



Better Printing Guide

Executive Summary

This Better Printing Guide identifies better printing practices that, if implemented, could save in excess of 20% or more than \$5m per annum across the Whole of Australian Government. Any savings realised would benefit your entity and the environment.

The savings and associated environmental benefits would arise from the adoption of:

- standard default settings (such as, duplex, monochrome, eco-draft, eco-sleep modes)
- improved monochrome to colour impression ratios (colour costs ten times more)
- reduced print volumes (think before your print)
- measuring and reporting performance against comparable benchmarks (how do we rate against our peers?)
- ensuring that impression types, counts and charges are correct (are we being correctly charged?)
- print release software solutions for entities with high impression volumes
- specialised software solutions to minimise consumable usage and charging (for larger volume entities)

Attachments A1 and A2 provides a Poster¹ for Fleet Managers to place on or above each printing device to raise user awareness of the costs of printing, and how simple behavioural change can achieve financial and environmental savings.

¹ Consider printing the Poster on colour paper and/or on A3 paper to grab peoples' attention.

What this guide does not cover

This guide does not cover savings that may be attributed to:

- reduced paper consumption
- device selection and their whole of life costs
- impression to device ratios
- people to device ratios
- device lifespans and management.

The Major Office Machines (MOMs) Whole of Australian Government (WoAG) Team can provide further entity tailored advice upon request.

Contact MOMs **T:** 02 6215 2264 | **E:** MOMcontract@finance.gov.au.

The Need For Change

The WoAG MOM expenditure is approximately \$50m per year, of this about 50 per cent or \$25m is attributed to impression costs (the costs of printing pages but excluding the paper costs). MOMs annual trends show that the number of impressions is stabilising, but the number and cost of colour impressions is increasing disproportionately. Colour impressions cost approximately ten times more than monochrome (black and white) impressions. The increasing cost could be attributed to the Australian Public Service (APS) creating more colour rich content and printing automatically in colour, without effectively considering the cost benefit of doing so.

As the APS moves towards more digital office environments², it is prudent to re-evaluate old habits and embrace a set of new practices that will reduce the pressure on the Australian Budget as well as our environment, for example: 1 tonne of paper = 20 trees, 90,000 litres of water and 1,460kg of greenhouse gases³.

Simple Case Study showing 83% savings (between worst and best case scenarios)

Sample 10 page Document	A4 sheets of paper	Impression charges	Cost	Savings
Single sided & full colour	10 sheets x \$0.01 = \$0.10	10 impressions x \$0.05 = \$0.50	\$0.60	N/A
Double sided & black and white	5 sheets x \$0.01 = \$0.05	10 impressions x \$0.005 = \$0.05	\$0.10	\$0.50 or 83% + environmental savings

² The Digital Continuity 2020 Policy – National Archives of Australia <http://www.naa.gov.au/information-management/digital-transition-and-digital-continuity/digital-continuity-2020/index.aspx>

³ Refer: https://irp-cdn.multiscreensite.com/ed061800/files/uploaded/clean_up_australia_paper_cardboard_factsheet-2017.pdf

Better Printing Guidance

Standard Default Device Settings

The following default settings should be continually applied to all printing devices, and altered on a per print request basis only, unless there is a sound case to pre-set otherwise:

- Duplex (double sided printing)
- Greyscale /mono mode
- Eco/draft mode
- Ecofriendly sleep settings (for non-core business hours)
- Print Release Software (for high impression volume entities).

Improved Monochrome to Colour Impression Ratios

(colour costs approximately ten times more than black and white)

The cost of a colour impression is approximately 10 times more than a monochrome impression. Consider the following with respect to the use of colour where the document will need to be printed:

- Is colour printing needed?
- Reduce unnecessary colour (e.g. could colour be removed from the header/footer so that not every page contains colour and is therefore charged at the colour rate?)
- Do your logos, templates and email signature blocks need to have colour?
- Could colour images be grouped to a section of the document to reduce the number of colour pages?
- Could images be styled to suit black and white readability, e.g. using patterns to differentiate rather than colours?
- Do working drafts need to be printed in colour?

Reduced Print Volumes

(think before you print, does it really need to be printed now or at all?)

- Consider alternative electronic distribution methods
- On screen reviewing and proofing (use links, attachments, soft changes and comments)
- Electronic signatures/approvals use
- Electronic filing in accordance with the National Archives Act (instead of hard copy)
- Convert to Portable Document Format (PDF) file for universal electronic distribution
- Use tablets, projection or media equipment for sharing information at meetings
- Advise your audience about the need to print – do they need to print it?
- Selective printing (could I select just the text or pages I want – not the whole document?)
- When you do have to print, first ask yourself:
 - Has it been properly proof read?
 - Have I completed a spell/grammar check?
 - Do I need a track changes version printed?
 - Have I turned off/on the watermarks?
 - Have I updated all fields (e.g. table of contents etc.)?
 - Have I removed draft and other information from footers?
 - Have I updated dates/version numbers?
 - Have I checked page break positions are correct?
 - Does the document have the correct security classification?
 - Are there blank pages or spaces that could be removed?
 - Have I selected the right paper type, size, orientation, colour, tray?
 - Can I print multiple sheets per page?
 - How many copies do I really need?
 - Have I properly considered the need to print:
 - » single sided?
 - » in colour?
 - » not in eco-draft mode?

Further tips that can minimise print costs

(only apply where savings exceed the time imposition)

The following settings can be adjusted across an entity or individually to reduce the number of pages printed:

- Reduce margin and line space sizes (to fit more onto each page, e.g. this Guide uses narrow margins)
- Font type, size and bolding (some fonts use more toner)
- Consider the use of watermarks – a header or footer may use less toner
- Consider amending common document templates (where appropriate)
- Consider smaller email signature blocks with no use of colour

Measuring and reporting performance against comparable benchmarks

(how do we rate?)

Monitoring trends and performance against comparable benchmarks highlights where an entity is optimising its printing costs or wasting unnecessary. Entity contact managers may like to:

- consider impression types, counts and expenditure trends over time
- compare your impression types and counts against comparable benchmarks (The MOMS team can provide benchmarking information related to your entity requirements)
- identify champions to promote behavioural change and education materials
- set targets for savings and environmental benefits
- publish savings and benefits achieved
- encourage intra-organisational comparisons against benchmarks

Ensuring that impression types, counts and charges are correct

(are we being correctly charged?)

Considering that colour impressions cost approximately ten times more than monochrome impressions, entity contract managers should ensure that entities are being correctly charged in accordance with the MOMs arrangement, as an example:

- Is the overall impression count correct? (does it match paper consumption, allowing for duplex printing)?
- Is the monochrome to colour impression ratio trend in line with comparable benchmarks?

- Are the devices or software correctly counting monochrome and colour impressions in documents that contain both colour and monochrome pages, including where the printer has been instructed to print colour?
- Do the invoices reflect actual mono and colour impression count? Run test files periodically to ensure they do.
- Undertake random and non-random audits to ensure correct impression counts for all types and charging⁴.

Specialised software solutions to minimise impressions, consumable usage and charging (for larger volume entities)

There are a range of software solutions designed to reduce impressions, printing consumables and costs. Entity contract managers may like to consider these where cost benefits arise. Such software products include:

- Print Release Software solutions
- Removing advertising, banners and unnecessary text and images from printed webpages
- Reducing blank spaces within documents
- Specialised toner reducing fonts (that have invisible white spaces)
- Scaled colour charging
- Directing print jobs to the most cost effective device.

Closing Remarks

It is fair to say that through raising greater awareness of better printing practices, the resulting behavioural change will produce financial and environmental savings through consumable reductions. Such savings are monitored by the MOMs Contract Administration team with a view to further develop this Better Printing Guide. Fleet Managers might like to send an email to their staff attaching the Poster (at Attachments A1 and A2) and providing a link to this guidance: http://www.finance.gov.au/procurement/wog-procurement/mom_wog_panels.html

Attachment A1 on the following page is the landscape version of the poster. Attachment A2 on the subsequent page is the portrait version of the poster.

⁴ Impression test files are available from the Govdex MOMS II Community.

PLEASE THINK BEFORE YOU PRINT

PRINTING IS NOT FREE: IT HAS FINANCIAL AND ENVIRONMENTAL IMPACTS

PRINTING



- Do I really need to print it?
- Could I proof read, share or file it electronically?

COLOUR



- Printing in colour costs 10 times more than black and white
- Do I really need to print in colour?
- Do I need so much colour?
- Can I reduce the number of colour pages?
- Do I really need colour headers, footers or signature blocks?

PAPER



- Do I need to print the whole thing, or just parts?
- Can I print double sided?

COPIES



- How many copies do I really need?
- Could we read it from our portable devices instead?
- Could I project it onto a wall or TV?
- Could I print more than one page per sheet?

1 tonne paper	=	50 trees
	=	90,000 litres of water
	=	1.5 tonnes of greenhouse gases
A4 and A3 printing	=	costs the Australian Government \$50 million annually
	=	

CASE STUDY SHOWING AN 83% SAVING

Sample 10 page document	A4 sheets of paper	Impression charges	Cost	Savings
Single sided, full colour	10 sheets @ \$0.01 cent = 10 cents	10 impressions @ \$0.05 = 50 cents	60 cents	Not applicable
Double sided, black and white	5 sheets @ \$0.01 = 5 cents	10 impressions @ \$0.005 = 5c	10 cents	50 cents or 83% + environmental savings!

MORE INFORMATION?

For more information and a Better Printing Guide, visit www.finance.gov.au/majorofficemachines

PLEASE THINK BEFORE YOU PRINT

PRINTING



- Do I really need to print it?
- Could I proof read, share or file it electronically?

COLOUR



- Printing in colour costs 10 times more than B & W
- Do I really need to print in colour?
- Do I need so much colour?
- Can I reduce the number of colour pages?
- Do I really need colour in headers, footers or signature blocks?

PAPER



- Can I print double sided?

PRINTING IS NOT FREE: IT HAS FINANCIAL AND ENVIRONMENTAL IMPACTS

1 tonne paper	=	50 trees 90,000 litres of water 1.5 tonnes of greenhouse gases
A4 and A3 printing	=	costs the Australian Government \$50 million annually

COPIES



- How many copies do I really need?
- Could we read it from our portable devices instead?
- Could I project it onto a wall or TV?
- Could I print more than one page per sheet?
- Do I need to print the whole thing, or just parts?

CASE STUDY SHOWING AN 83% SAVING

Sample 10 page document	A4 sheets of paper	Impression charges	Cost	Savings
Single sided, full colour	10 sheets @ \$0.01 cent = 10 cents	10 impressions @ \$0.05 = 50 cents	60 cents	Not applicable
Double sided, black and white	5 sheets @ \$0.01 = 5 cents	10 impressions @ \$0.005 = 5c	10 cents	50 cents or 83% + environmental savings!

MORE INFORMATION?

For more information and a Better Printing Guide, visit www.finance.gov.au/majorofficemachines