

JEITA Comments on ENERGY STAR Program Requirements for Imaging Equipment Version 1.1
Final Draft

- Definition of High Performance IJ on page 5

The definition for High Performance IJ on page 5 of the Final Draft states: “the presence of nozzle arrays that span the width of a page.” We believe that “width of a page” here intends to refer to a Standard size such as A4 or Letter. There is a possibility of misunderstanding since business-use card and label printers have nozzle arrays that span the width of their Small-format pages. We would like the size format added to the definition in the same way as the size format for high performance IJs is defined as Standard in Table 1 on page 9 of the Final Draft.

- Qualifying Products on page 9

JEITA understands the “three-phase products” belong to industrial products in the Final Draft. Are we correct in assuming then that “three-phase products” are not eligible for Energy Star qualification?

- Duplexing (Product Speed) on page 12

JEITA welcomes the explicit reference to monochrome product speed for color/monochrome products. (No objection)

- TEC Table 1 on page 12

In Draft 2 the limiting value was not ≤ 82 but ≤ 81 . What is the reason for this change?

- TEC requirements on page 13

In response to criticism about the unclear method of selecting the parent set of existing products in Draft 1, the EPA has clarified its work procedure in the materials distributed on July 17, 2008. Table 1 summarizes those results.

Table 1

	Market Information	Tier 1		Tier 2	
		No. of Qualifying Products	Qualifying Percentage	No. of Qualifying Products	Qualifying Percentage
TEC 1	283	151	53%	68	24%
TEC 2	171	84	49%	41	24%
TEC 3	357	177	50%	93	26%
TEC 4	179	95	53%	48	27%
TEC total	990	507	51%	250	25%

The requirements for TEC 1, to which monochrome EP printers belong, are very demanding. According to the EPA's data in Table 1, 43% (68 of 151) of TEC 1 Tier 1 qualifying products would also qualify under the Tier 2 requirements. JEITA's survey, however, of models registered to the ECCJ between April 2007 and June 2008 found that there were 122 monochrome EP printer models registered. Of these, 29 models would be qualified under the Tier 2 requirements; this is a Tier 2 qualifying percentage of just 24% (29 of 122). This figure is clearly less than the EPA's data (43%), and it indicates that the large majority of qualified models for Energy Star Tier 1 in the Japanese market will not pass the Tier 2 requirements.

Furthermore, it appears that not all the data have been released that was used when determining the Draft 2 requirements. The data from the Web address below gives the total number of TEC 1 products as 177, but Table 1 above indicates this as 283.

http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/img equip/Data Draft 2 V 1.1 Spec.xls

The marking technologies belonging to TEC 1 other than Mono EP are DT, Mono DS, Mono Stencil, Mono TT, and Mono High Performance IJ. Although Stencil (digital duplicators) is placed in the same category as EP, the EPA explained that the Stencil data were not included when determining the TEC requirements for Tier 1 because the TEC value was an order of magnitude smaller than the value for copiers and MFDs (Page 9, Summary of Stakeholder Comments on Draft 2 V1.0 IE Specification with EPA Responses). In other words, Stencil has been treated as a special case product.

Were the Tier 1 considerations above also applied when determining Tier 2 requirements? In the Response Summary above, the EPA wrote that it was planning to rethink the product categories of digital duplicators and other products. Accordingly, JEITA has the following questions and requests.

1. Was Stencil data excluded when determining TEC 1 requirements?
2. Please state the number of EP products within the TEC 1 qualified products.
3. As with Tier 1, we would like the TEC requirements determined based on EP product data alone.
4. As with Tier 1, we would like the data used to determine the TEC requirements to be published.

- OM requirements

JEITA would like all data used to determine the OM requirements (OM 1 to OM 8) made explicit in the same way as the data for the TEC requirements above.

For example, it seems that OM 3 includes several industrial products with three-phase power and market products that should not qualify for Energy Star. JEITA is in agreement with the statement under Qualifying Products on page 9 of the Final Draft: "This ENERGY STAR specification [does not cover] industrial products; i.e., products directly connected to three phase power." Nevertheless, it is necessary to confirm that industrial products with three-phase power have been excluded when determining the requirements.

- Maximum standby power level of 1 W for OM products with faxing functionality on page 14

The maximum standby power level in Table D for all Small-format and Standard-size OM products with faxing functionality was changed in Draft 2 from 2 W to 1 W. JEITA has the following comments on the 1 W requirement that remains in the Final Draft.

In Table D on page 14 of the Program Requirements for Imaging Equipment Version 1.1 Final Draft, the standby power level has been proposed at a flat 1 W for all OM products regardless of whether they have faxing functionality or not. The reason given is the consistency with international standards. JEITA is eager to know what international standards are being cited here.

It is true that in the EU and elsewhere there is movement to legislate a 1 W standby power level. What is important to note, however, is the standby power level of 1 W sought in the EuP Directive applies to the standby power level in a *standalone* state¹ with no relation to any network. Fax-equipped products, naturally, are assumed to be used in a network environment and, thus, they are not subject to the 1 W standby requirement in the EuP Directive Implementing Measure.

The CD proposed last November, during the present criteria revision work on IEC 62301, gives separate definitions for *standby* and *networked standby*. The EU's draft EuP Directive Implementing Measure, in reflection of the IEC's criteria revision draft, has limited the 1 W standby requirement to standby states and not networked standby states.

There is a risk of causing confusion in industry response if the Energy Star definition of Standby remains consistent with current international standards (i.e., no distinction between networked standby and standby) even as the Energy Star definition may move toward eligibility criteria that reflect the definitions in the draft standard revision (i.e., distinction between networked standby and standby).

Moreover, to this time Energy Star standards have defined Standby as “The lowest power consumption mode which cannot be switched off (influenced) by the user and that may persist for an indefinite time when the product is connected to the main electricity supply and used in accordance with the manufacturer’s instructions.” There is also a note appended reading “For Imaging Equipment products addressed by this specification, the Standby power level, or the minimum power mode, usually occurs in Off mode, but can occur in Ready or Sleep. A product cannot exit Standby

¹ The definition of *standby* from Article 2-2 in the “Draft of the Commission Regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment,” which was approved by the Regulatory Committee in July 2008: “standby mode(s)” means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only the following functions, which may persist for an indefinite time:
— reactivation function, or reactivation function and a mere indication of enabled reactivation function, and/or
— information or status display.

and reach a lower power state unless it is physically disconnected from the main electricity supply as the result of physical manipulation.” This definition conforms to the international IEC 62301 standard, and it is normally understood as “the lowest power consumption while plugged in.”

Some fax-equipped products on the market always keep their network functions active as long as they are connected to the main electricity supply so they can receive fax signals because of the product’s purpose/application or out of usability priorities. Since the Standby power level on these products occurs in a Ready or Sleep mode, they consume more power in Standby than in Off mode.

JEITA understands that in the FEMP standards a Standby power level (2W) higher than normal was added for fax-equipped products in consideration of the power required by the faxing function to receive faxes. FEMP’s recommended Standby value is still 2 W for fax-equipped products. Some fax-equipped products that meet the FEMP standard do not have a power switch at all because they were designed on the premise of receiving faxes even while in Standby.

It is possible, of course, to design products with a power switch to meet a 1 W Standby requirement by assuming they will not be connected to any network or accept faxes in Standby mode. But for manufacturers who have designed their products to accept faxes and keep networks active even when in the lowest plugged-in power consumption state, an extension of the Effective Date will be necessary to change their designs urged by this switch in Standby philosophy.

Therefore, to give an extension to manufacturers who have designed products on the assumption of Standby fax reception to allow for design modifications, JEITA proposes that this version include only an announcement that Standby values will be revised in the future in keeping with the IEC 62301 revision and other changes to international standards and that specific changes to the eligibility criteria be made at the next revision of the Energy Star requirements.

Specifically, then, JEITA proposes that the maximum Standby power level for OM products with faxing functionality be set at 2 W.

- Qualifying Products: Table 3 — OM Functional Adders on page 16

Under the adder “Power-supply (PS) size, based on PS output rating (OR),” the allowance is stated as “For PSOR > 10 W, 0.02 x (PSOR – 10 W).” Two drafts ago, however, this value was 0.05 not 0.02. Please indicate the reasoning and data for changing this value.