



**TO: Ms. Verena Radulovic**  
**U.S. Environmental Protection Agency (EPA)**

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**DATE: March 23, 2012**

**SUBJECT: Draft 3 of Version 6.0 of the ENERGY STAR® Displays Specification**  
**Draft 3 of Test Method (Rev. Feb-2012)**

I welcome the opportunity to submit these comments on behalf of the member companies of the Information Technology Industry Council (ITI), in response to the above referenced documents. Please feel free to post this memo on the relevant agency web site.

We wish to express appreciation for the inclusion of a new definition for “enhanced-performance displays.” As we commented previously, this new technology has been embraced by a select group of customers who require additional functionality in their computer displays. We expect the demand to grow, although still remaining a distinct subset of the market overall. We applaud EPA’s acknowledgement of this trend, as well as the value of including the technology within the ENERGY STAR® program.

Our more specific comments on Draft 3 of the Version 6 Displays specification follows. Thereafter, we offer a comment regarding Draft 3 of the referenced Test Method. ITI would gladly provide additional detail or respond to any questions that you may have.

#### **1.A.1.a(1) Enhanced-Performance Display (definition)**

Equipment designed to measure contrast ratio at extreme angles has a very short focal length and relies upon direct contact of the meter with the display panel to obtain proper focus. The draft specification requires that the contrast ratio measurement be made with any cover glass in place. Unfortunately, the meter cannot obtain proper focus to get an accurate measurement with cover

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glass in place. To avoid this problem, ITI recommends that the proposed definition for "Enhanced-Performance Displays" be amended as follows (new text is in (a), and is bolded and italicized):

(1) Enhanced-Performance Display: A Computer Monitor that has all of the following features and functionalities:

- (a) A contrast ratio of at least 60:1 at horizontal viewing angles of at least 85° measured at the surface of the display (*displays with cover glass over the display may be tested with the cover glass removed*)
- (b) A native resolution greater than or equal to 2.3 megapixels (MP), and
- (c) A color gamut of at least sRGB (IEC616992-1).

### **3.3 On Mode Requirements**

As proposed, the On Mode requirements are too stringent and will result in far fewer ENERGY STAR-qualified models in display sizes preferred by our customers. ITI requests that EPA work with us to identify and develop On Mode levels that achieve the program's 25 percent goal without unduly impacting specific product size categories.

The basic problem stems from how the specification limits were established for various size categories. It appears that they were developed via a simple analysis of the Qualified Product List without taking into account corresponding unit shipment data. While the result may lead to roughly 25 percent of current displays qualifying under Version 6.0, we believe that the impact will be far greater on displays in the 20" to 27" range, which are sold in significantly higher quantities than other sizes of displays.

To avoid this problem, one approach might be to establish a ~25 percent band for each size category. We recognize that this might be challenging and are willing to consider other approaches that may be less onerous but still achieve a similar outcome. We would be happy to schedule a teleconference with program staff and consultants the week of March 26 to collaborate on a solution.

### **3.7 Toxicity and Recyclability Requirements.**

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 3.7. 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 provided for including 3.7 within Draft 3 Version 6.0 is “to avoid associating the ENERGY STAR label with poor quality or otherwise undesirable products,” tracking similar language in the Vision and Guiding Principles proposed on 1/25/2012. We are unaware of any evidence that such a problem exists for displays -- that EPA has found Energy Star certified displays 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 3.7 do not correlate with any product quality or performance attributes or characteristics that would be affected by the energy efficiency or GHG emissions of the products.

ITI therefore strongly opposes the proposed inclusion of 3.7 within the Version 6.0 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 energy consumption in the use phase. Other environmental aspects throughout the life-cycle of products are considered in different EU programmes 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 (it) 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 a circumstance where international customers are no longer 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 3.7.3 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 EPA-recognized certification bodies (CB) 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, 3.7.1 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 3.7 as the best solution.

## **Test Method – Draft 3.0**

### **5(I)(3) Measurement Accuracy**

Subsection (3) specifies that light values (measured lux) must be tested “with light entering directly into the sensor and with IEC 62087 Ed. 3.0 test signal main menu displayed on the product.” As industry indicated during the recent EPA-hosted webinar, this is not representative of real world lighting conditions. It is highly unlikely that a user would have a light source directed at their computer display. Accordingly, we submit that it would not be an appropriate method for evaluating ENERGY STAR compliance. We understand that EPA may be investigating alternative methods of creating ambient lighting considerations. We support such an initiative, and would welcome the opportunity to host or participate in a conference call to discuss this further.

### **6.2(H) Test Materials**

Subsection (1) specifies IEC 62087-2011, Dynamic Broadcast-Content Signal, for conducting displays power measurements. While this may be appropriate for ENERGY STAR-qualified televisions, it is not appropriate for computer displays. The test pattern referenced in this standard is more stringent than the test currently required under the Displays 5.1 specification, requiring the use of more “black level” in the test. This will result in the consumption of between 1-2 additional Watts during the test, and may have a significant, detrimental impact on a manufacturer’s ability to qualify otherwise eligible products under Version 6.0 of the Display specification.

ITI recommends that EPA remove the reference to IEC 62087-2011 and instead solely require use of the test patterns contained in the Video Electronics Standard Association’s Flat Panel Display Measurements Standard, version 2.0.