



**TO:** Mr. Andrew Fanara  
U.S. Environmental Protection Agency (EPA)

**FROM:** Ken J. Salaets

**DATE:** March 20, 2008

**SUBJECT:** ENERGY STAR Server Specification, Draft 1

ITI appreciates the opportunity to once again submit comments in response to a draft ENERGY STAR specification. We also appreciate the opportunity for file after the initial deadline.

ITI's members are heavily invested in the success of the ENERGY STAR program, and continue to view it as an essential foundation for promoting energy efficiency in the U.S. and beyond. The public/private ENERGY STAR partnership offers a proven strategy for helping IT purchasers improve their energy performance and track overall savings. Our industry seeks to strengthen its partnership with EPA, the Department of Energy and other stakeholders, to help ensure that the program continues to be successful and is widely adopted.

The following comments reflect the consensus of ITI member companies, developed during a series of meetings to review Draft 1. We would welcome the opportunity to provide additional detail regarding our recommendations and concerns, and look forward to participating on the online stakeholders meeting scheduled for April 2. Our comments follow.

#### Scope

We recommend that EPA limit the current focus to volume servers, with a possible review of other data center components such as networking solutions, storage solutions, and other classes of servers in a later revision. In addition, none of the definitions included in the draft develop or propose a volume server definition. We believe that this is necessary before the discussion and related research can move forward. ITI will be happy to participate in and help coordinate that effort.

#### Identification and Development of Specifications

Due to the complexity of the proposed specification, we recommend collaboration between EPA and the industry to identify and select the optimum set of metrics for Tier 1 and subsequent measurements. Further, we request that EPA schedule a series of stakeholder forums, including face-to-face meetings, to facilitate collaboration. To help advance this goal and defray costs, ITI is willing to host working sessions in conjunction with The Green Grid Association.

### Product Information Reporting

- Generally, we support the proposal to utilize a standardized format to facilitate product information reporting. However, we remain concerned with the complexity associated with the reporting, as well as the requirement to develop new definitions.
- We do not support specific reporting formats for power and thermal instrumentation and reporting. However, we are open to the idea of creating open environments that can link equipment and metrics together for reporting and management
- We agree with the intent to provide real time data on power consumption and other related metrics. A rigorous review of the possible measurements and their use cases should be conducted to validate use cases, verify applicability and ensure interoperability.

### SPECpower Benchmark

We disagree with use of the SPECpower benchmark in the Tier 1 specification. The specification has only one workload and its power measurement procedure is only applicable to low memory configurations 1U/2U high volume servers. We encourage EPA to defer use of the SPECpower benchmark to the tier 2 proposal and, in the interim, convene a working group with SPEC and industry stakeholders to develop a roadmap for benchmarks applicable to the range of workloads and server classes present in the industry. It is expected that by Tier II a plurality of benchmark tools will be available with a wider application across server's architectures.

### Other Comments and Recommendations

- We strongly encourage EPA to work with industry to find or develop a methodology to recognize the power of virtualization to better utilize server equipment. This is a proven methodology for reducing energy consumption by measuring and optimizing the amount of work delivered per unit of energy used and for getting more work done on a smaller number of systems.
- We strongly recommend that, in lieu of developing an idle power metric, EPA and industry collaborate on an implementation based on a list of power/workload management capabilities. We will provide more detail during the aforementioned stakeholder session.
- We are concerned about the inclusion or exclusion of power supply cooling fans, and current sharing components with respect to power supply efficiency. Again, we will provide more details during the stakeholder call.
- We support adoption of the Climate Savers Computing Initiative test procedure, recently aligned with ECOS Consulting 80Plus test procedure, for single output power supplies.
- We agree with the proposal not to include Servers powered by direct current.