



Information Technology Industry Council
Leading Policy for the Innovation Economy

TO: Chris Kent
U.S. Environmental Protection Agency

FROM: Ken Salaets
Director

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SUBJECT: Draft 1 of Version 2 of the ENERGY STAR® Imaging Equipment specification

The Information Technology Industry Council (ITI) appreciates the opportunity to offer comments regarding the first draft of the ENERGY STAR® Imaging Equipment Version 2.0 specification. Manufacturers have worked diligently since the inception of this program to develop products that comply with current and previous versions of ENERGY STAR specifications based on the presumption of partnership with the Environmental Protection Agency (EPA). We have serious concerns regarding the direction of the program as reflected in this draft. We hope that the agency will fully take into account industry's concerns and give these comments serious consideration as this process moves forward. As always, we would be happy to provide greater detail regarding our concerns and recommendations.

General Comments

Pace of Revisions and Allowance for Commenting

ITI is greatly concerned at the pace EPA is releasing specifications that impact imaging equipment. Within the span of six weeks, the EPA Energy Star Office has released 1) a draft document outlining ENERGY STAR policies and procedures, 2) a new draft specification for displays, 3) and new draft specification for computers, and 4) the draft imaging equipment specification. The rapid pace of the releases, along with very limited comment periods (typically only 3 weeks) degrades industry's ability to help EPA develop appropriate standards for information and communications technology (ICT). This pace places an incredible burden on manufacturers, and creates a significant risk that the resulting specifications will lead to unintended consequences that could damage ENERGY STAR brand acceptance.

Maturity of IE Equipment

Imaging Equipment manufacturers have been working with EPA for 20 years to voluntarily improve product energy efficiency. Over time span, substantial progress has been achieved in reducing energy consumption. Many innovations and engineering work has greatly increased the energy efficiency of our products. With this in mind, ITI offers the following comments related to Draft 1 V2.0:

- The “low hanging fruit” for further efficiency gains is gone for imaging equipment. Future changes in energy efficiency specifications will result in fewer features, lower responsiveness and/or lower customer satisfaction with our products.
- Any further gains in efficiency will be much more expensive and take more time to achieve, and be more resource intensive.
- Any further gains in efficiency will also effectively violate many of the ENERGY STAR principles identified by EPA:
 1. Significant energy savings can be realized on a national basis
 2. Product performance can be maintained or enhanced with increased energy efficiency
 3. Purchasers will recover their investment in increased energy efficiency within a reasonable period of time
 4. Energy-Efficiency can be achieved through one or more technologies such that qualifying products are broadly available and offered by more than one manufacturer
 5. Product energy consumption and performance can be measured and verified with testing
 6. Labeling would effectively differentiate products and be visible to purchasers.
- EPA’s proposed changes to the ENERGY STAR Imaging Equipment specification appear to reduce the utility of ICT devices at a time when more and more of them are connecting to the Internet and are expected to be able to communicate at anytime, anywhere.

Given all of the above, we are concerned that the future of imaging equipment in the ENERGY STAR program is in jeopardy. We intend to raise this topic in forthcoming meetings with agency staff.

Timelines for Transition to V2.0

ITI believes that the current nine month timeline is insufficient to re-certify a significant number of products to the forthcoming ENERGY STAR Imaging Equipment V2.0. According to the

EPA product dataset, there are 3800 Imaging Equipment models. If 25% of those models are registered, then 950 products would need to be certified. Assuming that Certification Bodies (CB) take on average four hours to complete a certification, this is 475 working days to certify the new products. The certification process for products under Version 2.0 cannot start until the standard has been finalized, and is unlikely to start with the first three months of the typical nine month transition period. While this workload would be spread among multiple CBs, the cumulative effect of certifying new ENERGY STAR displays, computers and imaging products at the same time, by the same CBs, will be overwhelming and cause serious delays in bringing ENERGY STAR qualified products to market. To help lessen this impact, ITI recommends that EPA adopt at least a one year transition period from the finalization of the V2.0 specification to the date the new specification goes into effect.

Toxicity and Recyclability Requirements (Section 3.6)

It is very unfortunate that EPA chose to insert non-energy attributes (NEAs) into Draft 1 of the Imaging Equipment specification. NEAs are ENERGY STAR product requirements that are totally unrelated to product energy efficiency of a product. While ITI and its member companies recognize the need to include certain criteria in specifications related to the functional performance of products, we believe this should be limited to those criteria that directly impact the function and use of the product by consumers. We strongly oppose the inclusion of attributes that do not affect the functional performance of the product as viewed by the consumer, to include the NEAs contained within 3.6. We believe the addition of these NEAs risks: diluting the focus and brand of the program; eroding the international convergence of energy efficiency criteria; complicating certification and verification; increasing manufacturer costs without generating benefits; and, creating redundancy or conflicts with other programs or regulations.

The EPA justification, outlined in item 3.6 of Draft 1, is “to ensure that overall product performance is maintained relative to a non-qualifying product,” or as stated in the proposed ENERGY STAR Vision and Guiding Principles published on January 25 of this year, to “avoid associating the label with poor quality or otherwise undesirable product models, thereby preserving the influence of the label in the market.” We are unaware of any evidence that such a problem exists for ICT equipment, i.e., that EPA has found ENERGY STAR-certified imaging equipment exhibiting undesirable toxicity or recyclability characteristics. EPA has certainly cited no such evidence.

Further, the toxicity and recyclability criteria EPA has proposed for inclusion in 3.6 do not correlate with any product quality or performance attributes or characteristics that would be affected by the energy efficiency or green house gas (GHG) emissions of the products.

ITI therefore strongly opposes the proposed inclusion of 3.6 within the Version 2.0 specification. We are aware of no justification for imposing these NEAs that would offset the following risks:

- 1. International Convergence.** Both ITI and EPA have strongly supported efforts to further align energy efficiency regulations for ICT products, as evidenced by our joint efforts at the September APEC Conference held in San Francisco. The presence of these particular NEAs in ENERGY STAR risks: (1) creating further momentum towards divergent national Energy Star like programs; (2) providing an opportunity for other governments to adopt these criteria as mandatory; (3) opening up the option for various regions to reinterpret the criteria to their own regional version (e.g. China RoHS instead of EU RoHS); and, (4) supplying a precedent for other governments to cite when adding new, extraneous and/or protectionist criteria of their own into their energy efficiency regulations. We think these risks greatly outweigh any potential benefits.

In this regard, ITI notes again the comments filed by the European Commission, stating in regards to earlier draft specifications, “We consider that in the context of EU ENERGY STAR, preparatory work should remain focused on product energy consumption in the use phase. Other environmental aspects throughout the life-cycle of products are considered in different EU programs such as the Ecolabel, the Green Public Procurement and Ecodesign ErP.” Such criticism of the proposed inclusion of these NEAs into ICT- related ENERGY STAR specifications is consistent with the comments we are hearing from foreign government officials in our meetings with them.

EPA states that it has “added language making clear that the non-energy requirements proposed here are not intended for international adoption.” This is of no comfort to ITI and its member companies, as it not responsive to our criticism and concerns. What we seek is continued U.S. EPA leadership on international convergence on product energy efficiency. What we fear is international customers no longer being satisfied with U.S. ENERGY STAR compliance, and also further momentum towards governments elsewhere carving out new national exceptions and unique requirements. Other governments globally are already dangerously inclined in this direction – having the U.S. EPA supply a prime exemplar is not helpful.

- 2. Certification.** While we appreciate EPA’s statement in 3.6.3 that “for purposes of third-party certification, toxicity and recyclability requirements shall not be reviewed when products are initially qualified or during subsequent verification testing,” we are not convinced that this will prevent CBs from requiring validation of these commitments. As the CBs are independently audited to ISO Guide 65, their accreditors may expect them to demonstrate due diligence in auditing all elements of a specification, including those areas that are not expressly required to be certified, and some of our member companies have already been informed that this may occur with these NEAs. Also, at least one

international partner has made comments indicating that they will require compliance with all requirements in the ENERGY STAR program specifications (including the NEAs proposed in the three draft specs). It remains unclear as to how this and other international partners would require manufacturers to demonstrate compliance; i.e., manufacturer self-certification, third party testing, certification and verification, etc.

In short, ITI suspects that the EPA cannot guarantee that these specification criteria will not be subject to third party testing, certification and verification.

- 3. Consumer Brand.** For consumers, ENERGY STAR is the most widely recognized and understood endorsement for electronics over any other energy or ecolabel per a recent Harrison Group study. Consumers around the world understand the concepts behind the ENERGY STAR program – products with greater energy efficiency during their use phase earn the trusted ENERGY STAR label. Research shows that other ecolabels cause significant consumer confusion and consumer recognition for these programs is less than 20%. Adding these NEAs to the ENERGY STAR program risks undermining the program’s greatest strength: its clear and positive brand. It also risks having enterprise customers no longer satisfied with U.S. Energy Star certification of a product. They may in the future also need assurances as to compliance with specific national programs as well, diluting the impact and acceptance of EPA’s ENERGY STAR program.
- 4. Manufacturer Costs.** As already noted, we expect CBs to insist on reviewing these non-energy criteria, risking significant costs and delays for manufacturers. Further, other regions adopting ENERGY STAR requirements as the basis of their efficiency regulations may take a different approach and require manufacturers to prove compliance. Audits conducted by EU regulators for RoHS compliance alone have involved engineers traveling to the regulators, preparing full product bill of material reports and test data packages for all homogeneous materials used in the product, demonstrating compliance assurance systems, etc. Potentially expanding this type of compliance burden to other regions that could adopt ENERGY STAR would have a significant impact on manufacturers overhead/headcount and not offer any actual improvement in the environmental characteristics of the product (which is designed from the start to be a global product already meeting EU RoHS and like requirements).
- 5. Redundancy or Worse.** These NEAs are already being addressed by other programs (e.g., EU RoHS regulation, IEEE 1680.1). Replicating such criteria within the ENERGY STAR program requirements adds a layer of complexity to the specification with no environmental improvement. And unlike with EPEAT, there is the significant risk of costs and delays already cited above. Finally, there is the risk of conflicts with other programs. For instance, 3.6.1 attempts to require EU-RoHS for ENERGY STAR

products. EU-RoHS compliance is a very complex issue and cannot be covered in such a short set of criterion. The current language is unworkable, and conflicts with EU-RoHS will exist unless EPA either: completely copies the EU RoHS directive, including its interpretations and allowed exemptions; or, references the EU-RoHS directive. The dilemma is that either of these choices then risks ceding sovereignty to the European Commission over both the ENERGY STAR criteria and EPA's specification-setting process. We see elimination of 3.6 as the best solution.

Product differentiation

In previous Imagine Equipment specifications, it was understood that not all products sell into all markets. An active attempt was made to group like products together so the limits developed actually showed differentiation in the marketplace. This decision was shown in the separation of products by speed, type/technology and capability. So a multi-function device was different than a single function printer or copier. A device with more features did not compete against a low featured product. The decisions by ENERGY STAR in Draft 1.0 to eliminate the differentiation of Single Function and Multi-Function products under TEC and the elimination of connection functional adders under the OM method show ENERGY STAR is taking the position that any one piece imaging equipment can perform the same functions and replace another piece of imaging equipment. We believe this is a grave mistake that will harm the ENERGY STAR Brand and the ability of purchasers to use ENERGY STAR in their decision making.

1. EPA's approach fails to adequately capture the diversity of imaging equipment.
2. Different Markets, results in different features sets

While a PC or monitor is primarily used by 1 person, a single piece of Imaging Equipment can be used by workgroups or even entire organizations.

ENERGY STAR's Direction in dictating product design and functionality

ITI is greatly concerned with the direction that ENERGY STAR is taking in dictating how products function in sleep mode. The original sleep mode was designed by both manufacturers and ENERGY STAR to be responsive to customer input at a low power level. This sleep mode became the industry standard for design of Imaging products. While a manufacturer could choose to design a product with less functionality, it was assumed the product was not required to limit functionality in order to meet the specifications. In the "Explanation of Draft 1 Proposed levels for Operational Mode Products", ENERGY STAR writes,

"In addition to the proposed changes to the base and adder amounts, EPA and DOE have proposed a revision to the Test Method to limit the number of network connections that can be used during test, to better represent typical use. Currently, the number of connections is unspecified and manufacturers can claim up to three primary adder

allowances for these connections. Under the Version 2.0 test method, nearing finalization, units under test can only use one network connection and this would be the only interface for which an allowance could be claimed.¹ However, since many interfaces that used to be connected will no longer need to be active, they may also power down, thereby reducing the total consumption of the product in Sleep.”

In this analysis, ENERGY STAR is making several assumptions in how the products are used by our customers. These assumptions lead ENERGY STAR to instruct manufacturers on how to design the interfaces for our products. We see this as a clear violation of ENERGY STAR Principle #2 (Product performance maintained or enhanced with increased energy efficiency). In this instance, the EPA is proposing manufacturers shut off interfaces except those used in the ENERGY STAR testing to comply with the low allowable power levels. This Recommendation is a violation of principle #2. Turning off features in Sleep may also diminish product usability.

Inequality of the Criteria Setting

The proposed criteria set different qualifying percentages for different Imaging products. For example, the proposed criteria would pass 39% of Mono Laser Printers while only passing 20% of Mono Laser MFDs. We do not understand the logic behind such unequal treatment and ask that EPA staff address this matter during the March 7 meeting with manufacturers.

ENERGY STAR’s Expectations for Manufacturer’s Response to new limits

Industry has heard concerns from EPA staff regarding the high compliance rate in the Imaging product category. This is surely due to the market requirements and the ingenuity of engineers and programmers to reduce product energy levels in a short period of time. However, we believe the assumption that industry can quickly meet any new requirement is incorrect.

- Many of the proposed efficiency levels would require new product platforms. The typical development period for a new product is 2-4 years. ENERGY STAR has indicated a desire to revise product efficiency levels every 2-3 years, making investment in ultra low energy efficiency risky at best.
- The only short-term option to quickly achieve the proposed efficiency gains is to reduce features, functionality and responsiveness. Such changes will be rejected by consumers when making product choices.

Technical Comments

ITI also offers the following specific comments on V2.0 Draft 1.0.

Sleep Mode Definition – Line 81

- The definition refers to Primary Functional Adders in Sleep, which per this draft will not longer exist.
- ITI is concerned about the definition of Sleep mode and asks ENERGY STAR to clarify their intention for this mode. Is the product requirement to be responsive or not?

External Power Supplies - Line 244

- The two bulleted requirements are duplicates, and for consistency with the current approach, we recommend changing the text to read:

“If the product is shipped with a single-voltage EPS with a rated DC power output < 250 W, the EPS shall be marked with the level V performance mark.

See

http://www.energystar.gov/index.cfm?fuseaction=products_for_partners.showE
[PS](#) for more information.”

Functionally integrated MFD – Line 257

- Recommend placing this statement in the definition of MFD

Product Wakeup from Sleep – Line 261

- This requirement, while agreed to in principle, creates a problem since ‘wakeup’ is not clearly defined and a no test procedure is inexistent. Thus, certification bodies and testing laboratories must now test against an ambiguous requirement; creating a consistency problem, i.e., different methods may be used by different CBs/Labs for different companies. In addition, the requirement is to prove a negative (“shall not for any”), which is extremely difficult to achieve. Recommend either removing the requirement or developing a testing protocol and clarifying the definition of ‘wakeup.’

Duplex Requirements – line 298

- ITI recommends retaining the default duplex requirements to V1.2. Many consumer products have a speed ≥ 20 ipm. The market for these consumer products will not support the additional cost of standard auto-duplex features. ITI recommends placing this issue on the docket for the next revision and performing market research in the interim.

Maximum TEC Limits – Line 382

ITI would like ENERGY STAR to explain the development of TEC limits

- Provide a summary of the TEC

- Explain why the decision was made to combine SFP and MFP TEC limits when the data clearly shows different passing values.
- Provide results how the new TEC limits impact products within different speed ranges.
- Where did the non qualified products come from and how are they used?

ITI cannot formulate technical comments until the EPA explains their data analysis. We need more information before we can offer a more thorough comment and will be happy to do so after hearing EPA's response.

New Operational Mode Approach

- ITI does not support the new Operational Mode Approach changes as the proposed limits do not allow for the different features/functions present in products intended for different markets. Based on the proposed paradigm, a product with only a USB port is given the same amount of sleep power as a product with two card reads, WIFI, and wired Ethernet (a very common Inkjet product). Especially for consumer products, the ENERGY STAR approach will favor simple, cheap products over products with additional features/functionality. This encourages Manufacturers to sell ENERGY STAR products that have reduced features. This will greatly harm the ENERGY STAR brand, setting up situations where only lower-featured products will be qualified, while higher-featured products cannot. In particular, ITI questions the following:
 - The elimination of the power supply adder as this is out of step with the physics of power supply efficiency curves. ENERGY STAR also bases its decision on low power output EPS's, which are only a subset of the OM market.
 - The decision to encourage products to become responsive in sleep mode in order to comply with the low sleep limits.
 - The decision that wired Ethernet is the "usual interface" used by customers of OM products.
 - The specific conditions for connecting interfaces of functional adders and the consistency with Draft Test Methods. As currently defined, CB's may take different approaches in making this connection, based on their own interpretation.

Margin Requirements

- ITI supports the removal of additional models required for submission as this passes the burden of quality control back to the manufacturer.