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March 31, 2011

Mr. Chris Kent
Energy Star Product Manager
US Environmental Protection Agency
Washington, DC 20005

Dear Mr Kent:

Lexmark offers the following comments on the Imaging Equipment Version 2.0 Specification Revision Discussion Document.

GENERAL COMMENTS

Lexmark strongly advises the EPA to keep the Energy Star program focused on criteria that affect the energy usage of the customer. Adding criteria on energy consumption not seen by the customer, like manufacturing energy or a LCA criteria, will only diminish the value of Energy Star to the consumer and dilute the Energy Star Brand that the EPA and manufacturers have worked so long to build.

Further, Lexmark does not support changes to the Typical Electricity Consumption Metric or the Operational Mode Methodology. There is substantial marketing momentum behind the current system that would be lost with a new metric or methodology.

While Lexmark does believe that the Imaging Equipment Specification is ready for a specification revision, the EPA's rationale for revising the specification based on unit sales date is inappropriate. The stated goal of the Energy Star program is to recognize the top performing **models** in each product category. Combined unit sales do not correlate to the number of Energy Star product models available on the market. The EPA must continue to use the correct metric when making assessments and setting criteria. This error is propagated in several other paragraphs in section 3.

In addition, it is inappropriate to use the sale data from 2009 as this data uses models sold under primarily ENERGY STAR criteria V1.0 mixed with V1.1. An assessment must be made using the current specification prior to the assertion that the specification compliance is too high.

Answer to specific EPA Questions

1. Q: EPA seeks to expand its data set to include current non-qualified models. EPA will consider complete data received by April 1, E2011, using the data form attached to this discussion document.

A: Lexmark will submit non qualified models to the EPA.

2. Q: EPA seeks comment on the very high and very low market penetrations of scanners and fax machines, respectively, and on whether the ENERGY STAR label provides any differentiation in the market for these two equipment types. Please provide documentation on the state of the markets for faxes and scanners. (Note that scanners have not been included in the latest draft of the Industry Voluntary Agreement proposed for meeting the requirements of the Lot 4 Energy Using Products (EuP) Directive in the European Union.) EPA is interested in partner input on whether these products should continue to be of interest for ENERGY STAR labeling.

A: While Lexmark sees some similarity between Fax and Scanners, these 2 product categories should not be mixed.

Scanners include both consumer and business grade scanners. It is critical that the EPA dig deeper into this data to determine if the category truly has high compliance in both consumer and business segments. Lexmark believes that business grade scanners still require an Energy Star category to be relevant to Government purchases.

Laser (TEC) Fax machines still comprise a large number of devices in the consumer market, but very little in the business market. If the EPA desires to keep the fax segment, then we suggest that you separate the fax products into their own product categories and set new criteria levels to achieve the 25% of the market.

3. Q: EPA also seeks comments on the characteristics of non-qualifying fax machine models and methods of promoting broader qualification.

A: No comment

4. Q: EPA welcomes any further comment on the equipment types currently included in the scope of the imaging equipment specification, and whether any should be considered for removal due to low energy savings potential.

A: Due to the high use of Energy Star as a procurement requirement, Lexmark does not recommend removing any product category. Lexmark does recommend determining if certain mature product categories (like dot matrix printers) should simply be left alone and not updated during future specification revisions.

5. Q: EPA seeks comment on the current and potential prevalence of small-format high-performance IJ printers and welcomes product performance test data.

A: No Comment

6. Q: EPA seeks comment on the current and potential prevalence of impact MFDs and welcomes product performance test data.

A: No Comment

7. Q: EPA also seeks comment on any other imaging equipment products with significant savings potential that should be added to the scope of the specification. (E.g., professional photo "minilabs".)

A: No Comment

8. Q: EPA welcomes stakeholder comment on the impacts of incorporating IEC standard 62301 Ed. 2.0 into the ENERGY STAR Imaging Equipment test method.

A: IEC 62301 is intended to measure household electrical appliances (consumer electronics) and household appliances. As such, it is not a good fit to IT products. IEC 62301 Ed 1.0 was usable as a standard to help define measuring standby power. However, IEC 62301 Ed 2.0 modifies the definitions from power levels to modes (off, standby, network). If the EPA intends to update the references to IEC 62301 in V2.0, it is necessary to update the definitions used for the standby power requirement. This requirement would now fall to “off” mode. Note that most imaging equipment does not have a standby mode and does not have a network mode as those modes are defined by IEC 62301.

9. Q: EPA would appreciate data on the prevalence of color printing with current products, including color in text documents and full-page color images. EPA also seeks data on the impact of color printing of text and images on the absolute and relative energy consumption of imaging equipment.

A: Lexmark does not support changes to the actual TEC test metric as this would invalidate all existing data making the specification revision an extremely long and costly process. Lexmark member companies continue to believe that most color TEC products primarily print monochrome documents, using color in smaller amounts than monochrome colorants. As such, there is little evidence to support changing the current test process. In addition, since many customers print monochrome documents mixed with color, the product must operate seamlessly between color and monochrome settings. This requires the product to use similar if not the same settings for color and monochrome printing. Also remember that the majority of energy used in printing for TEC products is the forced evaporation of water from the media. The printing power is varies little with toner coverage.

Color Images should not be used as the creation of the color image will create additional uncertainty and repeatability problems in the product testing. Only color text should be used to limit the variability in testing.

10. Q: EPA seeks data on the prevalence of color versus monochrome printing since the energy impact of color printing is a product of its frequency of use.

A: See above. Color TEC products are primarily use monochrome printing, but use the same printing power in color and monochrome printing.

11. Q: EPA seeks comment on the prevalence of storing drum warm-up energy in a Power Buffer prior to the beginning of measurement and any effects on the energy consumption of the product.

A: Lexmark has not seen evidence of drum energy storing technologies that would have a significant impact on the TEC test. These seem a costly solution to the problem of product responsiveness. Also, in the example given in the document, it would seem as if the “potential power buffer” recharging is included in the measurement during print jobs 2-4. Assuming that the energy consumed over Jobs 2-4 is the same that would have been consumed in Job 1, then this product design actually has a higher TEC then a conventional

design that consumes the energy in Job 1. We suggest that if the EPA has concerns about specific instances that this is shared with Industry for comment.

Lexmark does not support attempts to circumvent the spirit of the Energy Star system and believes that the new Certification and Verification System is adequate to prevent most inappropriate behavior by manufacturers.

12. Q: EPA seeks comment on the impact of print driver settings on a TEC product's energy consumption as well as methods of eliminating this potential source of testing variation.

A: Lexmark does not see this as an issue and does not recommend that the EPA prescribe this detail.

13. Q: EPA also welcomes suggestions for additional edits to the TEC and OM test methods.

A: The additional edits we would seek would be only to clarify uncertainty in the testing. This is a required element of normal standards.

14. Q: EPA welcomes comment and usage data that could be used to support more representative usage assumptions for the TEC test method. In particular, EPA would appreciate data from manufacturers engaged in managed print services, who track the number of sheets printed as well as time spent in various modes across an entire fleet of imaging products.

A: Lexmark is confused by the EPA's intent since it has never been the EPA's intention to use the TEC values as a measurement of actual energy usage. While industry argued in 2005 that the TEC metric was not representative of actual usage, the EPA communicated to industry that the TEC Metric is simply a ranking metric, not representative of actual usage. This was acceptable to the EPA in 2005 even when industry lobbied for a more realistic usage assumption. Lexmark continues to believe that the TEC metric paper usage is incorrect, but the metric does calculate a realistic ranking of electrical consumption. We do not feel that revising the metric for the purpose of having a representative paper usage metric is appropriate.

15. Q: EPA welcomes comment on the apparent discrepancy between Active1 time and Active0 time, as well as any test method clarifications that could eliminate this discrepancy.

A: LEXMARK is concerned about the Active 1 time plot presented by the EPA since some of the Active 1 data appears to be > 900 seconds (15 minutes). This data appears to be in error. We are also concerned if Active 0 time is misinterpreted as a time to first page from cold power on. This is an incorrect reading of the test method.

For most products, Active 1 time (from sleep/auto-off mode) should take longer than Active 0 Time (from Ready Mode). This is normal due to the recovery energy needed by the heating mechanisms found in TEC products.

There could be some circumstances where Active 1 time is < Active 2 time for digital duplicators or solid ink products that require a very long time to create the first image.

We believe that most of this problem will be solved with the new Testing Certification and Verification Program.

16. Q: Further, EPA welcomes comment on including a similar measurement of Active1 time and Active0 time into the OM test method.

A: Lexmark does not support this requirement unless OM products are converted to a TEC format, which we do not support.

17. Q: EPA would appreciate receiving supporting data from partners to justify the energy savings associated with specifying a recovery time requirement.

A: Lexmark does not support a recovery time requirement as this requirement is directly related to the patented fusing technologies available to each manufacturer. EPA cannot mandate a criteria that can only be met by patented technologies.

18. Q: EPA welcomes comment on the best method of addressing the energy consumption of DFEs.

A: No Comment

19. Q: EPA welcomes comment on specifying that only one network/data connection be used during testing.

A: Lexmark feels that the current requirement (at least 1 network connection) is sufficient and is not creating significant testing variability.

20. Q: EPA welcomes comment on specifying the type of network connection active during testing, in order of preference (e.g., USB, Ethernet, WiFi, other wired, other wireless, etc.). These are currently unspecified (except for an instruction that the device be connected to the network if an interface is available).

A: See #19

21. Q: EPA welcomes comment on specifying the state of the network connection during testing (could impact the energy consumption of the product under test).

A: Lexmark does not believe that network connections and speeds should be specified. If this is specified, it would create datasets that are only valid on certain network speeds, requiring routine updates retesting and recertification of products at new data speeds.

22. Q: EPA welcomes comment on specifying that any fax function, if available, be enabled and connected to the phone line during testing to better represent the typical usage scenario.

A: This is already required for OM products. For TEC products, this usually does not affect power and should be left alone.

23. Q: EPA welcomes comment on measuring and/or specifying the default delay time to sleep for TEC products;

A: Lexmark believes that this is not a problem and should be left up to the judgment of the manufacturers and the market.

Mr Chris Kent, US EPA

April 1, 2011

Page 6

24. Q: EPA welcomes comment on requiring that the network device connected to imaging equipment during the test support Energy Efficient Ethernet, if the imaging equipment also supports Energy Efficient Ethernet.

A: Lexmark does not support including IEEE 802.3az as a requirement.

25. Q: EPA welcomes comment on applying the TEC test method or on-mode measurement to some OM products that spend significant time in active mode (e.g., receipt printers, ink jet printers for business, etc.).

A: Lexmark does not support the work involved in developing such a test method.

26. Q: EPA seeks clarification on sources of high GHG emissions in the imaging equipment life cycle and supporting data. EPA would welcome input from stakeholders on any work they may have conducted

A: Energy Star must stay true to focusing on product energy and not allow outside stakeholders to pressure the EPA into diluting the value in the Energy Star brand by adding in non Product Energy related criteria.

Sincerely,



Christopher Saunders

Lexmark Energy Star Program Coordinator