

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



OFFICE OF
AIR AND RADIATION

March 12, 2009

Dear ENERGY STAR[®] Displays Partner or Other Interested Stakeholder:

At the February 18, 2009 webinar, EPA agreed to distribute to displays partners and stakeholders a memo to clarify the newly proposed Sleep and Off Mode requirements and proposed luminance reporting requirements for displays greater than or equal to 30 inches viewable diagonal screen size (i.e., "large displays"). EPA would like to take this opportunity to fulfill that agreement, and also to propose a new definition for these larger displays, maximum screen size, and new maximum On Mode power consumption requirements.

Definition

In order to clarify what products are eligible under this product category of signage and professional displays, EPA is proposing the following definition:

For the purposes of this specification, these displays are defined as non-consumer, electronic/programmable displays that are at least 30 inches but not greater than 60 inches in diagonal size. These products are distinctly different than desktop monitors or televisions in their usage and settings. They are typically used in a variety of public and private settings, including but not limited to indoor environments such as restaurants, bars, hotels, clubs, museums, and educational settings, and outdoor environments as, for example, retail or transportation signage.

Maximum Diagonal Screen Size

EPA sets ENERGY STAR requirements based on available data representing models currently in the market during the specification development process. EPA analyzed data on 28 models to set efficiency requirements for displays between 30 and 60 inches diagonal. EPA has only three data points for models sized from 60 to 103 diagonal inches. As this limited data set does not represent the vast array of products in the market, EPA will currently not set a maximum On Mode power consumption requirement for displays larger than 60 inches diagonal. While collecting data pursuant to the development of Tier 2 of the Displays specification, EPA will continue to explore this market segment to determine whether setting an ENERGY STAR specification for these products meets ENERGY STAR's guiding principles.

Maximum On Mode Power Consumption Requirements

Since December 2008, EPA has been working with display manufacturers to establish a new On Mode power consumption requirement for large displays. EPA has data using the IEC 62087 test procedure from six manufacturers representing 28 models with sizes ranging from 32 to 105 inches. These models are representative of the market breakdown of technologies and resolutions. We requested power consumption data on the three types of test clips included in the IEC 62087 test procedure. While luminance varied considerably in the data set, power consumption was reasonably consistent across the three types of test clips. The data set is posted on the Product Development page at www.energystar.gov/productdevelopment. Based on the new data received and the maximum screen area cutoff, EPA is proposing a new maximum On Mode power consumption requirement for displays with diagonal screen sizes between 30 and 60 inches, inclusive, of: **$P_o = 0.27 * (A) + 8$** .

Luminance Boundary Levels

At the Feb 18, 2009 webinar, EPA raised the possibility of having displays tested at a default luminance not less than a prescribed percentage of maximum luminance. EPA proposed 80%, based on the levels proposed earlier in the week with the TV revision kickoff letter. EPA received considerable feedback about the problems associated with setting the default luminance boundary too high. It is not EPA's intention to set a default

luminance boundary under Tier 1. During the Tier 1 process, EPA will require Partners to test their products (at the mode most resembling actual use) using the IEC 62087 test procedure at the default luminance and to report the luminance levels set to EPA. During the Tier 2 specification revision process, EPA may propose a default luminance boundary based on the data collected, and in order to harmonize the specification with other ENERGY STAR specification levels (and possibly international levels).

Extend Effective Date to January 2010

The EU standard for standby is scheduled to take effect on January 7, 2010. Because of the global nature of these products, EPA anticipates a dramatic impact on the Standby levels for products sold in the US. EPA believes that the US market will move to meet this 1 Watt performance level. As the aim of the ENERGY STAR program is to identify top energy efficiency performers in the market, EPA has changed the Off Mode specification requirements to be the same 1 W as the EU Standby standard requirements. EPA is extending the effective date for this product category two months to **January 30, 2010** to coincide with the EU standard's implementation date.

Revised Maximum Off and Sleep Mode Power Consumption Requirements

In addition to receiving new On Mode data, EPA has also recently received new Sleep and Off Mode power consumption data for large displays using the IEC 62087 test procedure. Based on this data and the anticipated effect of the EU standby standard, EPA has decided to align the maximum Off Mode power consumption requirement for all displays regardless of their screen size to be 1W in Off Mode.

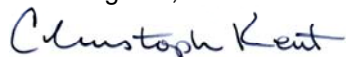
The data also support EPA's decision to lower the Sleep Mode requirement for large displays from 4W to 2W. According to the new data received, together with the new On Mode power requirements, the qualification rate for these displays under this specification is 25%.

Comment Submittal

Stakeholders are encouraged to provide written comments for EPA consideration to Christopher Kent at kent.christopher@epa.gov and Elliot Rector, ICF International, at erector@icfi.com by **March 26, 2009**. All comments will be posted to the ENERGY STAR Product Development Web site unless the submitter requests that their comments remain confidential.

If you have any questions or concerns about the issues addressed in this memo, please feel free to contact me at (202)-343-9046 or kent.christopher@epa.gov.

Best Regards,



Christopher Kent, EPA Product Manager
ENERGY STAR Product Specification Development