Topic	Subtopic	Comment	EPA Response
Additional Functionality Allowances	AVP and HD	Most stakeholders commented that while it is true HD and AVP are commonplace in STBs, it is not a basis for eliminating the additional functionality allowances unless EPA provides a corresponding increase in all of the base allowances. Stakeholders argued that removal of the HD and AVP allowances bias the specification toward fully featured DVR and WH DVR devices at the expense of basic devices, particularly Cable DTAs. Another stakeholder, however, supports EPA's decision noting that during the development of the V3 specification HD and AVP were new features that were not yet integrated into the system on chip (SOC) hardware solutions that offer better power management. Today's STBs include these SOC solutions and can achieve V4.1 Draft 2 proposed energy allowances without the need for the HD and AVP allowances.	As HD and AVP are no longer a distinguishing feature, EPA is continuing to propose to remove these allowances, in favor of accounting for any additional energy consumption through the base. EPA has re-analyzed the base allowances as recommended in other comments and has reviewed qualifying STBs to ensure they represent a wide range of options for consumers.
Additional Functionality Allowances	Cloud DVR	One stakeholder expressed support for the V4.1 Draft 2 exclusion of cloud based DVRs from the DVR energy allowance because they do not contain a hard disk drive or other non-volatile storage capabilities within the DVR. Given recent introductions of cloud-based DVRs into the market, the stakeholder encouraged EPA to add a new definition to clarify their treatment.	The DVR definition already excludes Service Provider networked-based storage; therefore, STBs that rely on these services instead of an internal storage drive shall not receive a DVR adder allowance.
Additional Functionality Allowances	DOCSIS	Four stakeholders expressed support for a separate DOCSIS 2 allowance and a DOCSIS 3 allowance of 50 kWh/yr derived from 8.5W in full bandwidth 8 downstream and 4 upstream channel (8x4) on-modes and 4.5W in low-bandwidth 1x1 Sleep/APD modes, with further reductions possible if the transition from Deep Sleep to On Mode can be greater than 30 seconds. One of the stakeholders further commented that it is insufficient for EPA to include an approximate DOCSIS 3 power allowance into the allowance for Multi-room since DOCSIS 3 may be used in single-room STBs. Furthermore, one stakeholder commented that even if DOCSIS 3 1×1 energy-saving mode is available in STBs, it will not be available in the headend, limiting savings from the mode.	EPA is proposing to include a temporary 11 kWh allowance for DOCSIS 3.0 of 11 kWh until December 1, 2015, when headends are expected to implement the 1×1 energy-saving mode.
Additional Functionality Allowances	Duty Cycles	Two stakeholder commented that the duty cycle assumptions should be explicitly stated in the specification, while two stakeholders added that the additional functionality allowances should take into account the longer duration of On Mode for servers versus clients.	EPA is proposing to use the duty cycle assumptions in the Voluntary Agreement, and they have been included in the Final Draft proposal. These new duty cycles are the same for servers and clients, so there will no longer be differential benefit from the additional functionality allowances for the two product types.
Additional Functionality Allowances	HNI	Three stakeholder commented that HNI allowance should factor in power supply efficiency as well as the fact that MoCA may sleep at different times than the rest of the system. Several stakeholders commented that MoCA consumes approximately 3.5--3.8 W ac in On Mode and 1--1.9 W ac in Sleep Mode. One stakeholder recommended establishing a separate MoCA allowance of 12 kWh/yr, while others recommended increasing the existing HNI allowance to 15--20 kWh/yr. Lastly, four stakeholders commented that there will continue to be a mix of MoCA 1 and 2 products in the market, limiting the ability of MoCA 2 devices to enter sleep mode.	EPA has increased the energy allowance for HNI to 17 kWh/yr to reflect higher energy consumption of MoCA 2 in Sleep Mode than assumed during the development of Draft 2. Also, EPA understands that there will continue to be a mix of MoCA 1 and 2 systems in operation; however, for the purposes of the test, manufacturers will be able to assemble an all-MoCA 2 system, taking full advantage of the allowance.

Topic	Subtopic	Comment	EPA Response
Additional Functionality Allowances	Home Networking	One stakeholder commented that the proposed Home Networking Adders will be used broadly in the future, while two commented that the Access Point and Telephony allowances be increased to match the Small Network Equipment specification. Another stakeholder commented the Access Point allowance be increased to 15 kWh/yr. One stakeholder commented that the definitions of Access Point and Router are unclear, and two recommended separating the allowances, as STBs may have both functionalities or can forward packets from one network to another without containing a wireless access point. Another stakeholder commented that the Access Point allowance (or some combination of other allowances) be sufficiently high to permit Wi-Fi video delivery (e.g., 65 kWh/yr for 4x4 5 GHz). Several stakeholders expressed general support for the inclusion of and Draft 2 allowances proposed for home networking functions.	Although the adders for Access Point, Router, and Telephony have the same function as in the SNE specification (they are intended to provide voice and data access for user devices), the allowances will be different as the functionality is not actively tested under the STB test method and the STB base allowances account for some aspects of the energy consumption. Therefore, EPA is proposing to maintain the Draft 2 allowances and definitions for Home Networking functionality, as existing allowances are expected to be sufficient for functionality such as Wi-Fi video delivery (e.g., MIMO Wi-Fi + Multi-room). However, in the Final Draft, EPA has clarified the applicability of the Router and Access Point allowances in models with Multi-room.
Additional Functionality Allowances	Multi-room	One stakeholder commented that the Multi-room adder be increased by 5 kWh/yr to account for the HNI which is active.	Although the Multi-room allowance covers some of the same functionality as HNI, the allowance appears to be sufficient for current Multi-room systems to qualify. Therefore EPA is not proposing to increase the Multi-room allowance.
Additional Functionality Allowances	Novel Features	Three stakeholders commented in favor of providing allowances for novel features such as 3D Capability, Ultra High Definition Resolution, or High Efficiency Video Coding. Two stakeholder commented that EPA should not refrain from providing allowances for novel functionalities for lack of data as that will discourage innovation. One stakeholder noted that such an approach would be inconsistent with the addition of the STB Telephony adder. The stakeholders commented that EPA should follow the EU Code of Conduct (CoC) and err on the high end when setting allowances for novel functionalities. One stakeholder further noted that allowances can be revised later as data come in and that manufacturers will not include the functionalities to gain further allowances due to their expense. Another stakeholder commented that EPA cover these novel functionalities in a future specification revision, to begin soon after the finalization of Version 4.1.	EPA is proposing allowances for UltraHD and High Efficiency Video Processing (HEVP) to permit UltraHD STBs to qualify when they are released. Although HEVP is expected to be present in UltraHD STBs, similar to the presence of Advanced Video Processing (AVP) on HD STBs, there are other user benefits of HEVP independent of UltraHD (such as increased numbers of standard definition and high definition channels). The allowance provided in the Final Draft will permit this user benefit. EPA is not proposing an allowance for 3D capability since 3D capability is not tested under the STB test method.
Additional Functionality Allowances	Relationships Between Allowances	Several stakeholders commented on the rules for applying multiple adder allowances to the same STB, noting that the following functionality is often combined in practice and should therefore receive all applicable allowances - Router and Access Point - MIMO Wi-Fi and HNI - Router or Access Point and Multi-room (where HNI cannot be applied) - MIMO Wi-Fi and Over-the-top IP STBs - Multi-room and HNI Additionally, one stakeholder commented that the rules would be better expressed in a table or flowchart and provided an example.	Although EPA agrees that new products may employ additional functionalities in ways not anticipated by the rules for applying the allowance, EPA is concerned that revising all the rules and recalculating the allowances at this late stage would lead to confusion. Therefore, EPA has only made the few corrections requested by stakeholders, including: - Permitting the Router or Access Point allowances for Multi-room STBs - Permitting the MIMO Wi-Fi allowance for OTT IP STBs.

Topic	Subtopic	Comment	EPA Response
Additional Functionality Allowances	Shared DVR	Several stakeholder commented that promoting Thin-client/Multi-room solutions should not come at the expense of sharing DVR resources, which provides energy savings. Furthermore, "certain whole-home architectures may be more energy efficient where non-DVR STBs deployed in the home can stream live content directly from the MVPD without requiring interaction from a gateway (thereby allowing a gateway to be in standby mode)." Moreover, limiting the Multi-room allowance to STBs that decrypt and buffer live TV for Thin Clients disadvantages Service Provider IP STBs, where Clients connect directly to the network and Multi-room STBs that interact with other types of Client devices. Additionally two stakeholder commented that a whole-home/shared DVR requires additional memory and processing, and a larger and more robust hard disk than a single-room DVR, thereby justifying a higher allowance. Two other stakeholders recommended restoring the Multi-room allowance or providing a separate Shared-DVR allowance of 20--28 kWh/yr. However, two stakeholders commented that eliminating the Shared DVR adder would speed deployment of full Multi-room architectures, further promoting savings.	EPA proposes to expand the definition of multi-room to include Service Provider IP STBs that have a functionality somewhere between true Multi-room and shared-DVR—but may be more efficient than true multi-room. These devices allow for buffered playback and the definition of Multi-room has been revised to include these devices, allowing them to qualify for the adder allowance if tested with clients.
Additional Functionality Allowances	Transcoding	Four stakeholders requested EPA include an allowance for transcoding since it is a crucial function of many Multi-room STBs to increase the amount of data saved on the DVR or transfer data to non-TV clients, including lower-power customer-owned devices, thereby potentially saving energy. The stakeholders calculated a minimum energy use associated with transcoding of 13 kWh/yr with one requesting an additional 5 kWh/yr for each active transcoding function during testing. Another stakeholder requested 18 kWh/yr.	Wherever possible, EPA prefers to be technology neutral. Providing an adder for transcoding capability when it is being used in place of larger HDDs or other storage mechanism options will bias one technical solution over others without evidence of energy savings or other user benefit.
Additional Functionality Allowances	Wi-Fi	Two stakeholders suggested that EPA increase the overall allowance for Wi-Fi by including an additional fixed component HNI Wi-Fi allowance (20 kWh/yr). One stakeholder noted that while Draft 2 adopts the same allowance as the Small Network Equipment (SNE) specification for 2.4 GHz streams, the allowance for the 5GHz stream is reduced from 11 kWh/yr to 7 kWh/yr. Another commenter noted other disagreements between the SNE allowances and those in Draft 2, and requested additional allowances around 13 kWh/yr for a typical system. Finally one stakeholder requested that total networking allowances (Wi-Fi and HNI) add up to 37 to 46 kWh/y for two to four 5 GHz transmit chains, respectively. On the other hand, another stakeholder commented that an allowance based on the SNE specification is inadequate because the energy consumption a STB Wi-Fi interface dedicated exclusively to video transport will be higher due to its robustness. One stakeholder recommended that STBs receive the Wi-Fi allowance regardless whether the UUT is tested with Wi-Fi as the home network interface providing the primary video transport since power will be required regardless whether video or data is transferred via Wi-Fi. Finally, one stakeholder commented that the increases to the allowances in Draft 2 better reflect the actual power consumption of Wi-Fi interfaces for STB.	EPA is not proposing any changes to reflect the robustness of the MIMO Wi-Fi link—that should already be accounted by the allowances for each stream. Similarly, EPA is continuing to provide an allowance only for active video transport. Any Wi-Fi functionality provided for data access of the end-user, rather than video transport, should be accounted by the Access Point or Router allowances. However, based on stakeholder comments, EPA proposes to increase the energy consumption for each 2.4 GHz stream from 2 to 3 kWh/yr and for each 5 GHz stream from 7 to 10 kWh/yr.
Base Allowances	Cable	One stakeholder noted that only 2 Cable STBs (excluding a misclassified DTA) meet the V4.1 allowances which is very low rate given that cable is the dominant player in the US and there are 30 Cable STBs currently listed on the QPL. Another stakeholder expressed support for the Draft 2 Cable Base Allowance of 55 kWh/yr, but requested that EPA revise the Additional Functionality Allowances.	EPA has revised the Cable base allowance in response to the changes in the additional functionality allowances, and after reviewing the dataset to ensure that a representative mix of models will be able to meet the Version 4.1 requirements.

Topic	Subtopic	Comment	EPA Response
Base Allowances	Cable DTAs	One stakeholder commented that EPA is basing its Cable DTA allowances on too small a sample size and noted that DTAs are continuing to evolve to offer new features all requiring more power than provided by an allowance of 35 kWh---60 kWh/yr or more. An artificially low DTA allowance will limit the use of DTAs to a narrow set of older features, and create incentives to deploy fully featured set-top boxes that use more energy. A second stakeholder that expressed support for the Cable DTA allowance of 35 kWh/yr but requested that the additional functionality allowances be revised and applicable to Cable DTAs. A third stakeholder expressed support for the Cable DTA allowance of 35 kWh/yr noting that 2 models meet this level.	EPA has revised the Cable DTA base allowance to include additional HD models. EPA proposes to continue limiting additional functionality allowances on DTAs to provide users with a pared-down, efficient STB.
Base Allowances	MVPD IP	One stakeholder expressed support for the Draft 2 MVPD Internet Protocol (IP) Base Allowance of 45 kWh/yr, but requested EPA revise the Additional Functionality Allowances.	EPA has revised the MVPD IP base allowance in response to the changes in the additional functionality allowances, and after reviewing the dataset to ensure that a representative mix of models will be able to meet the Version 4.1 requirements.
Base Allowances	Satellite	One stakeholder commented that the lowest power consuming satellite STB in both the US and EU does not meet the Satellite base allowance of 50 kWh/yr, and that this discrepancy will become greater as basic Satellite STBs increase in power due to the new or improved features, such as more memory or better graphics. As such the stakeholder suggested a minimum base allowance of 70 kWh/yr.	EPA has revised the Satellite base allowance in response to the changes in the additional functionality allowances, and after reviewing the dataset to ensure that a representative mix of models will be able to meet the Version 4.1 requirements.
Base Allowances	Thin Client	Several stakeholders commented that the Draft 2 Thin Clients allowance is too stringent based on current technology. They suggested that the total allowance for Thin Clients be 40--44 kWh/year for devices without HNI, and 59 kWh/year for devices with HNI, Wi-Fi, and MIMO, based on existing Satellite Thin Clients. Stakeholders noted that Thin Clients require more power than Over-the-top IP STBs to account for additional ports and higher resolution. Stakeholders further urged EPA to consider greater allowances for Thin Clients to continue to encourage the deployment of Multi-room architectures across satellite and cable platforms. One stakeholder expressed support for the Draft 2 Thin Client base allowance of 15 kWh/yr if EPA allows Additional Functionality Allowances to apply to Thin Clients and increases these allowances.	EPA has revised the Thin Client base allowance based on existing models following stakeholder feedback that the efficiency gains seen in Over-the-top IP STBs are not directly transferrable to Thin Clients.
Client-only Incentive		One stakeholder recommended that the Client-only incentive apply to Displayless Video Gateway.	Displayless Video Gateways always operate in Client-only mode (no local display enabled), so the incentive is not applicable.

Topic	Subtopic	Comment	EPA Response
Data & Analysis		Several stakeholders commented that EPA's data analysis was flawed and outlined the following elements of a successful analysis: - Representative data: data should be representative of the market and factually correct, exclude Standard Definition (SD) models, and include sufficient number of models in each category to reliably calculate a 25% pass rate. Furthermore, the data should not be extrapolated to non-tested scenarios. - Practicality of the results: Two stakeholders further noted that the 25% levels should allow for manufacturing variation and ensure that multiple vendors' products can qualify. One stakeholder noted that the same methodology should have been applied across the product types, including Thin Clients. - Validation: Lastly, one stakeholder questioned the subtraction of adder allowances to obtain the base energy consumption, as the energy consumption of the adders may vary by model. While another recommended that EPA examine the resulting base allowances across products with different features to check the correctness of additional functionality allowances. Lastly, one of the stakeholders attempted to replicate EPA's analysis and obtained results of 65 kWh/yr for Service Provider IP STBs, rather than EPA's proposed 45 kWh/yr, while another commented that a correctly implemented analysis would yield a higher than 15 kWh allowance for Thin Clients.	Based on stakeholder comment, EPA has re-run the analysis without the five SD models qualified to Version 3.0 and has reviewed the levels to ensure that the models that would be able to qualify continue to provide consumer choice. However, the methodology remains largely the same: the additional functionality allowances were subtracted from the modeled energy consumption under the DOE NOPR, and the base allowance was calculated to include roughly 25% of the models. EPA acknowledges that the additional functionality allowances are only representative of typical or average energy consumption for a particular functionality; similarly, the modeled energy consumption may not fully reflect the energy consumption when tested according to the updated ENERGY STAR test method (based on the VA test procedure and CEA-2043), but in the absence of such test data, this approach is more representative than simply reusing Version 3.0 TEC data.
Deep Sleep	Incentive	A group of stakeholders jointly requested that EPA revisit the savings that would be provided from a 4 hour Deep Sleep implementation according to its specification and then adjust its incentive level from 0.17 accordingly.	EPA has revised the structure of its Deep Sleep incentive consistent with the VA by devoting the requisite number of hours to Deep Sleep in the TEC equation.
Deep Sleep	Incentive Amount	One stakeholder commented that the Deep Sleep requirement may be a disincentive to manufacturers if they cannot achieve the 15% On Mode power target. Energy reductions to levels below current Sleep Mode power still present the potential for significant energy savings and should be encouraged.	For consistency with the VA, Deep Sleep will now be a graduated incentive which scales with the power saved and the duration of scheduled Deep Sleep.
Deep Sleep	Power Requirements	A stakeholder requested that the requirement equation be amended as it appears to assume that Sleep Mode and Auto-power Down power is already below 15% of On Mode power, and manufacturers should be incentivized to decrease Deep Sleep Power below 0.95 x Psleep OR (0.15 x Pwatch or 3 watts) rather than 0.95 x Psleep AND (0.15 x Pwatch or 3 watts).	For consistency with the VA, Deep Sleep will now be a graduated incentive which scales with the power saved, recognizing any additional energy savings over Sleep Mode.
Deep Sleep	Recovery Time	To encourage adoption of Deep Sleep that results in real energy savings, several stakeholders recommended recovery time greater than 30 seconds during the scheduled Deep Sleep period. However, EPA should maintain its current requirement that STBs in Deep Sleep should be able to wake to record a prescheduled show or receive an update, returning to Deep Sleep when finished. Two additional stakeholders requested that EPA not impose a 30 second maximum wake time from Deep Sleep State under any scenario because it is too restrictive and may disincentivize the deployment of more efficient devices with longer wake times.	EPA has clarified that recovery time from Deep Sleep can be greater than 30 seconds.

Topic	Subtopic	Comment	EPA Response
Deep Sleep	Test Method	One stakeholder commented that the measurement procedure should avoid measuring the periods when transitioning to or from Deep Sleep, nor conflate power consumption in On Mode with that in Deep Sleep State. The stakeholder also noted that the test procedure in Draft 2 is unclear on the following: • The meaning of "within" in section 4.7.3(iii): "Within 30 minutes of the beginning of the scheduled sleep time, place the STB in the On (Watch TV) configuration." The stakeholder suggested alternate language: "Place the STB in the On (Watch TV) configuration between the scheduled start time minus 30 minutes and the scheduled start time minus 15 minutes." • Whether a device must transition from "On Mode" to scheduled deep sleep at the scheduled sleep start time, or whether it must transition from "sleep" to "deep sleep."	EPA and DOE have clarified that the TV shall be turned on 30 minutes before the start of scheduled Deep Sleep to remove any ambiguity. At the scheduled time, the STB shall then transition from On Mode to Deep Sleep.
Deep Sleep	Thin Client	Two stakeholder commented that EPA should not limit Thin Clients from earning the Deep Sleep incentive.	For consistency with the VA, Deep Sleep will again apply to Thin Clients and Over-the-top IP STBs, similar to Version 3.0.
Deep Sleep	Scheduled and User-Activation Requirements	One stakeholder noted that EPA has proposed a Deep Sleep incentive for eligible boxes that translates into a 20% adder; however, most users will not take advantage of this feature nor realize the savings due to the unacceptably long recovery time. The stakeholder therefore requested that: • EPA require both the Deep Sleep button on the remote as currently defined, and inclusion of the deep sleep scheduler to receive the Deep Sleep incentive. • The deep sleep scheduler should be set and deployed with a default setting of 4 hours, from 1 to 5 am, or longer. Several stakeholders also jointly expressed support for the above proposals.	Per stakeholder comment, EPA has revised the Deep Sleep Incentive to require the STB to enter a scheduled Deep Sleep, however the default duration is open to the manufacturer, and the TEC incentive is proportional to the duration.
Deep Sleep	User Control	Several stakeholders jointly recommended that the user be able to modify the Deep Sleep settings at a later time, but that the manufacturer not be able to prompt the user to do so or disable the feature at a later date.	EPA agrees with stakeholders that the manufacturer or service provider not be able to prompt the user to disable Deep Sleep. Rather, EPA is proposing to require that users first be offered an explanation of the Deep Sleep feature and a chance to change the schedule to better suit their needs, before disabling.
Deep Sleep	General	One stakeholder group commented EPA should minimize the number of design constraints it places on service providers noting that cable operators engage in exhaustive consumer research for the design of their services and interfaces and expect to continue to refine services, interfaces and consumer experiences as they learn more about sleep experiences. Another stakeholder reiterated that implementation of a Deep Sleep State should never be a required condition for earning the ENERGY STAR mark.	EPA agrees with stakeholders in principle; however, it wants to ensure that the Deep Sleep Incentive provides energy savings so is therefore maintaining requirements on functionality provided to the user and behavior of the STB. However, EPA stresses that this is only an incentive, and is not a precondition for ENERGY STAR qualification.
Definitions	3D	One stakeholder suggested that EPA clarify the definition of 3D to specify that it refers to full-resolution rather than the frame-compatible 3D that is supported by industry today.	EPA is not proposing an adder for 3D so has not distinguished between the two types of 3D functionality proposed by the stakeholder.
Definitions	Auto Power Down	One stakeholder commented that the Auto Power Down mode definition refers to Off Mode which is not defined elsewhere in the Draft 2 specification.	EPA has removed the reference to Off Mode from the definition of Auto Power Down.
Definitions	Deep Sleep State	One stakeholder commented that the definition of Deep Sleep State needs to be clarified to include cases in which the device is allowed to take longer than 30 seconds to transition from Deep Sleep to On.	EPA has expanded the definition of Deep Sleep State such that it is no longer constrained by the 30 second recovery time of Sleep Mode.
Definitions	Multi-room	One stakeholder asked EPA to clarify whether the Multi-room allowance applies to interaction with Thin Clients or any type of Client.	EPA has removed the notebox that specifically mentioned Thin Clients. EPA's intention is that the Multi-room adder apply to all Clients; however, by providing live video, the expectation is that Multi-room STBs will be used primarily with Thin Clients. Also, EPA proposes to expand the definition to also include systems that support pause/time-shifting capability for otherwise standalone IP or Thin-client STBs.

Topic	Subtopic	Comment	EPA Response
Definitions	Multi-stream	One stakeholder requested clarification on the difference between Multi-Room and Multi-Stream, as Multi-room should be a subset of Multi-Stream.	Multi-stream is the ability to receive multiple streams of content from the Service Provider for any use, while Multi-room is the ability to distribute one or more of these streams to Thin Clients. All Multi-room STBs should have Multi-stream abilities while the reverse is not required, but the allowances are applied independently. I.e., one does not depend on the other.
Definitions	Product Type	One stakeholder asked if the Multichannel Video Programing Distributor (MVPD) is equivalent to the Service Provider Network.	EPA has changed the definition of Service Provider IP base type to be MVPD IP as some Service Providers are not classified as MVPDs.
Definitions	Sleep Mode	One stakeholder commented that the Sleep Mode definition refers to Off Mode but it is not defined elsewhere in the Draft 2 specification.	EPA has removed the reference to Off Mode from the definition of Sleep Mode.
Definitions	STB & DVG	One stakeholder requested that EPA revise the definitions of STB and Displayless Video Gateway (DVG). Currently, the two definitions reference "primary purpose", which is undefined. The stakeholder suggested referencing the defined term "Principal Function."	At this late stage, EPA is not proposing any further changes to the STB and DVG definitions.
Definitions	Thin Client	EPA's proposed definition of Thin Client is "a STB that can receive content over an HNI from another STB, but is unable to interface directly to the Service Provider network." One stakeholder pointed out the similarities between IP Thin Clients and full IP STBs and recommended that the definition be amended to focus on the device's ability to receive content from another STB and remove the prohibition on communicating with the network: "Thin Client /Remote: a STB that can receive content over an HNI from another STB, but is unable to interface directly to the Service Provider network."	At this late stage, EPA is not proposing any further changes to the Thin Client definitions.
Definitions	UUT	One stakeholder asked if the definition of Unit Under Test (UUT) should include Displayless Video Gateway.	EPA has modified the UUT definition to include Displayless Video Gateway.
Maintenance Activity		In Section 3.2.2, the term Maintenance Activity is used. A stakeholder commented that a definition specifically for Maintenance Activity should be added to Section 1 Definitions.	While not an exhaustive list, maintenance activities include software updates, program details, speculative recording, and reauthorization. EPA is hesitant to provide a specific definition as the specific functions provided by the STB may change over time; what matters is that the average power measured per the test procedure be representative of normal operation.
Scope	Displayless Video Gateways	Several stakeholders jointly expressed support for EPA's decision to include Displayless Video Gateways in the ENERGY STAR specification and to include allowances for STB network equipment functionality because it will help continued relevance as industry begins to provide content through such alternate means. However, one stakeholder noted that many of the requirements only mention STBs and not Displayless Video Gateways.	EPA has updated all requirements to clarify that they apply equally to STBs and Displayless Video Gateways.
Test Procedure	Displayless Video Gateways	One stakeholder commented that the instructions for measurement of On Mode for Displayless Video Gateways actually reference Sleep Mode.	EPA has corrected the DVG On Mode instructions to reference On Mode, not Sleep Mode.
Test Procedure	Rounding	One stakeholder noted that Eligibility Criteria, Section 3.1.1 reads as follows which is copied from what is normally used for meter resolution. 3.1.1 All measured and calculated power values shall be rounded as follows: i. 0.01 W or better for power measurements of 10 W or less; ii. 0.1 W or better for power measurements of greater than 10 W and up to 100 W; and iii. 1 watt or better for power measurements of greater than 100 W. The stakeholder noted that the term "or better" implies that it can be rounded to an even less significant digit and asked if it is intentional. The stakeholder suggested the words "or better" be deleted since they do not see the logic in requiring it to be rounded to a particular digit and then implying that it can be rounded to an even less significant digit.	EPA has harmonized the rounding requirements with those typical of other ENERGY STAR specifications, such that all calculations shall be performed with unrounded values, and rounding shall only be used for reporting.

Topic	Subtopic	Comment	EPA Response
Test Procedure	DOE NOPR	Various	On December 31, 2013, DOE withdrew the proposed test method for set-top boxes given the non-regulatory efficiency standards for set-top boxes. 78 FR 79637. Accordingly, EPA and DOE have aligned the test procedure for ENERGYSTAR with CEA-2043. As such, the comments pertaining to the NOPR test method are no longer relevant.