



Sony Electronics Inc.,
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June 30, 2014

Ms. Verena Radulovic
ENERGY STAR for Consumer Electronics
U.S. Environmental Protection Agency
Washington, DC
televisions@energystar.gov

Dear Ms. Radulovic:

Sony Electronics Inc., a leading manufacturer of consumer electronics and a proud partner of a number of ENERGY STAR programs appreciates the opportunity to comment on the Draft1 v7.0 of the ENERGY STAR Television Specifications.

On Mode Requirements

Sony believes the proposed EPA on mode requirements in Draft 1 would be extremely restrictive. If the proposed levels are adopted, more than eighty percent of currently qualified televisions will need to be removed from the EPA database. While manufacturers continue to improve the energy efficiency of televisions, future improvements will likely be less significant compared to those improvements seen in previous years.

We thank the EPA for analyzing the dataset of version 6.0 qualified models to forecast future qualifications. However, instead of interpolating v6.0 data, we strongly suggest the EPA perform a new analysis based on models qualified in v6.1. Televisions qualified in v6.1 are tested per DOE test procedure for televisions. The new v6.1 data analysis will provide **actual** energy consumption and a better tool for the EPA to create more realistic on mode requirements which will allow qualification of the top 25% performers as originally intended by the EPA.

Undoubtedly, UHD televisions require additional energy for the panel to produce the same amount of light as HD televisions. Aperture ratio in some UHD panels may be smaller compared to HD panels. Panels with the same number of LEDs will pass through less light on a UHD panel. To obtain a desirable light output/luminance on a UHD panel, the LEDs must be driven higher causing the energy consumption to increase. Additional 4K processing devices and advanced audio systems in UHD televisions require additional energy which affect the overall power consumption. Dimming circuits in some cases can affect the power consumption as well. Please refer to the attached document for additional information.

No UHD television on the market today can achieve the power levels proposed in Draft 1. We ask the EPA to consider these facts in consideration to introduce more realistic power levels for HD and UHD televisions.

Network Functionalities in Standby-Active, low

Sony does not have particular comments at the moment regarding the EPA's plan of introducing the ECMA-393 method for determining full network access. However, we understand that network functionalities are synonymous of Standby-active, low mode. To our knowledge, there are not televisions in the market today with a physical internet connection that maintain interaction with the IP address, even though the EPA dataset suggests there are televisions in the market with Standby-active, low mode. We believe there was confusion with the DOE test procedure in determining whether a television met the Standby-passive or Standby-active, low mode. Certain models included in the dataset indicate the Standby-passive and the Standby-active, low mode power consumptions are the same. Simply, this is not possible. Our engineering investigations indicate additional energy is required to maintain full network



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access. Our analysis shows energy levels between 0.5 watts and 3 watts are required to maintain full network access.

Standby-Passive Standby-Active, low Mode Requirements

Most televisions on the market today consume 0.5 watts or less in Standby-passive mode. Sony agrees with the proposal to reduce the current power consumption requirement in Standby-passive mode from one watt to 0.5 watts.

However, Sony is extremely concerned with the proposal to limit the power consumption requirement to one watt for Standby-active, low mode. As mentioned on the previous section of this letter, we don't believe there are televisions on the market today which maintain a Standby-active low, mode. Experimental data suggests that power levels between one to 6 watts may be required for this mode. As televisions are increasingly becoming "feature-rich" and provide many more Apps to allow interaction with other devices, we can only anticipate that more energy will be required.

On a side note and as commented during the webinar, a potential conflict with other regulations in place may prevent manufacturers from deploying certain features and functions in Standby-active, low mode. It should also be noted that European regulations allow for a maximum of 6 watts in Standby-active low mode.

Sony believes the EPA should wait until there is significant data on the market about televisions with Standby-active, low mode before setting a limit. Setting a limit prematurely may stifle innovation and significantly hinder or eliminate televisions with new features from the market. Should the EPA feel compelled to set a limit now, we strongly request the EPA to consider a 3 to 6 watt limit.

On-screen Informational Requirements and Low Power Designs

As stated on the on mode requirement section, Sony believes the on mode proposals in Draft 1 are extremely ambitious. If the proposed on mode requirements become final, more than eighty- percent of current models will not meet the specifications. Models in production which do not qualify to version 7 when it takes effect must have product literature, labels, markings, and user interface menus referencing to ENERGY STAR removed. The process of removing materials with any association to "ENERGY STAR" or "ENERGY STAR certification" has proved to be burdensome and extremely costly to manufacturers. While proper planning practices have yielded less scrapping of printed ENERGY STAR materials, manufactures must face the fact that user interfaces and menus must be modified. Additional engineering resources are needed, and specifically assigned to remove languages or marks related to ENERGY STAR.

We agree consumers should be informed about features and functions that can affect the power consumption of the television. Today, we provide such information on the instruction manual. Sony believes there are other ways to provide the same message to consumers that will not necessitate software and user interface modifications for products that fail to meet a future specification or when a design modification causes the product to consume more energy. Rather than requiring manufacturers to display on-screen information that enabling a feature "may increase energy consumption beyond the limits required for ENERGY STAR certification", manufacturers can display language that reads "may increase the energy consumption of your product" or the like. We request the EPA to apply this change throughout section 3.2 and other places where it may apply. This simple change in language will continue to provide consistent messages about energy use as required by the EPA and will remove unnecessary engineering activities for manufacturers of televisions that will not meet the future specification.

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Thank you in advance for your careful consideration of our comments. Should there be a need to discuss these comments further, please contact us at your earliest convenience.

Sincerely,



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Service Engineering, Staff Engineer



Michael DeRosa
North America Region Product Compliance
Service Engineering, Senior Manager