

October 13, 2006

JEITA Comments on the Final Draft of the ENERGY STAR Program Requirements for Computers

JEITA International Energy Star Committee

The computer manufacturer members of JEITA have studied the Final Draft of the ENERGY STAR Program Requirements for Computers and have the following comments. We must emphasize the seriousness of these assertions.

Partner Commitments

Commitments

- Electronic Labeling Option

The EPA offers the option of electronic labeling, but JEITA understands this option to be unusable for the following reasons. (All eight of JEITA's computer manufacturer members are in agreement on this issue.)

(1) Although the start-up display is embedded in BIOS firmware, the five-second minimum display time is unacceptable because it is too long where fast booting is sought.

(2) Customers expressly demand BIOS commonality in all units of the same model to allow for efficient equipment management on their behalf. However, with the addition of Idle state level criteria to the current revision, it very conceivable that some units of the same model will qualify as Energy Star where others will not. Therefore, as long as the possibility exists that all units of the same model will not meet the Energy Star criteria, it is extremely difficult both to adhere to the program requirements and to allow efficient production/manufacturing management and customer equipment management.

Eligibility Criteria

(2)Operational Mode Efficiency Requirements

- Qualifying Computers With or Without WOL Enabled

The use of the additional power allowances is stated clearly in Table 2 for Standby mode but it is not clearly stated for Sleep mode. The use of the additional power allowances for Sleep mode should also be clarified.

(3) Power Management Requirements

- Shipment Requirement

As we have repeatedly asserted in the past, JEITA opposes the requirement that WOL be enabled on notebooks as a default when shipping products.

Reason: JEITA agrees with stipulating power requirements with WOL enabled from the standpoint of energy savings. Nevertheless, we believe there is absolutely no necessity for the shipping requirement that “systems shipped through enterprise channels must have Wake On LAN (WOL) enabled from the Sleep mode.” The EPA should clarify the intention of this requirement.

JEITA has the following opinions on the Final Draft where it states: “Systems shipped through enterprise channels must have Wake On LAN (WOL) enabled from the Sleep mode when operating on ac power (i.e. notebooks may automatically disable WOL when operating on their portable power sources).”

(1) We have considered ways of disabling WOL when the AC adapter is unplugged in order to prevent loss of battery power. Unfortunately, there is no technology with today’s platforms that can initialize the LAN chip and enable the WOL function when the AC adapter is reconnected. Therefore, users who do use the WOL function will likely file complaints about this measure if taken.

(2) We feel the EPA’s note on WOL in the Final Draft assumes the use of next-generation LAN device technology. This next-generation technology requires specialized controllers and specialized applications that will just be reaching the market on the date Tier 1 is to commence, July 20, 2007. In other words, the dissemination period of this technology and the Tier 1 effective period do not coincide.

(4) Test Procedures

A. Number of Units Required for Idle Testing

Reporting measured data for two units for Energy Star registrations must surely be unnecessary even when the measured power level of the first unit falls within 10 percent of the maximum

power level. Either the larger value of the two or the average value of the two should be reported.

Computer vendors that emphasize compliance with this program require a margin of approximately 10 percent (about 2 watts) on the Idle power levels for notebooks. For example, the Idle state requirement on Category A notebooks should be increased from 14 watts to 16 watts for the following reasons.

(1) Although the EPA has added the testing requirement of within 10 percent of the Idle state levels, this only addresses the variance in power measurements on computers at the time of the Energy Star application (that is, on computers prior to volume production).

Variance is found in the power consumptions of individual CPUs and other semiconductor components. Furthermore, should the yield of the semiconductor-component production process be poor, it is possible that some semiconductor components are shipped bordering on the maximum value of the power specification given on data sheets.

It is very probable, then, that power consumptions will increase during volume production due to circumstances beyond the control of PC vendors. Thus, it is appropriate to raise the required Energy Star levels by around 10 percent because it is unrealistic in practice to inspect all units at shipping while being obliged to fulfill the continuing verification requirement.

(2) The power consumption data the EPA collected on Category A notebooks includes six models that consumed exactly the requirement level, 14.0 watts. If the power measurement values are the same as the requirement values, vendors will adopt a policy of not submitting qualification applications in consideration of the post-production risks. Thus, the qualification rates are certain to fall significantly.

(3) The Category A notebook data collected by the EPA includes five ultra-low-voltage CPU models. On the other hand, there are no ultra-low-voltage models in the Category B data. Ultra-low-voltage models are specially designed from the outset to be energy efficient. It is only natural that they easily meet the proposed levels; however, only a small number of these models are shipped to market.

For this reason, the current Category A requirement levels should be relaxed.

(5) Effective Date

3. Elimination of Grandfathering

- Energy Star criteria following this revision will be extremely rigorous. For computers in volume production when the revised Version 4.0 specification is distributed on October 20, 2006 and that continue to be mass produced on the effective date of July 20, 2007, the non-recognition of grandfathering will necessitate the removal of the Energy Star logo from an enormous number of units.

- As JEITA has consistently stated in each of our comments, there are many problems with production control over labeling (computers require BTO/CTO production control) leading to large economic losses for computer vendors. If the EPA's priority is eliminating grandfathering, labeling should be made optional. If the EPA's priority is labeling, without easing the ban on grandfathering, prohibitively difficult operations will result.