

Canon Comments on Final Draft of Energy Star Imaging Equipment

September 16, 2008

■ Problems with the 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 Info	ENERGY STAR Tier 1		ENERGY STAR Proposed Tier 2	
		Qualified Products	% Qualified	Products	% Qualified
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 Tier 1 qualifying products registered between April 2007 and June 2008 with the ECCJ 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 has 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/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 High Performance IJ. Although Stencil (digital duplicators) is placed in the same category as EP, the EPA explained that the Stencil data was 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, Canon 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.

■ Problems with the OM requirements

Canon would like to know all the data which were used to determine the OM requirements (OM Table 1 to OM Table 8), in the similar reasons for and same way as the data for the TEC requirements above.

For example, it seems that there are some industrial products with three phase power in the products list used for creating the tier 2 specification for OM products. We agree 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 OM requirements.

■ About Maximum Standby Power Levels for All Small Format and Standard-size OM Products with Fax Capability (Table D, P.14)

This comment relates to Table D in p.14. 2W of maximum standby power level for all small format and standard-size OM products with FAX capability is changed into 1W in the 2nd draft, and it's kept in the final draft.

“Standby” power is proposed as 1W whether the products have FAX capability or not, in the Table D in p.14 of the final draft of the Program Requirements for Imaging Equipment ver 1.1.

The note for that says "This 1.0 W Standby requirements is consistent with international criteria". Please let us know what are the referenced "international criteria" exactly.

There are some movements for legislation of "Standby 1W", for example, in the EU. However, "Standby¹ 1W" requirements in the draft Regulation under the EuP Directive only cover "stand alone" standby which does not have network connections. The products with FAX function are intended to be always used in the network of course, and therefore they are not covered by "Standby 1W" requirements under the EuP Directive.

Furthermore, the definition of "Standby" in the International Standards IEC 62301 is now under consideration, and the CD proposed in last November defines "Standby mode" in distinguishing from "Network connected standby mode(s)". For example, the EU draft Regulation reflects this draft proposal for IEC standards, and its application of criteria of "Standby 1W" is limited only to "Standby" which is not "Network connected standby".

In contrast, the introduction into the Energy Star of such criteria reflecting draft IEC revision (distinguishing between "Standby" and "Networked standby") might cause confusion for Industry in choosing design options, though the definition of "Standby" in Energy Star is the same as current IEC Standards (not distinguishing "Standby" from "Networked standby").

Until now, in the draft of ENERGY STAR Program Requirements for Imaging Equipment, "Standby" is defined 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". In addition, it is explained as "For Imaging Equipment products addressed by this specification, the Standby power level usually occurs in Off mode, but can occur in Ready or Sleep. A product cannot exit Standby and reach a lower power state unless it is physically disconnected from the main electricity supply as a result of manual manipulation.". This definition comes from IEC 62301 – Household electrical appliances – Measurement of standby power (2005), and it is usually understood as the lowest power mode when a product is plugged in to a power supply.

¹ The definition of "Standby mode(s)" in Article 2 (2) of the "COMMISSION REGULATION (EC) No .../..of 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" as of July 2008 (The version approved by the Regulatory Committee)

"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 only an indication of enabled reactivation function, and/or
- information or status display.

Some products with FAX capability in the current market always make the network function on and are able to receive FAX messages in order to match the products' main purpose/usage or to improve their usability. For such products, "Standby" occurs in "Sleep" or "Ready", and energy consumption in their "Standby" may become higher than others.

It is our understanding that FEMP has recommended 2W as standby power for products with FAX capability in spite of higher than other products, in considering power for receiving FAX messages as described above. FEMP recommended level of Standby for FAX is still 2W. According to this FEMP recommendation, some OM products with FAX capability don't have power switch with a view to having the ability to receive messages even in "Standby".

Of course, "Standby 1W" can be attained in products with FAX capability by adding power switch to them with a view to making unable to receive messages in "Standby". However, as discussed above, manufacturers who design their products with a view to having ability to receive FAX also in the lowest power mode when they are plugged in to a power supply would need longer period for design change with the change of the concept of "Standby".

Therefore, in order to give enough time to change the design concept, we would like to propose that "Standby" criteria be changed at next revision of requirements for Imaging Equipments. That is, maximum standby power level for all small format and standard-size OM products with FAX capability remains as 2 W. The future revision of "Standby" according to the change of international standards such as revision of IEC 62301 be only announced at this time.

■ 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. But there is potential for 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 (P.9)

"2) Qualifying Products" on page 9 of the Final Draft states: "This ENERGY STAR specification is intended to cover personal, business, and commercial imaging equipment products but not industrial products (i.e., products directly connected to three phase power)." We understand the "products directly connected to three phase power" as the definition for

industrial products. But are we correct in assuming then that “products directly connected to single phase power” are eligible for Energy Star qualification?

■ Grandfather clause

Common products have more than 2 years of life span in the market, on the other hand, Energy Star criteria are revised in every 2 years and grandfather clause is not applied. As the result, product models which are qualified by current criteria but cannot meet the new criteria during its sale have to be removed all the Energy Star labels on themselves and on their products' documents. This may cause excessive burden on industry. Therefore, we would like grandfather clause to be allowed for products already qualified by previous criteria, and at the same time propose a label accompanied with the year of criteria which the products meet, in order to avoid confusion.