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USA

Mr. Chris Kent
ENERGY STAR Office Equipment Program Manager
Office of Air and Radiation
US Environmental Protection Agency

Subject: Comments on the ENERGY STAR Draft 1, V2.0 Imaging Equipment Specification

Dear Mr. Kent:

Lexmark offers the following comments on the Draft 1, V2.0 Imaging Equipment Specification

Pace of Revisions and Allowance for Commenting

Lexmark is greatly concerned at the pace the EPA and DOE are releasing product specifications and the limited amount of time given to manufacturers and other stakeholders to evaluate and comment on the changes. We do not believe that speed for the sake of speed is in the best interest of the ENERGY STAR Program as a poor standard can greatly damage ENERGY STAR's brand acceptance.

- We recommend 1 additional week additional to the commenting window
- In addition, we recommend more additional face to face meeting(s) rather than the webinar format currently being used.

Maturity of IE Equipment

Lexmark and others have been working with ENERGY STAR on voluntarily reducing product energy for almost 20 years. Over the 20 years, substantial improvement has occurred in both our products and that of our competition in reducing energy consumption. This has been a substantial reduction in emissions and energy used by imaging equipment during these 2 decades. Given this level of improvement, Lexmark offers the following comments on the state of the marketplace:

- The "low hanging fruit" for further efficiency gains is gone for imaging equipment. Future energy efficiency changes will result in lower features, lower responsiveness, and/or lower customer satisfaction with our products.
- Any further efficiency gains will be much more expensive, take more time, and be resource intensive.
- We would like Energy Star to comment on conditions for sun setting the IE standard.

IT/Imaging Equipment as a green catalyst and the emergence of the cloud

- IT products are the catalyst for reducing the environmental impact of other industries. While there is a need for an Energy Star brand that focuses on the better products, this needs to be managed to not hinder improvements these products are making for other industries
- The emergence of the cloud and 24/7 IT management/interaction means that devices are becoming more connected, not less. The V2.0 Draft 1 proposal encourages Imaging Equipment to become less connected rather than supporting smart connections. This is contrary to where the market is headed.

Timelines for Transition to V2.0

Lexmark believes that the current 9 month timeline is insufficient to re-certify a significant number of products to ENERGY STAR Imaging Equipment V2.0. According to ENERGY STAR dataset, there were 3800 Imaging Equipment Models. If 25% of those models are registered, then 950 products would be certified. If we assume the CB takes 4 hour to make a certification, this is 475 working days to certify the new products. And this certification process cannot start until the standard is finalized and is unlikely to start the first 3 months of the 9 month transition

period. While this will be split over multiple CBs, the cumulative effect of certifying new products in Monitors, PCs and Imaging at the same time with the same CBs will be overwhelming and cause manufacturers delays in certifying existing products for ENERGY STAR.

- Lexmark recommends at least a 1 year transition period from the finalization of V2.0 to the enforcement date.

Toxicity and Recyclability Requirements (Section 3.6)

Lexmark is strongly opposed to adding non energy requirements to Energy Star. Despite EPA Managements perspective, Energy Star is the accepted worldwide standard for energy efficiency of imaging equipment and other IT products. Adding non-energy criteria dilutes the Energy Star brand in our industry and makes the program less usable by our customers. Lexmark strongly recommends removing these criteria

However, since Energy Star has made is clear that these requirements are not up for debate or discussion, we recommend the following

- Move any requirements to the partnership agreement. If the requirements are in the eligibility criteria, they are subject to CB scrutiny. This is not the case for requirements in the PA
- Completely reference the ROHS directive. ROHS compliance in the EU is a complicated issue and cannot be solved by copying and pasting only certain language from the directive.

Product differentiation

In previous ENERGY STAR 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. It also hampers the market's trend to MFDs over single function products. These program changes will have a drastic effect on federal purchasing, where purchasing agents will have a very limited MFD selection and likely have to go back to purchasing separate machines for copying, printing and scanning/faxing.

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 needs to recognize that purchasing 5 Energy Star devices that support only 1 user is more energy than purchasing 1 non-energy star product that can support 5-10 people. This is the brand that Energy Star is creating with these changes.

ENERGY STAR's Direction in dictating product design and functionality

Lexmark 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 if 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."

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

Criteria not set to equally pass different products. The criteria limits as proposed do not take care to pass adequate numbers of individual product categories. For example, the proposed criterion passes 20% of Mono Laser MFDs while passing 39% of Mono Laser Printers.

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

Industry has heard complaints from ENERGY STAR about the high compliance rate in the 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 shortsighted and naive.

- Many levels would require new product platforms. The Development period for a new product is 2-4 years. ENERGY STAR has indicated a desire to change levels every 2-3 years, making the investment in ultra low energy efficiency risky at best.
- The only short term options to quickly make efficiency gains will reduce features, functionality and responsiveness. These changes are not likely to meet the low requirements while also meeting the market requirements

Technical Comments

We also offer 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 no 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.showEPS 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 'wake up.'

Maximum TEC Limits – Line 382

Lexmark believes that the TEC limits as generated are not set to allow the success of Energy Star to continue.

- The TEC lines do not equally pass products at all speed points.
 - For example, between 40-75 ppm, only ~ 15% of mono products meet the new limit. This is well below the 25% goal.
 - For color products < 20 ppm, the passing rate is 44%
- We continue to believe that SFP and MFP should be separated. The current TEC lines should encourage device consolidation.
- Energy Star should also consider the idea of TEC “adders” for enterprise level devices that can support many users vs. lower function devices that only support single or a few users. These devices are in the same speed points and under the current paradigm are considered “competitors”. In the marketplace, they are not.

New Operational Mode Approach

- We do 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 2 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 situation where lower featured products get ESTAR, while higher featured products cannot.
 - Another example, if an Inkjet MFD product has USB, wired Ethernet and wireless, the sleep mode limit is 1.5 W (0.6 W(based) + 0.5W(scanner) + 0.4 (100 MB wired Ethernet)).
 - If I remove the Ethernet and only leave USB, the limit is still 1.5 W
 - If this product removes the wired Ethernet and USB, then the product has a sleep mode limit of 3.1 W (0.6 W(based) + 0.5W(scanner) + 2.0 (wireless))
- In particular, we disagree with 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 (< 50W), 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. If a product has interfaces, then they are there to be used by the customers.
 - The decision that wired Ethernet is the “usual interface” used by customers of OM products. Energy Star indicates they think that using wired Ethernet is what is used by our customers.

Margin Requirements

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

Regards,



Chris Saunders
Lexmark ENERGY STAR Program Coordinator