

Feedback for the “ENERGY STAR® Program Requirements
Product Specification for Displays Eligibility Criteria Draft 3 Version 6.0”

Mar 9th, 2012

To: US Environmental Protection Agency

With reference to the “ENERGY STAR® Program Requirements Product Specification for Displays Eligibility Criteria Draft 3 Version 6.0” you transmitted to us on February 10, we hereby inform you of the feedback provided by the Display Specialty Committee of the JEITA (Japan Electronics and Information Technology Industries Association) with accompanying material.

We sincerely hope that you will give the subject your earnest consideration.

Shinji Morimoto, Chairperson
Display Specialty Committee, JEITA

1. On the ENERGY STAR® Program Requirements Product Specification for Displays Eligibility Criteria Draft 3 Version 6.0

1-1. P11. 3.7 Toxicity and Recyclability Requirements

Due to the following reasons, we are in the opinion that toxic substances and recyclability should not be adopted as an index of the standard of ENERGY STAR.

- With regard to regulations on toxic substances, studies of response are being made in each of the States in the USA, and adoption of toxic substances and recyclability as the standard will cause confusion among users and an increase in unnecessary social cost.
- With regard to recyclability as well, the EPEAT that has been implemented earlier is effectively functioning, and its recognition is also advancing. For this reason, if a similar standard is to be introduced, there is concern that it will also lead to confusion among users and an increase in social cost.
- IT devices are inherently a group of products having global performance and one of the results of ENERGY STAR is that a global standard among the member countries has been established. Addition of the rules peculiar to the USA contradicts this example of success, which may lead to the degradation of the status of ENERGY STAR

1-2. P1. Enhanced Performance Display

The draft for the standard states the following definition.

(1) Enhanced-Performance Display: A Computer Monitor that has all of the following features and functionalities:

- (a) A contrast ratio of at least 60:1 at horizontal viewing angles of at least 85°,
- (b) A native resolution greater than or equal to 2.3 megapixels (MP), and
- (c) A color gamut of at least sRGB (IEC 61699 2-1).

Regarding the contrast features in (a) above, the specifications of commonly used panels do not contain the contrast ratio at 85° and the types of panels that satisfy this requirement are limited, and there is concern that the requirement may only be met by specific types of products of specific vendors. Also, the measurement and judgment criteria, etc. for making judgment as to whether measures can be taken or not are not clearly defined. Hence, we believe that such criteria should be clarified and specifications should be prescribed such that at least multiple products that can be purchased on the market can meet the requirement.

We cannot understand the ground for 2.3MP in (b) above. We request that the ground for making such a setting should be clarified, and otherwise this item should be deleted.

If the item cannot be deleted, then instead of "greater than or equal to 2.3MP," we propose that this portion should read "greater than or equal to 2.0MP."

In the case of using "greater than or equal to 2.3MP," at present 24 inches or above will be considered practically. On the other hand, in ordinary On Mode Requirements (not for the enhanced-performance displays), the value of 22 inches or above has become the threshold value in the equation for calculation, and relatively stricter criteria are applied to displays of 23 inches.

Regarding the requirement for the color gamut of sRGB in (c) above, since there are problems as described below, we propose the following two plans.

Plan 1. Instead of the color gamut of sRGB, definition of a color gamut using the NTSC ratio
The sRGB standard itself defines an absolute color gamut of the three primary colors of RGB in the XYZ color space, and the tolerance of values is not defined. There are a lot of liquid crystal panels now commercially available in the market that cannot strictly cover 100% of the color gamut due to subtle deviations in the x,y coordinates. Hence, with regard to this item, we propose that the NTSC area ratio should be adopted. The ratio equivalent to the present requirement for sRGB is 70% or more.

Plan 2. Application of WinColorSpec

If Plan 1 is not accepted, since the WinColorSpec defined by Microsoft provides the definition of specifications for meeting the requirement for sRGB including tolerance, we propose that the requirement for meeting this definition should be included. Concerning this WinColorSpec, information is given in <http://msdn.microsoft.com/en-us/windows/hardware/gg463066>.

Incidentally, the number of the sRGB specifications of IEC is IEC 61966-2-1 instead of IEC 61699 2-1.

1-3. P.3. D) Luminance:

Since we do not understand well the contents of the following descriptions (difference between them), we request that examples and the like should be added.

1) Maximum Reported Luminance: The On Mode preset setting in which the display is brightest, as specified by the manufacturer, for example, in the user manual.

2) Maximum Measured Luminance: The On Mode setting in which the display controls, such as brightness and contrast level, are set to a maximum level.

1-4. P9., P10. Sleep Mode Requirements

Table 3: Power Allowances in Sleep Mode for Data or Network Capabilities

No rationale is given as to why those equipped with Display Port, Thunderbolt are allowed to have higher power consumption than those equipped with HDMI which is a digital image interface having similar functions. Hence, we propose that irrespective of the types of these interfaces, the same additional allowance value should be accepted for all the displays that are ready for use with digital image interfaces.

Also, regarding communications interface as well, different additional allowance values are applied according to the type of interface that can be used, but because this has nothing to do with the inherent functions of display devices, there is a possibility that confusion will be caused in the management of the ENERGY STAR program and in response to the market, and so we propose that this should be deleted from the requirements for standby power, or the same additional allowance value should be applied that is not related to the type of interface.

Table 4: Power Allowances in Sleep Mode for Additional Capabilities

We request that the occupancy sensor should be clearly defined. Also, it should be clarified whether operation of the occupancy sensor while in sleep mode is essential in its application.

If the period during operation of a device similar to a human detection sensor (that which would be used for distinction as to whether a human is present in front of the display) is considered, then we propose that +1.5W should be added to the value currently being proposed.