



# ENERGY STAR Imaging Equipment

## Version 2.0 Specification Revision

### Issues for Discussion

March 2011

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

**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.

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

**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.

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

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

**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".)

**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.

**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.

**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.

**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.

**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.

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

**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.

**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.

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

**Issue 17:** EPA would appreciate receiving supporting data from partners to justify the energy savings associated with specifying a recovery time requirement.

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

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

**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).

**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).

**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.

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

**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.

**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.).

**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).