

June 30, 2014

Ms. Verena Radulovic
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U.S. Environmental Protection Agency
Via e-mail: televisions@energystar.gov

Re: Panasonic Comments on ENERGY STAR Televisions V7.0 Draft 1 Eligibility Criteria:

Panasonic appreciates the opportunity to comment on ENERGY STAR Televisions V7.0 Draft 1 Eligibility Criteria. As a leading manufacturer and marketer of all television technologies, Panasonic is a strong supporter of the ENERGY STAR brand and its program objectives, which have been exemplified in the current lineup of our most efficient TV models ever.

1 DEFINITIONS:

1)A)2: Hospitality Television:

Panasonic believes the current definition is adequate to distinguish hospitality TVs from consumer TVs.

Power Overhang State:

Panasonic believes that the definition of Power Overhang State should not be removed. This concept may prove useful in future discussions about Standby power, Quick Start, etc.

1)B)4a Download Acquisition Mode:

We support the current definition and test method for Download Acquisition Mode.

1)C)4 Full Network Connectivity:

Panasonic believes that it is confusing to divide Standby-Active, Low Mode into two sub-modes with and without Full Network Connectivity. The definition of Standby-Active, Low Mode requires network connectivity in order to switch the TV into another mode with an external signal. Accordingly there should only be a single power criteria for Standby-Active, Low Mode.

1)D)2 and 1)D)3 Gesture Recognition and Voice Recognition:

What plans does ENERGY STAR have to test Gesture Recognition and Voice Recognition features? Will consideration be given if these features can be used to save energy if they can help determine if a viewer is no longer present?

1)G)4 Effective Vertical Resolution:

We support the concept of Effective Vertical Resolution, and believe it should include “8K” in addition to “4K” resolution. This may be useful in providing an alternative method for classifying UHD and higher resolution TVs in order to qualify for an added offset to the On Mode power maximum.

2.2 Excluded Products:

Panasonic supports the elimination of the exclusion for products that do not have a power state meeting the definition of Standby-Passive Mode. In other words, products that do not have a Standby-Passive Mode may still qualify for ENERGY STAR.

3.2.5 Standby-Passive Mode and Standby-Active, Low Mode Settings:

We support the proposal to display on-screen information and would recommend that similar methods as in section 3.2.4 Preset Picture Setting Menu be allowed. For example, such information may be indicated by including the ENERGY STAR mark in the name or description of the default as-tested setting or in the form of a message displayed each time any setting other than the default as-tested setting is selected.

We do not support the concept of requiring that consumers be prompted to select a discrete time period within a 24-hour cycle for the setting to be enabled. It would be very difficult to implement this in a uniform manner across a broad variety of user interfaces. Also, some TVs may not have internal clocks which stay active when the TV loses power.

3.2.6 Thin Client Capability and MVPD Ready Information:

We support the adoption of a Thin Client Capability within a television, however it will be quite difficult to adequately report all of the relevant features in the context of the ENERGY STAR data base. There are so many possible implementations and features associated with Thin Client Capability, resulting in a very complex reporting requirement.

3.2.7 Standby-Active, High Mode Capability:

If this becomes a requirement, we would recommend modifying it to allow the TVs to automatically return to the default as-tested Standby-Active, Low Mode or Standby-Passive Mode following a manufacturer firmware update.

3.3 On Mode Requirements:

We believe that unlike in previous years, the rapid decline in TV On Mode power may be limited by a more mature LCD technology. The introduction and subsequent adoption of LED backlighting technologies allowed a dramatic increase in efficiency. It remains to be seen that this success will be repeated in the next year when ENERGY STAR TVs V7 becomes effective.

It is our feeling that the proposed On Mode power requirements are too strict with only 15% of the HD televisions in the ENERGY STAR V6 certified products database projected to qualify.

The pass rate for UHD TVs is even more severe. Many UHDs will feature Wide Color Gamut and High Dynamic Range due to the BT2012 4K Broadcasting System Standard and market demand. These features limit the transmissivity of the LCD panel causing a drop in efficiency.

UHD (4K) TVs also require four times the amount of memory and a corresponding increase in processing speed to support four times as many pixels as compared to HD. This is another cause of greater power requirements for UHD.

Similarly, 8K TVs will require sixteen times the amount of memory and a corresponding increase in processing speed to support sixteen times as many pixels as compared to HD.

In addition, UHD TVs will employ HEVC decoding which also requires greater power for signal processing.

To keep the ENERGY STAR spec relevant to rapid consumer adoption of new technologies like UHD, Panasonic urges ENERGY STAR to consider appropriate wattage “adders” and other accommodations to facilitate their qualification to the version 7.0 spec.

3.4 Standby-Passive Mode Requirements:

We support the reduction of the Standby-Passive Mode power to 0.5 watts maximum. However, we note that Hospitality TVs require constant network connectivity to the host server. They are in Standby-Active, Low Mode rather than Standby-Passive Mode. The reason for this concern is that the test to verify the presence of Standby-Active, Low Mode (section 4.2.2) does not make provisions for coaxial cable, RJ11, etc. connected networks used by many hospitality TVs.

3.5 Standby-Active, Low Mode Requirements:

We believe that 1 watt is not sufficient for Standby-Active, Low Mode. The memory size increases for both network connectivity and higher resolution. It may not be practical to segment this memory, resulting in increased power.

We recommend that ENERGY STAR harmonize with the European Union Commission Regulation (EU) No 801/2013 (Networked Standby of 6 watts in Jan 1, 2015; 3 watts in Jan 1, 2017).

Additionally, we recommend that this requirement be only for TVs with Standby-Active, Low Mode enabled by default. If Standby-Active, Low Mode is disabled by default, its power should be measured and reported, but not be subjected to the power requirements of section 3.5.1. This is consistent with the DOE Appendix H section 5.4 Special Functions which references section 11.4.6 of IEC 62087 Ed. 3.0 which states; "Special Functions not mentioned in Clause 11 shall be in the position adjusted by the manufacturer for shipment to the end user."

3.5.3

Panasonic cannot find section 3.5.3 in either Versions 6 or 6.1. However, we agree that this should not be included in Version 7.

3.7 Download Acquisition Mode (DAM) Requirements for Hospitality TVs:

We agree that the TEC equations 4 and 5 are not needed.

4.2 Additional Required Test for TVs with Standby-Active, Low Mode:

We agree with the inclusion of this test. Please note that the CEA-2037-A test is actually section 6.7.5 (not 6.6.5).

We do have an issue that Hospitality TVs with coaxial cable, RJ11, etc. network connections appear to be not covered by this test which only specifies WiFi or Ethernet connections implementing IP communications. We recommend that some accommodation be made to allow the testing of Hospitality TVs with coaxial cable, RJ11, etc. network connections.

Hospitality TVs use a variety of activated hospitality protocol software such as Multiple Television Interface (MTI) to provide direct access to Video-On-Demand (VOD) systems or a digital media player designed for hospitality-specific applications. This is described in the section 1)A)2)b Hospitality Television definition.

Perhaps the easiest way to test Standby-Active, Low Mode for hospitality televisions is to simply stop the DAM communication during the DAM test. The network should stay connected, but the downloading/uploading of data (DAM) will not be occurring in the Standby-Active, Low Mode.

6 Effective Date:

We believe that there is not sufficient lead time between the final specification (Fall 2014) and the effective date (late Summer 2015), particularly if UHD technology is to be accommodated by the spec in a meaningful way. Also, there are several proposed changes to power levels, functionality, and user interfaces which will require more

time to design and implement. We propose that January 2016 is more realistic and will encompass the introduction of the 2016 models.

Panasonic has been a longtime proponent of the ENERGY STAR program and believes its partnership with EPA has provided a valuable tool by which consumers can make better informed choices about their purchases of energy efficient products.

As always, Panasonic appreciates the opportunity to comment on the ENERGY STAR Televisions V7.0 Draft 1 Eligibility Criteria and welcomes the opportunity to further discuss our views with you.

Sincerely,

Mark J. Sharp
Group Manager
Panasonic Corporation of North America