



**Market Transformation Programme
Comments on ENERGY STAR Draft 2 version 5.0 specification
for computers, and accompanying documents
Distributed on 15/09/08**

Verification Testing Guidelines and Procedures Manual Version 1.0:

- **Page 5 and Appendix D** - Regarding action taken to de-list products: “Removal of the ENERGY STAR mark on the product” and “suspend the labelling of the unqualified product” is not listed on the page 5 actions. MTP supports these requirements, but asks for clarification regarding how these will impact the agreement with the EU and the corresponding product database.
- **Page 6** – MTP supports the use of an independent third-party testing laboratory for verification testing. MTP also supports the proposed mechanism of purchase of the device to be tested directly from retail channels, as this provides the opportunity to check the product meets the requirements “as shipped” from the manufacturer.
- **Page 7** – MTP supports the requirement that the third-party check that product labelling is in line with ENERGY STAR requirements.

**ENERGY STAR® Program Requirements for Computers, Version 5.0,
DRAFT 2:**

- **Page 2, Line 87: 5 second boot requirement for display of ENERGY STAR logo:** MTP supports retention of this requirement as it stands, as it is offered only as an alternative to physical product labelling.
- **Page 6 – Line 277: Small Scale Server Definition:** There is some concern regarding potential overlap between the server specification and the computer specification. It is suggested that the definitions be coordinated with those writing the server specification to ensure clarity to manufacturers in terms of which specification they should register their products under.
- **Page 6 line 301: Revised thin client definition:** MTP supports the revised thin client definition.
- **Page 7 Line 352: ≤ 5 second latency requirements for sleep mode:** MTP supports the latency requirements for sleep mode, as these ensure that there is not excessive delay in recovery from sleep – which may strengthen the case for power management initiatives.

- **Page 9, Line 415: Network Connectivity Standardisation:** MTP strongly supports work towards a standard on achieving full network connectivity, as this can be one of the major barriers to full implementation of power management in enterprise environments.
- **Page 10, Line 461 on: Typical Electricity Consumption (TEC) framework and proposed values for Desktop, Integrated Desktop, Notebook, and Tablet Computers:**
 1. MTP supports the removal of WOL functional adders, and the avoidance of such adders in the specification moving forward.
 2. MTP would question the usage assumptions, which all add to 100%. Especially for notebooks, due to their mobile nature, there will be a reasonably high % of time spent disconnected, running from battery. Therefore, usage assumptions for laptop usage are not representative, and may be misleading to users.

The tables below show how usage assumptions compare with new 2008 usage profiles MTP has been developing, which take into account a wide range of studies in the area. MTP may be able to release its analysis of the various usage studies to the EPA to show how these values were derived, if this would be helpful to the EPA.:

ENERGY STAR				
	Desktop		Notebook	
	Conventional	Proxying*	Conventional	Proxying*
Toff	55%	30%	60%	40%
Tsleep	5%	50%	10%	45%
Tidle	40%	20%	30%	15%

MTP NON DOMESTIC				
	Desktop		Notebook	
	Conventional	Proxying*	Conventional	Proxying*
Toff	75%		41%	
Tsleep	6%		7%	
Tidle	17%		15%	
Tunplugged	2%		37%	

MTP DOMESTIC				
	Desktop		Notebook	
	Conventional	Proxying*	Conventional	Proxying*
Toff	61%		36%	
Tsleep	14%		12%	
Tidle	23%		15%	
Tunplugged	2%		36%	

Note: MTP domestic based off 365 days usage. MTP non domestic based off 240 days usage plus remaining 125 days in off mode 24 hrs a day.

- Conventional desktop assumptions are overstated for idle mode and understated for off mode.

- Proxying desktop assumptions show a very high time in sleep.
- Conventional laptop assumptions are very overstated for off mode, as much of the time the laptop may be unplugged.
- Proxying assumptions are very overstated for sleep mode, as much of the time the laptop may be unplugged.

There are a number of issues with the reference to a different usage figure for “proxying machines”:

- Use of different usage profile for proxying device is misleading and makes TEC values difficult to interpret
- Figures are significantly skewed towards proxying devices when in reality these devices will often not have power management configured when used (as shown by real life data and studies).
- Use of two different usage profiles that will result in such contrasting figures will be confusing to users, and conflicts with the EPA’s goal of providing one single easy to understand point of comparison for energy consumption.
- Results in a lack of transparency and increased complexity of the specification, which makes it difficult to track and assess for effectiveness.
- There is a danger that if it is assumed that all machines that are “proxying” are always configured and used with a high degree of power management, and the TEC figures are based off these, that the push to improve power management at an implementation level is damaged, as there will be less realistic usage figures to base the case for power management off.

MTP strongly supports a consistent approach to the TEC values – using only one usage profile for a desktop, and one for a laptop.

If there is no way to achieve this, it is essential that the database indicates whether a device is proxying or not, as well as the individual power consumption values for each mode – in order to ensure transparency, and enable progress of this efficiency approach to be tracked.

Consistency with EuP: It may also be worth noting in this element of the specification that whilst requirements are not specified for individual modes, products sold in Europe will have to comply with EuP requirements for Standby and Off mode (documentation on the specifics of these requirements is available at:

<http://www.berr.gov.uk/sectors/sustainability/eup/page38894.html> (July 2008 regulatory committee link)

- **Page 12, Line 457: Framework for Workstation requirements:** MTP supports the proposed alternative approach of reducing 4.0 levels by 25% should additional data not be received by September 22;

- **Page 13, Line 587: Game console requirements:** MTP supports the emphasis on modal power allowances for Off (in line with EuP requirements) and Sleep/Auto-Off modes – to allow for initial engagement and buy in from manufacturers to the ENERGY STAR label, so that EPA, EC, and games console manufacturers might work toward improved efficiency in future specifications. However, MTP would question why games consoles require 1 hour to enter sleep mode, whilst the requirement for other computers is 30 minutes. MTP would also question the reference to “display sleep mode” regarding games consoles – perhaps clarification is required here regarding how a games console might interact with a TV?
- **Page 16, Line 604 on:** MTP supports the proposed requirements for low power and idle state modes (including power management requirements), distinct from desktop and laptop requirements as only the top performing 25% of each product group should qualify. MTP also supports a simple requirement applying across all thin clients, rather than a requirement focusing on different categories of thin client, as this adds additionally complexity, does not appear to be easy to support in EPA's data set, and may result in products from specific manufacturers effectively defining categories.
- **Page 18, Removal of requirement for WOL as shipped:** MTP would question why the WOL as shipped requirement has been removed for enterprise products, as this previous requirement may have resulted in higher power management rates.
- **Page 18, Line 649: Reference to custom images in shipping requirements:** MTP supports these requirements, but believes there could be a stronger obligation placed on manufacturers to comment on the compliance of a custom image product with ENERGY STAR – particularly where the manufacturer is aware of changes to power management that do not comply with ENERGY STAR, this should be made very clear to the customer.