7 April 2011

ENERGY STAR Imaging Equipment version 2.0
Discussion Document – Comments from EU

We appreciate the launch of a revised ENERGY STAR Imaging Equipment specification and we look forward to working with the US EPA and the stakeholders on development of the specification. We send here our comments to the discussion document.

***Issue 1**: To improve its energy savings estimate and help set revised specification levels, EPA seeks to expand its data set to included current non-qualified models. EPA will consider complete data received by April 1, 2011, using the data form attached to this discussion document.*

We agree that this will be a very good input to understanding the market and for the analyses of the qualification requirements. We highly appreciate any data input from the manufacturers.

Manufacturers could also be asked to identify how many products they sell are ENERGY STAR qualified and non-ENERGY STAR qualified. Of the non-ENERGY STAR qualified products that they sell, manufacturers could be asked for information about which markets these products are sold into and when they were first manufactured. This could serve to provide some insights into where the non-ENERGY STAR qualified products are being sold and whether newer products that are non-ENERGY STAR qualified are performing better than older products that are non-ENERGY STAR qualified.

***Issue 2**: EPA seeks comment on the very high and very low market penetrations of scanners and fax machines, respectively, and on whether the ENERGY STAR label provides any differentiation in the market for these two equipment types. Please provide documentation on the state of the markets for faxes and scanners. (Note that scanners have not been included in the latest draft of the Industry Voluntary Agreement proposed for meeting the requirements of the Lot 4 Energy Using Products (EuP) Directive in the European Union.) EPA is interested in partner input on whether these products should continue to be of interest for ENERGY STAR labeling.*

Some manufacturers have relatively large numbers of scanner models available for procurement. The voluntary agreement is designed to replace mandatory measures and so does not reflect best practice. As such ENERGY STAR could take a more holistic approach to the development of specifications for imaging products.

We believe that in parallel with the scanning functions in MFDs there will be a large market for professional stand alone high speed document scanners for the so-called paperless offices and a smaller market for high quality image scanners for graphic purposes. We think that we should get further data on the scanner market and the value of an ENERGY STAR qualification before a decision will be taken.

The fax machines may be excluded because we believe that it is a declining market.

***Issue 3**: EPA also seeks comments on the characteristics of non-qualifying fax machine models and methods of promoting broader qualification.*

Manufacturers could also be asked to confirm where these non-qualifying models are being sold and when they were first placed on the market.

***Issue 4**: EPA welcomes any further comment on the equipment types currently included in the scope of the imaging equipment specification, and whether any should be considered for removal due to low energy savings potential.*

The development will probably be the following for business: MFDs and high speed document scanners.

And for households: More simple MFDs with various integrated functions such as wireless, photo printers, e-mail to printer, other network functions etc.

***Issue 5**: EPA seeks comment on the current and potential prevalence of small-format high-performance IJ printers and welcomes product performance test data.*

These may already be used in industry for barcode and label printing (most likely OEM) and should be considered included depending on the market situation.

Household photo printers may increase, either as stand-alone printers or as part of a MFD.

***Issue 6**: EPA seeks comment on the current and potential prevalence of impact MFDs and welcomes product performance test data.*

We do not have any specific information of these products.

***Issue 7**: EPA also seeks comment on any other imaging equipment products with significant savings potential that should be added to the scope of the specification. (E.g., professional photo "minilabs".)*

Imaging products such as professional photo minilabs and photobooths could also be assessed for potential energy savings, however, they may not be within the scope. Additionally, ticket printers for transportation and entertainment and label printers for stores and outlets may considered even though we do not know if there is significant saving potential.

***Issue 8**: EPA welcomes stakeholder comment on the impacts of incorporating IEC standard 62301 Ed. 2.0 into the ENERGY STAR Imaging Equipment test method.*

We recommend to use the newest version of the standard i.e. Ed 2.0.

***Issue 9**: EPA would appreciate data on the prevalence of color printing with current products, including color in text documents and full-page color images. EPA also seeks data on the impact of color printing of text and images on the absolute and relative energy consumption of imaging equipment.*

Given the extra costs involved in printing to colour it is likely that colour printing will remain less popular in organizations than mono printing keeping the colour printing as an option when making the printjob. However, given the increase in colour laser printers and MFD coming to market it is expected that colour imaging volumes will continue to increase.

Furthermore, the gradual introduction of electronic document systems may result in printing being used mainly for publication purposes in colour.

***Issue 10**: EPA seeks data on the prevalence of color versus monochrome printing since the energy impact of color printing is a product of its frequency of use.*

See above.

Issue 11: *EPA seeks comment on the prevalence of storing drum warm-up energy in a Power Buffer prior to the beginning of measurement and any effects on the energy consumption of the product.*

This is important for the energy consumption and we support the development of a test methodology that accounts for potential pre-warming ahead of any testing.

In any case, a method as close to real life use as possible is preferred.

Issue 12: *EPA seeks comment on the impact of print driver settings on a TEC product's energy consumption as well as methods of eliminating this potential source of testing variation.*

The ENERGY STAR test methodology should result in energy consumption values that allow procurers to accurately compare between different products. It is therefore essential that the print settings are representative of actual product usage under different typical circumstances, which in many cases will be default settings.

In order to urge manufacturers to make default setting as energy effective as possible (as opposite to highest performance) the equipment should be tested with default driver settings.

Issue 13: *EPA also welcomes suggestions for additional edits to the TEC and OM test methods.*

Some manufacturers are promoting the use of inkjet products as alternatives to EP based products in office environments. Given the likely increase in more sophisticated inkjet devices it is recommended that the print mode of these products also be considered during the OM test method.

Issue 14: *EPA welcomes comment and usage data that could be used to support more representative usage assumptions for the TEC test method. In particular, EPA would appreciate data from manufacturers engaged in managed print services, who track the number of sheets printed as well as time spent in various modes across an entire fleet of imaging products.*

This is an important issue, because a desired target is that TEC actually is a typical energy consumption. There are however difficulties in this because the usage pattern may vary among the ENERGY STAR countries due to different working hours etc.

Issue 15: *EPA welcomes comment on the apparent discrepancy between Active1 time and Active0 time, as well as any test method clarifications that could eliminate this discrepancy.*

Confusion may be avoided with examples for different equipment and scenarios and patterns.

Issue 16: *Further, EPA welcomes comment on including a similar measurement of Active1 time and Active0 time into the OM test method.*

Given the potential increase and sophistication of inkjet products it is suggested that Active times should be investigated for OM products.

Issue 17: *EPA would appreciate receiving supporting data from partners to justify the energy savings asso-*

ciated with specifying a recovery time requirement.

We agree that it is preferable to include a maximum recovery time to ensure fast wakeup times, which again will allow setting of a low default delay time to sleep.

***Issue 18**: EPA welcomes comment on the best method of addressing the energy consumption of DFEs.*

There has been discussion in the EU around the potential classification of digital front ends DFE's as computers and therefore suggesting that DFEs would need to be compliant with the ErP Computer measures. This can however be difficult if the DFE is an integral part of device.

***Issue 19**: EPA welcomes comment on specifying that only one network/data connection be used during testing.*

This sounds like a good suggestion, and which must be a typical situation.

***Issue 20**: EPA welcomes comment on specifying the type of network connection active during testing, in order of preference (e.g., USB, Ethernet, WiFi, other wired, other wireless, etc.). These are currently unspecified (except for an instruction that the device be connected to the network if an interface is available).*

We agree in the suggestion. The first preference should be a possible network connection that the product is marketed with and then in order of preference which might depend on the type of printer (stand-alone, work group etc.)

***Issue 21**: EPA welcomes comment on specifying the state of the network connection during testing (could impact the energy consumption of the product under test).*

We agree that the state should be specified.

***Issue 22**: EPA welcomes comment on specifying that any fax function, if available, be enabled and connected to the phone line during testing to better represent the typical usage scenario.*

We agree that the state of the fax function should be specified and if a typical usage scenario is having the fax connected to a phone line, then this should be the case.

***Issue 23**: EPA welcomes comment on measuring and/or specifying the default delay time to sleep for TEC products;*

We believe that good power management should be promoted as much as possible, which includes short default delay time to sleep and fast recovery time.

We suggest that the delay time should be easy adjustable in steps of maximum 5 minutes intervals.

Additionally, we suggest considering requirements on maximum consumption for sleep and fax, because it is a common situation for many businesses to have the fax on most of the time.

***Issue 24**: EPA welcomes comment on requiring that the network device connected to imaging equipment during the test support Energy Efficient Ethernet, if the imaging equipment also supports Energy Efficient Ethernet.*

This sounds like a good suggestion.

Issue 25: *EPA welcomes comment on applying the TEC test method or on-mode measurement to some OM products that spend significant time in active mode (e.g., receipt printers, ink jet printers for business, etc.).*

It is important to consider including modes with considerable energy consumption in the requirements. Therefore, it should be considered to apply TEC test methods to OM products with significant time in active mode or OM products with a usage pattern close to a typical TEC product.

Issue 26: *EPA seeks clarification on sources of high GHG emissions in the imaging equipment life cycle and supporting data. EPA would welcome input from stakeholders on any work they may have conducted on life cycle impacts of imaging equipment, including the results of any life-cycle analyses (LCAs).*

EU considers that in the context of ENERGY STAR preparatory work should remain focused on energy consumption in the use phase. Other environmental aspects throughout the life-cycle of products are considered in different EU programmes such as the Ecolabel, the Green Public Procurement and Ecodesign.

EU has just launched work towards creation of Ecolabel and Green Public Procurement criteria for imaging equipment. Several analyses documents have been published which also provide sources for LCA of imaging equipment. See further: http://susproc.jrc.ec.europa.eu/imaging-equipment

Furthermore, it is acknowledged that the draft IEEE 1680.2 standard includes criteria aimed at encouraging manufacturers to conduct LCAs on imaging products. Therefore, further data should be available once this standard is actively used to underpin the electronic product environmental assessment tool (EPEAT) scheme.

The ErP preparatory study on imaging products included a number of LCA type assessments. The results of these assessments can be found at http://www.ecoimaging.org.