

April 26th, 2017
Via Electronic Mail



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

Subject: ENERGY STAR Specification for Televisions, Draft 2 Version 8.0

Dear Ms. Radulovic:

This letter is submitted on behalf of the Northwest Energy Efficiency Alliance (NEEA) in response to the request for input to the ENERGY STAR Draft 2 of its Version 8.0 specification for television. NEEA is a non-profit organization working to encourage the development and adoption of energy-efficient products and services. NEEA has long been a strong supporter of the ENERGY STAR program for a number of products, including televisions.

NEEA continues to be in full support of the need for an updated specification for televisions. ENERGY STAR is a critically important federal program created with bi-partisan support that annually delivers billions of dollars of energy savings to consumers and business. Televisions is an important product category for ENERGY STAR and with consumer trends pushing TVs to be larger and more feature laden, there is a risk of losing many of the base efficiency gains made in the product category, potentially resulting in much more energy being used by consumers for TV viewing. As such, ENERGY STAR's leadership in setting appropriate high-efficiency voluntary specifications is once again needed to recognize those products that are able to meet consumer's experiential expectations as well as save them energy and money.

In this comment document we provide input on the Draft 2 Version 8.0 language regarding:

1. Automatic Brightness Control Minimum Brightness in Default Setting
 2. Alerting Customers to Changes in Energy Consumption
 3. Additional Clarification to Ensure Persistence of Energy Saving Features
 4. High Dynamic Range Upscaling Testing Requirement
 5. Ensuring Test Results are Consistent with Real Life Viewing Experience
 6. Software Updates Impact on Energy Consumption
 7. Ultra-High Definition Power Allowance
 8. Timeline and effective date
1. Automatic Brightness Control (ABC) Minimum Brightness in Default Setting

NEEA continues to support the Environmental Protection Agency's (EPA) effort to move quickly to address persistence and performance issues related to energy savings features such as ABC. We agree with EPA's intent to enhance the viewing experience and improve persistence of energy saving features by updating the minimum brightness level in the default setting to 125 nits at the 3 lux test point for televisions certified with ABC enabled by default.

Consistent with our Draft 1 comments, we are concerned that the current proposed specification allows energy savings features (e.g. ABC, etc.) to be disabled in preset modes

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other than True High Dynamic Range (HDR) and retail modes. Allowing preset modes with ABC disabled, opens the possibility the modes could be named or used in a manner by manufacturers that would encourage consumers to choose modes with ABC disable, thereby compromising the persistence and savings expected from ABC. Therefore, we recommend the language is updated to ensure ABC is enabled across all preset picture modes other than True HDR or retail modes.

If there is technical justification why ABC needs to be disabled or would not meet the proposed levels in a particular preset picture setting, we look forward to reviewing the information or data provided from manufacturers per EPA's request.

2. Alerting Customers to Changes in Energy Consumption

NEEA supports EPA's consideration to alert customers when a TV encourages users to pick a non-certified preset pictures setting. We encourage EPA to add the new requirement to prohibit suggestive language, prompts or pop up boxes, post initial set-up to disable an energy saving feature. If such prompts occur, we recommend the TV be required to be retested with the most energy consumptive features enabled. We also support the proposed language in 3.2.7 that a TV/HTD shall alert the user anytime the activation of any special function disables an energy saving feature.

3. Additional Clarification to Ensure Persistence of Energy Saving Features

NEEA supports EPA's proposal to expand language in section 3.2.5 to require all energy saving features, not solely ABC, to default back to on after the user switches out of retail mode or after True HDR content has been played. We also support the proposed language for section 3.2.6 to ensure energy savings features functionality remains enabled during manual adjustments to the TV's picture parameters.

4. HDR Upscaling Testing Requirement

NEEA supports EPA's proposed approach to require models with HDR upscaling to be subject to an additional test with that feature selected on and to record the average power consumption data as described in section 4.2 of the specification. Additionally, NEEA supports EPA's plan to publish the test results on the Qualified Products List. When sufficient data is collected we recommend that analysis is conducted to established appropriate performance requirements for the Version 9.0 specification revision when HDR upscaling is occurring.

5. Ensuring Test Results are Consistent with Real Life Viewing Experience

NEEA supports EPA's proposed language in Section 3.2.3 to address concerns over vulnerability in determining savings across various "typical viewing experiences" that states EPA's offer to review new savings features prior to product certification.

6. Software Updates Impact on Energy Consumption

NEEA agrees with EPA's requirement as stated in webinar presentation that TV's be retested if a software update changes a TV's reported energy consumption. However, the language regarding this requirement does not appear in the specification and is difficult to locate within EPA's ENERGY STAR website resources. We request EPA ensure the requirement be prominently stated within ENERGY STAR certification guidelines and consider explicitly stating it within the specification language.

7. UHD Power Allowance

In the Draft 1 comments, NEEA and other efficiency advocates presented extensive analysis into the on-mode power impact of UHD. Based on the analysis results and additional justification presented in the Draft 1 comments we continue to believe there exists sufficient understanding of the impact of UHD to TV on mode power (an average of approximately 13% higher power for UHD TVs) to appropriately adjust the UHD allowance downward. We understand EPA's position that the proposed modifications in the Version 8.0 Draft 2 Specification will impact the overall power draw reported for televisions that may affect overall qualifications rates. However, any justification in relation to the new requirements around ABC and MDD should be equally applied to HD and UHD technology, completely independent of the UHD allowance. Leaving the generous UHD adder gives preference and certification benefit to the UHD technology which occurs mostly in larger, more expensive and more energy consumptive models. If EPA is unable to address the UHD allowance in Version 8.0, NEEA strongly suggests the revision process for Version 9.0 begin once the qualification impacts of Version 8.0 changes are understood and within a reduced timeline so the UHD allowance can be appropriately adjusted downward.

8. Timing and Effective Date

NEEA generally supports EPA's relatively fast Version 8.0 specification update so that the process may positively impact the design of the 2018 TVs entering the market early next year. However, if the timeline for the Version 8.0 development process is extended for any reason, the UHD power allowance update should be included in the scope.

We thank EPA for the opportunity to comment on these important changes to its proposed specification, and we very much appreciate the Agency's responsiveness to stakeholder input. NEEA looks forward to continuing our work with the ENERGY STAR program for televisions.

Respectfully,



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