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

OFFICE OF
AIR AND RADIATION

April 21, 2015

Dear ENERGY STAR® Displays Partner or Other Interested Stakeholder:

The U.S. Environmental Production Agency (EPA) welcomes your input on the attached Draft 2 Version 7.0 ENERGY STAR Displays specification. Comments on Draft 2 are due to EPA **by May 22, 2015**.

The proposed Draft 2 requirements reflect feedback received on Draft 1 and were also developed in consultation with the European Commission. The Draft 2 Version 7.0 specification includes the following key elements:

- **Total Energy Consumption (TEC) Approach for Computer Monitors**: EPA proposes using a TEC approach for monitors in Draft 2. Stakeholder generally supported the use of a TEC approach for monitors as outlined in Draft 1, however, some expressed concern that a TEC approach could disincentivize future efficiency gains in low power modes. EPA is sensitive to this point; however, past experience suggests that for products with expanding functionalities, a TEC approach ultimately allows for more stringent requirements than a modal approach in combination with adders.

- **On Mode Requirements for Computer Monitors:** EPA received mixed feedback in response to the On Mode power requirements proposed in Draft 1. Some stakeholders advocated that the requirements be made more stringent, whereas others expressed concern that the requirements were already too stringent. In this draft, EPA has retained an efficiency requirement that is more challenging for larger screens, as proposed in Draft 1. This approach allows for a good selection of products across all sizes, including those in the larger sizes, from 35 brands. For Draft 2, EPA updated its dataset with the latest models for a total of 1051. As such, EPA proposes slightly revised On Mode power levels—expressed in a TEC approach--that recognize the current top performing 21 percent of products in the market. EPA seeks to ensure that ENERGY STAR remains a market differentiator for efficiency in monitors when the specification takes effect in 2016.

- **On Mode Requirements for Enhanced Performance Displays (EPDs):** Based on stakeholder feedback, EPA further classified EPD models in its dataset based on color gamut. Nearly half of all monitors in the dataset cover the sRGB gamut, indicating that this level of performance is no longer limited to premium models. Therefore, EPA proposes to revise its allowance for enhanced performance displays based on criteria for color gamut, with a 25 percent allowance for models meeting current EPD criteria with a color gamut that is 99 percent or greater of sRGB and a 65 percent allowance for models meeting the current EPD criteria with a color gamut that is 96 percent or greater of Adobe RGB. Using a TEC approach under this proposal, 12 out of the 40 products that currently meet the characteristics of Enhanced Performance Display would continue to qualify.

- **On Mode Requirements: Signage Displays**: EPA introduces a 5 percent allowance for signage displays with Automatic Brightness Control (ABC) enabled by default, since ABC can lead to additional energy savings. EPA also proposes that signage displays meet a power factor level of 0.7 to maintain gains in efficiency. Since data indicate that signage displays across all sizes and maximum luminance criteria are capable of meeting this power factor level. Further, EPA has retained a luminance allowance and also corrected an error in the Draft 1 On Mode power requirement such that it now accurately captures the top 25 percent of signage products in EPA's dataset

- **Definitions**: EPA received stakeholder feedback that defining signage displays as displays with pixel density less than or equal to 5,000 pixels per square inch does not adequately capture all signage displays today. Therefore, EPA is proposing a modified set of criteria of which the display must meet at least two in order to be classified as a signage display. In response to stakeholder feedback, EPA proposes a definition for color gamut to be reported in the CIE 1976 u' v' color space and a revised definition for a plug-in module to replace the proposed definition for an internal processor. EPA welcomes feedback on these updated definitions.

- **Test Method**: Because the comments that stakeholders provided on the test method were minor, DOE will be holding the release of the Final Draft test method until the Final Draft specification.

Stakeholders are requested to provide comments on the Draft 2 specification no later than May 22, 2015. Please send comments via e-mail to displays@energystar.gov. All comments received will be posted to the ENERGY STAR Product Development website, unless the submitter specifically requests that his or her comments remain confidential.

On May 7, 2015, from 11:00 AM – 2:00 PM U.S. Eastern Time, EPA will host a stakeholder webinar to present details on Draft 2 Version 7.0 ENERGY STAR Displays specification and address stakeholder questions and concerns. If you wish to attend this webinar, please **register prior to the webinar.**

The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. To track EPA's progress in revising the ENERGY STAR displays products specification and to review comments, please visit the Product Development Web site at www.energystar.gov/RevisedSpecs and click on "Version 7.0 is in development" under "Displays."

Thank you for taking the time to review and provide your feedback this draft specification. Please contact me at radulovic.verena@epa.gov or (202) 343-9845 with any questions or concerns. For any questions related to the Displays test method, please contact Jeremy Dommu at Jeremy.Dommu@ee.doe.gov or (202) 586-9870.

Best Regards,

Verena Radulovic, Product Manager
ENERGY STAR for Consumer Electronics

Enclosures:
Draft 2 Version 7.0 ENERGY STAR Displays Specification
Draft 1 Stakeholder Comment Summary and EPA Response