



July 18, 2011

Mr. Christopher Kent
United States Environmental Protection Agency
Office of Air and Radiation
Washington, D.C. 20460

Dear Mr. Kent:

In response to your memo dated June 3, 2011, 3M is providing input on Draft 1 of ENERGY STAR Program Requirements for Displays Version 6.0. We appreciate the opportunity to provide comments, and we continue to support the EPA's efforts to improve energy efficiency in display devices.

Our primary recommendations are:

1) The luminance value at which the on mode power consumption is measured must be defined in order to keep the displays specifications an efficiency requirement. 3M believes that an efficiency-based standard provides the most meaningful and relevant standard for the benefit of end-users, display manufacturers, and the EPA's overall goal of reducing greenhouse emissions. The primary advantage of an efficiency-based standard is that end users (and the EPA) can be certain that ENERGY STAR-qualified displays are consuming the least amount of power possible regardless of how they are being used. These requirements cover a wide range of applications and some users and environments require high brightness displays. These applications can benefit from an ENERGY STAR designation, but they risk losing this opportunity if the standard migrates to one that is based on low power rather than efficiency. As a reminder ENERGY STAR's guiding principal (2) is to be recognized as a credible symbol for energy efficiency without sacrificing performance.

We recommend keeping the test luminance setting from the 5.1 standard as the test luminance level for on mode power measurement

2) Harmonization with other standards should be pursued where relevant. As such 3M supports the use of the IEC test clip method for displays. However harmonization should not be forced where settings or usage models are not consistent. More details, as well as other comments, are offered in the section comments below.

Criteria Section 1.D

Menu presets for monitors often adjust color, but it is not clear how these influence luminance or which setting is brightest. “Preset picture setting” language should be modified to reflect monitor adjustments such as brightness and contrast. Since a majority of monitors are used out of the home without a forced menu, a term such as “factory default” is more reflective of menu options. “As-shipped” should be equivalent to “factory default” settings.

Criteria Section 3.3.1

With the majority of displays being used in commercial applications, most displays will not see this level of ambient light variability. Therefore the 300 lux level should be more heavily weighted as in the Version 5.1 criteria.

Criteria Section 3.3.2

Resolution should continue to be a factor in determining the on-mode power limit. The variety of pixel formats is one of the features that makes desktop monitors different from televisions. Television come in two resolutions and larger sizes are designed to accommodate longer viewing distances, but in desktop monitors the displays are used within a limited range of distances and larger sizes are designed to accommodate more information. As a result desktop displays offer a much wider variety of resolutions or pixel formats. Growth and differentiation is anticipated in displays of higher resolutions of all sizes.

Further, resolution needs to be included to accommodate the variety of pixel formats available in the integrated displays of All-in-Ones, notebooks, and tablets. The display standard has been proposed for determining the display power allowance in the ENERGY STAR Computer requirements currently under revision. Harmonization is not limited to TVs.

Criteria Section 3.4.1

3M recommends that the ENERGY STAR Displays standard remain an efficiency-based standard by performing testing at a fixed luminance. Harmonization with the Television standard can be accomplished by migrating the new Television standard to one that is also based on efficiency (and fixed luminance testing).

Test Method

The existing draft Displays test method requires the operator to perform testing at a luminance that is 65% of the maximum luminance. This is cumbersome and unnecessary. If the standard is to migrate to a low-power based

requirement, then power testing should be performed at the default setting. After power testing and luminance measurement in the default setting, the brightness should be turned to 100% and the luminance measured (as in the TV standard). This obviates the need for the operator to search for the 65% luminance level of the display.

Thank you for your consideration of these comments. We look forward to cooperating with the EPA during this process. As questions arise around these comments, please contact us for further discussion.

Sincerely,

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cc: Nina Ruiz, ICF