SHARP LABORATORIES OF AMERICA

Via e-mail:
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United States Environmental Protection Agency
Office of Air and Radiation
Washington, D.C. 20460

Subject: **ENERGY STAR Final Draft Version 6.0 Specification for Displays**

COMMENTS OF
SHARP LABS OF AMERICA

SHARP is an enthusiastic ENERGY STAR Partner and is committed to building high-efficiency, environmentally advanced products that deliver top performance to our customers. The ENERGY STAR program continues to be the most effective approach for SHARP to communicate the low power consumption of our products to retailers and consumers.

On June 14th, EPA released the Final Draft of the Version 6.0 ENERGY STAR Specification for Displays.

SHARP offers the following comments:

Size vs. Power

SHARP's main concern continues to be with the 61-inch size limit. As shown at CES, SHARP now has 70- and 80-inch models in the marketplace: the PN-E702 and PN-E802 displays and the PN-L702B and PN-L802B white board displays. We understand that EPA has limited information about the power consumption of larger screen sizes, but this should not disqualify all displays 61 inches and above. New specifications should anticipate, rather than lag, the market.

It is obvious in theory that larger screens require more, rather than less, power. This is also seen in practice within most any manufacturer's multi-sized product family groups. For this reason it is safe for EPA to simply add a power cap at the point at which EPA has limited additional data.

By limiting power but not size, the Energy Star brand will continue to save power for end buyers. As an example, if a customer specified a 240-inch diagonal video wall, it could be built with sixteen 60-inch displays or only nine 80-inch displays. If all the displays consumed 400W, the 60-inch solution would require 6,400W for the 240-inch video wall while the 80-inch solution would require 3,600W. This savings of 2,800W should be encouraged by Energy Star. In short, larger displays can save power in video wall applications and should not be excluded from the Energy Star program. EPA should limit power, not size.

Given that the maximum power for large signage displays is (0.27 x A) + 8.0 and a 62-inch, 16x9 display would have an area of 1590 square inches, signage displays above 61-inches that consume less than 437W should be allowed to qualify.

Additionally, an energy cap, rather than size cap, would encourage manufacturers to prioritize energy efficiency for displays over 60 inches. Large, qualifying models would be

entered into the Energy Star database, ensuring that EPA will receive data on large displays as screen sizes inevitably grow.

Definitions

SHARP notes that pixel the pixel density limit of 5,000 pixels per square inch for signage displays could disqualify future products. There is industry interest in 4K standards at both 3,840 x 2,160 (QFHD) and 4,096 x 2,160 resolutions. At the recent NAB tradeshow, there were numerous cameras, displays, and projectors shown that support these resolutions. Today, 4K has a significant installation base in the US movie theater market. But even without the jump to 4K, there are common resolutions of WQHD, WQXGA, QUXGA that could lead to efficient products that would not be able to meet Energy Star qualifications, simply due to superior resolution.

SHARP recommends that the 5,000 pixel limit for signage displays only exist are greater than or equal to 12 inches or less than 30 inches. At greater than or equal to 30-inches, a signage display should be allowed greater pixel density so long as it "is typically marketed as commercial signage for use in areas where it is intended to be viewed by multiple people in non-desk based environments, such as retail or department stores, restaurants, museums, hotels, outdoor venues, airports, conference rooms or classrooms."

Additionally, signage displays that have sufficiently wide viewing angles, high native resolution, and wide color gamut should also be categorized as Enhanced-Performance Displays and be allowed the Pep adder.

Touch Screen

SHARP is encouraged that EPA will consider the additional power used for touch screen displays and will be pleased to provide the related information to EPA.

Conclusion

SHARP strongly supports the Energy Star program and believes that is it best served by

- limiting power, not size,
- updating the definitions to allow high pixel density signage,
- allowing signage displays qualify as Enhanced-Performance Displays, and
- providing an allowance for white board functionality in the next version.

We hope that EPA strongly considers SHARPs comments as we work together to create an effective, accurate, and efficient next version of the Energy Star program for displays.

Respectfully submitted,

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