

Appliance Standards Awareness Project  
American Council for an Energy-Efficient Economy  
Consumer Federation of America  
Northeast Energy Efficiency Partnerships

May 26, 2017

Ms. Verena Radulovic  
United States Environmental Protection Agency  
Office of Air and Radiation  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

**RE: ENERGY STAR Specification for Televisions, Version 8.0**

Dear Ms. Radulovic:

This letter provides comments from the Appliance Standards Awareness Project (ASAP), the American Council for an Energy-Efficient Economy (ACEEE), the Consumer Federation of America (CFA), and the Northeast Energy Efficiency Partnerships on the ENERGY STAR for televisions version 8.0 specification second draft. This document complements the April 5, 2017 comments submitted by ASAP on the first draft of the version 8.0 specification.

We strongly support ENERGY STAR's work on the development of this new specification version and look forward to the final draft. In this second draft EPA has addressed several important weaknesses identified in the first draft and significantly strengthened the televisions specification. However, the current draft still lacks sufficient measures to prevent changes in technology and user behavior from undercutting expected energy savings.

Customer satisfaction with a television's picture quality plays a strong role in determining whether or not the television is operated efficiently. Research by the Natural Resources Defense Council<sup>1</sup> shows that some manufacturers seek to circumvent the intent of the ENERGY STAR specification by designing televisions that are energy efficient when subjected to the DOE test procedure, but not under typical viewing conditions. We strongly recommend that EPA add additional constraints to prevent such televisions from carrying the ENERGY STAR label.

***Require recertification if software updates increase energy consumption***

We support EPA's statement during the May 15 webinar that manufacturer partners should be required to update their ENERGY STAR qualification if a software update increases a television's energy consumption. Today's televisions usually go through an initialization sequence after being connected to the internet and turned on for the first time that includes downloading software updates. Multiple additional software updates may be installed over the television's lifespan.

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<sup>1</sup> <https://www.nrdc.org/resources/secret-costs-manufacturers-exploiting-loopholes-governments-tv-energy-test>

From subsequent communication, we understand that no specific requirement regarding software updates is included in the second draft of the ENERGY STAR version 8.0 for televisions specification. We understand that EPA does include such a requirement in the 2011-5 Directive on Measured and Reported Values, and in additional guidance that ENERGY STAR provides to Certification Bodies.

We support this requirement because the issue of energy consumption change following a software update is not restricted to the televisions product category. More and more devices of all types are designed to operate while connected to the internet and have the ability to update their operating software. However, we are concerned that EPA's guidance on this topic to Certification Bodies may lack sufficient detail, and that additional guidance specific to software upgrades is warranted.

While an ENERGY STAR certified product may undergo a change to a hardware component that increases the energy consumption of the product, that change only increases consumption in the products manufactured after the change has been made. If the manufacturer reports a hardware change, or such a change is detected through verification testing, the ENERGY STAR labeled product can be disqualified and the impact on the product's energy consumption may be limited.

A software update is fundamentally different from a hardware change and the impact on product energy consumption is potentially much larger. A software update that increases energy consumption would affect any product that is able to install it. An update can affect multiple models of products (e.g. different televisions from the same manufacturer) sold both before and after the update is released.

We suggest that EPA prepare specific guidance to Certification Bodies regarding software updates, and circulate it for public comment. We also recommend that EPA include a reference to this guidance in the version 8.0 specification for televisions.

#### ***Compromise on minimum luminance***

EPA's proposal to add a minimum luminance level at 3 lux is a reasonable approach to preventing televisions from being shipped with screen settings at unacceptably low illuminance levels in order to meet the specification's requirements. Such screen settings will almost certainly be changed by users after the televisions are installed, causing them to use significantly more energy than claimed. We support EPA's approach and endorse the compromise position of 125 nits at 3 lux.

#### ***Require recertification with consumptive features if they are prompted by software***

The DOE test procedure discourages manufacturers from providing television purchasers with the opportunity to disable energy saving features when the television is being set up for the first time. We encourage EPA to extend this same protection to prompts or suggestions provided to users by television software after setup. For consistency, we suggest the revised ENERGY STAR for televisions specification require any television that includes such prompts to be retested with the most consumptive features enabled to retain qualification. We also suggest that ENERGY STAR consider requiring manufacturers to include a notification feature in their television software that alerts users when a change to the picture settings causes a significant increase in energy consumption.

#### ***Support current improvements, with current timeline***

We encourage EPA to maintain the current timeline for finalizing the version 8.0 specification so that it can influence the 2018 product year. We agree that the list of improvements included in the proposed draft are appropriate for a revision prepared on this tight schedule. However, there are other improvements dealing with adjusting active mode power levels and adjusting the ultra-high definition power adder that should be included in future revision. If the timeline for this revision slips, we

encourage EPA to then broaden the scope of the version 8.0 revision to include these additional improvements.

***Oppose automatic disabling of energy saving features in present picture settings***

We agree with EPA's proposal to allow televisions to disable automatic brightness control (ABC) and motion detection dimming (MDD) when true HDR content is being played, as long as both features are automatically re-enabled once other content is played or when the user selects "retail picture" setting. However, we have not seen any rationale that justifies allowing manufacturers to automatically disable ABC and MDD for any of the other preset picture settings. Please strengthen the persistence of expected savings by strictly limiting the use of automatic removal of energy savings measures.

We appreciate the work that has already gone into EPA's revisions to the ENERGY STAR for televisions specification. Thank you for the opportunity to provide these comments.

Sincerely,



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