SAMSUNG

April 5, 2017

Verena Radulovic
ENERGY STAR
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Sent by e-mail to televisions@energystar.gov

**Re: Environmental Protection Agency's ENERGY STAR Draft 1 Version 8.0 Televisions Specification**

Dear Ms. Radulovic:

Samsung Electronics America ("Samsung") appreciates the opportunity to provide these comments on the Environmental Protection Agency ("EPA") ENERGY STAR Draft 1 Version 8.0 Television Specification ("Version 8.0").

Samsung is a world leader in technology and has been the top television manufacturer in the United States for over ten years. Committed to providing energy efficient televisions to U.S. consumers, Samsung is the winner of the ENERGY STAR Partner of the Year Award for Sustained Excellence in 2013, 2014, 2015 and 2016.

Samsung respectfully submits the comments below.

## I. Alerting Consumers to Changes in Power Consumption: 3.2.7

EPA proposes in Section 3.2.7 that a television shall alert the user that energy consumption will increase when activating a more energy consuming special function.

EPA's proposed definition of "special function" is very broad. It states that any function that is "related to, but not required for, the basic operation of the device" is a special function. This definition is unclear and thus creates a challenge for manufacturers in determining when an alert would be required. Moreover, as there is no standard test method for the energy consumption of most functions of a television other than the display itself, manufacturers would not know which special functions increase the energy consumption of the television enough to warrant an alert.

A more tailored and practical approach would be to outline the specific display-related functions about which manufacturers must alert consumers. For HDR upscaling, the EPA should gather more data before determining whether this feature consumes enough power to justify any alert.

Section 3.2.7 also proposes to require alerts for gesture control and voice recognition. However, Samsung is not aware of data suggesting that these features consume a significant amount of

energy. Moreover, these are accessibility features that help people with disabilities to operate their television. Accordingly, these features have benefits to consumers who need them activated for their own use. Samsung strongly suggests that the EPA not require alerts that would discourage such consumers from using these functions.

## II. Luminance Requirements: 3.6.3 and 3.6.4

Version 8.0 outlines new requirements for luminance in Sections 3.6.3 and 3.6.4. However, the Automatic Brightness Control ("ABC") function will have its greatest effect at the lowest ambient lighting condition, 3 lux. Therefore, EPA should consider simplifying the testing and setting a ratio between luminance with ABC enabled at 3 lux and luminance in the Brightest Selectable Preset Picture Setting. We recommend a ratio of approximately thirty percent as appropriate and technologically feasible.

Additionally, there would be great challenges with the proposal to require a fixed minimum luminance of 150 cd/m2. Any fixed minimum luminance creates a potential burden of testing not just each model of television, but every unit of every model. This is because—unlike the ratio of luminance at the brightest level to the level with ABC enabled, which would typically be a constant ratio across all units of a TV model—the absolute value of luminance may vary significantly from unit to unit. Instead of only testing the ratio once for a given model to ensure that it complied with the specified ratio, it would become necessary to test every unit to ensure it met the fixed minimum, at least for models that are close to the limit. A ratio alone is far more practical and less burdensome to test.

## III. Energy Saving Features: 3.2.3

Version 8.0 proposes that a television may not be certified with any detectable or undetectable energy saving features unless that feature provides comparable energy savings during "typical viewing experiences" as when tested according to the IEC test clip (Appendix H to Subpart B of 10 CFR Part 430). EPA also proposes that the prohibition apply irrespective of whether the function's primary or intended purpose is energy savings.

This proposed requirement would be very difficult to meet because there is no standardized methodology for manufacturers to determine "typical viewing experiences." Viewing experiences can vary widely from consumer to consumer, and different manufacturers may have different notions of what a typical viewing experience is. The goal of the IEC test clip is to provide a uniform standard that is representative of real-world viewing. We would encourage the EPA to participate in a process to revise the IEC test clip in order to more clearly define typical viewing experiences based on stakeholder input. Once the IEC test clip is revised, it can then be possible to test the energy consumption of the television in a repeatable way.

Samsung appreciates the opportunity to comment on EPA's ENERGY STAR Televisions Draft 1 Version 8.0 specification. We would gladly welcome the opportunity to discuss these matters further.

Respectfully submitted,

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