



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

OFFICE OF  
AIR AND RADIATION

September 24, 2009

Dear Computer Server Manufacturer or Other Interested Stakeholder:

The U.S. Environmental Protection Agency (EPA) is pleased to offer for comment the attached Tier 2 Preliminary Draft specification for Computer Servers. The purpose of this document is to provide the foundation for discussion at EPA's Tier 2 Server Stakeholder Workshop on September 25, 2009, as well as to introduce key areas for further development under Tier 2 and seek stakeholder feedback on EPA's proposed approach. The deadline to provide comments on the Preliminary Draft specification is **Friday, October 16, 2009**.

**ENERGY STAR Computer Server Tier 2 Preliminary Draft Specification**

The preliminary draft consists of two components:

- *ES\_Computer\_Server\_Tier\_2\_Prelim\_Specification* – The first is a “rollover” document detailing how existing Tier 1 requirements will be revised during the Tier 2 development process. Changes are recorded using the Tier 1 final specification structure and are highlighted in dark text. Throughout the document are explanatory note boxes containing details on EPA's initial approach for each area.
- *ENERGY\_STAR\_Servers\_Rating\_Tool\_Development* – The second document contains a summary of EPA's considerations in pursuing an active mode rating tool or approach that will introduce evaluation of servers as they complete useful work. This document includes a list of approaches for integration of active mode requirements into the ENERGY STAR specification. Among the proposed approaches is development and implementation of a multi-workload rating tool. This software tool would evaluate the efficiency of the server as it completes simulated work in a test environment. A list of desired characteristics for this tool are provided at the end of the summary.

The topics in both of these documents will be presented and discussed in EPA's Tier 2 Workshop.

**ENERGY STAR Tier 2 Workshop**

This event will be held from 9:00 a.m. – 4:00 p.m., PST and is hosted on the Sun Microsystems Menlo Park campus. While the RSVP period for this event is closed and only registered attendees may join in person, web conferencing access will be provided for this meeting, with meeting materials available on the ENERGY STAR website after the meeting. A detailed agenda is attached to this memorandum, with approximate times for each meeting topic and web conferencing access URLs.

This workshop is intended to present stakeholders with an opportunity to provide feedback on the development of the ENERGY STAR Tier 2 program for Computer Servers. EPA's key objectives for the meeting are:

- To share with stakeholders EPA's specification development process, intended roadmap for evolving the ENERGY STAR Server program, and timeline to develop the Tier 2 specification;
- Reaffirm the rationale for the Tier 2 specification;
- Discuss the components of the Tier 2 specification;
- Discuss and consider options to incorporate evaluation of servers completing useful work, consider the pros and cons of each option, and discuss the key characteristics EPA believes are critical to an active efficiency evaluation; and
- Collect all input for consideration prior to development of a subsequent Draft 1 specification.

On behalf of EPA, I appreciate your participation in the development of this specification. Please feel free to contact me directly with any questions or concerns at (206) 553-6377 or [fanara.andrew@epa.gov](mailto:fanara.andrew@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Fanara', with a long horizontal line extending to the right.

Andrew Fanara  
U.S. EPA  
Climate Protection Partnership Division  
ENERGY STAR Product Development Team



## ENERGY STAR® Computer Server Tier 2 Stakeholder Workshop Agenda

**Time:** 9 AM to 4 PM Pacific Time (meeting room opens at 8:30AM)

**Location:**

Sun Microsystems Menlo Park Campus  
Building 10  
10 Network Circle  
Menlo Park, CA 94025

Time	Topic
8:30 a.m.	Meeting Room Opens
9:00 a.m.	<p><b>Welcome and Agenda Review</b></p> <ul style="list-style-type: none"><li>• <i>Presentation of Agenda and structure for the meeting</i></li><li>• <i>Perspectives from EPA and the EU</i></li></ul> <p><b>Room:</b> Main <b>Web Conference Link:</b> <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7">https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7</a></p>
9:15 a.m.	<p><b>Program Overview</b></p> <ul style="list-style-type: none"><li>• <i>Review of Tier 1 requirements and program progress</i></li><li>• <i>Overview of Tier 2 development areas</i></li></ul> <p><b>Room:</b> Main <b>Web Conference Link:</b> <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7">https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7</a></p>
9:45 a.m.	<p><b>Perspectives: End Users and Industry</b></p> <ul style="list-style-type: none"><li>• <i>Presentations on end user experiences with the procurement process and efficiency</i></li><li>• <i>Industry presentation on the Server program and perspectives on Tier 2 development</i></li></ul> <p><b>Room:</b> Main <b>Web Conference Link:</b> <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7">https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7</a></p>
	Break
11:15 a.m.	<p><b>Joint Breakout: Active Mode Rating Tool for Server Energy Efficiency</b></p> <ul style="list-style-type: none"><li>• <i>Options for developing active mode requirements</i></li><li>• <i>Presentation on SPEC effort to develop a specialized efficiency rating tool for server</i></li><li>• <i>Structured discussion</i></li></ul> <p><b>Room:</b> Main <b>Web Conference Link:</b> <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7">https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7</a></p>

Time	Topic		
12:30 p.m.	<i>Lunch Break</i>		
1:15 p.m.	<p style="text-align: center;"><b>Breakout Session 1</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p><b>Session 1A: Blade Servers</b></p> <ul style="list-style-type: none"> <li>• <i>Near-term options for blade efficiency assessment</i></li> <li>• <i>How blades are marketed for efficiency (e.g. comparisons against rackmount servers)</i></li> <li>• <i>Options and timeline for longer term solutions</i></li> </ul> <p><b>Room:</b> Breakout Rm. 1  <b>Web Conference Link:</b>  <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=JZZZR2&amp;role=attend&amp;pw=7rNdq%25w">https://www.livemeeting.com/cc/thegreengrid/join?id=JZZZR2&amp;role=attend&amp;pw=7rNdq%25w</a></p> </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p><b>Session 1B: General Requirements and Program Scope</b></p> <ul style="list-style-type: none"> <li>• <i>Discuss how products not covered by Tier 1 might be addressed</i></li> <li>• <i>Review Power Management techniques, identify new options that might be available</i></li> </ul> <p><b>Room:</b> Breakout Rm. 2  <b>Web Conference Link:</b>  <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=5T6STC&amp;role=attend&amp;pw=5-n%7BRsw">https://www.livemeeting.com/cc/thegreengrid/join?id=5T6STC&amp;role=attend&amp;pw=5-n%7BRsw</a></p> </td> </tr> </table>	<p><b>Session 1A: Blade Servers</b></p> <ul style="list-style-type: none"> <li>• <i>Near-term options for blade efficiency assessment</i></li> <li>• <i>How blades are marketed for efficiency (e.g. comparisons against rackmount servers)</i></li> <li>• <i>Options and timeline for longer term solutions</i></li> </ul> <p><b>Room:</b> Breakout Rm. 1  <b>Web Conference Link:</b>  <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=JZZZR2&amp;role=attend&amp;pw=7rNdq%25w">https://www.livemeeting.com/cc/thegreengrid/join?id=JZZZR2&amp;role=attend&amp;pw=7rNdq%25w</a></p>	<p><b>Session 1B: General Requirements and Program Scope</b></p> <ul style="list-style-type: none"> <li>• <i>Discuss how products not covered by Tier 1 might be addressed</i></li> <li>• <i>Review Power Management techniques, identify new options that might be available</i></li> </ul> <p><b>Room:</b> Breakout Rm. 2  <b>Web Conference Link:</b>  <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=5T6STC&amp;role=attend&amp;pw=5-n%7BRsw">https://www.livemeeting.com/cc/thegreengrid/join?id=5T6STC&amp;role=attend&amp;pw=5-n%7BRsw</a></p>
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3:30 p.m.	<p><b>Wrap Up Discussion: Timeline and Action Items</b></p> <ul style="list-style-type: none"> <li>• <i>Review of recorded feedback from breakout sessions</i></li> <li>• <i>Development timeline</i></li> </ul> <p><b>Room:</b> Main  <b>Web Conference Link:</b>  <a href="https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7">https://www.livemeeting.com/cc/thegreengrid/join?id=CB6QWC&amp;role=attend&amp;pw=S%3EGZxk7</a></p>		
4:00 p.m.	<i>Meeting Adjourns</i>		