

ErP/Eco Design Lot 3 – Commission Regulation (EU) No. 617/2013

Document 2 - Testing and configuration information

Appendix of terms and measurements	
Idle Mode	The mode where the Computer has reached an Idle condition (i.e., 15 minutes after OS boot or after completing an active workload or after resuming from Sleep Mode) and the main Computer Display has entered a low-power state where screen contents cannot be observed (i.e., backlight has been turned off) but remains in the working mode (ACPI G0/S0). If power management features are enabled as-shipped in the scenario described in this definition, such features shall engage prior to evaluation of Idle (e.g. display is in a low power state, HDD may have spun-down), but the Computer is prevented from entering Sleep Mode. Represents average power measured when in the idle mode.
Sleep Mode	Sleep Mode: Means a low power mode that a computer is capable of Entering automatically after a period of inactivity or by manual selection. In this mode the computer will respond to a wake event. Where Advanced Configuration and Power Interface (ACPI) standards are applicable, Sleep mode usually correlates to ACPI system level G1/S3 (suspend to RAM) state
Standby/Off Mode	Means the power demand level in the low power mode which cannot be switched off (influenced) by a user, other than through the movement of a mechanical switch, and which may persist for an indefinite period of time when the appliance is connected to the main electricity supply and used in accordance with the manufacturer's instructions. Where Advanced Configuration and Power Interface (ACPI) standards are applicable, off mode usually correlates to ACPI system level G2/S5 ('soft off') state
Lowest Power State	State or mode with the lowest power demand found in a computer. This state or mode may be entered or left by either a mechanical means (e.g. by turning off the computer's power through the movement of a mechanical switch) or via automatic means.
Network connection	The EUT (UUT) must be connected to an Ethernet network capable of the EUT highest and lowest network speeds. The network connection must be live during all tests.
Wake on LAN	Computers configured with WOL can also be woken from the sleep state by a network signal. Wake-up from sleep state is unaffected by the BIOS setting and must be enabled or disabled in the operating system. WOL works only when the computer is connected to an AC power supply and may differ based on chassis or platform. The speed of any active 1Gb/s Ethernet network link is reduced when transitioning to sleep or off state.
Wake Management	Computers with Ethernet capability that are shipped through enterprise channels (sales channels typically used by large and medium-sized business, government, educational, or other organizations to purchase computers for use in managed client or server environments) are capable of both remote (via network) and scheduled (via real-time clock) wake events from sleep state.
Battery Removal	Notebooks and Tablets either have the battery packs removed for all tests or ensure the batteries are fully charged.
Wireless connections	Power to wireless radios should be turned off for all tests. This applies to wireless network adapters (e.g. 802.11) or device-to-device wireless protocols.

Section 1 - Power management

Stone systems are shipped with a default power profile that meets the best practice guidelines of the Eco Design directive and the Energy Star program; this can help to reduce electricity consumption by automatically turning off your computer and display when it is not in use beyond a certain period of time.

System power management features are preset to allow the computer and its display to switch into sleep or off/hibernate modes based on the following periods of inactivity:

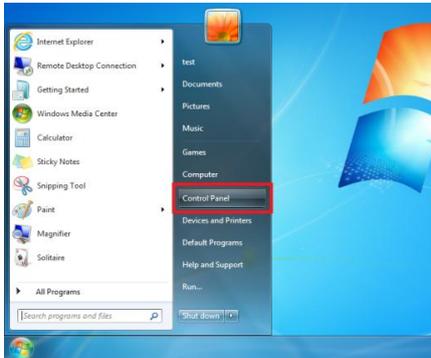
Product Type	Operating System	Display power state		Computer power state	
		Reduced Brightness (integrated display only)	Sleep (S3)	Sleep (S3)	Hibernate (S4)
Desktops, All-In-Ones and Notebooks.	Windows 7 and Windows 8.x	5 minutes	10 minutes	30 minutes	40 minutes

Section 2 – Access power management settings

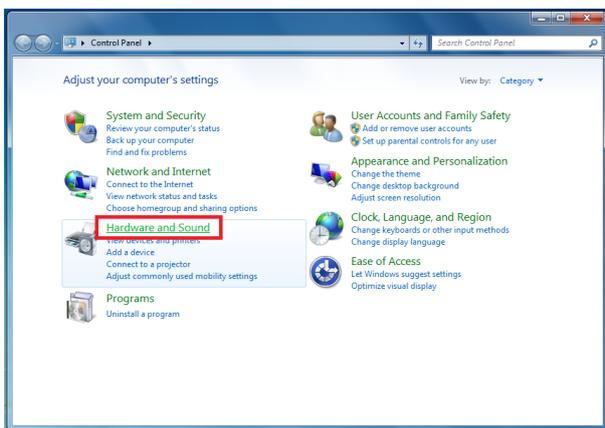
Power management settings can be changed from within the operating system, however it is recommended that you do not disable or increase the time parameters which are preset unless absolutely necessary as this may lead to an increase in energy consumption, financial expenditure and CO² footprint.

To access the power management control follow these steps:

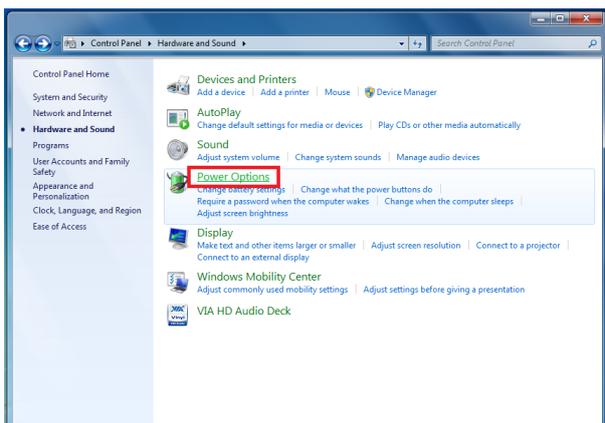
Windows 7 and Windows 8.x



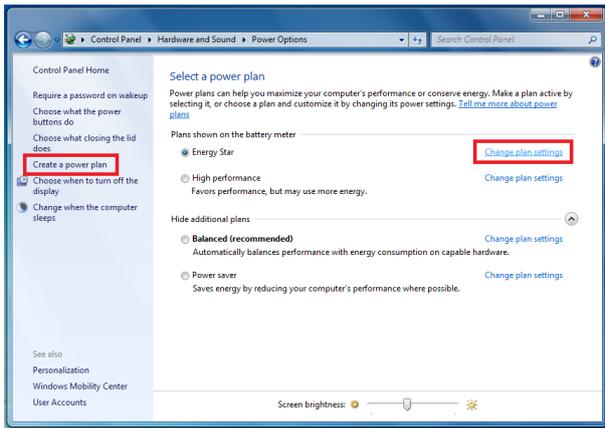
1) Click the **start/windows** button and choose **Control Panel**, or use the term 'Control panel' in windows 8 search.



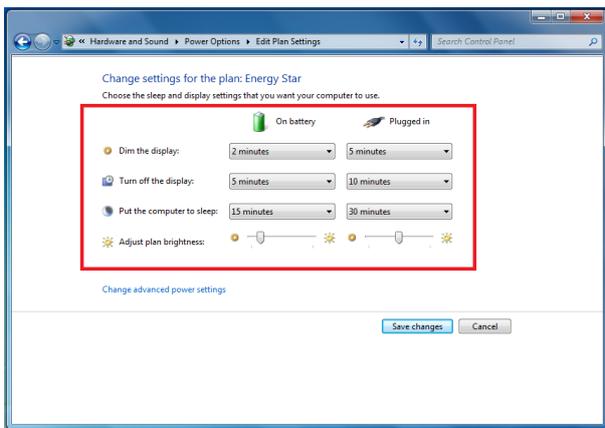
2) In **Control Panel** choose **Hardware and Sound**.



3) Next choose **Power Options**.



4) From this screen you can choose to **create a power plan or change plan settings.**



5) You will be presented with options to modify the time periods before each power saving activity will occur, separated into **on battery** and **plugged in** where applicable.

Section 3 – The benefit of power management

By implementing a power management policy on computers, the potential savings can be significant through reduced financial expenditure on energy to operate the IT infrastructure and environmental controls (air conditioning).

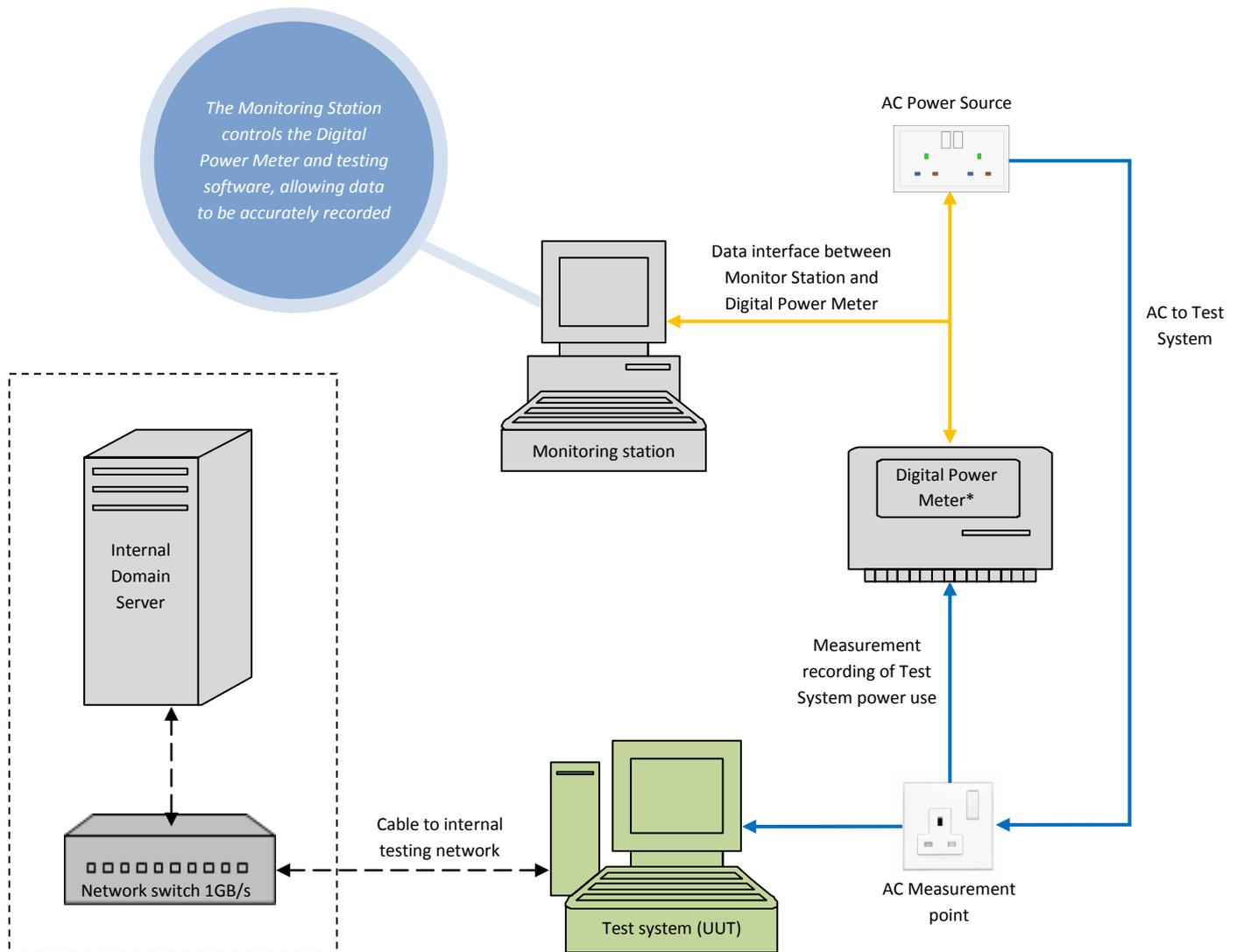
Customers wishing to learn more about energy consumption of computers, notebooks and displays can check the Energy Star website: <http://www.eu-energystar.org/>

Below is a link to an energy cost calculator which customers can use to calculate some indicative energy cost and total cost of ownership figures.

<http://beta.eu-energystar.org/EnergyCalculator/>

Note: while the calculator demonstrates the cost in Euro, it is possible to set custom unit energy cost and usage requirements so that the data is representative of GBP cost.

Section 4 - Information on instrumentation, setup and circuits used for electrical testing



*The digital power meter used for performing test measurements is independently checked and calibrated by a UKAS accredited laboratory annually and meets the Eco-design Directive and ENERGY STAR measurement requirements.

Section 5 – Batteries (Notebook and tablet devices)

With reference to ‘minimum number of loading cycles batteries can withstand’, batteries shipped with Stone notebook products meet or exceed the **Endurance in cycles (accelerated test procedure)** as defined in **section 7.6.3 of IEC EN61960 Edition 2.0 2011-06**.

The test requires batteries to be taken through 300 cycles and the remaining capacity shall meet or exceed the acceptance criteria of 60% as stated in **table 5** of the standard.

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