Topic	Subtopic	Comment	Recommended EPA Response
Definitions	Media Format	One stakeholder requested that EPA consider defining the A2 media format.	EPA does not see any justification for defining additional media formats at this time. A2 format is already included under the definition of Large Format.
Definitions	DFE	Several stakeholders suggested that the power supply language be the same for the Type 3 DFE definitions as for the Type 1 definition.	Although EPA agrees with this request, the request is moot, as EPA has removed the Type 3 DFE definition from Draft 2.
Definitions	DFE	Several stakeholders have stated that the Type 3 DFE definition in its current form could potentially exclude all third party DFE manufacturers from ENERGY STAR imaging equipment test requirements. Stakeholders suggest removing the Type 3 DFE definition or clarifying the intention of "not shipped with the product it supports" as that as seen as an administrative issue and could be used as a loop hole to not test DFEs in Version 2.0. One stakeholder expressed support for the proposed restrictive DFE definitions.	EPA has removed the Type 3 DFE definition from the specification and added the intent of the Type 3 definition in the Type 1 definition.
Definitions	Product Family	One stakeholder asked if CBs can certify product families whose members will be sold in the EU or Asia, as well as the U.S. and whether the non-US products will still be omitted from the qualified product list on the U.S. ENERGY STAR website? Another commented that although the Representative Model is correct, it was not clear whether the allowed variations within a Product Family applied to TEC adders, or just OM adders. Finally, a third stakeholder commented that the Product Family definition should include models operating at different voltages and frequencies, such that two models that are in the same product family	Non-US products will only appear on the Qualified Products List if they are also sold in the United States. However, products that are both qualified in the US and in other countries can be made available to other countries subject to agreements with EPA.
Definitions	Representative Model	One stakeholder suggested that "and" be changed to "or" in the definition as a product can only be option 1 or 2, not both.	EPA has removed the Representative Model definition from the definition section, as it is defined in more detail in Section 4.2.1 of the specification.
Definitions	Adders	One stakeholder expressed confusion at the shift in adder terminology and requested clarification whether proposed interface functional adders are the same as previously defined primary functional adders, while another clarified that interface adders would only receive allowances when used during the test, while non-interface adders would only receive allowances if they provide value by remaining active during Sleep. Several stakeholders have requested that the reference to primary functional adder be removed as it is no long proposed to be used.	EPA has clarified the adder definitions and has removed all references to Primary and Secondary from Draft 2.
Scope	Scanners and Fax Machines	One stakeholder expressed support for keeping scanners and fax machines in the scope of the proposed specification. The stakeholder claimed that 2010 shipping volumes for both products were higher than copiers, which are included in Version 2.0, and therefore should be retained.	EPA thanks the stakeholder for this comment. Both product types have been retained in Draft 2.

Scope	Small-format High-performance Ink Jet	Although one stakeholder commented in favor of including Small-format High-performance Ink Jet products as a new TEC category due to technological similarity, several others questioned the applicability of the TEC test method to Small-format products.	According to the proposed test method, small-format products can be tested under the TEC test method as long as their speed can be calculated (when printing on continuous-form or 4x6 paper). EPA welcomes further comment on any small-format products that cannot print on continuous-form or 4x6 paper.
Scope	Standard Format Impact MFDs	One stakeholder expressed support for the addition of standard format impact MFDs, subject to the same OM requirements as impact printers.	EPA thanks the stakeholder for this comment.
Scope	Excluded Products	One stakeholder noted that Section 2.2.2 does not require Subsection 2.2.2.i and recommended merging the two.	Although EPA agrees with the spirit of the request, this formatting is standard across all ENERGY STAR product categories and EPA will retain it for consistency.
General Requirements	Rounding	One stakeholder requested that EPA provide further guidance on the rounding requirement.	All comparisons with the specifications limits shall be performed using measured, unrounded values. Rounding shall only be performed for the purposes of display on the qualified products list, in which case the rounding shall be performed to the level of accuracy of the requirement provided in the specification, e.g., if the TEC limit is (s x 0.07) + 1.4, the reported value shall be rounded to the first digit after the decimal.
General Requirements	External Power Supplies	Several stakeholders suggested combining the duplicate External Power Supply requirements in Section 3.2.1.	Although EPA agrees with the spirit of the request, this formatting is standard across all ENERGY STAR product categories and EPA will retain it for consistency.
General Requirements	Wakeup	Several stakeholders have requested that the Wakeup requirement be removed from the specification or added as an optional suggestion or note. The stakeholders note that it will be difficult to certify that products meet such a vague requirement and argue that the current test method should already account for energy consumption caused by wakeups. If the requirement must remain, a clear definition and test procedure for proving compliance is desired. One stakeholder requested that the acronyms "UUT", "ARP" and "NS" be clearly defined.	EPA and DOE agree that further work would be required to make wakeup testing unambiguous, requiring a re-opening of the test method. As the test method is now nearing completion, DOE and EPA will not address the wakeup issue in this version of the specification, and the wakeup requirement has been removed from Draft 2.
DFE Requirements	DFE Power Supply Requirements	One stakeholder expressed support for removing the DFE power supply efficiency requirements.	EPA thanks the stakeholder for the comment.
DFE Requirements	Type 2 DFE Testing	One stakeholder commented that treatment of Type 2 DFEs should be revised and replaced with a system-wide power measurement to include the marking engine, DFE, and any adders. This would avoid the current problems with disassembling the product to test a Type 2 DFE, which may be damaging to the product and also difficult to do repeatably.	EPA is maintaining the current treatment of Type 2 DFEs, as in a single system-wide test of both the DFE and the marking engine, the DFE energy consumption could overwhelm that of the marking engine. EPA also notes that the current test method has been used successfully in the past.
DFE Requirements	Similarity with Small-scale Servers	One stakeholder commented that DFEs differ from small-scale servers by not just storing and print jobs, but also performing complex calculations, and are typically based on desktop or workstation computer hardware. On the other hand, two stakeholders expressed support for the resultant requirements based on small-scale servers.	EPA thanks the stakeholders for the comments. EPA has revised the DFE requirements in Draft 2 to better reflect the processing capability of DFEs, which can differ from that of small-scale servers.

DFE Requirements	Ready Mode Requirements	Although one stakeholder commented in favor of the proposed Ready Mode power limits, another expressed concern that the current approach does not fairly address DFEs with multiple central processing units (CPUs). The stakeholder suggested that the 65 W ready mode power requirement apply to each multicore CPU, as each CPU contains circuitry duplication and individual memory controller and DIMMs.	EPA is proposing a higher allowance for DFEs that incorporate multiple CPUs or a CPU and GPU. This proposal will cover DFEs that contain additional processing power for tasks such as high speed color image processing. This new allowance is derived from the Version 6.0 Computer Specification data set for desktop computers.
DFE Requirements	ProxZzzy	One stakeholder expressed general support for ProxZzzy or other low-power management protocols, but questioned their feasibility with today's hardware. Instead of a prescriptive requirement, the stakeholder recommended that EPA set appropriate power levels to spur manufacturers to develop creative energy saving solutions.	EPA is proposing to change the DFE Ready Mode power requirements into a DFE-specific TEC requirement. This provides another path to qualification for DFEs that implement network capable sleep mode.
Definitions	Product Speed	One stakeholder has requested a definition for product speed ('s') in the specification document as opposed to the test method.	Although product speed is not a measured quantity, it is obtained according to a multi-step procedure similar to other parameters such as TEC and furthermore influences the Job Size and other testing parameters. Therefore, EPA will leave the calculation of product speed in the test method.
TEC Requirements	Automatic Duplexing	Several stakeholders commented that automatic duplexing requirements from Version 1.2 should remain unchanged. The proposed duplexing requirements could exclude already-designed products and cause extensive design changes, increasing the cost of previously inexpensive entry-level models and discouraging individual consumers and users in developing countries from buying ENERGY STAR. Moreover, stakeholders commented that some uses continue to benefit from simplex printing, further discouraging users from purchasing compliant models. Some stakeholders requested that EPA wait for new products to be released or perform market research on the automatic duplex feature before altering requirements. Alternatively, some stakeholders proposed compromise requirements that would increase the products that would need to have automatic duplexing while excluding consumer products. Lastly, stakeholders cited the Blue Angel program, which has adopted the current Version 1.2 duplexing requirements. On the other hand, one stakeholder stated that the proposed levels are appropriate for color non-MFDs and all MFDs, but that mono printers should be allowed to be simplex at ≤ 24 ipm, while another commented that the current automatic duplexing requirements for monochrome products be extended to color. One stakeholder recommended that if energy consumption per page is much higher in simplex compared to duplex, that manufacturers should inform the customers of this.	Due to the energy embedded in each sheet due to the paper-making process (on the order of 10 watt-hours), EPA continues to seek ways to promote automatic duplexing in Imaging Equipment. However, due to stakeholder concerns with special-use cases where automatic duplexing would not be practical and the potential effect of discouraging lower cost ENERGY STAR printers, EPA has revised the proposed Automatic Duplexing requirement in Draft 2, preserving the same requirement for color and monochrome, but raising the requirement limit to above 26 ipm.

TEC Requirements	Methodology	Several stakeholders requested additional details on the methods used to set the proposed TEC requirements: in particular, the stakeholders requested: - A comparison between the data used in the analysis and the latest qualified products list (QPL) - Explanation of why MFDs and non-MFDs were combined in the analysis - Breakdown of the analysis by different speed ranges, including a re-analysis based on speed ranges commonly used to describe the market - Explanation of the sources and use of non-qualified data Furthermore, two stakeholders commented that maximum TEC requirements should be based off representative data from all qualified products under V1.1 plus non-qualified products, not just those from the latter half of 2011.	In response to stakeholder comments, EPA revised the TEC limits, using data on products qualified in 2010–2012, the four product divisions in Version 1.x (MFD and non-MFD, color and monochrome), and additional segments to the qualification line for a more granular requirement. As in Draft 1, non-qualified models were included in the qualification rates. These models were provided by Partners and found on manufacturer (both Partner and non-Partner) websites, and provided EPA with a fuller view of the market than qualified-product data alone. TEC values for these models were typically not provided by manufacturers, but because these models were not qualified, EPA assumed that their TEC values were greater than the current limit for ENERGY STAR qualification. Thus the distribution of models analyzed within each speed bin consisted of qualified models meeting the requirement (with diverse reported TEC data) and non-qualified models (with TEC assumed greater than the requirement).
TEC Requirements	Combining MFDs and Non MFDs	Several stakeholders do not support using the same TEC limits for both MFDs and non MFDs, although the reasons differed: some noted that grouping MFDs and non-MFDs creates overly stringent requirements for MFDs, while others thought the opposite, that proposed requirements were too stringent for non-MFDs. This mismatch may be due to covering differing product types under one requirement and so stakeholders commented more generally that EPA should review the differences in capability and cost between MFDs and non-MFDs. One stakeholder requested clarification on how the new test method will impact the current dataset, and to what extent corrections to the existing datasets and analysis will be implemented.	Based on stakeholder comments, EPA has revised the TEC analysis and proposed new TEC requirements in Draft 2, with the benefit of a more consistent qualification rate across the full range of product speeds.
TEC Requirements	Requirement Levels	Several stakeholders expressed concern that the current TEC requirements are overly restrictive for certain product types, leading to potentially impractical energy saving measures such as shortened delay times that will frustrate users, though one stakeholder was more hopeful, citing Deep Sleep Modes as a potential source of energy savings. Stakeholders also called out specific speed ranges where the requirements were too stringent. In some cases (38-44 ipm and above 90 ipm), only one manufacturer could qualify products. In verbal comments, stakeholders have requested that EPA focus on the qualification rates in the 38-44 ipm speed range, as these products are important for government procurement, where ENERGY STAR is a requirement. One stakeholder expressed concern that specific speed ranges are far too lenient, specifically pointing out monochrome printer products.	Based on stakeholder comments, EPA has revised the TEC analysis and proposed new TEC requirements in Draft 2. The revised levels continue to achieve significant energy savings over Versions 1.1 and 1.2; however, since the levels are achievable by 25% of currently available products, EPA does not expect them to require redesigns that will frustrate users. The revised TEC analysis also took into account the speed ranges noted by commenters, such that a representative range of models should be able to qualify under the Draft 2 requirements.
TEC Requirements	TEC Default Delay Time	Stakeholders differed on whether default delay time should be reported for TEC products, with one commenting that it is not warranted while another commenting that it would be good for consumers.	To assess the impact of the Version 2.0 requirement levels on usability, EPA proposes to require reporting of Default Delay Time to Sleep for TEC products.

Recovery Time		One stakeholder requested that recovery time in TEC products be disclosed on the ENERGY STAR qualified product list, since it is a key variable in comparing the usability of products, while another asked for guidance on reporting it for OM products. On the other hand, several stakeholders raised the concern that there are several potential definitions for recovery time, and the current test method does not repeatably measure recovery time with some speaking out against reporting it for TEC products while others for OM. Some of the stakeholders recommended starting the recovery time measurement from a known point, namely the speed of a sheet exiting the product after a previous job had completed.	The earlier confusion regarding recovery times involved the Active0 Time, which was the time from when the UUT displayed that it was Ready to the time that the first sheet completed printing. Because different models may display their readiness under different conditions, this value was not well controlled. Active1 Time, on the other hand, involves time until the first sheet prints from Sleep Mode, an important and better-controlled usability parameter. Since Recovery Time/Active1 Time is a potentially useful parameter for EPA to evaluate the impact of the Version 2.0 requirement levels on usability, EPA proposes to require reporting of Recovery Time/Active1 Time for all TEC Products.
OM Requirements	Default Delay Time to Sleep	Two stakeholders commented that the Draft 1 proposal for the Default Delay Time to Sleep requirement differs from Version 1.1, and requested edits specifying that the user can adjust the Delay Time up to the Maximum Machine Delay Time. Additionally, one stakeholder stated that many OM products, especially of standard and small format sizes have, short recovery times which may merit reducing their maximum default delay times in Table 5.	EPA agrees with the stakeholder comments and has revised Draft 2, specifying the default delay time is user adjustable up to the maximum machine delay time, as was specified in Version 1.1.
OM Requirements	Large-format Printers	Several stakeholders commented that the reduction in the Sleep Mode power requirement for Large-format Printers, whether Impact or Ink Jet, was too great, and brought the levels below those required of comparable product (e.g., Small-format Printers). One stakeholder noted that Large-format Impact Printers have long design cycles and mature technology, leading to the exclusion of products from the QPL. One stakeholder that the resultant qualification rate would be less than 13 percent. Another noted that such low power levels can only be achieved by moving significant functionality to a DFE. The stakeholders proposed different requirements (9 W for Large Format Impact and 13.3 W for Large Format Ink Jet) that they thought were more reasonable.	To address these and related stakeholder concerns, EPA performed a new analysis, using updated data and excluding older models as well as any with incomplete or inconsistent data. During the re-analysis, EPA also reviewed the impact of the following additional functionalities on qualification: 1. DFEs (to address stakeholder concerns that DFEs may be masking some sleep mode power); 2. Power supply output power rating (to address stakeholder concerns that products with larger power supplies have additional functionality beyond what is captured by the adders, and should therefore receive an additional allowance); 3. USB power for scanners (since USB power is not reported, EPA used power supply output power rating as a proxy, excluding those with output power less than or equal to 10 W from the analysis); and 4. Finally, EPA implemented some stakeholder suggestions regarding functional adder allowances. The re-analysis did not find that the levels proposed in Draft 1 discriminated against products with DFEs or larger power supplies (especially once the power supply adder was used for inkjet and impact products). Similarly, USB versus ac power did not significantly affect the Sleep Mode base allowance for scanners.
OM Requirements	Scanners	One stakeholder commented that USB powered scanners have a maximum power use of 2.5 W (limited by the USB port) and they may be skewing the data set to the exclusion of ac-powered scanners. The stakeholder recommended excluding USB powered scanners from the analysis.	EPA has re-analyzed the Sleep Mode of Scanners for Draft 2, taking excluding from the analysis any scanners with power supply output power less than 10 watts, which could be powered by USB.

OM Requirements	Methodology	One stakeholder questioned the data used in EPA's analysis of OM products. In particular, for some products, the reported Sleep Mode power was greater than or identical to the Ready Mode power.	EPA has analyzed the qualified product list and determined that most of the errors were made before the CB system was implemented and can removed by excluding older data. The Draft 2 analysis excludes any products with Sleep Mode power greater than Ready Mode power.
OM Requirements	General Approach	Several stakeholders do not support the overall OM approach and believe the proposed changes do not allow different functions and features to be available for different markets. These stakeholders commented that EPA is providing an advantage to products that contain fewer features that must be maintained during Sleep Mode or quickly activated from Sleep. One stakeholder stated that in adjusting the base sleep mode power allowances, all currently qualified small format printers would pass without the additional of any adders, suggesting this base sleep level may need to be revised. Additionally, large format copiers, mailing machines, and standard format impact printers have high pass rates under the new base power allowances, before adder allowances are taken into account.	EPA thanks stakeholders for their comments, but disagrees that the revised OM levels exclude high-functionality products. As described in the OM Analysis Supporting Document, a variety of products that had formerly claimed high adder allowances can continue to qualify under the revised OM levels, as adders in use during the test will continue to receive allowances. However, the levels are not too lenient either, with only a small portion of all models qualifying (including qualified and non-qualified models), resulting in significant savings under Draft 2.
OM Requirements	Power Supply Adder	Several stakeholders disagree with the removal of external power supplies (EPSs) from the adder list. There is concern that the EPA based this decision on low-power EPSs which are only a subset of the OM market, or the no-load power of EPSs, which can be much lower than low-load power. Another stakeholder noted that the output power of the power supply is a proxy for product speed: higher speed products tend to have larger power supplies. The more capable processors of these higher-speed products require additional power in Sleep Mode, and the power supply adder was intended to account for that. The stakeholder commented that if the power supply adder is removed, it should be replaced with some speed-based adder.	EPA is proposing to put back the power supply adder for standard-format ink jet and impact products other than mailing machines, because there is a correlation between higher functionality in all imaging products and power supply ratings. The allowance remains unchanged at 0.02 W per each watt above 10 W.
OM Requirements	Cordless Phone Adder	One stakeholder commented that the cordless handset adder level is too low, as it takes about 1 watt to maintain a connection.	A review of ENERGY STAR qualified Cordless Telephones indicates that the 0.5 W power consumption proposed in Draft 1 is only achievable for the Additional Handset of a Cordless Telephone system, not the Base Stations typically integrated into Imaging Equipment. As a result EPA has increased the Cordless Handset allowance to 0.8 W in Draft 2, which was the requirement under Version 1.2.
OM Requirements	Adder Allowances	Several stakeholders recommended new or revised Sleep Mode adder allowances for inclusion in Version 2.0, specifically: - 0.2 W for a touch-panel display - 0.15 W for hard disk drives - 0.5 W per gigabyte for memory - 1.3 and 1.6 W for WiFi	EPA has incorporated allowances for touch panel displays and hard disk drives in Draft 2, per stakeholder comment. EPA has also clarified that the memory adder is applicable per gigabyte of memory. Lastly, although one manufacturer has reduced the power of their WiFi interface to 1.6 W, EPA has retained the allowance at 2 W in Draft 2, to allow a broader range of manufacturers that cannot achieve 1.6 W to qualify.

OM Requirements	Number of Network Connections	Some stakeholders commented that the number of network connections allowed during test are unclear, including the requirement to test only one interface (with the exception of a fax capability, which should also be connected if present). Some stakeholders commented that it is currently unclear whether fax capability should be tested when fax is not the primary function of the UUT, with one stakeholder stating that the fax test should be optional. Conversely, some stakeholders commented that it is unclear what to do when fax capability is absent; whether allowances for card readers or camera interfaces can be used in place of the fax allowance if fax is not available, with one stakeholder arguing that manufacturers should be allowed to specify the interface used in place of the absent fax for testing and allowances. One stakeholder even commented that manufacturers should be allowed to choose whether to test and claim the fax allowance or an allowance for another interface, even when fax is present. Lastly, one stakeholder noted that the fax allowance should be added to Table 7 in the specification.	The Version 2.0 test method continues to require that only one network connection shall be used for the test, and the OM Sleep Mode requirement in Draft 2 continues to provide an allowance only for the interface used during test. However, if the product has a fax connection (even if that is not its primary function), the fax shall also be connected during the test and an additional allowance of 0.2 W shall be applied. This approach has not been changed since Draft 1; however, EPA has clarified the explanation of the single-network-adder requirement and the exception for fax functionality.
OM Requirements	Auto Duplexing	One stakeholder commented that Auto Duplexing requirements be considered for OM products.	Since OM products are assumed to be used infrequently, EPA does not expect significant amounts of paper to be used, limiting the benefit of Automatic Duplexing. Therefore, EPA is not proposing to require Automatic Duplexing for OM products in Draft 2.
OM Requirements	Scanner Lamp Adder	Two stakeholders stated that it is not clear if the adder for cold-cathode fluorescent lamp (CCFL) or non-CCFL scanner lamps, designed to differentiate between single-function products and MFDs, should be applied to single-function scanners. The stakeholders further commented that the adder is duplicative and should not be applied.	In response to stakeholder comments, Draft 2 has been revised to clearly state that the scanner lamp adders apply only to products that are not dedicated scanners.
OM Requirements	PC-initiated Standby	Two stakeholders requested that EPA allow scanners connected to a PC via USB to enter Standby Mode in conjunction with PC shutdown.	EPA thanks stakeholders for their comments but disagrees with allowing the scanner's state to depend on the state of the connected PC and has clarified this position in Draft 2.
OM Requirements	Maximum Standby Power Requirement	One stakeholder expressed support for the reduction of the standby power requirement. The stakeholder stated that EU Eco design Energy-related products (ErP) legislation will require this level by January 1, 2013 for all imaging equipment products sold in Europe. (*reg no. 1275/2008*). Furthermore, the stakeholder recommended including a requirement on network capable standby for all imaging equipment products corresponding to the EU ErP requirements currently under development. Additionally this stakeholder expressed concern in qualifying products that have no distinct sleep mode but meet the maximum standby requirements. The stakeholder stated that all products should have power management and reduce their power consumption to a level at or below the required sleep mode level.	EPA wishes to clarify that products without a distinct Sleep Mode or Off Mode will only be able to qualify if they meet the Sleep Mode and Standby Power requirements in their Ready Mode.
OM Requirements	Delay Time to Standby	Two stakeholders asked if there is a standard for the maximum waiting time to enter standby mode automatically. According to the stakeholders, some CBs have stated that the waiting time for entering standby mode should be within 4 hours, which differs from Version 1.1 criteria.	The specification does not require a Default Delay Time to Standby; however, the Standby Power requirement may be met in Sleep Mode and there is a Default Delay Time to Sleep requirement for OM products. EPA has clarified this further in Draft 2.

Toxicity and Recyclability	General	Many stakeholders commented that Section 3.6 (Toxicity and Recyclability Requirements) should be removed from the specification and that ENERGY STAR should focus solely on energy efficiency and other performance attributes that "impact the function and use of the product by consumers." Stakeholders further noted that the proposed non-energy requirements: - Duplicate efforts of other programs (the EU Ecolabel, RoHS, and EPEAT) - Hurt international harmonization between these programs - Hurt international harmonization between ENERGY STAR in different countries - Distract from the ENERGY STAR efficiency brand - Impose additional certification burdens and verification problems, not just for manufacturers but also for the program, when claims cannot be verified, eroding trust - Are too simplistic to reflect the full complexity of RoHS compliance More fundamentally, one stakeholder noted that if most products already meet RoHS criteria and the Toxicity and Recyclability requirements are not intended to be used for differentiation, then there does not appear to be a justification for including them, and that EPA has not presented data to support the need. Stakeholders offered additional alternatives to deletion of the requirements, including: - Further excluding the requirements from certification by moving them to the Partner Commitments - Clarifying what documentation would be required to demonstrate compliance - Better defining toxicity and recyclability - Leading further discussions with stakeholders for inclusion in a subsequent specification version (not Version 2.0) One stakeholder expressed support for non-energy requirements that are not intended for international adoption.	EPA remains committed to including attributes related to other aspects of product performance in ENERGY STAR specifications to ensure that overall product performance is maintained relative to a non-qualifying product. By including additional attributes, the ENERGY STAR program seeks to avoid associating the label with models of poor quality or models with features that are not compatible with broadly held consumer or societal interests, thereby preserving the influence of the label in the market. In response to significant stakeholder concern that placement of toxicity and recyclability requirements in the product eligibility criteria would hinder international harmonization, EPA is proposing that these criteria reside instead in the ENERGY STAR Partner Commitment document, which is unique to the US market. As such, EPA has removed the Toxicity and Recyclability requirements from the eligibility criteria. Further, in response to feedback, EPA notes in the Partner Commitment document that it is the Agency's intention to harmonize with EU RoHS and that the toxicity and recyclability requirements are not subject to third-party certification.
Toxicity and Recyclability	Referencing	Several stakeholders commented that if EPA does decide to keep Section 3.6 despite stakeholder objections, EPA should incorporate the EU RoHS (*directive 2011/65/EU*) and EPEAT (*IEEE 1680*) requirements by reference, including all exemptions, rather than incorporating them verbatim. According to stakeholders, this would avoid mismatch with the details of the EU requirement, as happened in the case of exemptions: the Toxicity and Recyclability Requirements proposed in Draft 1 include exemptions that are inconsistent with RoHS and requested that EPA correct the error by referencing the EU ROHS requirements. Two stakeholders also noted that it is unclear what would happen once the external requirements (EU RoHS and EPEAT) are updated. Others noted that incorporating them by reference would help prevent inconsistencies once the external requirements are updated.	

Toxicity and Recyclability	Disassembly and Recyclability	Some stakeholders requested clarification on the criteria for ease of disassembly and recyclability and expressed concern that safety and technical requirements prohibit ease of disassembly in certain situations, but that no exemptions were included in Draft 1 (in contrast with *IEEE 1680.1*). Similarly, one stakeholders commented that EPA should clarify which parts of *IEEE 1680* would be required and optional, while two others commented that EPA should limit the requirement to the "recycle percentage/recovery percentage". Two stakeholders noted that EU *WEEE* is a superior reference for recyclable design to *IEEE 1680*; moreover, *IEEE 1680.2* (for imaging equipment) has not yet been finalized and so should not be referenced. Several stakeholders also commented that ease of disassembly is not central to the goals of the ENERGY STAR program and would be difficult to verify.	
Toxicity and Recyclability	Documentation	One stakeholder noted that EU RoHS and WEEE Directives require manufacturers to maintain documentation demonstrating compliance with the directives, and that it is currently unclear what documents would have to be filed to demonstrate compliance with Draft 1.	
Testing	Table of Test Methods	One stakeholder commented that Section 4.1.1 does not need Table 9 anymore and can be reduced to one sentence.	Although EPA agrees with the spirit of the request, this formatting is standard across all ENERGY STAR product categories and EPA will retain it for consistency.
Testing	Number of Units for Testing	Several stakeholders support the elimination of additional models required for testing when the first test is close to the requirement level, some noting that this passes the burden of quality control back to the manufacturer. One stakeholder commented that in addition to the highest-energy using configuration within the family, a 115 volt unit should also be tested, as noted in Section 4.2.3, while another commented that the international testing provision in Section 4.2.3 should not apply for models in the same Product Family that only differ by frequency and voltage. One stakeholder requested that the existing requirements should be retained in the legislation that is transposed for EC use, as the enhanced verification testing will not be carried out in Europe.	EPA thanks stakeholders for their comments on the number of units required for test, and continues to require only one test for each representative model in Draft 2. Also, EPA has resolved the potential conflict between the Product Family definition (which permits variation in voltage and frequency) and international market qualification (which requires testing at each voltage where marketed), by removing input voltage and frequency from the list of allowable variations under the Product Family definition. Since products with differing input voltage and frequency are intended for different international markets, they shall be qualified separately and qualified at their relevant voltage and frequency combinations.
Future Issues for Consideration		One stakeholder commented that EPA should begin developing a list of topics for consideration in the Version 3.0 specification, to include ProxZzzy (ECMA-393).	EPA thanks the stakeholder for the comment and has included a list of issues for future consideration in Draft 2.
Third-party Certification	Retesting Products to Version 2.0	Some stakeholders asked if products qualified during Version 1.2 by CBs must be retested for Version 2.0 due to changes in the Version 2.0 test method. A request was made to allow CB-certified Version 1.2 data to remain on the qualified product list past the Version 2.0 effective date if the product passes the Version 2.0 criteria, either indefinitely or for a set grace period. Another stakeholder made a similar request, except for products qualified to Version 1.1 (prior to third-party certification). Stakeholders cited concerns with the redesign of products as well as testing burdens caused by the large number of products that would have to be re-tested at the same time.	EPA will require that all products tested under Version 1.2 will have to be recertified under Version 2.0 due to changes in the test method. EPA will not allow products to be grandfathered regardless of their performance when tested under the previous test methods.

Effective Date	Delaying Effective Date	Several stakeholders commented that the effective date should be delayed to 1-1.5 years after the finalization date. Some stakeholders noted that the additional time would be necessary to re-design products to meet the new requirements, while others noted that merely re-testing 25% of currently-qualified products would require additional time, due to CBs certifying displays and computers (ENERGY STAR product categories also undergoing specification revisions).	The 9-month period between the finalization and effective dates is not intended to allow stakeholders to redesign all products prior to the launch of Version 2.0, but rather to recertify existing products or remove labels if the product cannot meet the revised specification, which should be achievable in 9 months. EPA realizes that recertification can not begin until the test method is finalized and is working towards finalizing as soon as possible. This process can not be completed until it is certain that no additions need to be made to the test method due to changes/additions to the specification. The test method will likely be finalized prior to the specification finalization, giving a minimum of 9 months to recertify products.
Effective Date	CBs Accepting Test Results	One stakeholder asked when CBs will start accepting test results according to the Version 2.0 standards. There is confusion as to whether this process begins before the effective date or on March 1, 2013.	CBs will be able to able to certify test results for Version 2.0 once the test method is finalized.
Third-party Certification		One stakeholder requested that EPA delete references to Third-party Certification from the final version of the specification as some ENERGY STAR partner countries do not require it.	EPA agrees with this comment and has removed all references to Third-party Certification in Draft 2.
General	Units of Measurement	One stakeholder commented on the units of measurement used in the specification, noting that TEC values may be better represented in watt-hours rather than kilowatt-hours, and that time may be more accurately measured in minutes or seconds rather than hours.	Rather than change the units to watt-hours per week, EPA has modified the Draft 2 specification by adding TEC requirements in kilowatt-hours per year, which is a standard unit used in many others ENERGY STAR specifications. These requirements are currently provided for informational purposes only, but may be used as the sole method of qualification in subsequent versions of the specification.
General	Remanufactured Models	Three stakeholders asked EPA to consider ENERGY STAR qualification for remanufactured imaging products that cannot meet current qualification criteria. The stakeholders suggested providing modified efficiency requirements or allowances for remanufactured products.	Although EPA understands the benefits of remanufactured models, the structure of the ENERGY STAR program permits only one Version of the specification to be valid at any one time, such that remanufactured units would have to meet the same requirements as newly manufactured models.
Test Method	Inconsistencies with Specification	One stakeholder noted that there are discrepancies between the Draft 1 specification and the latest draft test method, and requested additional time to comment on the test method.	EPA encourages stakeholders to provide additional comments and has integrated Draft 2 with the test method to the extent possible.