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August 10, 2009

Ms. Katharine Kaplan
ENERGY STAR Product Development
U.S. Environmental Protection Agency
1310 L Street, NW
Washington, DC 20460

Subject: ENERGY STAR TV Specification, Final Draft Versions 4.0 and 5.0

Dear Ms. Kaplan:

Thank you for the opportunity to comment on the ENERGY STAR TV Specification, Final Draft Versions 4.0 and 5.0 proposal, released July 20, 2009. The Consumer Electronics Association is the preeminent trade association promoting growth in the \$172 billion U.S. consumer electronics industry. More than 2,200 companies enjoy the benefits of CEA membership, including legislative advocacy, market research, technical training and education, industry promotion and the fostering of business and strategic relationships. Among their numerous lines of business, CEA members design, develop, manufacture, and distribute televisions, with standard and advanced features, across all technology platforms. Televisions and monitors generate approximately \$25 billion in U.S. sales annually.

As a long-time partner in energy efficiency, the consumer electronics industry is committed to the further success of the ENERGY STAR program. In particular, the existing TV specifications cover a large number of television models with a wide range of features and is therefore well suited for comment and input from CEA. We offer the following comments to guide Versions 4.0 and 5.0 of the ENERGY STAR TV Specification as its development is finalized.

As an initial matter, we would like to once again draw attention to the recent, unfortunate policy shift at the EPA. Traditionally, the successful ENERGY STAR program has focused on **energy efficiency**. More recently, the program has shifted to **energy consumption**, without regard for how efficiently energy is actually used. CEA is gravely concerned about the unannounced transformation of the ENERGY STAR program. This sea change in the ENERGY STAR program goals has occurred absent input from industry.

The ENERGY STAR program continues to advertize itself to consumers as helping inform "energy efficient choices [that] can save families about a third on their energy bill with similar savings of greenhouse gas emissions, **without sacrificing features, style or comfort**" [emphasis added].¹ Yet, as we have seen with the development of the Version 4.0 and 5.0

¹ See http://www.energystar.gov/index.cfm?c=about.ab_index

proposals, the program is now directly and deliberately targeting the very features and styles most prized by consumers when making television purchasing decisions. There can be no argument that screen size and picture brightness are among the most important features that consumers weigh when making purchasing decisions. The arbitrary luminance limits imposed in Versions 4.0 and 5.0, and the On Mode power cap for TVs above 50 inches imposed in Version 5.0 will clearly negatively impact these important features.

We have seen a highly respected program whose brand was once based on fact and objective scientific testing, transform into a program that is based on the highly subjective criteria of “what ENERGY STAR can credibly classify as a TV that delivers both consumer savings and benefit for the climate.”

Understandably, CEA members are left to wonder: When did this policy shift from energy efficiency to energy consumption limits occur? Which stakeholders contributed input to this policy shift? How did this policy shift occur without public input from the most significant class of stakeholder – TV manufacturers? Where did the proposed 108 watt limit on TVs greater than 50 inches originate?

Luminance

CEA continues to strongly oppose a luminance requirement as unnecessary and premature. As stated in previous comments, CEA members share a keen interest in preserving the high level of consumer satisfaction that has long characterized the television industry. Indeed, if consumers were unhappy with the default brightness settings of their newly purchased televisions, we would have heard it directly from our customers by now. All major TV manufacturers operate customer support call centers. We are unaware of any increased call volume to these centers that can be traced to an unsatisfactory customer experience tied to default brightness levels. Moreover, retailers have not reported any increase in customer returns that can be traced to unsatisfactory default brightness levels.

Customer satisfaction clearly remains the number one goal of television manufacturers. As such, manufacturers have a strong self interest in ensuring that TVs are sold with a default brightness level appropriate for home viewing. In the absence of complaints to TV manufacturers and TV retailers, there does not appear to be a problem with default brightness levels. Thus, we continue to recommend that Version 4.0 not include luminance criteria and instead revisit this feature when finalizing the Version 5.0 Specification.

While we do not support the inclusion of a luminance requirement at this time, we do generally support the proposed testing procedures, as outlined in the EPA email dated July 31, 2009. Below is selected text from the testing procedures with suggested changes:

Measuring Luminance

1. *Ensure the television is set to the home mode, or the default mode as shipped.*
2. ~~*Stabilization Period: There was not a final conclusion on the most appropriate stabilization period prior to conducting the luminance measurements. Two different options on stabilizing the television are noted below. EPA is seeking stakeholder input on a preferred method.*~~

- i. 2. The following steps must be performed Immediately following ON Mode power testing using the dynamic broadcast-content video signal as outlined in Section 4.E.2. of the ENERGY STAR specification.

OR

- ~~ii. Wait 1 hour following the ON Mode power testing using the dynamic broadcast-content video signal as outlined in Section 4.E.2. of the ENERGY STAR specification. After the one hour period, measure the home mode luminance following Steps 3 and 4 below. Then, switch the television to the retail setting, run the IEC 62087 broadcast loop, display the three bar signal, and measure the retail mode luminance.~~
3. Display the three bar video signal provided in IEC 62087, which displays three bars of white (100 %) over a black (0 %) background.
4. After the three bar video signal has been displayed for 10 minutes, Measure the luminance (L_{home}). (See *Note)
5. Within one minute of measuring L_{home} , set the television to retail mode, or the brightest selectable preset mode, ~~and repeat Steps 3 through 4 to measure the retail mode luminance (L_{retail}) and display the three bar video signal.~~
6. After the three bar video signal has been displayed for an additional 10 minutes, measure the luminance (L_{retail}). (See *Note).

*Note: For television sets that are known to stabilize within 10 minutes, this duration may be reduced if the resulting measurement can be shown to be within 2% of the result that would otherwise be achieved using the full 10 minute duration.

- i. ** Note: When possible, measurements of luminance shall be made without disturbing the LMD's measurement position on the display ~~whilst~~ while switching between the home-mode and retail-mode. If this is not possible, the tester should replicate the measurement position of the LMD so that measurements in the home-mode and retail-mode are in the same position on the display.

We support all other portions of the proposed luminance testing procedures outlined in the EPA email dated July 31, 2009.

Download Acquisition Mode (DAM)

Section 3(E) of the draft specification allows TVs to automatically exit the Sleep Mode according to a predefined schedule to communicate through a network protocol. We

appreciate the EPA's latest revision which now increases the limit of additional maximum allowable energy level when in DAM to 80 watt-hours per 24 hour period. This limitation is sufficient to meet the needs of the services currently offered, and anticipated for future offering, by the DAM feature.

However, we are concerned about the new requirement that DAM must be disabled upon shipping and can only be enabled by a consumer activating this feature and only after a warning message that the feature will cause an increase in power consumption. Moreover, the proposed limit of 20 watt-hours per 24 hour period for Version 5.0 of the specification is offered without any public data supporting such a requirement. The data collected from a single anonymous device manufacturer should not be taken as representative of the entire industry. The CEA requests that EPA increase the 20 watt-hour specification in Version 5.0 to 40 watt-hours. At the same time, the CEA requests that the EPA remain open-minded to adjusting this limit before Version 5.0 takes effect, to allow for a review of any currently undiscovered facts relevant to DAM power consumption.

CEA urges the EPA to allow televisions to be shipped with DAM enabled so as to allow TV manufacturers to show value and recoup the costs for their existing research and development efforts in Electronic Program Guide applications and technologies

On Mode Power Consumption

With regard to the Version 5.0 eligibility criteria, CEA continues to believe that it is premature to set an On Mode limit with an effective date almost three years in the future. As noted previously, the television market is currently in a very dynamic design cycle. It is impossible to accurately predict what an appropriate On Mode limit should be to meet ENERGY STAR program goals in 2012. CEA again suggests that it would be more appropriate to review the available data at a later date, perhaps 12 months before the proposed effective date, and set a limit at that time.

As CEA has noted in the past, the ENERGY STAR program's goal must be to optimize energy efficiency **across all screen sizes**, thereby giving consumers appropriate guidance when making energy-wise purchasing decisions for **any television size category**. However, the Version 5.0 proposal to cap energy use at 108 watts for televisions greater than 50 inches will not provide meaningful guidance for consumers seeking televisions in this size category.

While CEA strongly objects to any artificial cap, we believe that the EPA is committed to such action, regardless of its negative consequences. Accordingly, we offer an alternative which, at a minimum, holds out the possibility that some large screen TVs employing advanced features might still be eligible for future participation in the ENERGY STAR program. Specifically, we suggest that a cap of 147 watts for televisions greater than, or equal to, 60 inches is aggressive but may be achievable for some television models by May 2012.

Again, CEA urges the EPA to properly align the On Mode power consumption limit with the ENERGY STAR program goals.

Display Power Management Signaling

Section 1(A) of the draft specification states that, beginning with Version 5.0, televisions with a computer input port may qualify as ENERGY STAR as long as they incorporate Display Power Management Signaling (DPMS), a standard from the Video Electronics Standards Association (VESA) for managing the supply of power to a video monitor through a computer graphics card.

CEA member companies continue to study this issue. We believe that only a small fraction of televisions will contain VGA and DVI ports during the time frame covered by Version 5.0. Furthermore, we believe the use of televisions as computer monitors will represent only a small fraction of the overall viewing time. This does not warrant the additional cost of the proposed DPMS requirement. Accordingly, we request that this requirement be removed from possible inclusion in Version 5.0.

CEA-2037

CEA-2037, *Determination of Television Average Power Consumption*, will be sent to CEA standards committee R4 Video Systems shortly for a 30-day email ballot. CEA-2037 specifies an unambiguous recipe for obtaining the power numbers that get publicly reported for a given TV model. The EPA should require power measurement using the methods specified in IEC 62087, Ed 2.0, Section 11 as defined by CEA-2037. Thus, CEA-2037 will serve as a guide implementation of IEC 62087.

The ENERGY STAR program for televisions has been, and remains, a huge success. However, we are very concerned that a new policy focus on energy use, rather than energy efficiency, threatens the long-term usefulness of the program especially with respect to the consumer electronics sector. The features and styles prized by consumers are being attacked by an ill-informed policy shift seeking to define products and services that are "socially responsible." Further improvements in energy efficiency can indeed be made without such drastic action.

CEA member companies have a strong interest in the continued success of the ENERGY STAR program. The rapid pace of innovation that led to strong participation in Version 3.0 of the television specification is evidence of our commitment to energy efficiency. As always, please do not hesitate to contact us if you have any questions or requests.

Sincerely,



Bill Belt
Senior Director, Technology & Standards

cc: Bijit Kundu, ICF International