

**Draft 2 Version 6.0 Televisions Specification Comment Response Summary Document**  
**February 3, 2012**

This document is intended to summarize comments submitted by stakeholders in response to the Draft 1 Version 6.0 Televisions Specification. Please note: this summary includes only those comments that EPA received permission to make public.

Ref. No.	Topic	Comment	EPA Response
1	<b>3D</b>	Stakeholders commented that while it is important to begin addressing the power use associated with 3D content, the market prevalence and user engagement with 3D content is still uncertain.	EPA is interested in the prevalence of 3D in televisions. At this time, EPA and DOE are aware of international efforts to develop a test method for 3D televisions and content. Once a test method for 3D is developed, and once more information on the energy consumption with 3D is more widely understood, EPA is interested addressing 3D in a forthcoming revision.
2	<b>Automatic Brightness Control</b>	EPA received many comments related to improving Automatic Brightness Control testing and reporting in the Draft 1 specification and test method.	EPA is committed to adopting the television test procedure currently under development by the U.S. Department of Energy (DOE). In an effort to provide partners with certainty now and honor the Agency's intention to harmonize with the final DOE Test Method, this Draft 2 Version 6.0 proposes the use of the DOE TV Test Procedure NOPR. Therefore, in this draft EPA continues to propose the same Automatic Brightness Control testing requirements as proposed by DOE, which have changed slightly since Draft 1 was released. EPA encourages stakeholders to provide feedback on this proposal, especially to DOE's stakeholder process, particularly as CEA and CLASP have released studies that measured typical home illumination levels where televisions are viewed.
3		The Backlight Categorization in the ENERGY STAR dataset and Qualified Product List should demarcate direct and edge lit technologies.	EPA agrees that additional information should be captured to highlight the prevalence of both direct and edge lit technologies in the marketplace. EPA will add additional detail to the Data Submissions Forms used for qualification.
4	<b>ENERGY STAR</b>	Stakeholders commented that the pace and frequency of revising the Televisions Specification is burdensome.	EPA understands the stakeholders concerns but is committed to maintaining a specification that acts as a differentiator in the televisions market. EPA encourages stakeholders to provide the most up to date energy use associated with current models to EPA during the development process to ensure that the specification will be relevant and effective for longer periods of time.

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5	<b>Internet Connectivity</b>	The Internet Content Signal described in IEC 62087 is not representative of the Internet Content as displayed through Internet Capable televisions. There is little, if any, traditional internet content displayed on televisions as much of the content displayed via the internet is traditional video content.	EPA thanks stakeholders for this clarification and has removed the Internet-content signal from the test method. EPA will continue to reference the IEC 62087 Dynamic Content Test loop. Though TVs are downloading content from the Internet, the content most often mirrors broadcast content.
6	<b>Internet Connectivity</b>	It is uncertain how internet content and internet use in televisions will affect the overall power consumption of a television. To better understand the potential energy impacts of internet functions, stakeholders have recommended further data collection on the power use and prevalence of internet features.	EPA has a significant interest in ensuring that products are tested and qualified as ENERGY STAR in the mode in which they will ultimately be viewed in the home. Recent market data shows that more televisions are shipped with internet connectivity enabled. Therefore EPA proposes retaining the additional tests to gather data on the energy use associated with network connectivity, especially when a TV is in Sleep Mode (or the equivalent of Sleep Mode based on the Department of Energy's definitions of Standby Mode in the DOE TV Test Procedure Notice of Proposed Rulemaking). EPA intends to gather data to increase understanding of the energy use of this function and intends to propose an ENERGY STAR eligibility requirement when more information is available.
7	<b>Internet Connectivity</b>	Stakeholders have raised concerns that adding testing in On Mode with the internet connectivity enabled unnecessarily increases the number of tests performed.	EPA has a significant interest in ensuring that products are tested and qualified as ENERGY STAR in the mode in which they will ultimately be viewed in the home. Recent market data shows that more televisions are shipped with internet connectivity enabled, prompting EPA to propose an additional test to gather data on the energy use associated with network connectivity. EPA intends to gather data on the power use of televisions while connected to a network to increase understanding of the energy use of this function and intends to propose an ENERGY STAR eligibility requirement when more information is available.

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8	<b>On Mode Power</b>	Many stakeholders commented that the current market penetration is too high and that EPA should take additional steps to ensure ENERGY STAR remains an appropriate indicator of efficiency in the televisions market.	EPA has developed a new proposal for calculating Maximum On Mode Power. In establishing the proposed performance levels, EPA re-evaluated its data associated with nearly 1700 current and previously ENERGY STAR qualified television models that stakeholders indicated are reasonably reflective of the current TV market. A masked version of the dataset is attached to this distribution. The proposed requirements represent the current top 15% of TVs in the EPA dataset (a dataset of 2011 models). Based on this data set, EPA has proposed 2013 performance levels intended to differentiate top performers while allowing for good selection of products across all screen sizes available at a price that remains cost effective.
9		Many stakeholders have raised concerns with the progressive efficiency line as proposed in the Draft 1 specification.	EPA has developed a new proposal for calculating Maximum On Mode Power. EPA has proposed 2013 performance levels intended to differentiate top performers while allowing for good selection of products across all screen sizes available, including large products, at a price that remains cost effective.
10	<b>Sleep Mode Power</b>	The stipulation that all available Sleep Modes meet the 1 W limit as proposed in Draft 1 will limit innovation and functionality of future televisions.	Due to the unknown power consumption differences associated with various Sleep Modes (or Standby Modes as defined in the DOE TV Test Procedure Notice of Proposed Rulemaking), especially as TVs are increasingly network connected in Sleep (Standby) Mode, EPA proposes retaining the Sleep (Standby) Mode power consumption levels of less than or equal to 1 watt, as defined in version 5.3. As more information becomes available on the differences in power consumption associated with various Sleep (Standby) Modes for TVs, EPA will use it to inform a future specification.

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11	<b>Toxicity</b>	Stakeholders commented that the scope of ENERGY STAR Qualifications for television products should not address material toxicity or recyclability issues. Other efforts are addressing such issues, and creating additional ENERGY STAR criteria for toxicity and recyclability may lead to conflicting or redundant approaches or standards.	EPA has a longstanding practice of ensuring that ENERGY STAR products deliver on consumer expectation for quality. In developing these requirements, EPA seeks to avoid associating the ENERGY STAR label with poor quality or otherwise undesirable products. Many ENERGY STAR product specifications incorporate non-energy requirements. For this draft specification, EPA drew from existing standards for toxicity and design for recyclability. EPA looked to the RoHS Directive for a toxicity limit because Television manufacturers have extensive experience with designing products free from certain toxic materials in compliance with RoHS. Most global manufacturers have been in compliance with RoHS since 2006, when the directive first took effect. EPA drew from the IEEE 1680.1 standard for the recyclability requirement because many manufacturers have years of experience with design for recyclability for displays, which use virtually identical materials to those found in TVs. Currently, over 700 products offered by the majority of the ENERGY STAR Displays Partners meet the minimum criteria for design for recyclability under IEEE1680.1, which has been in place since 2006. Further, new criteria are currently under consideration for the forthcoming IEEE 1680 standard for TVs, with extensive participation from ENERGY STAR TV Partners, indicating the achievable nature of the above proposed requirements. Finally, many manufacturers and retailers share over a decade of experience with TV recycling, thus likely generating an understanding as to which materials or designs are more easily disassembled or recyclable.
12		Stakeholders have noted that additional clarity is needed regarding how manufacturers will be required to prove compliance with the toxicity and recyclability requirements.	In light of the fact that EPA is leveraging the revised EU RoHS Directive and IEEE 1680.1 for purposes of these requirements, EPA is proposing that demonstrated compliance with this directive is sufficient for ENERGY STAR purposes. To that end, language has been added making clear that the requirements are exempt from the ENERGY STAR third-party certification process.