February 29, 2012

Christopher Kent
Energy Star Program
US Environmental Protection Agency
Washington, DC

Dear Mr. Kent:

Xerox Corporation is pleased to submit these comments to the EPA regarding the ENERGY STAR v2.0, draft 1, for imaging equipment. We are principally concerned that the thrust of the changes beyond the update to the TEC specification go too far in displacing consumer choice. At the same time, it misses a prime opportunity for EPA to further the value of ENERGY STAR in reducing energy usage by failing to incent more aggressive sleep mode technologies.

ENERGY STAR – version 2.0 – DRAFT 1 – Comments

1. Page 8, section 3.3: “Note: Without the availability of appropriate test data, EPA has decided not to propose a recovery time requirement for TEC products but is interested in providing this data to consumers on the qualified product listing. EPA is interested in stakeholder feedback on this proposed approach.”

Comment: While we agree that a recovery time requirement should not be included in the specification, we do not support the proposal to include the recovery time data on the qualified product listing. There are several factors that could affect recovery times including file type and size, time in lower power modes, method of sending job (USB or ethernet), etc. As such, there is too much variation in recovery time measurements to provide meaningful consumer information that would enlighten more than distort. Although the proposed test method should create a uniform approach on some of these factors, some Manufacturers also advertise recovery times from Sleep modes in product literature which use different factors not similar to the ENERGY STAR test method. If there is variation in the posted recovery times, it may cause customer confusion. We recommend omitting this requirement and allowing for manufacturers to determine if they post recovery times in their product literature.

2. Page 8-9, section 3.3.1 – Automatic Duplexing Capability:

Comment: We do not support the requirement to have all products with s>19ipm have duplexing as a standard feature. Product configurations with duplex standard cost more than configurations without duplex standard. EPA should continue to allow customers to be able to chose a lower priced ENERGY STAR qualified option especially in the middle speed band range (20-39 ipm or 25-44 ipm) where customers tend to use less paper due to lower print volumes than the higher speed bans (40+ ipm and 45+ipm). Such a provision
would place severe limitations on the value of the ENERGY STAR mark to consumers for whom the additional cost of duplexing was undesirable. It will also place unwarranted procurement limitations on the US government for whom the ENERGY STAR mark is generally mandatory.

3. Page 11, section 3.3.2 – Table 4: Maximum TEC Requirement:

"Note: EPA is proposing to treat MFD and non-MFD products the same for the purposes of maximum TEC requirements. Current qualified product data show that many MFD products can perform as well, if not better than, printer products of the same color capability and speed, and therefore do not require a higher power consumption limit."

Comment: We do not support using the same TEC limit for both MFDs and non-MFDs.

a) Using the same TEC limit for both MFDs and non-MFDs creates overly aggressive limits for non-MFDs in certain ranges.

- As Chart 1 indicates, it appears that EPA may have set the draft 1 TEC limit based on the 0-44ipm speed range. By using such a large range of products to determine the 25% passing rate for non-MFD products, the draft specification unfairly treats the middle speed ban of products (25-55ipm). Chart 2 illustrates that in the 25-55ipm range; only 15% of the products will pass the draft 1 specification. One of the reasons why we do not think the EPA can use such a large speed ban grouping to determine the 25% is because between 0-44ipm there multiple market segments covered: personal, small and home office, small workteam, and workgroup – see Chart 2. These varied market segments have very different product requirements and feature sets which range from basic to complex. The more complex features will require more power and the data reflects this increase in the 35-55 speed ranges. As such, we suggest the EPA separate the low-end market segment products from the mid-higher-end office market segment when determining the 25% limit.

- Chart 3 provides a suggested non-MFD TEC limit that would separate the personal/small and home office (0-24ipm) and the small workteam/workgroup (25-55ipm) products and therefore fairly treat the 25-55ipm products.

Proposal:

<table>
<thead>
<tr>
<th>Monochrome Product Speed, s, as Calculated in the Test Method (ipm)</th>
<th>TEC max (kWh, to the nearest 0.1 kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color non-MFDs</td>
<td></td>
</tr>
<tr>
<td>24 &lt; s &lt;= 55</td>
<td>(s x 0.19) - 1.37</td>
</tr>
<tr>
<td>55 &lt; s</td>
<td>(s x 0.41) - 13.47</td>
</tr>
<tr>
<td>s &lt;= 24</td>
<td>(s x 0.07) + 1.4</td>
</tr>
</tbody>
</table>

\[
\text{TEC max} = \begin{cases} \frac{s}{1000} + 0.14 & \text{if } s \leq 24 \\ \frac{s}{100} - 1.37 & \text{if } 24 < s \leq 55 \\ \frac{s}{250} - 13.47 & \text{if } s > 55 \end{cases}
\]
b) Although current qualified data shows that many MFD products can perform equally or better than printer products of the same capability and speed, we are not sure if that statement can apply to the majority of the MFD and non-MFD products in the pool of data used to determine the limit. We would request the EPA to provide more information that supported this statement related to the similar “capability”.

4. Page 18, section 3.6 (Toxicity and Recyclability Requirements):

Comment: We do not recommend that EPA set requirements in this area because it is duplicative and complex. There are already other regulations and potential standards that cover or will cover these requirements so adding these requirements in the ENERGY STAR specification is duplicative. Also, there are many additional details that the EPA would need to address if these material restriction or design requirements were added. Although third party verification would not be required, EPA would need to clarify what verification documents would be sufficient when required under 3.6.3. Further, how will the EPA handle the difference between the RoHS Directive 2002/95/EC “put on the market” requirement and the ENERGY STAR program’s “date of manufacturer” requirement? There are many additional details that the EPA would need to address if these material restriction or design requirements were added.

5. Page 20, section 6.1.1 Note:”... As of February 28, 2013, only those models that have been third-party certified by an EPA recognized Certification Body will remain on the ENERGY STAR Qualified Product List.”

Comment: We suggest that the EPA allow products that were qualified under the old process (no CB approval) and meet the new version 2.0 standard be allowed to continue on the qualified list without having to re-test at a EPA recognized Certification Body. Because the EPA is targeting the top 25% performers in the new specification and many products on the market before 2011 may be replaced in 2013, we expect that there will be a small number of products that fall into this exception state. The amount of re-testing that will be required for version 2.0 will be significant so we request the EPA provide not require additional testing for this small group of products to help mitigate the cost and resources required.

General Comments
With the TEC limits becoming more aggressive, it is becoming less productive for manufacturers to meet these limits by merely reducing the energy expended in active mode. A more promising approach is to achieve energy savings through deeper sleep modes. The standard sleep mode used by ENERGY STAR, however, does not give manufacturers any credit for such savings, thus disincentivizing further developments in this area. As manufacturers innovate new energy saving solutions, the ENERGY STAR specification and test procedure structure needs to accommodate these alternative solutions rather than limit them. As such, we encourage the EPA to be open to consider alternative energy saving power management solutions and the resulting possible specification and test procedure changes.
Chart 1:

ENERGY STAR - Version 2.0 Draft 1 - EPA’s possible approach to 25%

Tier3d1 color printer/MFD
Tier2 color printer
Color Printer/Copier TEC

23% PASS
80% PASS
30% PASS
$6099
$299
$5000
$399
$1149

Monochrome Product Speed (ipm)
Monochrome Product Speed (ipm)

Chart 2:

ENERGY STAR - Version 2.0 Draft 1 - Resegmentation of speed bands with % passing

Tier3d1 color printer/MFD
Tier2 color printer
Color Printer/Copier TEC

15% PASS
0% PASS
57% PASS
80% PASS

57% PASS

57% PASS
Sincerely,

Patricia Calkins
Vice President
Global Environment, Health, Safety & Sustainability