

**Comments on Draft 1 ENERGY STAR® Program Requirements for Computer Version 5.0  
Fujitsu Siemens Computers  
13/03/2008**

Page	Line	Requirement	Comment
		Comparability of annual energy consumptions values for Desktops	<p>To give the end customer the possibility to compare systems of different vendors, a typical standard configuration should be defined to do a measurement in addition to maximum configuration.</p> <p>This configuration should be used by all suppliers to give the customer the possibility to compare similar base systems from different suppliers.</p> <p>The result should be visible in the datasheet of the product. The configuration must be a orderable configuration for customer and not only a test sample.</p> <p>Example for possibly configuration: any CPU in Watt range 45W up to 65W any HDD 2 GB memory</p> <p>This standard configuration can be updated in time with new ENERGY STAR versions to follow technical improvements (state of the art)</p>
13	Table 5	Ethernet – compliance with IEEE 803.2az	This is a preliminary standard- supposed to be finalized by 2009. Probably in 2010 the first compliant components will be available. Therefore this requirement should be postponed to later Versions.
6	261 ff	Desktop Derived Server shipped with an industry accepted OS	<p>Desktop Derived Servers are usually shipped without preinstalled OS. Proposal of a new wording in line 261: <u>Designed</u> for an industry accepted operating system...</p> <p>The shipment without OS means also:</p> <ul style="list-style-type: none"> <li>- EPA has to define Software environments for measurements</li> <li>- Shipment requirements as defined in Table 5 page 13 are not applicable to Desktop Derived Servers</li> </ul>
15	637 ff	Standardized datasheet	No printed version, because of environmental aspects. The information should be published on the ENERGY STAR Website.

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16	700 ff	Qualifying product families with multiple configurations	Energy Star compliance is not only dependent on the used based unit (incl. PSU), also the used components (e.g. CPU) have a big influence on the overall power consumption. In order not to increase the E2E complexity by 100% by having two technical identical base units with different configuration possibilities and different model names, we propose that any manufacturer has to make sure that only Energy Star compliant configurations get the Energy Star Logo. It should not be mandatory to use different model names in order to make the difference between Energy Star compliant configurations and non-compliant configurations visible.
9	427 ff	Energy efficiency of internal Power Supply	Do the achieved energy savings justify the additional costs expected?  We recommend no further improvements in power supply efficiency in Version 5.0. It should be the responsibility and choice of the manufacturer, how efficiency and power saving requirements of the covered products can be achieved.
12	559 Table 3	Desktop-Derived Server Efficiency Requirements	The Energy Star Specification defined no requirement for Sleep mode by Desktop Derived Servers (DDS). Therefore please delete the additional power allowance in Sleep mode for WoL enabled.  _____  Desktop Derived Servers may contain a board management controller (BMC), which provides out-of-band manageability of the server, even if the server is in Off Mode. When the server is in Off Mode, the BMC can be configured to be in Off Mode as well, or to be in a functional mode Board management controllers can be classified in two levels of functionality: Level 1: - Basic management functionality - Sharing of system NIC through sideband interface Level 2: - Enhanced manageability and security features - Dedicated management NIC - Access to hardware health data through BMC-based web server interface - KVM over IP functionality - A more powerful BMC CPU core, larger address space, more FLASH and RAM.

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			<p>Depending on the level of BMC functionality and the operational mode of the BMC, the power requirements for the desktop derived server are specified in the following table:</p> <table border="1"> <thead> <tr> <th colspan="2">Desktop-Derived Server Operational Mode Power Requirements</th> </tr> </thead> <tbody> <tr> <td colspan="2"><b>Off:</b> ≤ 2W</td> </tr> <tr> <td colspan="2"><b>Idle State:</b> ≤ X W (TBD)</td> </tr> <tr> <th>Capability</th> <th>Additional Power Allowance</th> </tr> <tr> <td>Wake On LAN (WOL)</td> <td>+ 0.7 W for Off</td> </tr> <tr> <td>BMC Level 1</td> <td>+ 2.0 W for Off</td> </tr> <tr> <td>BMC Level 2</td> <td>+ 4.0 W for Off</td> </tr> </tbody> </table>	Desktop-Derived Server Operational Mode Power Requirements		<b>Off:</b> ≤ 2W		<b>Idle State:</b> ≤ X W (TBD)		Capability	Additional Power Allowance	Wake On LAN (WOL)	+ 0.7 W for Off	BMC Level 1	+ 2.0 W for Off	BMC Level 2	+ 4.0 W for Off
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6	247	RF	Desktop derived servers should not be restricted to Class B. Either allow Class A as well or drop the class from the definition.														
6	252	Storage	Desktop Derived Servers may be configured as diskless, using e.g. an external SAN or NAS storage. Diskless operation is typically more energy efficient than operation with integrated disks. Although diskless operation is not typical for DDS, it should not be precluded by the specification.														
6	242	Desktop Derived Servers	A differentiation between desktop derived servers and “real” servers may look easy, but in reality it is not. There are servers on the market that fall in the gap between the two specifications. Midterm we recommend to include desktop derived servers in the server specification and remove them from the computer specification which then might need to be renamed to clearly not include servers. For now it should remain here as the server specification is not ready to cover Desktop Derived Servers.														
6	242	Desktop Derived Servers	Somewhere it should be clearly noted that a DDS does not loose its ENERGY STAR certification if it is customized.														