of Desktop and Notebook TEC has been modified to apply capability adjustments to the TEC requirement rather than the computer's measured TEC, improving clarity of qualification lists when the specification is final.

After many iterations of this specification, including supporting update documents, and active discussions with stakeholders, EPA considers the Final Draft specification language to be well vetted. The Comment Response document contains a summary of comments received in response to the Draft Final Computer Specification and an explanation of EPA's rationale in each case.

Of additional interest to stakeholders are the topics of Verification Testing and Game Consoles:

- Verification Testing: Verification testing will be required as indicated in the partner commitments. The specific requirements for verification testing will be finalized before the end of the year. EPA is now reviewing comments received on the current draft of the Computer Verification Testing Guidelines and Procedures Manual V1.0 and will soon communicate with stakeholders regarding next steps.
- Game Consoles: As forecasted in the Draft Final, development of the Game Console requirements will continue through the remainder of the year refining the proposal presented in Draft 3. EPA will also strive to engage game publishers to ensure games do not hinder game console power management. EPA will continue to engage with stakeholders on the development of these game console requirements including seeking comment on additional drafts through the end of the year. Final Game Console requirements, once vetted with interested stakeholders and finalized, will be included in this Final Version 5.0 Specification.

In the coming months, EPA will provide all stakeholders with separate instructions that explain how to become, or continue, as an ENERGY STAR partner for Computers. The instructions that will be provided at that time will include appropriate partnership and/or commitment forms

for stakeholder use and a forecast of product data submittal requirements in advance of the effective date of the specification. Once this specification is in effect on July 1, 2009, the process to qualify computers will be generally consistent with what was in place for Version 4.0, with an active manufacturer partnership being required and data again collected through the Online Product Submittal (OPS) tool at www.energystar.gov/ops. In early 2009, EPA will work to revise the OPS system to accept data for the product categories in the specification.

EPA wishes to express its sincere gratitude to all stakeholders in North America, Europe, Asia, and other parts of the world who provided feedback during the computer specification revision process. On behalf of EPA, I truly 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 specification or partnership process, please feel free to contact me at +1 (202) 343-9120 or kaplan.katharine@epa.gov.

Thank you for your continued support of ENERGY STAR.

Best Regards,

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

Enclosed:
- Final Version 5.0 ENERGY STAR Computer Specification;
- Masked Dataset; and
- Comment Summary.