



**New South Wales Government**

## **NSW Government Procurement Guidelines**

# **Environmental Management**

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These guidelines were prepared by the NSW Department of Commerce for the NSW Government. They are available from the procurement process maps on

<http://www.treasury.nsw.gov.au/procurement/procure-intro.htm>.

For further information on these guidelines contact NSW Procurement help desk by phone 02 9372 8600 or e-mail [gpshep@commerce.nsw.gov.au](mailto:gpshep@commerce.nsw.gov.au).

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### Related Guidelines

[NSW Government Procurement Policy](#)

[NSW Government Code of Practice for Procurement](#)

[NSW Government Tendering Guidelines](#)

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# 1 How to use the guidelines

The [NSW Government Procurement Policy](#) establishes a comprehensive procurement framework which assists government agencies in the efficient delivery of services and ensures procurement strategies are consistent with the Government's wider policy objectives. The policy provides an overarching framework for government procurement and is supported by the [NSW Government Code of Practice for Procurement](#) and a suite of guidelines which comprise the [NSW Government Procurement Manual](#).

These guidelines are not intended to be prescriptive but constitute a guide to understanding the procurement policy and how it should be implemented by agencies in their service delivery. It is the responsibility of individual agencies to provide their procurement personnel with training on detailed policies, procedures and guidelines which reflect the agency's particular needs and circumstances.

The material contained in these guidelines should be incorporated within an agency's existing procurement practices as appropriate. The extent to which these procurement initiatives are applied should be determined on a case by case basis.

Terms used in this guideline are consistent with those in the [NSW Government Procurement Policy](#) and the [NSW Government Code of Practice for Procurement](#).

## 2 About this guideline

In the past, economic development, social programs and environmental management occurred largely in isolation from each other. Today, however, there is a growing understanding that these systems are interlinked and social, economic and ecological objectives are interdependent.

To achieve improved environmental performance the NSW Government requires agencies to mainstream Ecologically Sustainable Development (ESD) in procurement. All agencies are required to include ESD objectives in their corporate plans and subsequent business practices, including the procurement of goods and services.

This requires all agencies as well as service providers to government to improve their management of environmental and energy practices and to seek alternatives to waste disposal wherever possible.

Service providers will be required to demonstrate in their tender responses their environmental management and performance capability. Agencies will measure service providers' performance against the environmental outcomes proposed in their tender response, during the course of the contract.

Products will be assessed equally and impartially on their demonstrated merits in terms of performance, cost and environmental impacts.

These guidelines aim to:

- assist agencies and service providers to integrate ESD principles into the procurement and supply of goods and services
- improve the environmental practices of service providers and agencies
- minimise the detrimental impacts on the environment of products and services used
- encourage service providers to maintain and enhance good environmental practices and work in partnership with agencies to uphold the principles of ESD
- encourage service providers to provide advice on the beneficial environmental aspects of their products and services.

# 3 Government policy and its application

This guideline follows the broad principles outlined in the NSW Government's policies:

- [Waste Reduction and Purchasing Policy: A Guide for Agencies](#) issued by the Environmental Protection Authority
- [Government Energy Management Policy](#)
- [NSW Greenhouse Plan](#)

## Conservation of energy and waste minimisation

### Environmental considerations

Agencies are to base procurement decisions on the principle of 'value for money' over the life of products rather than 'lowest initial cost' and give preference to, and purchase products with, a low adverse environmental impact. Value for money includes the cost of the goods and services, whole of life costs, innovation and additional benefits such as meeting the Government's economic, social and environmental policy objectives.

Environmental aspects that should be considered include:

- highest possible recycled material content
- waste avoidance
- elimination of virgin material requirements
- product re-useability
- recyclability
- energy and efficiency
- amount of energy used in manufacture as well as operation
- nature and amount of emissions to air and water, and solid waste to land-fill
- low maintenance
- use of environmentally preferred product
- ultimate disposal.

When developing plans, specifications and selection criteria for tender assessments. An environmental procurement checklist is at Appendix A.

### **Cost neutrality**

In order to balance environmental considerations within 'value for money', the procurement process should also be based on the concept of cost neutrality. In other words, substituting the use of products with lower environmental impact costs where the overall effect on the agency's business is cost neutral or favourable for example:

- where the product with lower environmental impact costs the same as, or less than the alternative
- where the lower impact product costs more than the original but results in savings over time which offset its greater cost (often the case for energy saving services such as low energy light bulbs or more efficient refrigerators)
- where the lower impact product costs more, but the cost can be offset from savings made elsewhere within the business unit as a result of the usage of this product
- where intangible benefits, such as public perception, are identified as having value equivalent to the extra cost of the product.

## 4 Procurement process

Throughout the procurement process, procurement personnel should integrate environmental considerations with other criteria such as past performance (including an enterprise's environmental record), durability, quality and value for money. Four basic principles are to be employed in the procurement process and these are to be applied to each phase of the life cycle of an item (planning, acquisition, operation, utilisation, maintenance and disposal). These principles are:

1. avoid
2. reduce
3. reuse
4. recycle/Reprocess.

Agencies should also facilitate the implementation of energy efficient, renewable energy solutions and other greenhouse gas abatement strategies in all procurement.

### Review current procurement practices

In developing its procurement plan an agency is to review its current procurements of all products (for example, energy management and, as a minimum, the targeted products listed in *Section 5*) for which a recycled or more economically friendly alternative is available.

The agency assesses the current usage of each product including quantity, cost and distribution to determine whether any recycled or re-manufactured products are purchased, the major suppliers of important products, and the types of packaging products commonly used.

### Identify and eliminate bias against recycled and environmentally beneficial low-waste products in procurement

To establish the competitiveness of all products correctly, agencies should remove any bias against the use of recycled and environmentally beneficial low waste products. The agency's procurement needs should be reviewed to identify any impediments that may inadvertently be discouraging the purchase of environmentally friendly products and equipment. This review should concentrate on product performance, that is, the ability to do the job required. By being aware of the perceived problems that



inhibit the purchase of environmentally friendly products, changes to the tender documentation and procurement procedures may open the market for some of these products.

Some of the main factors responsible for bias against environmentally beneficial products are:

- initial cost
- product specifications
- lack of product information
- unproven performance
- previous poor performance
- performance information.

### **Initial cost**

Procurement decisions based on ‘lowest cost’ may create a bias against recycled or environmentally beneficial or low-waste products which may carry (or be falsely presumed to carry) an additional cost burden. It is Government policy for agencies to base their procurement on ‘value for money’ which includes life cycle costing.

The policy does not require agencies to purchase recycled or low-waste products if these do not meet the value for money criteria. Similarly agencies are not required to purchase products with specified recycled content (for example, 100% recycled photocopy paper). However, agencies are expected to purchase the product with the highest proportion of recycled content whose cost and performance are competitive with the non-recycled alternative. If an 80% and a 60 % recycled product are equal on cost and performance grounds, agencies are expected to purchase the 80% recycled product.

Agencies should take initiatives to reduce the cost of purchasing recycled products, for example, consolidating their purchasing requirements to achieve bulk discounts or eliminating wasteful misuse.

### **Product specifications**

Product specifications may be too prescriptive, and bear little relation to the intended function of the product. For example recycled products may be judged to have an inferior appearance, even though the appearance of the product does not affect its performance. Any such bias against the purchase of recycled products should be removed.

Agencies are to review their product purchasing practices, standards and specifications to identify and remove any impediments that may

inadvertently discourage the purchase of recycled products and equipment. The review should include any internal procedures (formal or informal) for procurement, tendering and contracting if the products listed above are involved. Procurement and purchasing staff should be made aware of and participate in the review, and implement the revised procedures.

### **Lack of product information**

An increasing number of recycled products are now available in the market. However, the uptake of these products has not been as rapid. This may be the result of a lack of product information available to those responsible for procurement within an agency. [A guide developed by the Centre for Design at RMIT University](#) (formerly Royal Melbourne Institute of Technology) assists buyers to locate recycled or re-manufactured products for use in construction.

Service providers should be able to assist agency personnel with details of which, if any, of their products contain recycled or remanufactured componentry. Special attention should be drawn to these types of items in the publication of contract information, thereby increasing the awareness of environmentally friendly products for contract users.

### **Unproven performance**

Sometimes environmentally friendly products are not purchased because their performance record is unknown. Where untried environmentally friendly alternatives are available in the marketplace, agencies must take positive steps to ascertain whether their performance may be competitive. For example, agencies should offer service providers the opportunity to provide product samples for tests or trial, or be asked to warrant or guarantee the performance of their products.

However, it is a legitimate reason for rejecting products if service providers are unwilling or unable to guarantee their performance.

Service providers will be required to demonstrate their environmental management and environmental performance capability. Products will be assessed equally and impartially on their demonstrated comparative merits in terms of performance, cost and environmental impacts. Expert scientific opinion, where available, should form the basis for such comparisons.

### **Previous poor performance**

The poor performance of an environmentally friendly product that was previously on the market is sometimes used to exclude a newer product from competing. For example, the early recycled papers tended to develop a reputation for sticking in some photocopiers and printers and in high speed photocopying applications. With improved technology the recycled papers on the market today have

performance characteristics that are competitive with virgin papers. The quality of re-manufactured toner cartridges has also improved and the better, more recent recycled products can offer an all-round performance comparable with that of new cartridges.

Up-to-date product information should form the basis for procurement decisions.

In the past, manufacturers of office equipment had refused to guarantee the performance of their equipment if recycled paper or replacement components were used. When purchasing office equipment, agencies should establish with the service provider whether the service warranty is still valid if they use recycled replacement components. All else being equal, the procurement decision should favour the supplier that does not preclude the use of recycled paper or replacement components with its equipment.

### **Performance information**

Agencies are required to provide information, if requested, to the unsuccessful tenderer on the weakness of its tender response and/or products, and the reasons for the rejection. This information should be limited to the facts of the unsuccessful tender response, with comments against the selection criteria. Comparisons with the successful tender response are to be avoided. The information given must relate only to the tender response at hand without giving assurances about the likely success of other current or future tender responses relating to the same products. In this way manufacturers and service providers of recycled products should be encouraged to improve the quality, performance and reliability of their products.

### **Commitment to buy 'green'**

The emphasis on the agency's preference for 'green' products can be made in the tender documents, for example, in the specifications as well as in the selection criteria. Consistent demand for recycled and environmentally friendly low waste products will not only help to raise the profile of ecologically sustainable development with service providers, but will also provide an incentive for manufacturers to develop and produce more of these goods.

### **Tender evaluation**

Service providers are required to indicate, in selected tenders, measures they intend to implement to improve environmental performance and management if awarded the contract. Agencies are to measure the performance of the service providers against the environmental outcomes proposed in their tenders. Those responsible for preparing and evaluating the tenders should ensure that tenderers' environmental claims can be validated. This can be either through compliance with appropriate standards or the service provider's own manufacturing records.

When evaluating tender responses, agencies are to ensure that service providers can demonstrate commitment to effective waste management and energy conservation practices. Preference is to be given to tender responses incorporating ecologically sustainable development and appropriate waste reduction strategies and use of recycled and low-waste products.

Tenders invited by agencies for projects that involve the generation of target wastes or the purchase of target products need to specify that preference will be given to tender responses that comply with the policy's waste minimisation and energy conservation principles. Evaluation of the tender responses received must have regard to the tenderers' envisaged environmental management practices and where all else is equal, preference given to tender responses which:

- incorporate appropriate waste minimisation strategies, including arrangements for waste avoidance, re-use and recycling
- incorporate energy conservation strategies
- commit the service provider to the purchase and use of recycled and low-waste products in performance of the contract.

# 5 Environmental procurement considerations

Prior to commencing the procurement process (for example when developing a procurement plan) the agency should determine if the goods or services are definitely necessary and if so, the selection criteria to be adopted for tender evaluation.

The checklist at Appendix A is to be used by agencies if information from scientific studies or a life cycle analysis is not available. The checklist can also be used as a guide for setting targets in measuring the performance of service providers against the environmental outcomes proposed in their tender.

The following contains information that needs to be considered when selecting environmentally friendly products. The main focus in the following is on office-related materials and equipment.

## Office stationery

### **Printing green: choosing the right paper**

In addition to the reduction in the consumption of trees, the resultant effluent in making recycled paper is cleaner and less toxic than that resulting from entirely or largely new, virgin material.

Recycled paper is made from reclaimed *post-commercial* waste paper and *post-consumer* fibre. Post-commercial waste paper includes material such as trimmings from printed operations or paper from obsolete inventories, but excludes waste from the paper manufacturing process and post-consumer waste paper. Post-consumer fibre specifically comes from paper that has passed through its end use as a consumer item and is retrieved through residential or commercial recycling programs. In order to reduce stress on the environment, it is prudent to select a paper with at least 50% recycled content including 10% post-consumer fibre. From an environmental perspective, the higher the post-consumer content, the better, as this supports collection programs that help 'close the loop' and reduce the amount of waste going to land-fill.

### **Coated paper**

The use of coated, 'glossy' paper should be avoided if possible. Coated paper is more expensive than uncoated, can be more

technically difficult to recycle, and is currently much less accepted for recycling.

### **Bleached paper: do you really need it?**

Before specifying a pure ‘bright’ white paper, it is important to determine if bright white paper is essential. The use of bleached paper should be avoided, as the bleaching process is energy-intensive. In addition, chlorine bleaching can create effluent containing two dangerous compounds—dioxins and furans. Both are highly toxic, and because they take a long time to break down in the environment, they accumulate in the food chain and pose a real threat to the health of people and animals.

### **Non de-inked paper: is a spotless paper really required?**

Choose non de-inked recycled paper where possible. The de-inking process consumes energy and causes a certain amount of pollution.

### **Acidic vs. alkaline paper**

Alkaline paper lasts longer, that is, it takes much longer for it to deteriorate and become yellowed and brittle. Many fine papers, whether containing virgin or recycled material, are now alkaline and will last well over 100 years, which is long enough for most documents.

Some manufacturers claim that converting their mills to alkaline paper production has resulted in reduced water consumption and cleaner effluent, but this has not been independently confirmed. Nonetheless, alkaline paper is a good ‘green’ choice since it can help reduce overall paper consumption by eliminating the need to replace yellowed copies.

### **The costs of ‘choosing green’**

Recycled papers, especially if they contain a high proportion of post-consumer material, can cost slightly more than their non-recycled counterparts. The extra cost of a more environmentally responsible paper is often not significant. A cost comparison should be carried out.

### **The features to look for when choosing a ‘green’ paper include:**

- high post-consumer content
- uncoated (non-glossy)
- alkaline
- unbleached or non-chlorine bleached
- non de-inked

- standard size.

Although no one paper currently meets all of these criteria, there is a large variety of Australian made papers available that have many of the desirable characteristics. As a general guideline, choose the paper that fits your application and has the largest number of the above properties.

## Office equipment

### **Energy efficiency and management**

Selecting more efficient office equipment can not only reduce day to day cooling and ventilation costs but if specified at the design stage also reduce construction costs. Energy management is the ability of a piece of equipment to enter a 'sleep' mode when not in use. The Energy Star Logo indicates whether a piece of equipment has this mechanism and it should be ensured that the mechanism is actually 'enabled' or switched on.

## Photocopiers

### **Energy**

Choose Energy Star rated copiers. Energy star rated copiers enter into a 'low power mode' during the workday while they wait for the next copying job. If there is no activity for a longer period, they automatically switch themselves off, so they consume no more than 5W of electricity. Power management does not harm the copier. On the contrary, since it spends more time in a low power state, it will generate less heat, and this will tend to prolong its operating life.

### **Recycling and re-manufacturing**

Many photocopier manufacturers are now involved in re-manufacturing of used copiers and the manufacturers of computers, faxes and printers may ultimately adopt this initiative. Re-cycled ink cartridges used in photocopiers and printers are now available from most manufacturers.

Re-manufactured copiers are up to 30% cheaper than new ones.

The process of re-manufacturing reduces the amount of waste going to land-fill by reusing copier parts.

Re-manufactured copiers normally have the same length of warranty as new copiers and are indistinguishable from new copiers in both operation and appearance.

Most copier manufacturers have a policy to replace faulty copiers and this should alleviate concerns about re-manufactured machines.

### **Digital copiers**

Digital copiers are multi-functional and therefore reduce the need for printers and facsimile machines.

Machines which have these combined functions reduce the number of pieces of equipment needed thereby reducing the amount of waste going to land-fill and help save paper allowing information to be stored or transmitted electronically.

Digital copiers also help reduce the amount of paper being used because facsimiles can be sent directly to the recipient.

#### **The features to look for when choosing a 'green' photocopier include:**

- energy Star rating
- re-manufacturing
- double sided copying capacity
- digitalisation
- extra energy conservation functions.

### **Computers**

#### **Energy consumption**

Choose Energy Star rated computers and monitors. Computers are typically not used for about 90% of the time that they are turned on. Desktop PCs and monitors comply with Energy Star requirements if they are configured to automatically enter a low-power mode of 30W or less after a period of 15 to 30 minutes of inactivity. Although a 'sleep' mode of 30W or less will satisfy Energy Star requirements some desktop PCs (and most lap-tops) can progressively power down to even lower modes if they remain inactive for long periods.

A modern lap-top computer can ideally reduce electricity demand by upwards of 90% when compared with an old fashioned desktop computer with similar capabilities. Portables are now comparable in price to their desktop equivalents and they also save on materials.

#### **The features to look for when choosing a 'green' computer or monitor include:**

- energy star rating
- re-manufacturing
- modularised design.



## Printers and facsimile machines

Ink-jet printers and ink-jet facsimile machines produce the same image quality with comparable speed to their laser equivalents and yet use only 1 or 2 percent as much electricity. They are also more compact, reliable and about half the price of the laser type.

### **The features to look for when choosing a 'green' printer or facsimile machine include:**

- energy star rating
- re-manufacturing
- ink jet rather than laser.

## Office furniture

Durability is one of the most important considerations when choosing a piece of office furniture. Current research suggests that the best way to combat early disposal is to select designs, which separate the 'structural' elements from the 'visual elements'. In this way the 'visual elements' can be designed for easy re-manufacturing or recycling.

### **The features to look for when choosing 'green' office furniture include:**

- durability
- design for replacement of visual elements
- materials which do not emit Volatile Organic Compounds or other air pollutants
- materials that are recycled
- materials that are recyclable
- timber
- made from wood chip or a pulpwood material that is:
  - from a plantation
  - from a sustainable managed regrowth forest (not from a rainforest).

# Further information and assistance

For further information and assistance please contact one of the following organisations. The following contact details are based on information available at the time of issue.

**Department of Environment and Conservation (NSW)–  
Sustainability Programs**

phone (02) 8837 6000

<http://www.environment.nsw.gov.au>

**Department of Energy, Utilities and Sustainability incorporating  
the former Sustainable Energy Development Authority (SEDA)**

phone (02) 8281 7777

<http://www.deus.nsw.gov.au>

**NSW Greenhouse Office**

phone (02) 9228 3650

<http://www.greenhouseinfo.nsw.gov.au/>

**Centre for Design at RMIT University**

phone (03) 9925 3485

<http://www.cfd.rmit.edu.au/>

# Appendix A – Environmental procurement checklist

## Environmental procurement checklist

### Acquisition

The environmental objective is to avoid or reduce procurement. It is therefore essential to firstly determine if the product or service is truly necessary. Some consideration may include:

- Do other units within the agency have surplus goods or equipment?
- Is the item available for short-term rental?
- Can the item be shared with other agencies or units (who may already have the material)?
- Is the quantity being purchased appropriate?
- Will the product be fully used or will there be wastage?
- Will the purchase be used to the end of its useful life?
- Can the product be easily relocated to another site?
- Are parts and service available in NSW?
- Is the product suitably labelled with relevant environmental information (including disposal)?

### Waste reduction

The environmental target is to reduce waste in general as well as specifically, waste to land-fill.

Consideration should be given to:

- What is the durability of the product?
- Is the product easy and economical to service and maintain?

- Is the product designed to reduce consumption and minimise waste?
- Is the product reusable?
- Can the product be technically and economically recycled?
- Are there recycling collection systems for the product?
- Is the product returnable to the supplier at the end of its useful life?
- Is the product compostable and are there local composting systems?
- Is the product biodegradable into harmless elements over time?

### **Material source**

The environmental objective is to use as few materials as possible as even renewable materials can place a burden on the environment. Apart from complying with the requirements of the EPA's [Waste Reduction and Purchasing Policy: A Guide for Agencies](#) guideline, the following should be considered:

- What is the percentage of recycled materials?
- What is the percentage of post-consumer materials (that is, recycling vs reuse)?
- Is the wood in the product from a sustainable well-managed forest?

### **Energy efficiency**

Energy efficiency does not only reduce cost. It has environmental benefits because producing energy consumes non-renewable resources. In Australia, most energy production also produces greenhouse gases. Consideration should be given to:

- Is the product as energy efficient as competitive products?
- Is a sleep/snooze mode available to conserve energy?
- Is the supply of electricity from rechargeable power sources?
- Are renewable fuels being used?
- Does this product require less energy to manufacture than competing ones?

- Are alternative technologies available?

### **Water conservation**

As for energy above, water should be conserved not just because to do so saves money but it is a scarce resource. Questions that may be asked include:

- Is less or recycled water used during operation?
- Is less or recycled water being used during production?
- Is less pollution being produced in operation than competing products?

### **Hazardous materials— use and disposal**

The incorrect use of some materials can lead to land degradation and health and safety risks.

Consideration should be given to:

- Is this product considered a hazardous material?
- Is this product toxic to humans?
- Is it toxic to marine life?
- Is the product inflammable?
- Is the product biodegradable?
- Are the by-products of the degradation safe for the environment?
- Does the production of the good or service affect the environment?
- Are the products free of:
  - banned substances
  - heavy metals
  - volatile organic compounds (VOC)
  - toxic chemicals?
- Is there a competitive product that uses fewer chemicals or pesticides?
- Do the products emit VOC's or other air pollutants?

- Are there special requirements for disposal?
- Are there special instructions for use of the product to protect worker health and safety?

### **Packaging**

Unfortunately, packaging is hardly ever re-used and wastes scarce resources without adding much to a product's functionality. Some questions that should be asked include:

- Is packaging necessary?
- Has consideration been given to use bulk packaging?
- Can packaging be reused or recycled?
- Are recycled materials used in packaging?

### **Service provider environmental record**

The service provider's environmental record is sometimes the only thing that can be checked. Where competing products have the same environmental impacts, the environmental performance of the service provider is the deciding concern. Some questions that can be asked include:

- Does the service provider have an environmental policy or Environmental Management System?
- Has the service provider developed an environmental management plan and set quantified objectives and targets for environmental improvement?
- Does the service provider have or plan programs for promoting resource efficiency?
- Is there evidence of environmental or waste audits by the provider?
- Has the service provider the capability to tender and bill electronically?
- Has the service provider conducted life-cycle analysis of the products or services (and any packaging)?
- Has any other established product verification process verified the environmental merits of the product?

Has the service provider's environmental record been checked to verify:

- that it has complied with all environmental laws and regulations

satisfactorily addressed environmental risks?