

**Draft 2 Version 3.0 ENERGY STAR® TV Products Specification Comment Summary  
December 17, 2007**

This document is intended to summarize comments submitted by stakeholders in response to the Draft 2 Version 3.0 ENERGY STAR TV products specification and subsequent proposals, and also includes an EPA response to each comment.

Topic	Comment	EPA Response
<b>Technology Separation/Neutrality</b>	Several stakeholders reiterated their support for EPA's technology neutral stance toward the different types of televisions. They supported the idea that technology neutrality maintains the integrity and consistency of ENERGY STAR's energy savings claim for consumers.	No response required.
	Some stakeholders disagreed with EPA's commitment to a technology neutral specification. These stakeholders claimed that different television technologies serve different purposes, are bought for different reasons (i.e. to hang against the wall or to sit in the family room on a stand), and, consequently, should be treated as separate by the specification. Furthermore, they highlighted that there is ample precedent for this type of technology separation in other ENERGY STAR specifications (i.e. set-top boxes and refrigerators).	EPA remains committed to a technology neutral approach for the On Mode requirements. Because all TVs serve the same fundamental purpose, the ideal would be to simply identify the most efficient among all TV models. However, since consumers consistently use size as a determining factor when selecting a TV, and size significantly affects energy use in the case of nearly all technologies, EPA recognized the need to structure this specification to distinguish energy efficient options in various size categories. On the other hand, EPA could not identify a feature or function associated with different TV technologies that consumers consistently demonstrate a preference for and that significantly impacts energy use.
	Several stakeholders stated that maintaining technology neutrality in the ENERGY STAR specification will tie the brand name to older, declining technology that will soon be phased out of the market. Consequently, they claimed that the new specification will not result in significant energy savings.	EPA's revised Tier 1 On Mode criteria are based on a modified data set that consists of data supplied both by industry and gathered by EPA. After receiving this comment, EPA added numerous data points to its dataset, with all new data points representing more feature rich and larger models. While some of the data supplied by industry is masked to the extent that EPA can not identify model numbers/manufacturers, the majority of data that is unmasked is from newer models, with a variety of model types and feature sets able to meet the On Mode levels.
	A stakeholder noted that flat screen televisions are a new technology and that, consequently, energy efficient technologies will soon develop in the future. The stakeholder asked that instead of acting as a market barrier, EPA should relent on its "technology neutral" stance to allow this technology time to develop.	The ENERGY STAR program has proven results in terms of savings and consumer awareness. In 2006 alone, Americans – with the help of ENERGY STAR – saved 170 billion kilowatt hours (kWh) or 5% of total 2006 electricity demand. This saved consumers \$14 billion on their energy bills, and prevented greenhouse gas emissions equivalent to the annual emissions of 25 million vehicles. In addition, ENERGY STAR helped avoid over 35,000 megawatts (MW) of peak power, equivalent to the generation capacity of more than 70 new power plants. Additionally, more than 65% of American households recognize the ENERGY STAR label. Awareness is even greater – 75% – in areas where energy efficiency program sponsors are actively promoting ENERGY STAR. This shows that the ENERGY STAR label has value in the marketplace and rather than act as a barrier, will help serve as a point of differentiation in the marketplace.

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	<p>A number of stakeholders stated that the specification should develop different On Mode power consumption equations for each television display technology, because of the differences in the way that each consumes power.</p>	<p>EPA remains committed to a technology neutral approach for the On Mode requirements. Because all TVs serve the same fundamental purpose, the ideal would be to simply identify the most efficient among all TV models. However, since consumers consistently use size as a determining factor when selecting a TV, and size significantly affects energy use in the case of nearly all technologies, EPA recognized the need to structure this specification to distinguish energy efficient options in various size categories. On the other hand, EPA could not identify a feature or function associated with different TV technologies that consumers consistently demonstrate a preference for and that significantly impacts energy use.</p>
	<p>If EPA would still like to enforce a single On Mode power consumption equation formula for all television technologies, several stakeholders suggested that this happen under Tier 2. But Tier 1 should differentiate based on technology.</p>	<p>Please see above.</p>
<p><b>Draft 2 On Mode Levels</b></p>	<p>Several stakeholders supported EPA's approach to set a maximum allowable On Mode power consumption limit that is normalized for viewable screen area, but differentiates based on TV resolution.</p>	<p>No response required.</p>
	<p>Several stakeholders proposed alternate On Mode power consumption equations to EPA, some of which differentiate based on TV technology whereas others propose modifying the equation to increase the allowable power consumption for all HD and FHD TVs, particularly those with a screen area above 650 square-inches. One stakeholder commented that HD and FHD TVs should separate at a smaller screen area, because 37" and 40" 1080 TVs require additional power, whereas smaller screen sizes typically aren't available at 1080, and if they are, the picture quality difference from a 720 TV isn't very evident.</p>	<p>EPA thanks stakeholders for proposing alternative equations for On Mode power consumption. All of these proposals were carefully considered by EPA prior to developing the revised On Mode proposal in the Draft Final specification. Although EPA has removed the separate equation for FHD TVs, the new equation for HD and FHD TVs was developed by finding a qualification rate greater than 25% (<b>28%</b>) for 1080 models and then analyzing the 768 (720) models with these levels. Using this approach, EPA believes it has found specification levels that treat both HD and FHD product categories fairly.</p>
	<p>A stakeholder noted that the On Mode power consumption equations are technically incorrect due to incorrect offsets for the different screen sizes. They recommended that either the offsets for all screen sizes are made the same, as was done with the EuP specifications, and/or specific features not related to display power be assigned a specific power consumption in Watts.</p>	<p>EPA would like to clarify that the y-intercept provided in the On Mode equations is not intended to be an "offset" for TVs that directly corresponds to the overhead power use not dependant on screen size (i.e. the theoretical power draw for a TV with 0 screen area). Rather, the intercept was simply determined by drawing a line through EPA's data set for the given resolution and size range to determine a qualification rate greater than 25%. While the idea of an "offset" may be logical for small screen sizes where the overhead is a large portion of the overall power, the data shows that the need for a specific "offset" is diminished for larger, higher power TVs.</p>
	<p>Several stakeholders expressed appreciation that EPA proposed different equations based on TV resolution in the Draft 2 specification.</p>	<p>No response required.</p>

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	<p>A stakeholder recommended that EPA separate the Standby Mode pass/fail criteria from the Active Mode pass/fail criteria. They suggested having a true 25% rule for the Active requirement along with the existing less than 1 W Standby Mode power limit.</p>	<p>Given that TVs must meet both the On Mode and Standby Mode criteria in order to be considered ENERGY STAR qualified, EPA is not analyzing qualification rates by separate criteria. EPA believes the proposed specification levels strike a good balance between the program's principles.</p>
	<p>Several stakeholders felt that the current On Mode power consumption requirement gives unequal treatment to large flat panel TVs and small flat panel TVs. They noted that the On Mode power consumption requirement is unfairly lax toward smaller flat panel televisions and unfairly stringent toward large flat panel televisions.</p>	<p>EPA's revised Tier 1 On Mode criteria allows for a reasonable level of qualification across all screen sizes, ensuring consumers will have a choice of qualified TVs to select from across a range of screen sizes.</p>
	<p>Several stakeholders expressed appreciation that EPA modified the Tier 1 On Mode requirements in their revised On Mode proposal to initially allow a higher than 25% qualification rate under Tier 1, especially for large screen products.</p>	<p>No response required.</p>
	<p>Several stakeholders expressed concern that EPA had made the Tier 1 specification less stringent in the revised On Mode proposal, particularly for large screen devices, stating that these models had essentially been given about an additional 100 watts under the proposal. Stakeholders said that consumers would not see EPA's 'line' in the Version 3.0 specification and therefore not understand that TVs of similar screen area, but one at exactly 1000 sq-inches and another at slightly above 1000 sq-inches, would have very different requirements to meet to earn the ENERGY STAR.</p>	<p>Given that the Version 3.0 specification will address On Mode power consumption for the first time, EPA's revised Tier 1 On Mode criteria allows for a qualification rate that is higher than the typical 25%. However, EPA intends to work with stakeholders to develop more stringent Tier 2 criteria to take effect on September 1, 2010, recognizing that both products and market conditions will evolve in the coming years. EPA also intends to work with stakeholders ahead of the Tier 1 effective date to develop and launch a marketing plan for the new Version 3.0 specification, so consumers are made aware of the savings associated with qualified TVs. Further, EPA intends to provide consumers with an estimate of each ENERGY STAR qualified TV's annual energy consumption through publication of a kWh/year number on the ENERGY STAR Web site. This annual power consumption estimate will be based on a daily usage pattern of 5 hours in On Mode and 19 hours in Standby.</p>
	<p>One stakeholder commented that the creation of a non-smooth performance efficiency specification frequently results in gaming by manufacturers. TVs within a certain family (e.g. plasma, LCD, etc.) do not suddenly use a different technology or shift to a different class of components in order to operate at these sizes. As the ENERGY STAR specification for TVs gains traction one can easily envision TVs just under the 50" threshold growing slightly as an easy means to game and thereby qualify for the ENERGY STAR specification.</p>	<p>EPA understands that non-continuous specification lines are not ideal, but felt it was necessary in this case in order to equitably treat products across a range of different screen sizes. The Draft Final specification includes three separate lines which allows a reasonably balanced pass rate in On Mode for all screen sizes. In addition, the Draft Final levels reduce the jump at 50" from 84 watts to 34 watts to help address stakeholders concern.</p>
	<p>One stakeholder felt that the overall pass rate for TVs of 30% is higher than EPA's target of 25%. The greater concern is the fact that the On Mode pass rate and overall pass rate will increase dramatically once default screen settings are changed to lower power home settings</p>	<p>The Draft Final Specification has a overall pass rate of 27.4%. Although this is still above the stated target of 25%, EPA believes it is justified to be slightly more lenient since the specification is addressing active On Mode power for the first time, and plans to develop more stringent criteria for the Tier 2 specification.</p>

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<b>November, 2007 On Mode Levels</b>	Several stakeholders were concerned about the pass rate for TVs increasing with screen size, which is inconsistent with ENERGY STAR's mission to reduce overall energy use. Stakeholders commented that they would instead expect EPA to set increasingly stringent requirements for the most energy consuming models, in this case the biggest ones.	EPA agrees with this comment and therefore set the Draft Final specification line to more equitably treat all screen sizes, and reduced the pass rate for the largest screen sizes from those proposed in the November 26, 2007 On Mode proposal.
	One stakeholder felt that the specification drafters have been overly responsive to the complaints of the plasma TV industry, whose models currently have lower qualification rates than other technologies, due to their much higher power consumption. This special treatment does not seem warranted as the market shares of plasmas and rear projection TVs are fairly close with RPTVs at 7% and plasmas at 10%.	EPA has maintained a technology neutral approach - with all technologies subject to the same requirements. Additionally, with a 27.4% qualification rate across all screen sizes and technology types, EPA believes it is proposing with the Draft Final Specification a specification that will be clear to consumers and will deliver on savings.
	One stakeholder offered a suggestion to lessen the gap between TVs above and below 1000 square inches, suggesting that the level above 1000 square inches should split the difference between the Draft 2 proposal and the revised levels and use the equation $P_{max} = 0.194A + 102$ .	EPA set Draft Final specification levels which reduce the large gap above and below 1000 square inches.
	One stakeholder felt that it was inconsistent to have roughly 41 percent of 50-inch units qualify under the current proposal versus roughly 28 percent of 20-inch units. With the potential for an energy consumption difference of almost 500 kWh/year between a qualified 20-inch and 50-inch unit, significant savings will have been foregone relative to a typical Energy Star program. A better approach would be to achieve a 25 percent qualification rate at each screen size.	EPA has set Draft Final specification levels which result in a reasonably balanced qualification rate across all screen sizes.
	Several stakeholders felt the proposal was not consistent across screen sizes and should be technology neutral across all screen sizes.	Please see above.
	Some stakeholders felt there was no need to give such large, additional considerations for large screen sizes, since there are methods for reducing power consumption such as the forced menu or automatic brightness control techniques	Please see above.
	One stakeholder felt that the proposal includes a large step up at 1000 square inches which does not exist in the data. In essence, the latest On Mode proposal is technology independent below 1,000 sq in and technology dependent for larger screen sizes. The proposal is a combination of a television specification and a plasma specification.	As stated above, EPA set Draft Final specification levels which reduce the large gap above and below 1000 square inches, but believes a small jump is needed to allow for availability of product in a range of screen sizes.
	One stakeholder felt that such a consideration for large screen sizes coupled with the expected increases in compliance rates will quickly move the ENERGY STAR program from a "top performer" program to a "most products qualify type of situation. This could undermine consumer confidence in the program.	EPA has set Draft Final specification levels which result in a reasonably balanced qualification rate across all screen sizes. In addition the Draft Final Specification is associated with a 27.4% qualification rate.

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	<p>One stakeholder commented that the new proposed levels will do a better job of achieving the goal of reducing power consumption than the previous Energy Star proposals; it will serve the environment better because it allows a broader range of TV products to participate in the Energy Star program. This will in the long run result in greater energy savings.</p>	<p>No response required.</p>
	<p>One stakeholder commented that the earlier proposals were seriously flawed because they clearly divided the major display technologies and gave Energy Stars to all Projection TVs and virtually no Energy Stars to Plasma TVs. The earlier proposals significantly reduced the incentive of both of these technologies to reduce power.</p>	<p>No response required.</p>
	<p>One stakeholder felt that Draft 2 favored less attractive technologies with declining market share and smaller screen sizes. The revised On Mode proposal lessens but does not eliminate this disparity. The EPA has stated that one of the criteria used in relation to Energy Star specifications is that "specifications do not unjustly favor any one technology." However, the Draft 2 specification favored lower end product, contradicting an EPA objective "of pursuing energy efficiency without sacrificing high performance."</p>	<p>EPA continues to support a technology neutral specification as indicated in various responses above, and believes the Draft Final specification allows a wide variety of TV types and feature sets to meet the specification, including larger and high performance models.</p>
	<p>One stakeholder felt the Draft 2 specification did not acknowledge the fact there are distinct differences, advantages and benefits in the new advanced Plasma and LCD technologies, particularly in the larger screen sizes where most manufacturers place their highest performance technology. It also did not recognize the distinct differences in technology widely acknowledged and accepted by industry, retail dealers, consumer publications and the entire business community.</p>	<p>See above response</p>
<b>Monitors</b>	<p>A stakeholder supported the specification's requirement that televisions which are attached to computers and used as monitors power down in a similar manner to computer monitors.</p>	<p>No response required.</p>
	<p>A stakeholder expressed concern that Section 2 can be read to imply that TVs with computer inputs would not comply with ENERGY STAR. Therefore, they suggested that the text be changed from "This specification does <u>not</u> cover <i>products</i> ..." to "This specification does <u>not</u> cover <i>monitors</i> ...." They also stated that the final clause after the semicolon is unclear and asked that it be removed.</p>	<p>EPA agrees with this proposal, and has included the requested changes to the Final Draft specification, replacing the term "products" with "television monitors" and removing the indicated text.</p>
	<p>A stakeholder expressed concern that Sect. 2 implies that manufacturers cannot market something that is both TV and a PC Monitor as having both functions. They noted that as the definition is stated one could interpret that any TV with a VGA connector could not qualify as ENERGY STAR.</p>	<p>EPA has made modifications to the definition of a TV monitor in an attempt to address this concern.</p>
	<p>Several stakeholders agreed with EPA's modified definition of a TV monitor in their follow-up proposal.</p>	<p>No response required.</p>

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	Several stakeholders did not agree with linking the definition of a TV monitor to FCC requirements, stating concerns that e-waste laws might then be affected.	EPA attempted to align its definition for a TV monitor with the FCC's requirements, per stakeholder request, in order to provide clarity for devices that EPA considers to be a TV monitor as opposed to a computer monitor. However, based on subsequent stakeholder feedback, it appears that few, if any, TV monitors are anticipated to be sold in the U.S. in the near future.
<b>DAM Mode</b>	A stakeholder commented that the current DAM criteria will exclude televisions based on features they offer and not solely on their energy efficiency. The stakeholder went on to propose that the specification add a "Networked Standby" Mode with an average allowance of 4 Watts calculated over a 24 hour period. Furthermore, they proposed that this limit apply only to features that are active in factory default settings and not those activated by the consumer.	EPA has postponed addressing network and broader DAM energy use under Tier 1, but will consider it for Tier 2. See "Proposal to Address Download Acquisition Mode (DAM) Under the Version 3.0 ENERGY STAR® TV Products Specification" forwarded to stakeholders for comment and discussed on the 11/30/07 stakeholder call.
	A stakeholder emphasized that the specific limits in DAM mode should only apply to the features and functions that are enabled by default as to allow for innovation with new network-based functions.	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	Two stakeholders requested the removal of the last sentence of the DAM definition, "TVs without EPG functionality may not have a distinct Download Acquisition Mode," because future products will have more than EPG functionality and this sentence could be interpreted as products with EPG cannot have other DAM. Furthermore, the stakeholders stated this requirement is too restrictive	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	Several stakeholders stated that the three hour allowance for DAM is too restrictive.	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	A stakeholder suggested the power level for DAM be increased to 30W in Tier 1 and perhaps 12 W in Tier 2. The stakeholder questioned the need to set a power limit for DAM at all because it is a new, evolving technology, and it is unlikely a standard and equitable test method can be defined. If absolutely necessary, the stakeholder suggested rolling the power consumed in DAM into the On Mode power consumption equation.	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	A stakeholder stated that the first sentence of the definition, "and/or otherwise communicating with a connected device through a network protocol" is too specific and that EPA should remove "with a connected device" to make it more general.	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	A stakeholder requested that monitoring for emergency communication should be a separate issue unrelated to DAM since it is a 24/7 operation and thus violates the requirement of a maximum 3 hour DAM usage in a 24 hour period. Instead, the stakeholder requested a different definition for emergency communications and a separate allowance for higher power standby modes in models that support this feature. Similarly, EPA was asked to add an exemption for Public Alert™ and similar features dedicated to the promotion of public safety.	EPA states in the Draft Final Specification that: To qualify as ENERGY STAR under both tiers of this specification, TVs must not exceed power consumption of 1 watt in Standby Mode. TVs which do not have a mode meeting the definition of Standby Level (e.g., Public Alert CEA2009A certified models which offer 24/7/365 active features to alert users) are not able to qualify for ENERGY STAR. Additionally, this lowest power consuming Standby Mode must be the default Standby Mode for the TV as shipped to consumers.

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	A stakeholder noted that there are many uses for televisions in which they have to remain in connected to a network device 24/7, such as in retail stores and hotels. The current definition of DAM would exclude ENERGY STAR televisions from these uses.	EPA has removed DAM requirements for Tier 1 and will consider these comments when revisiting the issue for Tier 2.
	Several stakeholders agreed with EPA's proposal to defer developing a test procedure and setting requirements for DAM until Tier 2.	No response required.
<b>Forced Menu</b>	A stakeholder supported a forced start up menu that would allow the user to choose either "retail" or "home" display settings. Two stakeholders suggested the specification standardize and define the "retail mode" and "home mode" terms.	Although EPA appreciates this suggestion, the Agency is requesting the use of the word "home" and "retail" because of the simplicity and universal understanding of these terms, and therefore does not believe a definition is warranted.
	Several stakeholders expressed concern about a forced start up menu in which a user would have to "confirm" the choice of retail mode every time the TV is powered on. These stakeholders commented that this would be an undue burden on retailers as well as on consumers who would like the retail mode.	The Draft Final Specification makes clear that should a user select "retail" at startup, he/she will need to be prompted only one additional time, again at start-up, to confirm this choice. Additionally, the Draft Final states that manufacturers may replace the second prompt with information at startup that relays that the product qualified for ENERGY STAR in the "home" setting.
	A stakeholder suggested that the forced menu option is only appropriate if the default shipping mode is "retail" and not "home." They stated that the ENERGY STAR mode should be recommended, but that the initial customer selection of a non-ENERGY STAR compliant mode should not result in repeated prompts to select from the start up menu.	Please see above.
	Instead of having the retail mode confirmed every time the device is turned on, a stakeholder suggested that the retail setting should have a warning telling the viewer that the television is not in an energy efficient setting. This warning should remain on the screen for a certain amount of time before it times out.	EPA appreciates this suggestion, but agrees with other stakeholders about minimizing requirements that may be burdensome to users. As a result, EPA has included the above proposal which EPA believes appropriately balances the need to guarantee energy saving while delivering prompts and features acceptable by consumers.
	Instead of having the retail mode confirmed every time the device is turned on, a stakeholder suggested the following language: "the manufacturer shall provide a solution for the situation of a consumer buying a floor model previously set in retail mode that informs the consumer of the situation and allows them to easily change to a non-retail mode."	Please see above.
	A stakeholder noted that the EPA should refrain from dictating the specifics of a manufacturer's interface. The stakeholder suggested that as long as the ENERGY STAR settings are clearly marked in a start up menu and there is one ENERGY STAR setting to choose from, the model should be considered to have an ENERGY STAR default mode.	The Draft Final Specification states that EPA will consider alternative proposals regarding the words selected to describe the 'home' and 'retail' modes on a case-by-case basis.

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<b>Test Procedure</b>	A stakeholder requested that EPA not exclude sections pertaining to 'Special functions' and 'Power saving functions,' as written in the revised Draft of IEC 62087, in the Version 3.0 ENERGY STAR specification. The stakeholder went on to note that all normative parts of the test procedure should be adopted 'as is,' to ensure the continued integrity of the document.	EPA endorses and supports the test methodology described in IEC 62087 as the most complete international test standard for measuring the average on mode power consumption of a television. Any clarifications made in the current document are only intended to reiterate normative language already stated by IEC and to clarify that broadcast, not static, signals should be used in all active mode measurements for the purposes of ENERGY STAR testing. In order to better synchronize the language of the EPA draft specification with current draft versions of IEC 62087, we currently reference the November 9, 2007 committee draft version of the standard. Section number references have been updated accordingly.
	A stakeholder urged EPA to follow the new IEC draft standard as it enters the CDV phase.	See above comment.
<b>Text Edits</b>	A stakeholder noted that item 1.I of the specification shows an example of 1024 X 768. Since that is not a popular resolution among TV makers, the stakeholder recommended using 1920 X 1080 as an example with a vertical resolution of 1080.	EPA agrees with this proposal and has made the suggested change in the Draft Final specification.
	For clarity reasons, a stakeholder suggested changing "vertical resolution" to "native vertical resolution" throughout the specification.	EPA agrees with this proposal and has made the suggested change in the Draft Final specification.
	A stakeholder suggested that item 1.P should be titled "Disconnected," rather than "Disconnect."	EPA agrees with this proposal and has made the suggested change in the Draft Final specification.
	A stakeholder suggested that in Table 1, Row 2, Column 1 should read ">480; <=720"	In line with EPA's latest proposal for On Mode power requirements, EPA has adjusted Table 1 to make clear that one set of criteria applies to High Definition and Full High Definition TVs (all TVs with a native vertical resolution of over 480 lines), while separate criteria apply to non-High Definition TVs (all TVs with a native vertical resolution of less than or equal to 480 lines).
	A stakeholder recommended that references to external documents (IEC 62087 and IEC 62301) should be referenced and defined in a newly created section of the specification on Normative standards.	In order to maintain consistency with other ENERGY STAR electronics specifications, EPA has continued to reference external documents such as test procedures within the appropriate portions of the Draft Final specification.
<b>Automatic Brightness Control</b>	A stakeholder recommended that the Automatic Brightness Control equation be changed to $P_a=0.5(P_{max})+0.5(P_{min})$ because they believe that the JEITA study on which this requirement was founded misrepresents the lighting conditions in the U.S.	By stakeholder request, EPA reviewed Nielsen data to determine how much TV is typically watched domestically at night, and used that as a proxy for the amount of time TV are in operation in low ambient light settings. Based on Nielsen data for 2005, approximately 45% of TV viewing in the U.S. occurs during the evening and night. EPA has used this information to indicate that power measurements for TVs with Automatic Brightness Control should be weighted 45% in low ambient light settings and 55% at standard conditions in the Draft Final specification.
<b>POD Module</b>	A stakeholder suggested that televisions with a POD module slot should have their On Mode power consumption measured without the module installed and that this should be written into the specification.	Section 11.4.4 of the IEC 62087 test method already states that so-called "plug-in modules" such as conditional access modules or PODs shall not be plugged in during the time of test. EPA does not feel it is necessary to provide additional clarification on this subject because the test conditions are already clearly stated in IEC's normative language.



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<b>Tier 2</b>	A stakeholder commented that Tier 2 of the specification should make an effort to reduce the On Mode consumption requirements for increasingly popular large screen sizes.	Recognizing that both products and market conditions will evolve in the coming years, EPA intends to work with stakeholders to develop more stringent Tier 2 requirements for TVs.
	A stakeholder provided proposed Tier 2 equations for On Mode based on the current dataset.	EPA appreciates the suggestion of proposed levels for Tier 2 but anticipates basing these requirements on data gathered after the Tier 1 specification takes effect.
<b>Combination Units</b>	A stakeholder is concerned that the power requirements are the same for "stand alone" televisions and combination televisions. The stakeholder suggested that combination televisions (i.e. televisions with DVD players) should not exceed the combined ENERGY STAR power usage requirements for those two separate devices, both in On and Standby Mode. For those devices that do not have a "stand alone" ENERGY STAR equivalent in the market, the manufacturer could demonstrate that the TV itself meets the ENERGY STAR criteria with the accompanying device removed or disabled.	ENERGY STAR's v2.2 TV specification required 1.0 W Standby for all combination unit TVs as of July 1, 2005. All drafts to date of the Version 3.0 program requirements have been consistent with the existing program requirements, no more stringent and no less. In addition, the IEC 62087 test procedure does not require measurement of the On Mode energy use of integrated VCRs, DVD players, etc. used in combination units. Their additional power consumption in On Mode is minimal compared to the power consumption of the TV display itself, so EPA has chosen to simplify the specification by not granting additional power in On Mode for TV combination units.
<b>Timeline</b>	Due to manufacturer production schedules, several stakeholders claimed that the specification's effective start date is too early and will not allow manufacturers to gear production toward meeting the specification. They proposed alternate dates, including January 2009, February 18, 2009 (to tie in with the digital transition), and April 1, 2009 as a more manageable effective start date for Tier 1. To that end, these organizations and manufacturers also believe that the Tier 2 start date should be 2 years after their proposals for Tier 1.	Revisions to ENERGY STAR specifications typically become effective nine months after being finalized to allow manufacturers adequate time to prepare for the new requirements, and EPA intends to maintain this timeline for the Version 3.0 TV products specification. EPA has proposed a delay until November 1, 2008 in the Draft Final specification to allow manufacturers a full nine months after the anticipated February 2008 finalization of the Version 3.0 document to prepare for the new requirements to take effect. Based on manufacturer submitted data for current models, already 27.4% of these models could qualify for ENERGY STAR.
	Other stakeholders supported the proposed effective date of September 2008 because the specification would then be in effect during the peak sales season of the year as well as in effect for the February 2009 digital transition.	Revisions to ENERGY STAR specifications typically become effective nine months after being finalized to allow manufacturers adequate time to prepare for the new requirements. EPA has proposed a delay until November 1, 2008 in the Draft Final specification to allow manufacturers a full nine months after the anticipated February 2008 finalization of the Version 3.0 document.
	Several stakeholders suggested that allowing grandfathering under the new specification could be a more equitable, industry-wide solution to the debate over the effective start date. Further, two stakeholders stated that not grandfathering would alter production plans mid-cycle, involving the alteration of boxes, instruction manuals, and other materials with the ENERGY STAR mark on them and resulting in a large amount of wasted materials.	EPA eliminated grandfathering for TVs under the Version 2.0 TV products specification, and has eliminated this across all other product categories eligible for ENERGY STAR qualification to ensure the integrity of the ENERGY STAR label and deliver on consumer expectations of product performance and related energy savings. Given that manufacturers will have known about the new specification approximately 14 months prior to its taking effect, EPA hopes that a minimum of collateral materials will be wasted as the effective date is based on the date of manufacture for products.
	A stakeholder requested that the EPA and television manufacturers "unmask" power consumption data for the various television models so that stakeholders can ensure that this data is representative of the current market.	EPA has received mostly masked data from those manufacturers who have submitted measured results and cannot easily unmask that data at this time. EPA will work with manufacturers in future specification development efforts to try to obtain unmasked data that can be shared with the stakeholder group, given that such data does not reflect products in development or other potentially proprietary information.

Topic	Comment	EPA Response
<b>Data Set</b>	<p>Several stakeholders requested EPA remove rear projection display television data from the data set used to develop the On Mode power consumption equations because this data unfairly pulls down the current qualification line, since it does not have a correlation between power consumption and screen size. To that end, a stakeholder noted that rear projection televisions are a declining technology will virtually disappear from the market by 2010, based on current market data.</p>	<p>Rear projection TVs deliver content like all other TV types, and are a viable and energy efficient option for consumers wishing to purchase a larger HDTV, and therefore EPA has chosen to continue to evaluate rear projection TVs when calculating overall compliance rates. In addition, EPA continued to omit some rear projection units from the data set to avoid having the rear projection models over represented in the data set, and in line with CEA's projected 2008 market share of these models.</p>
	<p>A stakeholder suggested that EPA adjust LCD-TV measured data to compensate for the expectation of 40% penetration of wide color gamut televisions and the resulting higher backlighting power requirement in 2008-9. They noted that this will result in much less than 25% of all televisions qualifying for ENERGY STAR.</p>	<p>EPA bases its Draft Final specification levels on the measured data it has received, which already includes a number of wide color gamut sets. We expect that continued improvements in bulb efficacy and film stack transparency will still allow a significant number of wide color gamut LCD TVs to pass the specification.</p>
<b>Other</b>	<p>A stakeholder requested that televisions with tuners and without tuners be treated separately in the specification, as tuners require additional power to operate. The stakeholder recommended that either the dataset be altered to account for tuner power or to offset added to each power consumption equation to account for the tuners.</p>	<p>Having conducted an analysis of TVs both with and without tuners in the data set, EPA does not believe that the data set shows that tuners add a significant amount of energy and therefore, require any type of adder.</p>
	<p>A stakeholder recommended that EPA recognize an Off Mode in the specification to encourage manufacturers to include a hard off switch on their products.</p>	<p>Several stakeholders reasoned that Standby is already at 1-watt or less in the Draft Final specification, therefore it is not necessary to include an Off Mode. EPA agreed with this reasoning and therefore, an Off Mode is not included in the Draft Final specification.</p>
	<p>A stakeholder recommended that EPA should consider a more obvious way to inform customers about the Version 3.0 specification requirements because they are such a big change. They recommend calling the changed program ENERGY STAR 2009.</p>	<p>EPA intends to work with its stakeholders to develop and launch an ENERGY STAR marketing plan around the new ENERGY STAR TV specification to educate consumers about the new requirements and the associated savings.</p>