STANDBY PRODUCT PROFILE 2003/05

OCTOBER 2003

PRODUCT PROFILE

SCANNERS AND MULTIFUNCTION DEVICES

AUSTRALIA'S STANDBY POWER STRATEGY 2002 - 2012

AN INITIATIVE OF THE MINISTERIAL COUNCIL ON ENERGY FORMING PART OF THE NATIONAL GREENHOUSE STRATEGY

The National Appliance and Equipment Energy Efficiency Committee seeks comment on this proposal from any interested person or organisation.

Please email comments to:

energy.efficiency@greenhouse.gov.au

Alternatively, hard copy comments can be mailed to:

Scanners and Multifunction Devices Product Profile
Equipment, Appliances & Transport Team
Built Environment & Communities Branch
Australian Greenhouse Office
GPO Box 621
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Comments received by 30 December 2003 will assist in determining the final form of the policy proposals taken to government regarding Scanners and Multifunction Devices.

An electronic version of this Standby Product Profile and other Profiles released for public discussion can be obtained from www.energyrating.gov.au under standby.

CONTENTS

PRODUCT DESCRIPTIONS

This profile covers both IT peripherals used for scanning documents, photographs and other material, including scanners and multifunction devices (MFDs). Although MFDs typically perform other functions such as printing, copying and faxing, they are included in this profile because there is a trend in Australia for scanners to be replaced by MFDs.

SCANNERS

There are two main technologies by which scanners create digital copies of documents. Drum scanners, which are widely used in the publishing industry, have a rotating glass drum (on which the image is mounted). A sensor inside the drum splits and beams the light through colour filters to an image sensor, which digitizes the image.

The more commonly used flatbed scanner has a horizontal glass bed on which the document is placed, and a scanning array which moves back and forth underneath the glass (consisting of a lamp, mirror, lens and image sensor).

MULTIFUNCTION DEVICES (MFDS)

A multifunction device is a physically integrated device (or a combination of functionally integrated components) that photocopies documents as well as performing either printing and/or faxing functions. It may also include scanning or other capabilities. MFDs do not include devices whose primary function is faxing and which offer limited sheet copying capabilities (so-called single sheet “convenience copying”).

CURRENT OWNERSHIP AND TRENDS

SALES

Following their introduction in the early 1990s, sales of flatbed scanners grew rapidly in Australia to a peak in the later 1990's. Although also introduced at a similar time, MFDs have been slower to gain popularity, however they are now amongst the fastest growing computer peripherals. There are now a wide variety of MFDs on the market and the costs have fallen substantially since their introduction. These factors, together with the space saving benefits they provide, have made them increasingly attractive to home and small office users. It is likely that many MFD purchasers wait until the need arises to replace an existing peripheral, eg a printer, and this may explain their initial slow sales growth.

Industry experts estimate that scanner sales have begun to decline since the late 1990's, mainly due to the trend away from single-use appliances towards MFDs (Inform 2003). Additionally, the rapid growth in sales of digital cameras may also indicate that some of the functions of scanners are being replaced by these technologies (IDC 2003). The US Multifunction Products Association (MFPA) claims that the overall number of single-function machines is starting to decline, demonstrating that this is a global trend.

Nevertheless, there will remain a market for dedicated scanners, particularly in certain business sectors, where MFDs are less appropriate.

Given that scanners and MFDs are relatively new products and are often bundled with other computer 'peripherals', they are not always tracked by traditional market surveys. Consequently there is only limited information available relating to scanner and MFD sales in Australia. Table 1 presents industry figures for recent sales of scanners and MFDs, which provide the basis for modelled estimates of MFD and scanner sales since 1990 represented in Figure 1.

TABLE 1: INDUSTRY SALES DATA (IDC 2003 & INFORM 2003)

Year	Total Unit Sales	
	Scanners	MFDs
2001	356,000	n/av
2002	368,950	n/av
2003	206,612	300,000

STOCK

Data on the residential ownership of scanners and MFDs is available from recent surveys carried out by NAEEEC (NAEEEC 2001), and the Australian Bureau of Statistics. As can be seen in Table 2 there is some disparity in the penetration rates measured which reflects the relatively small sample sizes.

There is no published information on the stock of scanners and MFDs in the Australian business sector.

Based on the sales and stock data presented above, and using an average product lifetime of six years, the estimated total stock of scanners and MFDs in Australia since 1990 is shown in Figure 2.

TABLE 2: OWNERSHIP OF SCANNERS AND MFDS IN AUSTRALIAN HOUSEHOLDS (NAEEEC 2001, ABS 2000)

	NAEEEC Appliance Use Survey 2001	NAEEEC Intrusive Survey 2001	ABS 8146.0 (2000)
Scanners	16.3%	35.9%	30%
MFDs	6.2%	4.7%	n/av

FIGURE 1: ESTIMATED SALES OF SCANNERS AND MFDS (MEA 2003)

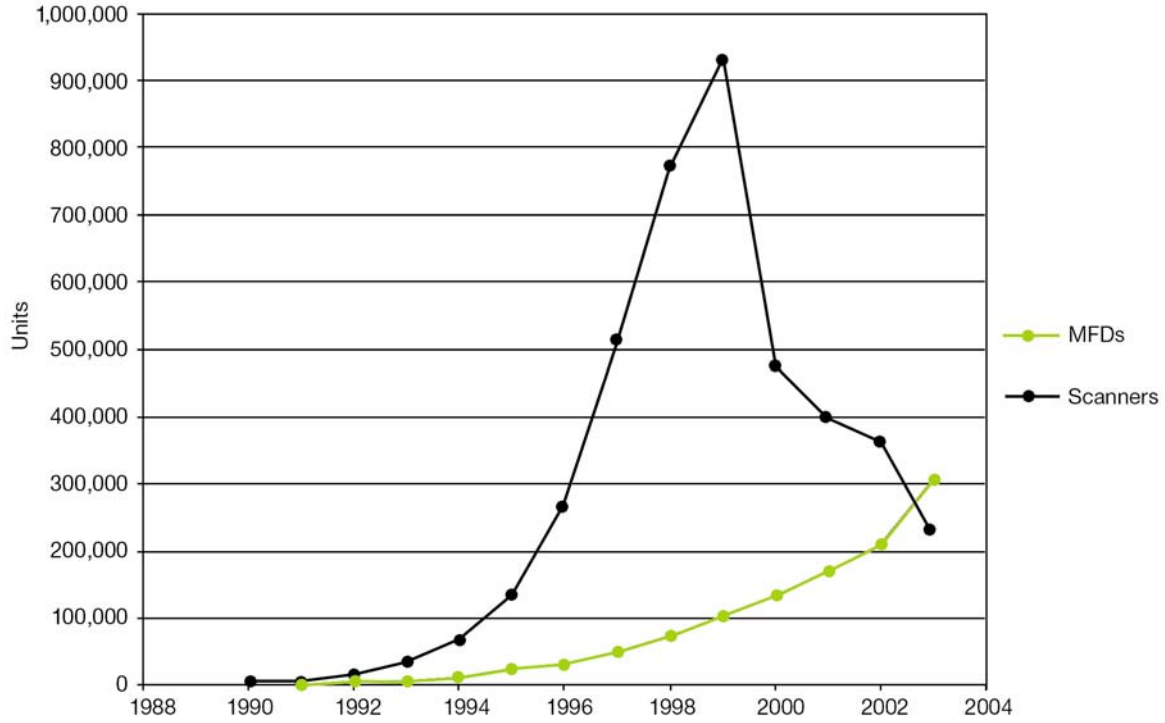
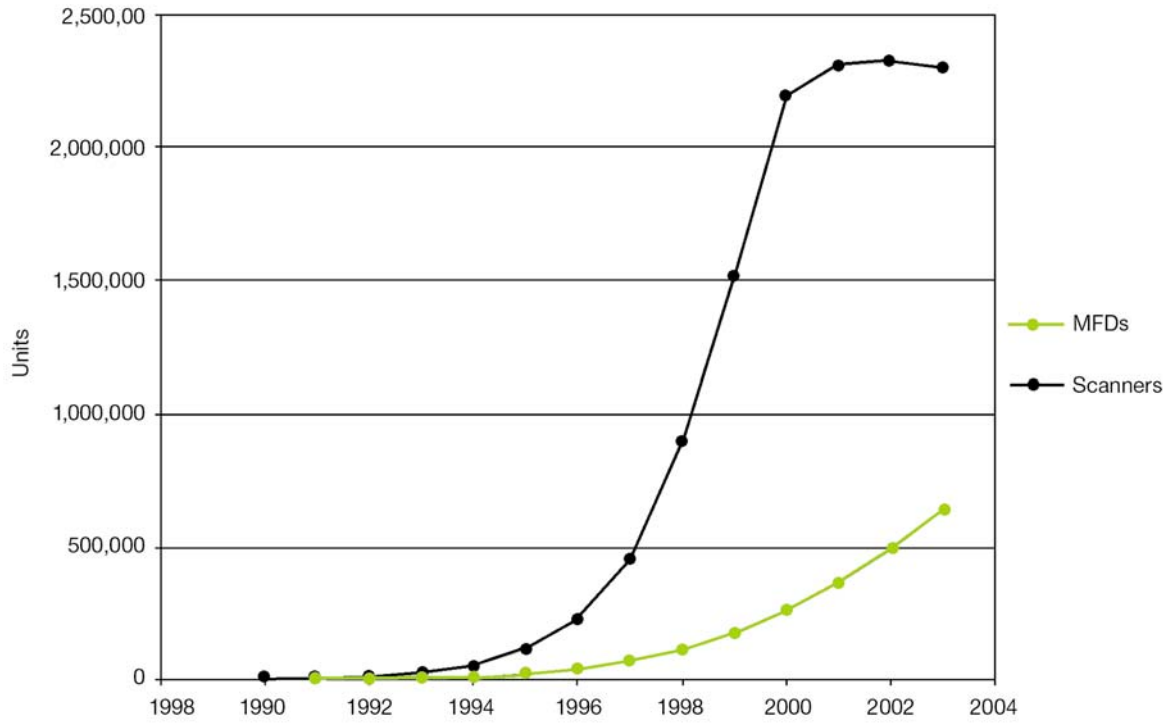


FIGURE 2: ESTIMATED STOCKS OF SCANNERS AND MFDS IN AUSTRALIA (MEA 2003)



RELEVANT MODES FOR THE 1 WATT POWER PLAN

Multifunction devices and scanners have up to four modes of operation, defined here as follows:

- **active mode:** performing the unit's primary task (ie. scanning, printing, copying).
- **active standby mode:** switched on and ready to scan, print or copy. This is sometimes referred to as the 'Sleep1' mode.
- **passive standby mode:** after a period of time the unit switches to a lower power mode for the purpose of energy conservation. This is sometimes referred to as the 'Sleep 2' mode.
- **off mode:** connected to mains power, but switched off by the user.

Issues related to these modes are summarised below:

- For these devices a number of factors influence total energy consumption, including the time taken to automatically switch between active and passive standby modes, which may be pre-set or programmed by the user.
- Some scanners are not manufactured with an off switch, and their lowest plugged-in mode is therefore the passive standby mode. Most MFDs have an off switch.
- Active mode is not generally considered relevant for the standby power plan, although active mode power consumption and patterns of use will affect total energy consumption. The active mode consumption of MFDs is considerable in some cases, with some models reaching a peak consumption of 1,000W when printing or copying. In general, energy consumption is a function of many factors including the speed of printing/copying, quality of prints/copies (resolution) and paper size.
- Since these devices have been on the market for a relatively short time, there is no known data on usage patterns in either the commercial or residential sectors.
- Analysis suggests that for both scanners and MFDs, passive standby mode makes a significant contribution to total greenhouse emissions in Australia. Total emissions from MFDs are likely to grow with their market penetration, however, data from the NAEEEC surveys and Energy Star registered products indicates that low power consumption is technically feasible in the passive standby mode for both scanners and MFDs.
- A new Australian and New Zealand Standard will be developed for scanners and MFDs based on the general standard IEC 62301 (Household Electrical Appliances – Measurement of Standby Power). Australia and New Zealand will adopt the general test method as AS/NZS 62301 in 2003 and it is proposed that a test method for scanners and MFDs be developed as a part of this standard.

KNOWN STANDBY DATA

SCANNERS

As part of the NAEEEC appliance use survey, 18 scanners were measured (NAEEEC 2001). The average active standby mode consumption was found to be 10.4W, and values ranged from 3.8 to 23.4W. Average off mode consumption was 0.9W.

A subsequent store survey (NAEEEC 2002) measured the average active standby mode consumption of six models as 7.5W, with measurements ranging from 3 to 12.9W. Average off mode consumption was 0.79W, although the sample size was small.

The average passive standby consumption (where known) of currently registered Energy Star products in Australia is 6.9W, with values ranging from 4.1 to 8.9W. The standby consumption of these Energy Star registered scanners is plotted in Figure 4 (pg 13).

MFDS

As part of the 2001 NAEEEC appliance use survey of Australian households (NAEEEC 2001), the standby consumption of three MFDs was measured. The active standby mode consumption was found to range from 4.5 to 12.3W.

The average passive standby consumption (where known) of currently registered Energy Star MFDs in Australia is 18W, with values ranging from 1 to 72W. The average active standby consumption of these products is 27W, and ranges from 7 to 75W.

The standby consumption of Energy Star registered MFDs is plotted in Figure 5 (pg 13). As can be seen in this figure, there is considerable variation in the performance of these models in passive standby mode, particularly amongst those with speeds above 10 images per minute (IPM). There is some evidence that a similar range of performances exists for active standby and active modes.

TABLE 3: AVERAGE MEASURED STANDBY CONSUMPTION OF SCANNERS (ENERGY STAR DATABASE, NAEEEC 2002, NAEEEC 2001)

	Active Standby	Passive Standby	Off
Registered Australian Energy Star	n/av	6.9 W	n/av
2002 NAEEEC Store Survey	7.5 W	n/av	0.79 W
2001 Intrusive Study	10.4 W	n/av	0.9 W

TABLE 4: AVERAGE MEASURED STANDBY CONSUMPTION OF MFDS IN AUSTRALIA (ENERGY STAR DATABASE, NAEEEC 2001)

	Active Standby	Passive Standby	Off
Registered Australian Energy Star	27 W	18 W	n/av
2001 Intrusive Study	4.5 – 12.3 W	n/av	n/av

GREENHOUSE EMISSIONS

Experts estimate that annual energy consumption due to scanners and MFDs in Australia in 2003 is approximately 130 GWh and 150 GWh respectively. Due to the lack of comprehensive data, these estimates are based on a range of assumptions, including those shown in Table 5 and Table 6. Further survey of usage patterns in Australia is required to confirm whether these assumptions are accurate.

TABLE 5: PARAMETERS ASSUMED FOR SCANNERS

	Hours of Use/Year	Power Consumption (Watts)
Off Energy	2,540	0.9
Passive Standby	5,238	7.0
Active Standby	582	10.5
Active	400	30.0

The greenhouse emissions resulting from the use of scanners and MFDs are estimated to be approximately 140 kt CO_2-e and 170 kt CO_2-e, respectively. As shown in Figure 3, passive standby accounts for the greatest proportion of greenhouse emissions, although active mode is also significant, particularly for MFDs.

Experts consider that the high growth in the penetration of MFDs in recent years will continue to outweigh natural efficiency improvements, resulting in increased greenhouse emissions due to this technology. The penetration of scanners however, is likely to fall further before reaching a plateau, decreasing the greenhouse emissions from scanners.

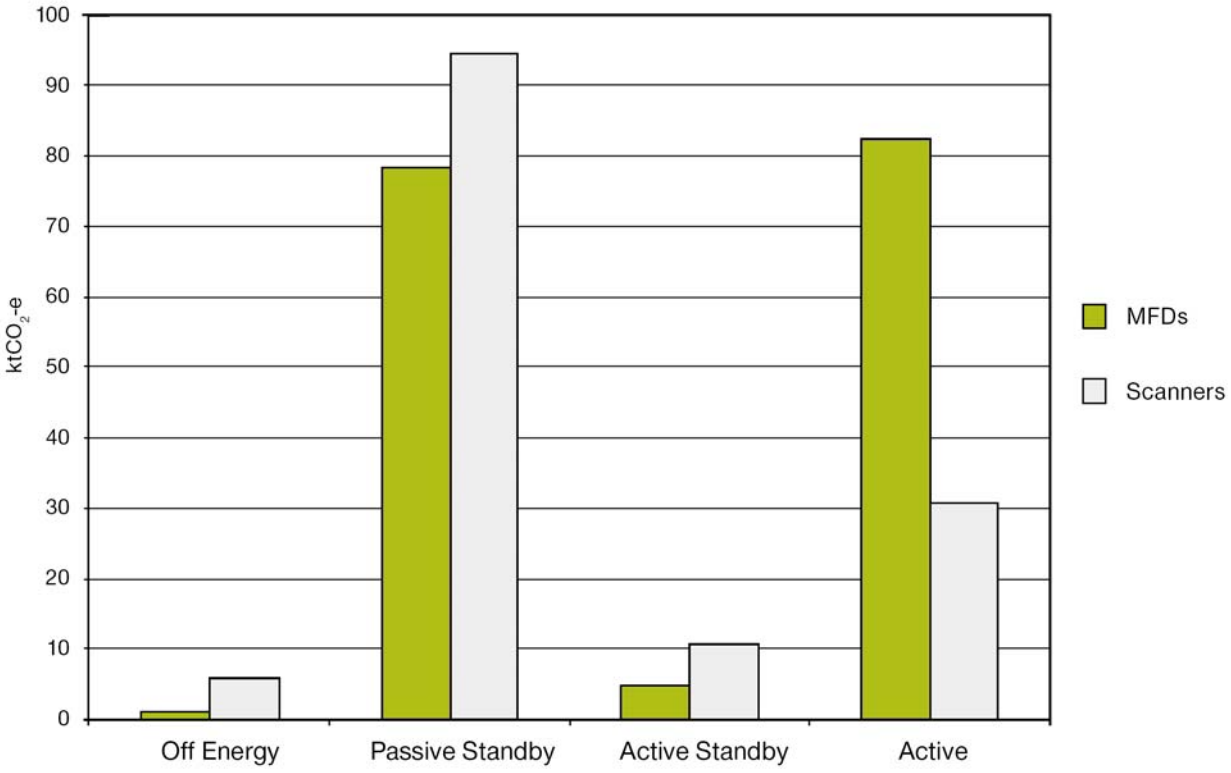
Based on available data, if Australian scanners matched the standby performance of the top 25% of US models, energy consumption in passive standby mode would be reduced by approximately 10 GWh each year, equivalent to an annual saving of 11.3 kt CO_2-e.

Similarly, energy consumption of Australian MFDs in standby mode would be reduced by 60 GWh if their performance matched that of the best models in the US, equivalent to an annual saving of nearly 70 kt CO_2-e.

TABLE 6: PARAMETERS ASSUMED FOR MFDS

	Hours of Use/Year		Power Consumption
	Commercial	Residential	(Watts)
Off Energy	1,577	1,577	0.9
Passive Standby	5,717	6,110	18.0
Active Standby	817	873	27.0
Active	650	200	450.0

FIGURE 3: ESTIMATED GREENHOUSE EMISSIONS FROM SCANNER AND MFDS IN AUSTRALIA, 2003



CURRENT OVERSEAS POLICIES & TRENDS

Several countries throughout the world have introduced programs (both mandatory and voluntary) for minimising the standby power consumption of scanners and MFDs. These programs are described in the following section.

THE UNITED STATES OF AMERICA

EXECUTIVE ORDER 13221

The recent US Executive Order 13221 requires that federal agencies purchase products using no more than one watt in their standby power consuming mode. In accordance with this the US Federal Environment Management Program (FEMP) has set a recommended passive standby level of ≤1.0 Watt (by July 2003) for scanners and MFDs.

ENERGY STAR

The US Energy Star label is a voluntary label awarded to products that meet key energy efficiency criteria, which may include standby specifications. At this stage the program targets a range of office equipment and home electronics products. The Energy Star criteria for scanners is set out in Table 7.

TABLE 7: ENERGY STAR REQUIREMENTS FOR SCANNERS

Passive Standby	Default Time to Low-Power Mode
≤ 12 watts	≤ 15 minutes

The Energy Star criteria for standard-sized MFDs (A4 paper) and large format MFDs (A2 paper or larger) are set out in Table 8 and Table 9.

The Energy Star criteria for standard-sized and large format upgradeable digital copiers[1] are set out in Table 10 and Table 11.

The Energy Star requirements for imaging equipment are currently under review, with the specifications due to be finalized by April-May 2004. The US EPA has received a proposed new set of eligibility criteria from the Information Technology Industry Council (ITIC) and the criteria relating to MFDs are summarised in Table 12. An industry proposal for new Energy Star limits for scanners is currently under development.

The EPA is considering this proposal and has indicated that off mode consumption will be included in the new criteria. Based on data analysed by the EPA, the levels proposed by ITIC are less stringent than the performance of the top 25% of products in the market, a threshold which is typically used to set Energy Star levels (see Figure 4 and Figure 5).

Figure 4 shows the existing Energy Star limits for scanners and the performance level of the best 25% of scanners on the market in the US in 2001-02.

Figure 5 shows the existing Energy Star limits for MFDs, an industry proposal for new Energy Star thresholds, and the performance level of the best 25% of MFDs on the market in the US in 2001-02.

[1] *Upgradeable digital copiers (UDCs) are commercial reprographic imaging units which produce duplicates from a graphic hard copy original using digital imaging technology, and which can be upgraded with add-on devices to offer multiple functions such as printing or faxing.*

TABLE 8: ENERGY STAR CRITERIA FOR STANDARD SIZE MFDS

Device speed (images per minute)	Active Standby (Watts)	Recovery time (30 seconds)	Passive standby (Watts)	Passive standby default time	Automatic duplex mode
< 10 ipm	N/A	N/A	< 25	< 15 min	No
> 10 < 20 ipm	N/A	N/A	< 70	< 30 min	No
> 20 < 44 ipm	3.85 x ipm + 50	Yes	< 80	< 60 min	Optional
> 44 < 100 ipm	3.85 x ipm + 50	Recommended	< 95	< 90 min	Default for both copying and printing/fax receipt
> 100 ipm	3.85 x ipm + 50	Recommended	< 105	< 120 min	Default for both copying and printing/fax receipt

TABLE 9: ENERGY STAR CRITERIA* FOR LARGE FORMAT MFDS

Device speed (images per minute)	Active standby (Watts)	Recovery time (30 seconds)	Passive standby (Watts)	Passive standby default time	Automatic duplex mode
< 40 ipm	NA	NA	< 70	< 30 min	No
> 40 ipm	4.85 x ipm + 50	Recommended	< 105	< 90 min	No

* *see www.energystar.gov for additional details relating to the criteria for MFDs.*

TABLE 10: ENERGY STAR CRITERIA FOR STANDARD SIZE UPGRADEABLE DIGITAL COPIERS

Device speed (images per minute)	Active standby (Watts)	Recovery time (30 seconds)	Passive standby * (Watts)	Passive standby default time
< 10 ipm	N/A	N/A	< 5	< 15 min
> 10 < 20 ipm	N/A	N/A	< 5	< 30 min
> 20 < 44 ipm	3.85 x ipm + 5	Yes	< 15	< 60 min
> 44 < 100 ipm	3.85 x ipm + 5	Recommended	< 20	< 90 min
> 100 ipm	3.85 x ipm + 5	Recommended	< 20	< 120 min

* *For upgradeable digital copiers with functionally integrated units such as print, scan and computer components, the passive standby mode watts for the system may be increased by an amount equal to those allowed for an Energy Star qualified computer.*

TABLE 11: ENERGY STAR CRITERIA FOR LARGE FORMAT UPGRADEABLE DIGITAL COPIERS

Device speed (images per minute)	Active standby (Watts)	Recovery time (30 seconds)	Passive standby (Watts)	Passive standby default time
< 40 ipm	NA	NA	< 65	< 30 min
> 40 ipm	4.85 x ipm + 45	Recommended	< 100	< 90 min

TABLE 12: PROPOSED ENERGY STAR ELIGIBILITY CRITERIA FOR MFDS*

Small format, letter/A4 format, ledger/A3 format	Active standby				Passive standby		Plug-in off
	Claimed speed	Power allowance (Watts)	Default delay time (Minutes)	Recovery time (Seconds)	Power allowance (Watts)	Default delay time (Minutes)	Power allowance (Watts)
Mono EP, Monochrome Thermal Transfer	0 < IPM ≤ 20	Not applicable	Not applicable	Not applicable	≤ 75 or (0.8 x IPM) + 3 whichever is lower	≤ 15 to ≤ 30 depending on speed	≤ 2
	20 < IPM	≤ (3.85 x IPM) + 30	≤ 15	≤ 30	≤ 75 or (0.8 x IPM) + 3 whichever is lower	≤ 60 to ≤ 90 depending on speed	≤ 2
Parallel Colour EP, Colour Thermal Transfer, Serial Colour EP	0 < IPM ≤ 20	Not applicable	Not applicable	Not applicable	≤ 40 to ≤ 53 depending on speed	≤ 15 to ≤ 30 depending on speed	≤ 2
	20 < IPM	≤ (6 x IPM) + 100	≤ 15	≤ 30	≤ 60 to ≤ 105 depending on speed	≤ 60 to ≤ 90 depending on speed	≤ 2
Mono IJ, Colour IJ, Dye Sublimation	0 < IPM ≤ 20	Not applicable	Not applicable	Not applicable	≤ 75 or (0.8 x IPM) + 3 whichever is lower	≤ 15 to ≤ 30 depending on speed	≤ 2
	20 < IPM	≤ 40 to ≤ 75 depending on speed	≤ 15	≤ 30	≤ 75 or (0.8 x IPM) + 3 whichever is lower	≤ 60 to ≤ 90 depending on speed	≤ 2
LARGE FORMAT All technologies	0 < IPM	Not applicable	Not applicable	Not applicable	≤ 100 or (2 x IPM) + 20 whichever is lower	≤ 15 to ≤ 90 depending on speed	≤ 3

* *Further details can be viewed at: http://www.energystar.gov/index.cfm?c=revisions.img_equip_spec.*

** *Large format devices have a maximum smallest dimension of 420mm.*

The following definitions apply:

Monochrome Electrophotography (Mono EP): Products using this technology are commonly called Laser Printers, LED printers, Laser Fax Machines and Copy Machines.

Serial Colour Electrophotography (Serial Colour EP): Products with this marking technology are commonly called Colour Laser Printers, Colour LED Printers or Colour Copiers.

Parallel Colour Electrophotography (Parallel Colour EP): Products with this marking technology are commonly called Colour Laser Printers, Colour LED Printers or Colour Copiers.

FIGURE 4: PASSIVE STANDBY CONSUMPTION OF AUSTRALIAN ENERGY STAR SCANNERS

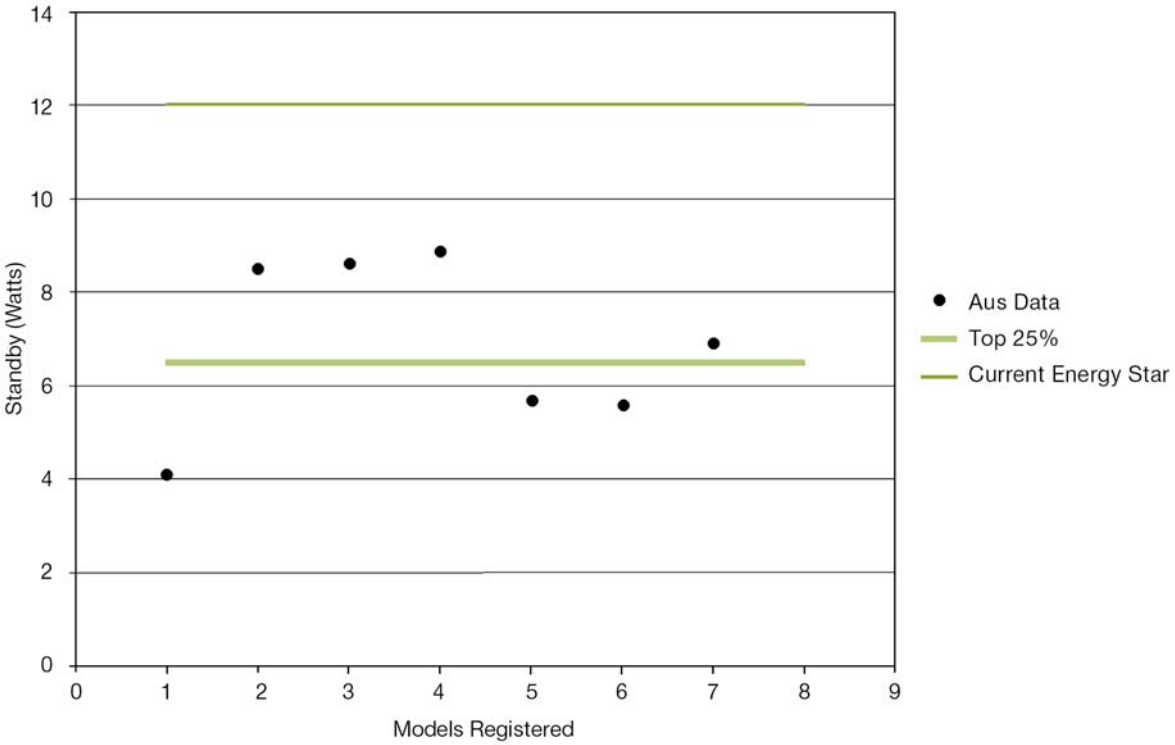
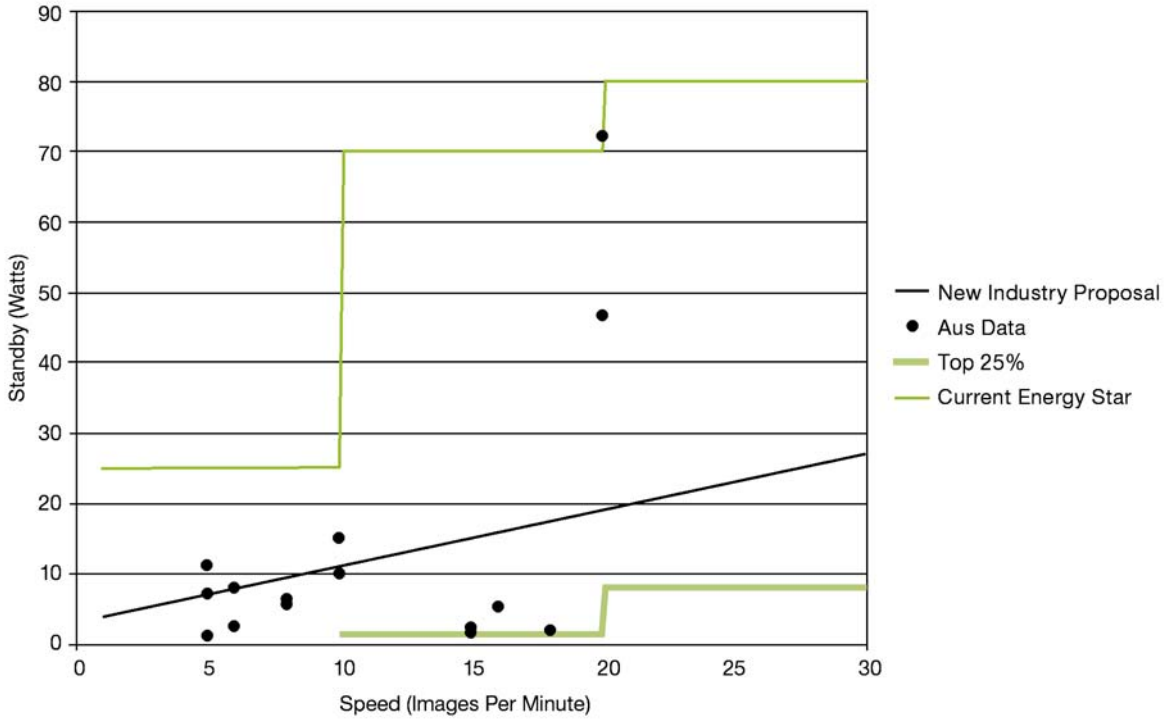


FIGURE 5: PASSIVE STANDBY CONSUMPTION OF AUSTRALIAN ENERGY STAR MFDS



ENERGY STAR IN OTHER COUNTRIES

Because of the global nature of product markets, several other countries have agreed to join the Energy Star program and adopt some or all of the Energy Star criteria for products. Most of the Energy Star partners (the European Union, Canada, Japan and Taiwan) have adopted Energy Star criteria for MFDs and scanners. Australia and New Zealand have yet to adopt these criteria. Brazil and Mexico are amongst other countries that have also expressed interest in the Energy Star program (IEA 2001).

EUROPE

GEEA (FORMERLY GEA) LABEL

The Group for Energy Efficient Appliances (GEEA), made up of government agencies and institutions from several European countries, has introduced a labelling system for a range of appliances which includes scanners and MFDs.

The GEEA standby criteria relevant to scanners and MFDs are given in Table 13 and Table 14. It should be noted that these are considerably lower than the current equivalent performance requirements for the Energy Star program.

TABLE 13: GEEA STANDBY CRITERIA FOR SCANNERS

Passive standby	Default time to low-power mode
≤ 5 watts by 2003	≤ 15 minutes

SWITZERLAND'S ENERGY 2000 LABEL

Under the Swiss Energy program (formerly Energy 2000), the Energy 2000 label is applied to a range of products including scanners and MFDs. The Group for Energy Efficient Appliances coordinates the standby criteria for Energy 2000 labelled appliances (see section above re GEEA).

TABLE 14: GEEA STANDBY CRITERIA FOR MFDS (FROM 2004)

		Mode of operation		
Type of MFD	Speed	Off mode	Speed	Passive standby
Copier / printer	≤ 20 cpm 21 - 44 cpm > 44 cpm	1 W (preset default < 30 min) 5 W (< 60 min) 10 W (< 90 min)	≤ 20 cpm > 20 cpm	1.5 x cpm (default delay/recovery time: 5 min / 10 sec) 3.85 x cpm + 5 (15 min/30sec)
Fax machine / copier / printer	N/A		As Above	As Above
Fax machine / printer	N/A	1 W	< 10 cpm 10 < ppm < 20 20 < ppm < 30 30 < ppm	5 W (default time: 5 min) 10 W (default time: 15 min) 15 W (default time: 30 min) 15 W (default time: 60 min)

UNITED KINGDOM MARKET TRANSFORMATION PROGRAM

The UK Market Transformation Program (MTP) provides information on the environmental performance of a range of products through the UK Environmental Product Information Consortium (EPIC). MTP is currently assessing how to implement Energy Star in the UK for office equipment, including scanners and MFDs, and the role for procurement activities through EPIC. (See http://www.mtprog.com/).

KOREA

The Korea Energy Management Corporation (KEMCO) supervises the implementation of the Energy-saving Office Equipment & Home Electronics Program. This is a voluntary partnership between manufacturers and KEMCO to reduce the standby electricity used by products including scanners and MFDs.

The Program sets standby power consumption standards for scanners, MFDs and upgradeable digital copiers which are equal to the Energy Star criteria for standard size MFDs (see Table 8) and standard size UDCs (see Table 10).

By Regulation, all public institutions in Korea must purchase scanners and MFDs (and other energy saving office equipment) with the energy saving label attached (IEA 2002a).

SUMMARY

The US EPA Energy Star program, as the only international program for promoting energy efficient scanners and MFDs, is the basis for most other overseas programs. Current criteria for scanners are set on passive standby, and for MFDs on active and passive standby. The GEEA criteria include limits for off mode consumption, and the US EPA has indicated that off mode limits will be included in new criteria for both scanners and MFDs, likely to be implemented in 2005. No countries as yet include active mode consumption in their criteria.

There is a distinct trend towards more stringent power requirements in the more recent programs, and this is clearly seen with the proposals for the new passive standby Energy Star criteria for MFDs. While the functionality of scanners and MFDs has increased, so too has the efficiency of products and this has allowed the setting of lower thresholds for both off and standby power consumption.

GOVERNMENT TARGET

Australian governments propose to follow the US EPA lead, promoted within the Energy Star scheme, and use off and standby consumption as the basis for setting efficiency targets. Australia through the Australian Greenhouse Office, has a long-term commitment to working with the Energy Star program and, more generally, working cooperatively within internationally supported product development programs.

Australia will continue support for the international scheme (lead by US EPA) in following the proposed more stringent Energy Star criteria for imaging devices (including MFDs and scanners).

For scanners, these criteria will include standby and off mode limits which are yet to be finalised but will be finalised by Energy Star in 2004. It is likely that the off mode limits will be either 1 or 2W, and that the passive standby limit will fall between the levels proposed by US Industry and the top 25% performing products (as indicated in Figure 4).

For MFDs, these criteria include off mode limits of not greater than 2W - other than large format devices (where the off target will be 3W). Australia proposes to use the passive and active standby energy consumption levels to be finalised by Energy Star in 2004 as the target for the new standby criteria for scanners and MFDs. It is likely that these will fall between the levels proposed by US Industry and the top 25% performing products (as indicated in Figure 4).

Further investigations will be undertaken into the feasibility of adopting limits for active power consumption in MFDs.

Australia proposes to adopt the new Energy Star criteria not earlier than 12 months after they become effective in the US, which at this time is likely to be mid-2005. The target date in Australia for commencement is therefore mid-2006.

To provide a clear signal of the Australian target and to reinforce international efficiency developments, the new Energy Star criteria will be included as a voluntary requirement in the relevant Australian Standard as soon as possible.

Based on those criteria, Australian government agencies want industry to supply evidence with respect to scanners and MFDs that:

- At least 75% of products available for sale complies with the existing efficiency target (Table 8 for scanners; Table 8 to Table 11 for MFDs) by the year 2007 (these levels were first set in 1997).

Alternatively for MFDs only, Australian government agencies want industry to supply evidence that:

- At least 25% of product available for sale complies with the new more stringent Energy Star requirements (Table 12) by the year 2007 (the USA proposes to meet this target in mid-2005).

The absence of evidence showing scanners and MFDs meeting either target by that year may trigger consideration of stage two of the National Standby Strategy involving mandatory measures.

GOVERNMENT PROPOSALS TO ACHIEVE THIS TARGET

Government intends to take the following actions to assist industry meet any targets adopted for scanners and MFDs:

Voluntary Tool Available	Use for this product	Rationale	Date
Energy Star	✓	• This Program will continue to be supported and communicated to stakeholders, particularly emphasising the value of investing in Energy Star compliant scanners and MFDs.	ongoing
		• NAEEEC will set the targets for MFDs and scanners available in Australia that are Energy Star compliant.	In this paper
		• MCE will consider creating Government Policy of purchasing Energy Star MFDs and scanners where available and fit for purpose. This policy will encourage suppliers to supply Government agencies with MFDs and scanners that are Energy Star compliant.	4th Q - 2003
		• Publish Energy Star Partner compliant MFD and scanner data on a government website such as www.energystar.gov.au from 2004	4th Q - 2003
Industry Code of Conduct	✗	• Not considered appropriate at this stage	
Australian Standards	✓	• To communicate government expectations consistent with Energy Star levels in a new Australian Standard, likely to be a part of AS/NZS 62301	Initiate 3rd Q – 2003
Annual in-store survey	✓	• To collect data on all modes for new MFDs and scanners, and to analyse trends	ongoing
Publish Statistics	✓	• NAEEEC will highlight the range of performances of MFDs and scanners in the marketplace through publishing data on a website or other means.	ongoing
		• NAEEEC will also consider highlighting manufacturers who are not Energy Star partners	Initiate 3rd Q – 2004

Government will announce whether this product should be targeted for stage two intervention under the National Standby Power Strategy (involving possible regulatory intervention) or whether the above-mentioned actions together with industry intervention have been successful in meeting the target at the NAEEEC Forum in the year:

2008

REFERENCES

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