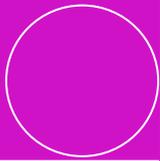MAY 2010

SUSTAINABLE PROCUREMENT PRODUCT GUIDE

DESKTOPS, LAPTOPS
AND MONITORS
(ICT PRODUCTS)

AUSTRALASIAN PROCUREMENT AND
CONSTRUCTION COUNCIL

ABOUT THE AUSTRALASIAN PROCUREMENT AND CONSTRUCTION COUNCIL

Founded in 1967 the Australasian Procurement and Construction Council Inc (APCC) (formerly the National Public Works Council) is the peak council of departments responsible for procurement, construction and asset management policy for the Australian, State and Territory governments and the New Zealand Government. Papua New Guinea is an associate member. The APCC reports to the Australian Procurement and Construction Ministerial Council (APCMC), comprising Ministers with direct responsibilities for procurement and construction matters. The APCMC is a Council of Australian Governments (COAG) Ministerial Council.

The APCC has established itself as a national reference point for both government and industry on best practices, principles and emerging issues in procurement, construction and asset management disciplines.

The APCC collective maximises opportunities to leverage off one another and provides leadership in these disciplines to improve and implement new and evolving procurement practices in ways that will deliver service benefits to the Australian, New Zealand and Papua New Guinea communities.

The APCC forum is a catalyst for knowledge sharing, intelligence gathering and has the information networks to draw on for innovative business solutions for jurisdictions to deliver expected targets, savings and outcomes. The APCC collective continues to strengthen relationships with government partners and other stakeholders to promote a consistent and coordinated national approach to government procurement.

ABOUT SUSTAINABLE PROCUREMENT

Sustainable procurement means that when buying goods and services organisations will consider:

- ◆ strategies to avoid unnecessary consumption and manage demand
- ◆ minimising environmental impacts of the goods and services over the whole-of-life of the goods and services
- ◆ suppliers' socially responsible practices including compliance with legislative obligations to employees
- ◆ value for money over the whole-of-life of the goods and services, rather than just initial cost.

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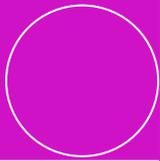
Web: www.apcc.gov.au

This guide is a reproduction of the QGCPO Sustainable Product Guide ICT Products, available at www.qgm.qld.gov.au

as at May 2010

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ICT PRODUCTS

ABOUT THIS PRODUCT GUIDE

This Product Guide (Guide), together with Assessing Supplier Sustainability Credentials*, constitutes the sustainable procurement guidelines for desktops, laptops and monitors – information and communication technology (ICT) products for participating governments.

This Product Guide examines sustainability issues specific to the commodity (ICT products), while Assessing Supplier Sustainability Credentials examines sustainability issues relating to the performance of the supplier providing the commodity.

This Guide is part of the Sustainable Procurement Product Guide series, developed by the Australasian Procurement and Construction Council (APCC).

Key sustainability issues resulting from the production and use of desktops, laptops and monitors, and suggested procurement responses have been identified based on a range of existing standards, ecolabels and guidance documents. This Guide does not provide a detailed life cycle analysis, or an assessment of any one product or type of product.

PURPOSE OF THIS GUIDE

This Guide aims to provide minimum and best practice performance information and procurement responses for desktops, laptops and monitors. Its purpose is to influence the procurement of desktops, laptops and monitors that have improved sustainability outcomes over their life cycle.

Information within this document is intended to guide procurement professionals in considering and integrating sustainability principles into their procurement processes, and to guide industry as to government expectations in relation to sustainability of desktops, laptops and monitors.

TARGET AUDIENCE

Minimum performance criteria are considered to provide benchmarks for industry performance within the supply market.

For industry: this Guide provides insight into current and potential government expectations in relation to the sustainability of desktops, laptops and monitors.

For procurement professionals: this Guide provides information to guide the integration of sustainability principles into the procurement of desktops, laptops and monitors.

HOW TO USE THIS GUIDE

This Guide is commodity specific (desktops, laptops and monitors) and must be used in conjunction with supplier-related sustainability criteria identified in Assessing Supplier Sustainability Credentials.

Sustainability should be incorporated at every stage of the procurement process. Opportunities and strategies exist to address environmental and social impacts during procurement planning (including demand analysis), supplier engagement and through the management of supply arrangements. The procurement process is described in more detail in Integrating Sustainable Procurement Throughout the Procurement Process on page 10 of this Guide.

The suggested criteria contained in this Guide may be applied at any stage of the process. The interpretation, modification and suitability of the criteria and their relationship to the criteria contained in Assessing Supplier Sustainability Credentials must be considered by the contract manager at the time of planning a procurement arrangement. Consideration should also be given to where in the procurement process they should be applied for maximum benefit.

The suggested specifications will not be suitable for all agencies, nor relevant in all markets or procurement contexts. The sustainable procurement responses may be affected by factors including market readiness, availability of supply, product complexity and maturity and organisational needs. Each procurement arrangement will be different.

Assessing supplier sustainability credentials is available on the APCC website.

ADDITIONAL RESOURCES

Sustainable Procurement Roadmap – provides a framework to guide Queensland Government agencies to progressively implement sustainable procurement principles. http://www.qgm.qld.gov.au/10_sus_procure/pdfs/3.2aQGCPO_Roadmap_prf1.pdf

Procurement Guidance Material: Integrating sustainability into the procurement process – provides a process guide for procurement professionals with step-by-step guidance on incorporating sustainability concepts into each stage of procurement. http://www.qgm.qld.gov.au/00_downloads/pgm_sustainable_procurement.pdf#pagemode=bookmarks

INTRODUCTION TO DESKTOPS, LAPTOPS AND MONITORS

SCOPE

For purposes of this Guide the following ICT products are considered: desktop personal computers, notebook personal computers and personal computer monitors.

It does not include products such as servers, netbooks, tablet computers, ebook readers, thin clients or integrated desktop computers.

FITNESS FOR PURPOSE

For purposes of this Guide it is assumed that the product shall be fit for its intended application and the purpose for which it was manufactured. The product must be accompanied by warranty periods emphasising durability performance.

Products are assumed to be certified by mandatory Australian Standards or equivalent international standards.

SUSTAINABILITY PERFORMANCE OF DESKTOPS, LAPTOPS AND MONITORS

The major challenge in specifying environmentally preferable desktops, laptops and monitors is the difficulty in assessing the multitude of complex information surrounding product content and performance. Currently there are a range of independent third-party verification schemes and internationally recognised Type I Sustainability labels for ICT products developed in accordance with the ISO 14024. These include Good Environmental Choice Australia (GECA), Blue Angel and Nordic Swan.

For purposes of this Guide, the Electronic Products Environmental Assessment Tool (EPEAT) standard has been used as the basis to inform desktops, laptops and monitors sustainable procurement requirements.

This standard is widely accepted as the environmental benchmark by the ICT hardware industry and utilised by a significant proportion of the industry. It provides sufficient product choice to service the majority of Australian business needs.
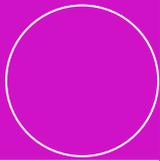
ICT PRODUCTS

Additionally, certified products deliver measurable benefits with no performance penalty and ensure minimum environmental performance criteria along with optional best practice criteria that provide an opportunity for recognition of best practice performance.

The EPEAT (available at http://www.epeat.net) is a procurement tool that allows the comparison and selection of desktops, laptops and monitors based on environmental attributes.

The EPEAT tool was developed as a product stewardship project of the Zero Waste Alliance under a grant from the U.S. Environmental Protection Agency and is administered and managed by staff from the Green Electronics Council. EPEAT was developed over a three-year period in an extensive consensus based process that included representatives from environmental groups, government officials, large volume computer purchasers, subject matter experts, electronics recyclers and manufacturers. It is comprehensive in that it addresses key environmental considerations over the lifecycle of ICT products and provides consistent environmental criteria for comparison.

ELECTRONIC PRODUCTS ENVIRONMENTAL ASSESSMENT TOOL (EPEAT)

The EPEAT tool rates products into three increasingly stringent tiers of environmental performance, based on 51 specific criteria that fall into eight performance categories:

- reduction and elimination of environmentally sensitive materials
- materials selection
- design for recycling
- product longevity
- energy conservation
- product take-back
- packaging
- corporate performance

The 51 criteria are classified as required (23 criteria) or optional (28 criteria).

Products are rated into the three tiers as follows:

- **Bronze** – product meets all 23 required criteria
- **Silver** – product meets all 23 required criteria plus at least 14 optional criteria
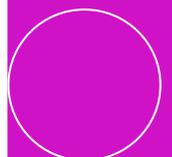- **Gold** – product meets all 23 required criteria plus at least 21 optional criteria.

The EPEAT criteria addresses product compliance with the following standards:

- the European Union (EU) Reduction of Hazardous Substances (RoHS) Directive 2002/95/EC for the restriction on hazardous substances in electronic equipment - available at http://rohs.eu/
- the EU Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC on electronic waste management - available at http://weeeregistration.com/
- the Energy Star Standards, which are widely regarded as the energy efficiency benchmark - available at http://www.energystar.gov/

The standards are recognised internationally and are commonly recommended as the core and comprehensive criteria for energy efficiency.

APCC

DESKTOPS, LAPTOPS AND MONITORS: SUMMARY OF SUSTAINABILITY IMPACTS AND RESPONSES

Design	Materials and manufacturing
Issue:	**Issue:**
The resources required for routine maintenance, forced disposal of non-upgradable or non-reusable desktops, laptops and monitors and poor environmental outcomes at disposal.	The use of hazardous substances and heavy metals in the desktops, laptops and monitors affect workers involved in the manufacturing and disposal of the products, and may limit the options for end-of-life management of desktops, laptops and monitors.
Response:	**Response:**
Procure desktops, laptops and monitors designed to be easily maintained, upgraded, reused and recycled.	Procure desktops, laptops and monitors produced with a minimal amount of hazardous constituents, from companies that implement socially and environmentally aware practices and policies.
As a minimum the products procured should be:	As a minimum the products procured should meet the following requirements:

Design (continued)

As a minimum the products procured should be:

- upgradeable with common tools
- easily disassembled
- modular in design
- contain a minimum of 65 per cent reusable/recyclable material.

Materials and manufacturing (continued)

As a minimum the products procured should meet the following requirements:

- compliant with RoHS Directive 2002/95/EC
- mercury eliminated from light sources
- batteries used are free of heavy metals including lead, cadmium and mercury.

Manufacturers and suppliers should comply with the International Labour Organisation (ILO) core framework.
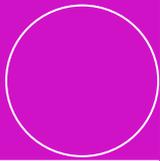
Packaging and transport	Operational use	End-of-life management
Issue:	**Issue:**	**Issue:**
Packaging	During operation desktops, laptops and monitors consume energy and other resources.	Inappropriate and irresponsible disposal of desktops, laptops and monitors wastes resources utilised to manufacture the product, contributes to landfill and can cause adverse social and health impacts due to exposure to hazardous materials contained in products.
Packaging utilises resources and generates environmental impacts during its production. Packaging may also contain toxic substances and create pollution problems if not disposed of correctly.	Premature disposal of desktops, laptops and notebooks also contributes to waste of resources.	
Transport	**Response:**	**Response:**
Transportation of desktops, laptops and monitors utilises fuel and generates greenhouse gases to the atmosphere.	Procure desktops, laptops and monitors that minimise the consumption of resources by being eco-efficient and offering an extended useful life.	Procure desktops, laptops and monitors from manufacturers/suppliers who ensure responsible recycling and disposal of equipment at the end of its useful life.
Response:	As a minimum the products procured should:	As a minimum, the products procured should be covered by a take-back scheme and the product supplier should provide detailed reporting of disposal outcomes.
Procure desktops, laptops and monitors that minimise their environmental impact through the nature and design of the packaging and the resources required for transport.	◆ be Energy Star compliant	
As a minimum the products procured should have:	◆ have additional warranty available	
◆ reduced or eliminated the addition of toxins in packaging	◆ have replacement parts available post model production.	
◆ recyclable packaging		
◆ reduced volume of packaging		
◆ all packaging re-used or recycled		
◆ packaging designed to minimise resources required for transport.		

SUGGESTED CRITERIA

DESKTOPS, LAPTOPS AND MONITORS

The following specifications address the issues identified in the Summary of sustainability considerations table and ensure the procurement of desktops, laptops and monitors designed to improve the environmental and social impacts associated with its manufacture, use and disposal.

| Minimum performance criteria	Best practice performance criteria
Minimum specification:	**Best practice specification:**
1. Offerors are required to meet the following specifications, to demonstrate compliance with the minimum requirements identified in the summary table on page 8:	1. Offerors are required to meet the following specifications over and above the minimum specifications, to demonstrate that the sustainability performance exceeds the minimum requirements identified in the summary table on page 8:
◆ products must be registered and certified to EPEAT silver standard	◆ products must be registered and certified to EPEAT gold standard
◆ offerors must be signatory to Australian National Packaging Covenant	◆ noise emissions for the offered products must be compliant with the requirements of a Type I ecolabel such as Blue Angel, Nordic Swan, GECA or equivalent, and evidence of compliance provided.
◆ offerors must meet additional packaging requirements outlined below:	
– multi-packs for bulk orders	
– removal of excess CD/DVDs and documents	
◆ offerors must demonstrate that the manufacturers and suppliers of the product components are compliant with the ILO core framework and certified to SA 8000 or an equivalent.	2. Throughout the term of the arrangement, the successful offeror will be required to provide an end-of-life take-back scheme for all offered products and auditable reporting of product disposal outcomes.
2. Throughout the term of the arrangement, the successful offeror will be required to provide an end-of- life take-back scheme for all offered products and reporting on product disposal outcomes.	The offeror must provide an end-of-life take-back guarantee and must demonstrate that there are arrangements in place to re-use, recycle and/or dispose of waste.
The offeror must provide an end-of-life take-back guarantee and must demonstrate that there are arrangements in place to re-use, recycle and/or dispose of waste.	Offerors are required to disclose any special provisions/conditions/exclusions in relation to this scheme.
Offerors are required to disclose any special provisions/conditions/exclusions in relation to this scheme.	

ICT PRODUCTS
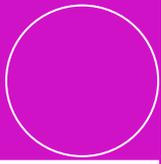
INTEGRATING SUSTAINABLE PROCUREMENT THROUGHOUT THE PROCUREMENT PROCESS

Sustainability considerations should be incorporated at every stage of the procurement process (Figure 1 below). Prior to incorporating any specifications or information contained within this Guide:

- ◆ consider the specific market conditions and organisational needs prior to deciding if and where to apply these criteria.

- ◆ document the options and decisions for how sustainability will be addressed in a plan for significant procurement or a business case.

FIGURE 1: KEY STAGES OF THE PROCUREMENT PROCESS
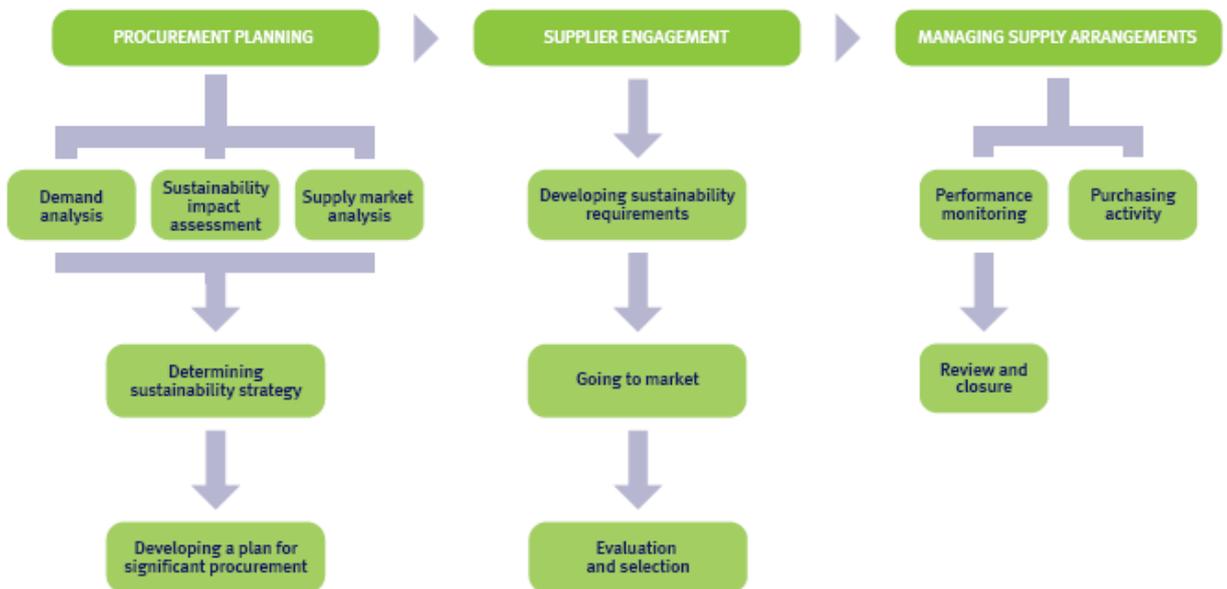
PROCUREMENT PLANNING

DEMAND ANALYSIS

Rethinking the need for a purchase can help avoid unnecessary consumption.

Consider both the 'need' for the business machine and how the use of the service is being managed. For example:

- explore opportunities to not buy:

  - extend the 'useful life' of products e.g. revise the automatic replacement dates from three to four years, or greater if circumstances allow

  - are there opportunities to reuse or upgrade existing ICT products

  - is there access to redundant ICT products either within the agency, groups of agencies or whole-of-Government

  - can the quantity of the products procured be reduced whilst achieving the same output, through job or desk sharing

- increase standardisation of configuration and limit the model range for ease of redistribution, repair, reuse and replacement

- utilise standardised connectivity to facilitate multiple use, replacement and repair

- ensure that the product and its components are reused, recycled and disposed of effectively by requiring that the clients/end-users are utilising the product take-back scheme provided by the supplier

- ensure the agency's asset management plans and asset disposal policies clearly address sustainability impacts, as well as measures to improve sustainability outcomes through demand management and sustainable end-of-life disposal of products

- consider procedures and behavioural and cultural changes that can support improved sustainability outcome, for example:

  - users being required to turn off equipment for prolonged periods of non-usage

  - users being made aware of disposal impacts of electronic equipment and the required disposal procedures

  - activating power saving features by default within the Standard Operating Environment (SOE).

SUPPLY MARKET ANALYSIS

Collect information to identify the capacity of the supply chain to deliver the products in accordance with sustainability requirements.

Use the sustainability issues identified in this guide to develop a pre-tender questionnaire that will help lead discussion with suppliers.

Conduct pre-tender supplier briefings in order to:

- engage potential suppliers, identify existing sustainable suppliers and develop an overall understanding of the market's sustainability performance and capability

- determine whether the recommended minimum performance criteria identified in this Guide are sufficient or if the best practice performance criteria would be more suitable.

Identify opportunities for collaboration between government and industry/specific suppliers in relation to sustainability issues contained in this Guide.
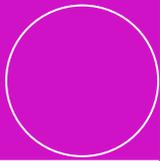
ICT PRODUCTS

SUPPLIER ENGAGEMENT

The criteria in this Guide can be used to develop requirements in the invitation to offer (ITO) documents, as follows:

* Minimum performance criteria for ICT products may be set as mandatory specifications.

  - Ensure that 'mandatory' requirements are able to be delivered by the majority of potential suppliers as those who do not meet the mandatory specifications are not evaluated during the tendering process.

* Best practice performance criteria for ICT products may be set as desirable specifications.

  - These criteria relate to industry leaders in the sustainability field and therefore it is unlikely that all suppliers will be able to compete on this level.

  - Best practice performance criteria provide a market for more sustainable products.

  - Specifying for best practice may incur a price differential. Identify whether or not there is a price differential in the upfront cost and whether ongoing savings may be realised over the life of the product e.g. where the price of the product includes costs for end-of-life take-back and sustainable disposal of the product.

* A full value for money assessment should be undertaken. The whole-of-life environmental, social and economic gains that derive from improved sustainability outcomes may warrant an increased upfront cost. This may occur where the up-front cost of procuring an energy efficient ICT product is higher. Whilst energy-efficient machines have an increased upfront cost in the order of $30-$50 each compared with standard hardware, the payback period to recover this cost is approximately 12 months. Therefore, over the three year life of each machine, savings from the reduced energy consumption will be approximately $60.

MANAGING SUPPLY ARRANGEMENTS

Key performance indicators (KPIs) are an effective tool to ensure suppliers implement progressive sustainability improvements during the term of the arrangement. For example:

* If at the specification development stage it is determined that the potential supplier does not have a capability or capacity to meet a particular sustainability requirement at that point in time, the sustainability criterion may be set as part of KPIs.

* Best practice criteria that are set as KPIs could be used to progress a supplier towards best practice via continuous improvement over time.

REPORTING AND MEASUREMENT

Contract reporting requirements should specifically demonstrate the environmental and social benefits achieved by procuring more sustainable products.

Incorporate sustainability reporting requirements into contract/arrangement terms and conditions.

Measurements of sustainability performance for ICT products could include:

- expected reduced energy use
- dollar spend on EPEAT Gold and EPEAT Silver products (this can be converted to environmental outcomes through the EPEAT calculator available at http://isse.utk.edu/ccp/projects/benefitscalculator/elecbenecalc.html)
- reduced volumes of waste to landfill e.g. tonnage of packaging recycled or reused
- volumes of metals and resources recovered through recycling
- reduced hazardous substances content
- improvements in sustainable design.

For further information about integrating sustainability principles throughout the procurement process see QGCPO Procurement Guidance Material: Integrating sustainability into the procurement process, available at:

http://www.qgm.qld.gov.au/00_downloads/pgm_sustainable_procurement.pdf#pagemode=bookmarks

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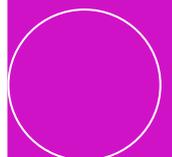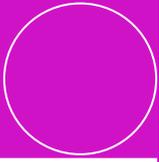
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