

Televisions Version 8.0 Final Draft Comment-Response Document

Topic	Comment Summary	EPA Response
General	<p>A stakeholder supported the intent of the Version 8.0 specification to increase the persistence of energy saving features. Another stakeholder noted that customer satisfaction with a TV's picture quality determines if energy saving features will prevail in the home. They also stated that research has shown that some TVs are not performing as efficiently under typical viewing conditions, as they do when tested to the DOE test procedure. They recommended that EPA prevent such TVs from becoming certified.</p>	<p>With the Version 8.0 ENERGY STAR Televisions Specification, EPA has had significant engagement with stakeholders around proposals to address the persistence of energy savings features, most notably ABC, with the goal being to both ensure consumer savings and preserve manufacturer freedom to innovate in their designs. As such, in the revised Final Draft, EPA has retained minimum luminance levels for TVs that ship with ABC enabled by default, requirements to ensure that Automatic Brightness Control (ABC) persists in the home in most picture settings, and a requirement that products may not be certified with energy saving features that are enabled during testing, unless that feature provides comparable energy savings during typical viewing experiences.</p>
Energy Saving Features	<p>Two stakeholders suggested that EPA not allow Motion Detection Dimming (MDD) to be enabled during testing, noting the lack of sufficient data on MDD savings during typical viewing content. If EPA does allow MDD to be enabled during testing, they requested that EPA consider one of the following approaches:</p> <ul style="list-style-type: none"> • Test the TV with MDD enabled and with it disabled, allowing a maximum savings claim of 5 Watts. • Develop an approval process for manufacturers to submit test data on specific real world content to demonstrate the claimed savings from MDD are comparable to those realized during the test clip. This process would require that manufacturers receive EPA confirmation that the supplemental testing was sufficient and the savings were comparable. <p>Another stakeholder stated that the IEC test method is the only standardized methodology for manufacturers to determine 'typical viewing experiences'. They suggested that EPA contribute to the revision of the IEC test method if EPA believes it is not appropriate.</p>	<p>EPA encourages manufacturers to share additional data to help improve understanding of energy savings features such as MDD across different content. As with ABC, where its energy savings potential has been demonstrated and widely accepted by stakeholders, once energy savings of this feature is well understood, EPA will be in a better position to encourage its use.</p> <p>In the interim, with Version 8.0, EPA has prohibited the certification of TVs with the use of energy saving features (including MDD) that do not enable comparable savings when tested according to the DOE specified test procedure and during typical viewing experiences (i.e., the duration of a variety of popular programming).</p>
Automatic Brightness Control (ABC)	<p>A stakeholder noted that based on a study, approximately 60% of consumers stay within the default viewing settings throughout the lifetime of their television. They noted that because consumers are being made aware of whether or not they are watching their TV in the ENERGY STAR qualified mode, no further requirements are needed, such as the one to limit the number of viewing modes in which ABC can be enabled by default.</p>	<p>Despite being alerted their TV earned the ENERGY STAR in the default mode, EPA considers that many consumers would not be aware that their TV's energy savings features may not be available in other pre-set picture settings. Further, 40% of consumers not retaining the default picture setting is sizable. As such, for models that qualify for the ENERGY STAR with energy saving features enabled, EPA is retaining its requirement that those energy savings features persist across other preset picture settings.</p>
Luminance Requirements	<p>A stakeholder supported the luminance requirements that EPA included in the Version 8.0 Final Draft specification. Another stakeholder requested that the minimum luminance requirement be based on a Society of Motion Picture and Television Engineers (SMPTE) Standard ST 2080 that specifies 100 cd/m² as the correct brightness for viewing in a dim room, noting that the SMPTE standard dictates the luminance professionals use for picture editing purposes, and potentially for watching televisions in a darkened room. The stakeholder also requested that EPA set the minimum luminance requirement at 80 nits in the 3 lux illuminance condition, which would allow for a tolerance due to variability in ABC sensors. This stakeholder also requested that EPA remove the ratio requirement.</p>	<p>Despite the Imaging Science Foundation (ISF) findings on consumer preferences for screen brightness of 150 cd/m² in dark room viewing conditions, in the absence of industry-wide consensus on optimal brightness for dark room viewing, and given this additional point of reference in the SMPTE ST 2080 Standard for content editing on HDTVs, which calls for a 100 cd/m² screen luminance, EPA has lowered the requirement for luminance at 3 lux to greater than or equal to 100 cd/m².</p>
Software Update Impacts	<p>A stakeholder noted support for the requirement that a product meet the On Mode Power criteria following the installation of any available software updates.</p>	<p>EPA appreciates this stakeholder feedback and has retained this requirement in the Revised Final Draft Specification.</p>

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Scope	EPA received feedback from a stakeholder that the scope of the specification is not clear on whether or not projector are eligible to qualify for the ENERGY STAR.	For clarity, EPA has excluded TVs projectors from scope in Version 8.0.
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