

## energy measures

fact file

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**ADDITIONAL INFORMATION: Front of House/Public Areas**

Many people think that energy efficient office equipment performs less well, but this is not the case. Most manufacturers tend to consider environmental and technological improvements together. So energy efficient equipment usually also delivers the highest possible quality technical performance and can improve energy efficiency and quality.

### **Managing existing office equipment**

The following tips will help you to operate your existing office equipment as energy efficiently as possible:

- If the equipment has a sleep mode, ensure that it is activated (do not mistake a screen saver for “sleep mode”). You may need to check that networked computers are able to operate in sleep mode without interfering with the operation of the network.
- Screen savers only have a marginal effect on energy efficiency – reducing consumption by at best 10 watts and sometimes increasing consumption). Switching the monitor off is the most energy efficient option for older pieces of equipment that do not have a sleep mode. The monitor can then be switched on again when the user returns to work.
- As a rule, lap top computers use about 1/10th of the energy of PC’s and so may be a more energy efficient option for some users. (this calculation does not account for additional power needs to charge the battery.)
- Ensure that all equipment (even if it has a sleep mode) is switched off if it is to be left idle for prolonged periods or over night. Leaving equipment on all night can quadruple the energy running costs for your office.
- Ensure that heat/emission generating equipment is well ventilated – preferably using natural sources.
- Run photocopiers in batches to ensure that the copier does not spend more time than necessary switching between high power and sleep mode.
- Switch in-office vending and cooling machines off over weekends or periods during which the office will be closed. When replacing this equipment, always select models with good insulation as they will reduce energy costs.
- Watch out for changes in technology, including:
  - Liquid crystal display screens (LCD). These use 80% less energy than conventional CRT monitors, they also occupy less space and have no electromagnetic emissions and low flicker, limiting potentially negative impacts on health.
  - Plasma display screens which could potentially reduce energy consumption associated with energy equipment still further.
  - Combination copier/printer/fax machines, which will avoid cumulative idling.
  - Instant warm-up copiers which reduce wastage of staff time.

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**When seeking energy efficient office equipment ...**

The following tips will help you to find energy efficient office equipment:

**Sleep or energy saving modes:** Many products are now produced with a sleep or energy saving mode. In sleep mode, the energy consumption of equipment is usually significantly lower than in operating mode (the amount of energy used in sleep mode can vary significantly between different pieces of equipment) and hence energy savings can be made. Many pieces of equipment will have a sleep mode installed, but will not have it set up when they are delivered. You can either set it up yourself, or ask your supplier to do this for you prior to delivery.

**Ecolabels:** The simplest way to ensure that you are buying energy efficient office equipment is to look out for one which carries a credible ecolabel. Several ecolabels already exist, although only one or two are available throughout the UK, and these include:



**Energy star:** Originated in the USA, this label is now available worldwide. Equipment bearing the Energy Star logo will both have a longer lifespan (it generally closes itself down to low power mode when left unattended for long periods) and also use less energy. Such equipment must, however still be turned off when left unattended for long periods of time. When selecting between

different energy star rated products, it is important to select the one with the lowest low power rating as this is the mode that is most commonly used.

The EU are also developing an energy saving logo for computers which should be available shortly. In the meantime, it is important to read the manufacturers specification to find the products with the lowest energy consumption.

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The table below illustrates the energy consumption and normal settings for different types of equipment that are rated by the energy star programme.

	Product Type	Power Supply	Average Watts in low-power state	Power management preset/default time
P C and monitor	Desktop PC or workstation	<200W >200W	<30 <15% of max continuous output power	15-30 minutes 15-60 minutes
	Monitor alone	First low-power sleep mode Deep-sleep mode	<15 <8	15-30 minutes <70 minutes
	Intergrated unit		<60	15-30 minutes
P rinter	<7 pages per minute (ppm)		15	15 minutes
	7<ppm<14		30	30 minutes
	>14 ppm		45	60 minutes
C opier	<20 copies per minute (cpm)	Off mode <5 W	n/a	n/a
	20<cpm<44	<15 W	5 + (cpm x3.85) W Automatic duplex optional	15 minutes 30 second recovery
	>44 ppm	<20 W	5 + (cpm x3.85) W Automatic duplex optional	15 minutes 30 second recovery
F ax	<7ppm		15	5 minutes
	7<ppm<14		30	5 minutes
	>14		45	15minutes
S canner			<12	15 minutes

Note: The latest criteria for the Energy Star label can be found on the Environmental Protection Agency's USA web site <http://www.epa.gov>

(Source of all data: ETSU, 1999)