

Sharp Labs of America

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July 7, 2009

Ms. Katharine Kaplan
United States Environmental Protection Agency
Office of Air and Radiation
Washington, DC 20460

Dear Ms. Kaplan:

Thank you for your efforts in developing the next versions of the Energy Star specification for televisions. The comments that follow are on behalf of ("SHARP") Sharp Electronics Corporation, Sharp Laboratories of America and Sharp Corporation.

SHARP would like to affirm our support for CEA's written comments regarding the ENERGY STAR TV Specification, Draft 2 Version 4.0 proposal. This includes CEA's position on luminance, Download Acquisition Mode, On Mode power consumption, and DPMS.

SHARP remains concerned about the coupling of Retail and Home Modes. SHARP agrees with CEA's position that there are currently no televisions on the market that are tuned to be unacceptably dim in order to gain Energy Star compliance. That said, we understand EPA's desire to avoid the possibility of motivating the production of unacceptably dim TVs in the future.

Any luminance-related requirements in Energy Star 4.0 for Televisions should meet the following criteria:

- The requirements should not burden retailers with passwords or other restrictions that could result in Energy Star TVs being displayed at retail in uncompetitive modes. The current required confirmation of retail mode is an adequate precaution.
- The requirements should not make it difficult for consumers to adjust their TVs to their particular lighting conditions. While Automatic Brightness Control is preferred, manufacturers cannot accommodate the viewing needs of all consumers with a single ambient-light-to-brightness curve.
- Any luminance measurement methods should be well-defined and should be sound for all currently available television technologies. This includes the consideration of the effect of power limiting circuits. Televisions with Automatic Brightness Control should also be accommodated.

- If an adequate luminance measurement cannot be designed and confirmed, power should be used as a proxy for luminance.
- Most importantly, any luminance requirements should be only to ensure that TVs are not extremely dim. Energy Star should not limit the "look" of the TVs from responsible manufacturers.

By designing any home/retail mode requirements only to eliminate the possibility of extremely dim televisions, and avoiding additional burdens to retailers and consumers, EPA can meet its goals and avoid unintended consequences, such as limiting potential energy savings to consumers.

Regarding DAM, SHARP supports the concept of limiting watt-hours per day, rather than limiting watts and time independently.

SHARP is encouraged by EPA's willingness to accommodate the unique requirements of the hospitality market. SHARP believes that the key differentiator for a hotel TV is the inclusion of a connector supporting protocols compatible with hotel head-end systems. [\[SmartPort? RJ-45\]](#) Televisions with this feature should be allowed to consume some amount of power 24/7 to maintain communication with the hotel server.

Regarding the proposed equation for P_{max} , SHARP remains concerned that the result is not well-balanced between large and small TVs. SHARP supports CEA's proposal of $P = 0.17A + 5$. It is too early to set limits for version 5.0.

It is also too early to require DPMS for Energy Star 4.0 qualification. To our knowledge, the vast majority of televisions – and television chipsets – do not currently include DPMS support. Such a requirement would result in very low initial qualification rates and rushed implementations could add significant cost and customer satisfaction difficulties. By requiring DPMS in Energy Star 5.0, the industry will have time to respond with low cost, high quality DPMS solutions, likely appearing in the 2011 model year.

To summarize:

- Current televisions are not overly dim
- Any luminance requirements should only be to eliminate the possibility of extremely dim televisions
- Luminance-related requirements should not burden retailers or consumers
- Luminance measurement procedures must consider power limiting circuits and automatic brightness control.
- SHARP supports the concept of limiting W-h/day in DAM
- SHARP supports accommodation of the hospitality market
- The On-Mode power limit, P_{max} , should be set with a balance among all television screen sizes. It is too early to set On-Mode power for version 5.0.
- DPMS should be deferred until version 5.0.

Thank you for your efforts in developing the next versions of Energy Star for televisions. SHARP looks forward to continued power savings across the industry, and fully supports the Energy Star program.

If you have any questions or concerns, please contact me by phone at 360.817.8496 or by e-mail at jonf@sharplabs.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Fairhurst". The signature is written in a cursive, flowing style.

Jon Fairhurst
Sharp Laboratories of America