

ENERGY STAR Imaging Equipment Specification Draft 1 Comments from the European Commission

We provide in the following comments from the European Commission on the ENERGY STAR Product Specification for Imaging Equipment – Eligibility Criteria – Draft 1 Version 2.0.

We support the launch of development of a new specification because most of imaging equipment devices on the market today are ENERGY STAR compliant. An EPA report on the market penetration information declared by manufacturers for 2010 shows high ENERGY STAR penetration rates (ENERGY STAR® Unit Shipment and Market Penetration Report Calendar Year 2010 Summary). The report estimated the sales weighted penetration rate close to 100 % for multi function devices, printers and scanners and about 80 % for printers. The EU ENERGY STAR report for 1H 2010 (most recent report) showed that the non-sales weighted penetration rate in EU was about 55 % by mid 2010.

Comments to the Key Changes mentioned in the Cover Memo

New Product Categories – Impact MFD to OM and high performance small format IJ to TEC

No problems are anticipated with an impact MFD product group being added to OM. There are none of these products in the current EPA data set making it more difficult to determine the base sleep allowances. We support setting the level equal to the level for impact printers.

We neither see any problem in moving high performance small format inkjets from OM to TEC. It is however difficult to see from the dataset how many products the change concerns.

Combining MFDs and non-MFDs Into Same Category

We support the change in order to simplify the requirements if there are no major differences in pass rates for printers and MFDs.

OM Sleep Mode Requirements – New Approach for Functional Adders

We support the removal of the secondary adders, reduce the number of primary adders, decrease of the primary adder allowances and only allow one network connection under test.

We propose the following adjustments:

Line 442 – One network connection: The text should be updated to reflect that the test method requires only one network connection in addition to a possible fax connection and therefore a maximum of two interfaces is permitted.

Line 474 – Table 7 adders clarification: In the table, we suggest clarifying which of the adders count as “interface” and which as “other”. This is important because only one (+ fax) interface is allowed. E.g. memory card and camera interfaces probably do not count as “interface” but as “other”.

Line 474 – Table 7 adder levels: The primary adders have increased in draft 1 compared to letter distributed on 8 July 2011 together with draft test method based on average stakeholder suggested allowances. We believe however that the allowances should not be set according to typical or average allowance levels, but instead on challenging levels reflecting the 25 % qualification principle. This will also support future development.

Especially the wireless RF 2 W adder seems to be high. Analyses of the IE products in the EU ENERGY STAR database shows that the average extra power required for wireless connectivity seems to be around 1.3 W.

Line 474 – Table 7 memory adder: It is stated that the memory adder "... should be scaled accordingly...", however, it is not stated how. We suggest it to be W/GB and that the EPA clarifies that the scaling is only applied to RAM and does not cover hard disk or flash memory.

DFE Requirements

The approach of using the small scale server power levels as requirements seems to be a reasonable way of setting requirements to DFEs. It would though be interesting to compare the levels with DFEs on the market.

We support the requirement that DFEs must not interfere with the ability of the imaging product to enter or exit its low power modes.

We propose the following adjustment:

Line 277 – DFE Category A definition: The definition lacks the word "not". The text should read: "All DFEs that do not meet the definition...."

Auto-Duplexing Requirements

Line 297 – Lower speed limit: We support the change. It is however difficult to see the influence on the pass rates because the TEC dataset does not contain data on TEC duplexing capability.

Line 310 – Incentive for fast duplexing via test method: We believe that the change in the test method (allowing test in duplex mode, when duplex speed is higher as simplex speed) is a good incentive. If the energy consumption per page is much higher in simplex compared to duplex, we recommend that the manufacturers inform the customers about it.

Testing Additional Samples

The requirement to test additional samples of a product when the results of a test fall within 5 % or 10 % of the requirement should be retained in the legislation that is transposed for EC use, as the enhanced verification testing will not be carried out in Europe.

Maximum Standby Power Requirement (reduce for OM from 1.0 W to 0.5 W)

Line 529 – Standby power consumption: We support the reduction of the standby requirement to 0.5 W. 90 % of qualifying OM products (as per EPA dataset published with the v2.0 specification) appear to have an off mode that would meet the 0.5 W requirement. Furthermore, EU ecodesign ErP legislation will require this level by 1 January 2013 for a standby mode as defined in ecodesign regulation no. 1275/2008. This applies to all imaging equipment product.

We recommend further including a requirement on networked standby for all imaging equipment products corresponding to the similar EU ErR requirement currently being prepared. The proposed maximum power consumption is 4 W from 1 January 2014 and 2 W from 1 January 2016. This is supplemented by a power management that switches equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into a mode having networked standby. The default time is no longer than 20 minutes.

Basic Toxicity and Recyclability Requirements

We support that the non-energy requirements are not intended for international adoption.

Other Comments

Line 133 – Definition of DFEs

We support the proposed restricted definitions.

Line 181 – Representative model definition

We support the idea of the representative model, however, the definition might be further considered. We suppose that it should be “or” between the definition (1) and (2), because the product is either 1 or 2.

Line 207 – Scanner and fax machines

We support keeping scanner and fax machines in the specification. Shipping volumes for these products in 2010 were higher than those of copiers so there does seem to be a justification for retaining these products.

Line 261 – Wakeup

We support this requirement. The need to define the acronyms “UUT”, “ARP”, and “NS” to avoid misunderstandings should be considered.

Line 290 – Recovery time requirement

The proposal not to include a recovery time requirement for OM products is acknowledged. However, for TEC products, taking into account the risk of power management disabling by users when recovery times are high, it could be considered to promote short recovery time abilities. This might also promote shorter delay times.

The promotion could take place by including settings in the test configuration which would enable recognition of the energy saving potential of short recovery products. This could be in the form of a shorter delay time setting in the TEC test for products with shorter recovery times (i.e. less than 10 seconds)¹.

Line 317 – TEC calculation

Pass rates² for some TEC printer products are high, and it is suggested that the EPA might review the proposed TEC requirements for printers. In particular, it is noted that:

² Note: Pass rates are calculated from EPA qualified data set as no sleep data available for non-qualifying products (plus 2010 EPA report suggested that ENERGY STAR products represented a large proportion of the market)

- 100 % colour printers > 70 ipm would pass
- 60 % monochrome printers $7 < s \leq 44$ ipm would pass
- 69 % monochrome printers > 70 ipm would pass

Overall, for the speed groups into which the bulk of products fall, pass rates are also high:

- 40 % of monochrome products in the $7 < s < 44$ ipm range (of a total of 626 models) would pass.
- 31 % of colour products in the less than 45 ipm range (of a total of 582 models) would pass.

Line 382 – Revised TEC thresholds with no special treatment of MFDs

As observed previously, there appear to be some differences between printer and MFD pass rates that could merit further attention by EPA.

It would be helpful if EPA could clarify how the new test method will impact the dataset, and to what extent corrections to the existing data sets and analysis will be implemented (the new test method may slightly reduce the TEC of the products in the dataset.).

Line 432 – Qualifying OM products with no sleep mode meeting standby

EPA states an interest in stakeholder feedback on the proposed approach of qualifying OM products that have no distinct sleep mode but meet the maximum standby requirements. We believe that all products should have power management and should reduce the power consumption to a level at or below the required sleep mode level. We therefore think it is not a good idea to proceed with the proposed approach.

Line 437 – Default delay time for OM products

We believe that many OM products especially of standard and small format sizes have short recovery times and therefore the default delay time could be shorter than required in Table 5.

Line 469 – Base sleep mode power allowance

The base sleep mode power allowances have been readjusted. However, this means that all 55 small format printers in the data set would qualify without addition of any adders, suggesting this base sleep level may need to be revised.

It also appears that large format copiers, mailing machines and standard format impact printers would find it relatively easy to qualify (pass rates³ pre-adder application in excess of 43 %).

Line 469 – OM pass rates for products in EU ENERGY STAR database

We have also applied the sleep mode power allowances on the IE products in the EU ENERGY STAR database for the various groups of size and marking technology. The result is pass rates from 0 % to 100 % and most of the groups above 25 %.

³ Note: Pass rates are calculated from EPA qualified data set as no sleep data available for non-qualifying products (plus 2010 EPA report suggested that ENERGY STAR products represented a large proportion of the market)