

## Panasonic Comments on ENERGY STAR Displays Draft 2 Version 5.0 Specification

October 29, 2008

Chris,

1. The vast majority of large format professional PDPs (over 40") are used with video content in hospitality (including hotels, bars/restaurants, etc.) and studios (video monitoring), yet the draft clearly targets only applications of high APLs for computer monitors and signage. Unlike LCDs which use the same power for any APL, PDP power is extremely content-dependent. So power usage on video (TV) content will be significantly lower on PDP compared to signage, and often much less than LCD.

The 2 test patterns chosen with high APLs will unfairly penalize PDPs for their primary market that uses a much lower APL (i.e. 33% average APL for video vs. 80% APL for at least one of the chosen test patterns).

Because of the large differential in power usage for PDPs depending on their application, it appears to me that at least 2 categories need to be defined, each with their own testing criteria. Computer monitor/signage apps could fall under the current test procedures while video/TV/studio use would use a test procedure commensurate with the ver. 3.0 TV spec where actual TV content is measured rather than high APL test patterns. EPA could either create a separate spec for each, or have 2 tiers/measurement criteria within the same spec (i.e. 5.0a, 5.0b).

2. I don't understand the reasoning for requiring widely varied luminance levels based on display size. It varies from 100 cd/m<sup>2</sup> for CRTs to 350 cd/m<sup>2</sup> for displays over 30" which is close to full intensity of a PDP. While large LCDs can easily achieve this luminance without increasing power, PDPs once again would be operating at close to full power to try to meet 350 cd/m<sup>2</sup> on the given test patterns if they can meet it at all due to the high APL of the patterns.

I strongly recommend using one luminance value for power measurements regardless of the display size.

We are trying to get our factory to provide supporting data for these issues. But with or without such data, I feel these issues need to be addressed since PDP power usage is very dynamic depending on the application and content. As Panasonic plasmas command the largest market share of large format professional displays, it seems necessary to have a spec that can allow PDPs to qualify for Energy Star. I would be happy to have further discussion with you in advance of Nov 12 if that is helpful to you.

Best regards,  
Jim

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