



TO: Christopher Kent
EPA Energy Star Office

FROM: Ken J. Salaets

DATE: May 1, 2008

SUBJECT: ITI comments on Draft 1 of V1.1 for ENERGY STAR™ qualified Imaging Equipment

The Information Technology Industry Council, ITI, welcomes the opportunity to submit comments regarding proposed revisions to ENERGY STAR specifications for imaging equipment (IE). ITI and its member companies remain strong supporters of the Energy Star program in the U.S. and abroad, and look forward to working with the agency and other stakeholders on this important initiative.

Regarding Draft 1 proposal, ITI concurs with the following:

- To retain the definition of Standby Mode consistent with the 2005 edition of IEC 62301
- To retain the test conditions, test procedure and number of units required to be tested
- To retain the requirements for automatic duplexing, and
- To retain the same levels for Operational Mode (OM) product sleep delay times.

ITI offers the following responses to various questions embedded within the documents:

- (PA, Ln 314) – ITI recalls that there was significant effort among the IE V1.0 stakeholders to develop the definition of a Digital Front End (DFE). While not perfect, this definition is workable. ITI does not see reason to warrant changing the definition of a DFE at this time.
- (PA, Ln 440) – ITI notes that the draft proposal does not allow any additional energy in the TEC limits when comparing Color Single Function Products (TEC Table 2) and Color Multi-Function Products (TEC Table 4). This method of criteria settings does not follow the normal allowance for more energy where more function exists. It is clearly the case that MFDs vs. their printer counterparts use more power because of their larger feature set. EPA's data on monochrome MFDs vs. printers demonstrates this by allowing a 1.5 kWh difference through most of the speed range. ITI believes that having a 0 kWh difference between single function and multi-function color product limits will unintentionally favor the single function products, reducing the possibility for device consolidation among those entities required to purchase only Energy Star devices.

- (PA, Ln 520) – ITI strongly disagrees with the EPA’s proposal on removing the Power Supply Output Rating adder from the operational mode approach. ITI also disagrees with the EPA’s assertion in the draft partnership agreement that this adder did not provide any function. This adder provided significant function in several ways.
 - It was intended to compensate for the roll-off in AC/DC conversion efficiency at low loads. The power supply losses are greater for a 3 W DC load with a 100W power supply (3% of max load) than a 10W power supply (30% of max load)
 - It was used as a surrogate for products speed and performance. Faster products required larger power supplies
 - It was used as a “catch all” for other functional adders that were removed. For instance, fax, LCD screens and other functional adders were removed when the PSOR adder was introduced
- (PA, Ln 643) – ITI agrees with the EPA’s desire to intentionally remove industrial imaging equipment from the scope of the partnership agreement. Given the wide breadth of products covered under the IE agreement, ITI suggests that a proper differentiation between office and industrial IE be discussed at the May 7th Stakeholder meeting.
- (PA, Ln 674) – ITI believes that the proposed 9 month time period between criteria finalization and enforcement is not sufficient given the recent addition of Energy Star procurement requirements in the European Union. At least 12 months are necessary to facilitate the required modifications or updating of government contracts to comply with the new Energy Star criteria.

ITI offers the following technical remarks and comments on the draft proposal:

- ITI believes that EPA’s method for determining the total products available on the market is underestimating the number of total units. ITI believes that the use of Better Buys for Business is not a good assessment for the total number of models in all product categories. The focus of BBB is on business products and not the total market.
- ITI member companies believe that there are substantial differences between the machine architecture and use of small format photo printers (OM5) when compared to standard size Inkjet products (OM2). Specifically, many OM5 products are dye sublimation (thermal transfer) and other marking technologies, while OM2 products are only Inkjet. The power requirements for other marking technologies can be substantially higher than that of Inkjet marking engines making it necessary to have a separate category with separate limits.
- ITI member companies also believe that Impact printers (OM6) should continue to be treated as separate products from Inkjet.
 - Impact products continue to only have the printing function while Inkjet products are trending to multi-function capabilities

- The speed and power supply requirements of impact printers are substantially higher than inkjet products
- There are several inconsistencies in the criteria setting. For example, an ink jet product with print/fax capability using a USB 1.0 primary connection would be allocated 1.3W (1 for the engine + 0.3 for USB 1.0) in Sleep mode. However, the Standby mode would allow 2W. Allowing less power allowance in Sleep does not make sense. The Standby level of 2W for products with fax has been appropriate and remains so. The Sleep allowance is too small and should be increased.
- New TEC Limits are not uniform in the % reduction of allowable energy. See the attached plot
- The use of 115V data to evaluate a product for power and energy limits does not sufficiently evaluate the passing rate for 230V markets. It is common to have higher losses in the AC/DC conversion of switch mode power supplies when operating at 230V. It is highly possible that values close to the limit would fail for 230V. This would create a significantly lower passing rate for 230V markets. ITI recommends that Energy Star evaluate product specifications on a worldwide basis.
- It appears that the effects of the new External Power Supply (EPS) requirements were not taken into account when setting the criteria for operational mode products. Given the wide use of EPS in OM products and the new restrictive limits, the effect of the new EPS criteria needs to be taken into account when setting the new limits for Energy Star.
- The operational mode limits do not meet the EPA's criteria of 25% of the market. They are in fact too restrictive, passing only 20% of products.
 - In particular the original OM5 standard passed only 19% of the market; the new standards pass 0% of products- essentially eliminating that category.
 - The new standard for OM7 (scanners) will eliminate the high-speed commercial scanner products and leaves only home scanners eligible to qualify as Energy Star. This is problematic given the Energy Star purchasing requirements of the Federal Government. ITI requests that the data be re-analyzed and appropriate levels set for speed categories.

ITI offers the following editorial remarks and comments on the draft proposal:

(PA, Ln 415) - Color High Performance Inkjet is a new marking technology to the Partnership Agreement. Accordingly, the term needs to be defined in Section 1. ITI recommends the following definition:

High Performance Inkjet: The use of thermal inkjet marking technology in high performance business applications usually occupied by electrophotographic marking technologies. This difference between the conventional Inkjet product and the high performance Inkjet product is denoted by the presence of media wide nozzle arrays and/or the ability to dry the ink on the media through additional media heating mechanisms.

ITI offers the following comments on the availability of product data:

EPA's analysis of the new energy and power limits is based on the existing EPA ENERGY STAR data and that of BBB. EPA did not initially provide this data to industry. ITI only recently provided the ENERGY STAR data after industry requested it. EPA has not yet provided data associated with the BBB information to industry. Industry needs this data to ensure the EPA analysis was performed accurately and the resulting new limits do properly reflect the top 25% performance in the marketplace. Without this data, it is impossible for industry to evaluate the EPA analysis and adequately comment on the proposed limits. ITI requests EPA provide the BBB data and an explanation of how this data was used by the EPA.

ITI offers the following comments on the proposed schedule:

Given the long list of technical issues with the current document, ITI believes it is necessary include a Draft 2 level of document Revision. It should be noted that the original document schedule from the EPA included a Draft 2 level. It is very important for the sustainability of the Energy Star Imaging Equipment program to develop the correct standard rather than the quickest standard.

We look forward to the meeting on May 7. In the interim, feel free to contact me if you have any questions or desire further detail regarding the above comments. I can be reached at 202-626-5752 or ksalaets@itic.org.