August 21, 2018

Mr. Ryan Fogle
EPA Manager, ENERGY STAR® for IT and Data Center Products

Dear Mr. Fogle:

Thank you for the opportunity to comment on the ENERGY STAR Imaging Equipment 3.0 Draft 2. Xerox is a charter member of the ENERGY STAR program and appreciates the opportunity to offer comments on how 3.0 can best meet the goals that Congress established when it codified the program in 2005 (42 USC § 6294(a)) of achieving energy efficiency and reducing pollution by reinforcing marketplace trends that favor fewer devices that accomplish more and promoting reuse and remanufacturing.

Specifications:

- Since the inception of the TEC method it has been accepted that multifunction devices (MFDs) require greater energy than printers due to increased functionality. In draft 2, Xerox realized the proposed MFD limits are lower than printer limits in some categories. Xerox is unclear on why the data analysis resulted in lower limits for MFD products for some speed bands (e.g. Mono 60-80 ipm, Color 20-80 ipm) and recommends adjusting the MFD limits to be higher than printer limits due to product design and increased functionality.

- Without taking the greater energy consumption of MFDs into account, consumers could be incented to utilize more devices that, all together, consume greater amounts of energy.

Functional Adders:

- As the ENERGY STAR specification has been reduced for many years and become very low, de-featured products have become increasingly advantaged over those products that have more features, which can be environmentally beneficial especially in the larger office ecosystem.

- One way to offset this is to include more functional adders, as is employed in the OM method. Xerox proposes utilizing a consistent philosophy for the TEC method by including appropriate TEC functional adders. The following functional adders are recommended for TEC products, in addition to the previously adopted A3 and W-Fi adders.

<table>
<thead>
<tr>
<th>TEC Adder</th>
<th>Details</th>
<th>Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3 paper (Exists in 2.0/3.0)</td>
<td>A3-capable products</td>
<td>0.05 kWh/week</td>
</tr>
<tr>
<td>Wi-Fi (proposed in 3.0)</td>
<td>Wi-fi is the interface used during the test</td>
<td>0.1 kWh/week</td>
</tr>
</tbody>
</table>

Wendi Latko
Vice President
Environment, Health, Safety & Sustainability

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<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>kWh/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanner</td>
<td>0.5 watts = tbd kWh/week</td>
<td></td>
</tr>
<tr>
<td>Fax</td>
<td>Applies to MFD’s only.</td>
<td>0.2 kWh/week</td>
</tr>
<tr>
<td>Memory</td>
<td>Applies to internal capacity for storing data and all volume of internal memory scaled accordingly for RAM. This adder does not apply to hard disk or flash memory.</td>
<td>0.5/GB= tbd kWh/week</td>
</tr>
<tr>
<td>Touch Panel</td>
<td>All sizes panels</td>
<td>0.01 kWh/week</td>
</tr>
<tr>
<td>Internal Disk Drives</td>
<td>Includes any high capacity storage product, including hard-disk and solid-state drives. Does not cover interfaces to external drives.</td>
<td>0.15 kWh/week</td>
</tr>
<tr>
<td>Near Field Communication</td>
<td></td>
<td>0.1 kWh/week</td>
</tr>
<tr>
<td>Bluetooth</td>
<td></td>
<td>0.1 kWh/week</td>
</tr>
</tbody>
</table>

Additionally, to make use of the adders as appropriate, Xerox recommends in the Test Method, eliminating the "Network or Data Connection for Use in Test" table and allowing manufacturers to pick their test preference and document it on the report.

**Reuse / Remanufacturing:**

Since ENERGY STAR 2.0 became effective in 2014, there has been increased evidence of the environmental benefits of the circular economy, particularly reuse and remanufacturing. Equipment platforms that are remanufactured / reused, incorporate benefits of reducing energy to extract and manufacture new parts and minimizes the waste and impacts of old parts. However, reusing these machines (which includes many engine & fuser parts / electronics), does not allow these products to meet the decreased energy efficiency a new ENERGY STAR specification requires. To accommodate for these competing requirements, Xerox suggests allowing remanufactured products an extra two years before requiring these products to meet the new requirements.
Implementation Schedule:

Given many products will require testing, and design changes in some cases to meet ENERGY STAR 3.0, Xerox requests an extension of 6-9 months beyond the planned implementation timeframe of 9 months, for a total of 15-18 months from final draft to the effective date.

Professional Imaging Products:

Clarification is required on whether products that use 3 phase power will be in scope of professional imaging products. Also, the timeframe is unclear on when an ENERGY STAR specification for professional imaging products will be implemented.

Recommendations for Professional Imaging Products definition:

- Change three of the following additional features, to two of the following additional features included standard with the Imaging Equipment product.
- Third-party color certification: Gracol is not a certification. Should include IDEAlliance Digital Press Certification and FOGRA Validation Printing System Certification.

Recommendations for Professional Digital Front End definition:

- Processor performance per socket equal to or greater than 10 rather than 20.
- Include support for unbuffered (non-ECC) memory.

In sum, we believe these modifications to 3.0 will help the Energy Star program to better meet the program’s goals of increasing energy efficiency and reducing waste by reinforcing marketplace trends towards greater functionality and utilization of reuse and remanufacturing processes.

Sincerely,

[Signature]

Wendi A. Staff