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vic roads

# Sustainable Procurement Guidelines


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Sustainable Procurement Guidelines
Revision 0 / August 2011



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## Acknowledgements

These guidelines were prepared by VicRoads Environmental Sustainability in conjunction with the Sustainability and Climate Change Steering Committee.

These guidelines are modelled on the documents listed below:

European Commission (2004), *Buying green! A handbook on environmental public procurement.*
Forum for the Future (2007), *Buying a Better World: Sustainable Public Procurement.*
Queensland Government Chief Procurement Office (2009), *Integrating sustainability into the procurement process*.

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# 1. INTRODUCTION

Procurement - the letting of contracts for goods, works and services on the best possible terms - has historically been based on two criteria, price and quality, with a view to maximising benefits for the organisation. Sustainable procurement broadens this framework to take account of the environmental consequences of procurement decisions, forming a "triple bottom line" approach. The ultimate sustainable procurement is the avoidance of the purchase altogether.

Sustainable procurement considers issues such as resource extraction and consumption, manufacturing and production, transport and logistics, product and asset design, construction, use and maintenance, recycling and end-of-life management options.

A sustainable product or service is one that is:

- fit for purpose and provides value for money
- energy efficient and resource efficient
- made with minimum use of virgin materials
- made with maximum use of post consumer materials
- non-polluting or reduces pollution
- durable, easily upgraded and repairable
- reusable and recyclable.

# 2. PURPOSE

This guideline has been prepared to support the VicRoads *Sustainability and Climate Change Strategy* and meet the commitment under Objective 3.4 (Item 51) of the Action Plan to develop a sustainable procurement strategy.

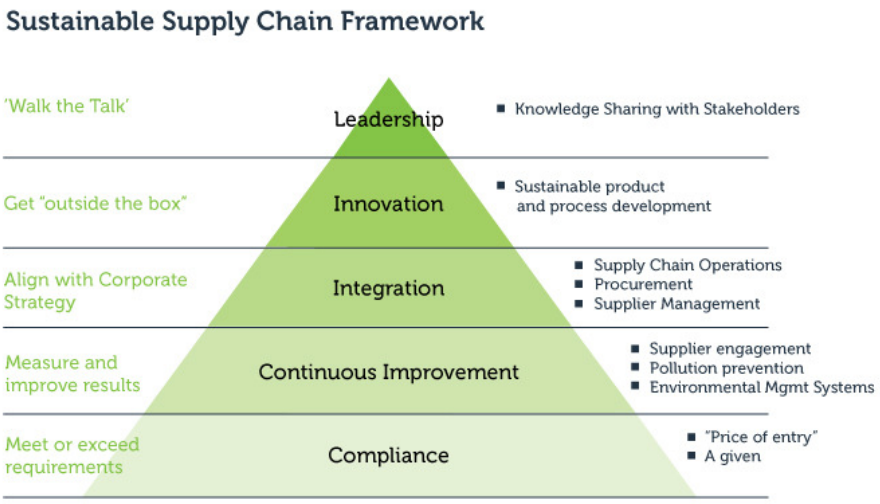
The guideline provides an overview of the commitments VicRoads has already made with respect to sustainable procurement however, it is not intended to be a comprehensive listing. It will assist business service managers in routine purchases, through to delivery managers involved in the establishment of sustainability criteria for road construction and maintenance contracts. Effectively, these guidelines and the principles of sustainable procurement are intended to help guide the planning and development of all activities undertaken by VicRoads

Government guidelines for sustainable procurement are outlined within the *Australian and New Zealand Government Framework for Sustainable Procurement* (2007) and the *Victorian Department of Treasury and Finance Good Practice Guidelines - Environmental Procurement* (June 2009). This guideline is intended to outline VicRoads practices to ensure consistency with these requirements.

# 3. PRINCIPLES

The three principles underlying the VicRoads approach to sustainable procurement are based on the Australian Procurement and Construction Council's *Australian and New Zealand Government Framework for Sustainable Procurement* (2007).

The Sustainable Supply Chain Framework is outlined in Figure 1 below.




*PRINCIPLE 1:*
**ADOPT STRATEGIES TO AVOID UNNECESSARY CONSUMPTION AND MANAGE DEMAND**

Reducing consumption can reduce waste to landfill, save water, reduce greenhouse gas emissions, decrease pollution, save money and reduce the extraction of non-renewable resources. Strategies to avoid unnecessary consumption and manage demand can also reduce costs through greater material efficiencies and return greater value for public expenditure.

*PRINCIPLE 2:*
**SELECT PRODUCTS AND SERVICES WHICH HAVE LOWER ENVIRONMENTAL IMPACTS ACROSS THEIR LIFE CYCLE**

Lower costs upon purchase of a product or service may be over-shadowed by much higher economic, environmental or social costs over the whole life of the product or service. Whole-of-life costing means taking into consideration the total cost of a product over its lifetime such as sourcing of raw materials, running costs, transportation, administration and disposal costs.

*PRINCIPLE 3:*
**SUPPORT LOCAL INDUSTRY THAT DEMONSTRATE INNOVATION IN SUSTAINABILITY**

Support of local markets for sustainable products and services will stimulate innovation and development and increase the availability of preferred products and services. Market maturity will improve the level of information available on the content and performance of products and services, facilitating the assessment and choice of environmentally preferred products and services.

# 4. STEPS IN SUSTAINABLE PROCUREMENT

To maximise value, it is essential to consider sustainable procurement in the early stages of the procurement process as there is generally less scope to make changes later. The flowchart below outlines the main steps in giving consideration to sustainability in procurement processes for products and services. Each of these steps is described in more detail in the following sections.

# 5. DEMAND ANALYSIS

Strategies to avoid unnecessary consumption and manage demand can also reduce costs through greater material efficiencies and return greater value for public spending.

During demand (needs) analysis, consideration should be given to the required outcome sought from the procurement and whether the 'need' can be met by a more sustainable alternative. Considering sustainability at an early stage of procurement decision-making may identify opportunities to:

- avoid or reduce consumption, by finding other alternatives
- identify whether there is a more sustainable alternative readily available
- rethink and revise specifications in order to improve sustainability outcomes.

For significant procurements, it is important to articulate how sustainability may contribute to the 'value for money' proposition.

As an example, the procurement of a vehicle fleet with a lower greenhouse gases emissions considered the contribution to the 'value for money' proposition through reduction in carbon dioxide emissions.
By VicRoads limiting vehicles to 4 cylinder and hybrids, the higher-emissions models have been removed from the fleet, and are only purchased on exception.

Consequently, by 30 June 2011 there was an estimated reduction of 15.8% in annualised carbon dioxide emissions across the VicRoads fleet, which equates to approximately 12.5 kilotonnes fewer carbon dioxide emissions being emitted annually compared with 30 June 2007.

These sustainability benefits are over and above the economic benefits achieved through reduced fuel costs.

Reducing consumption can also reduce waste to landfill, save water, decrease pollution, and reduce the extraction of non-renewable resources.

During demand analysis key stakeholders should be identified and sustainability issues introduced into discussions regarding the particular procurement arrangement and its objectives. This will facilitate an understanding of the potential for sustainability to be incorporated into the requirements specifications. A list of questions to assist these discussions is provided in Table 1.

Examples of application are:

- Assess the need for a given purchase and wherever possible reduce consumption which may eliminate need for the purchase or reduce the size of the requirement.
- Consider the alternatives to purchasing the product. Reuse, refurbish or recondition the product or its components to extend its life.
- Consider acquiring redundant furniture items from other business areas.
- Consider alternatives to acquisition, such as introducing service options (e.g. rent) to meet a need.
- Investigate the possibility of aggregating demand among multiple users to achieve better usage of assets.
- Collaborate with service providers to implement demand management strategies.

**Table 1:** ***Demand Analysis: questions to consider***

1. **Do we really need to purchase this good or service, or can the need be met in another way?**

   - Is a suitable good/service already available within the organisation?
   - Can existing assets be refurbished, repaired or upgraded to meet the need?
   - Are there other options for meeting this needs, e.g. reuse, borrow, swap?
   - Can the need be met in partnership with another organisation?
   - What would avoid the need for this good/service? For example the provision of web based forms and information rather than printed material

2. **Can we reduce the quantity or scale of the goods or service whilst achieving the same service delivery?**

   - How do the goods or services contribute to service delivery? Are we automatically replacing based on past procurement patterns?
   - Are specifications based on actual requirements, ensuring that they are not over-specified?
   - Are improved technology options available?
   - Are there options for behaviour change in relation to consumption of this goods or service?

3. **Can alternative goods or service be used to meet this need?**

   - Is there another more sustainable good or service available that can serve the same purpose? Have there been any technology improvements?
   - Could a service be used to meet the need instead of a good?

4. **Can the goods/service be specified to have improved sustainability outcomes, including being able to serve a useful purpose after its initial use?**

   - Can the goods or its key components be reused, refurbished, repaired, recycled, composted?
   - What specifications could be included to reduce the use of resources (such as energy, water or consumables) during the useful life of the goods?

5. **What information is available regarding sustainability-preferable options for this purchasing requirement? Where can more information be obtained about suitable alternatives?**

   - Is there an expert within VicRoads that can provide advice (eg Technical Consulting for construction materials or Environmental Sustainability for greenhouse, life cycle assessment information or other environmental impacts?)
   - What information is provided by suppliers?
   - What external sources of information are available e.g. other government bodies, trade organisations, research institutes?

6. **Is there a government or VicRoads policy or commitments relevant to the purchase of the item/service? e.g.,**

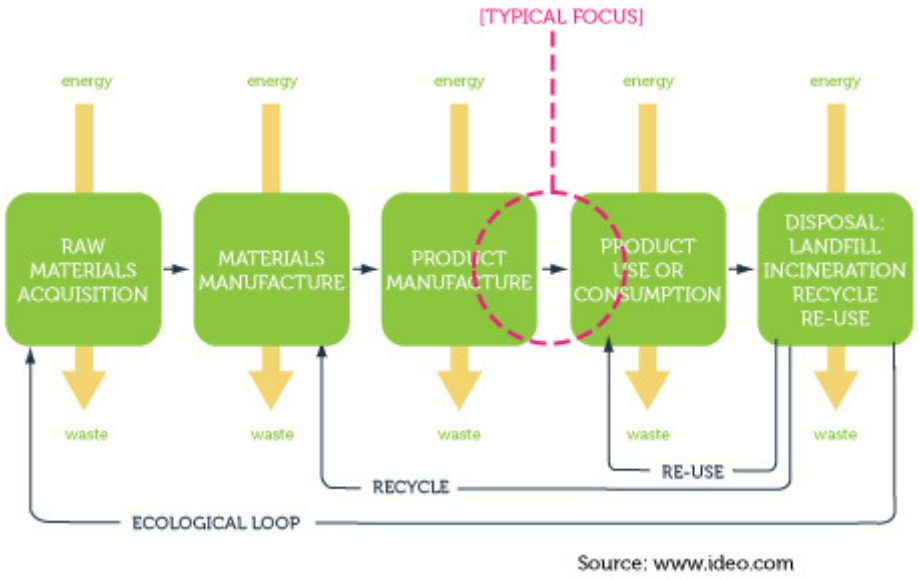
   - All printed public documents - such as the annual report – to be printed on 100% carbon neutral paper.
   - The selection of all new and replacement motor vehicles should be based on 4 cylinder or Hybrid vehicles, unless prior written approval is obtained from the relevant Director or Executive Director for the selection of a more powerful motor vehicle.
   - 10% green energy through State Purchase Contract for electricity.

# 6. IDENTIFYING AND PRIORITISING THE SUSTAINABILITY OUTCOMES

Identifying the desired sustainability outcomes helps to build an understanding of the whole-of-life impacts associated with the good or service being procured. Lower costs upon purchase of a product or service may be over-shadowed by much higher economic, environmental or social costs over the whole life of the product or service.

Typically procurement processes only focus on the product use or consumption (refer Figure 2 below) but whole-of-life costing means taking into consideration the total cost of a product over its lifetime such as sourcing of raw materials, running costs, transportation, administration and disposal costs.

**Figure 2:** ***Product Life Cycle***




Examples of application are:

- Adopt a life-cycle or whole-of-life costing approach to quantify the total cost of procuring products (i.e. not just initial cost but subsequent costs of environmental impacts).
- Ensure that decisions on sustainable values of products and services are based on evidence.
- With all factors being equal in the purchase of a product, choose a product with the least environmental impact.
- Use Australian Standards for Life Cycle Assessments or other international standards where appropriate to verify the sustainability credentials of a product.
- Refer to eco-labelling and government labelling programs to help assess the environmental performance of products (e.g. energy efficiency, water efficiency).
- Give preference to products that are reusable, recyclable and/or contain recycled content where such products fit the purpose, provide environmental benefits and are of comparable cost and quality to alternative products.

# 7. DETERMINE THE APPROPRIATE PROCUREMENT STRATEGY

The main aim of this step is to determine the strategy for sustainable procurement according the existing purchasing arrangements for the products/services within VicRoads.


As a general guide there are four strategies that can be utilised to encourage sustainability outcomes (refer Table 2). Any strategy adopted should not lead to reduced competitiveness amongst tenderers nor should it restrict innovation or disadvantage local suppliers of sustainable solutions but instead encourage the commercialisation of environmental initiatives created under contract.

**Table 2: *Sustainability Procurement Strategy for Different Supply Purchases***

| | |
|---|---|
| **Specialised purchases – vehicle fleet**<br>- Detailed sustainability specifications should be developed, or alternatively (as there are typically only a few suppliers of this good/service) suppliers may be asked for proposals to improve their sustainability performance.<br>- It is important that alternative sources of supply are identified and their sustainability impact assessed.<br>- A cost premium may need to be paid to minimise the sustainability risks and ensure that the most sustainable supplier is selected. | **Critical purchases – construction projects**<br>- Some mandatory sustainability criteria should be included in the specification.<br>- A close relationship should be developed with the supplier; suppliers must be challenged to improve both sustainability and cost of goods/services.<br>- Sustainability objectives should be a point for negotiation.<br>- Sustainability Key Performance Indicators should be set and the supplier challenged to gradually improve their sustainability over the term of the contract/arrangement.<br>- A cost premium should be paid only if this is necessary to ensure the sustainability risk is reduced and the most sustainable supplier is selected.<br>- It is important that alternative sources of supply are identified and their sustainability impact assessed. |
| **Routine purchases – office consumables**<br>- Simple sustainability criteria should be included in the specification.<br>- Contract/arrangement term should be shorter and supplier should be regularly changed to achieve value for money and better sustainability outcomes.<br>- A cost premium should not need to be paid for products with improved sustainability performance. | **Volume purchases - IT equipment**<br>- Sustainability specifications should be included in the Invitation to Offer documents.<br>- As there are a number of suppliers of products/ services in this category, suppliers with the best sustainability performance should be selected.<br>- Supplier's organisational sustainability performance should be evaluated, in addition to the performance of the goods/service.<br>- Focus should be on driving sustainability in addition to cost reduction, and cost premium should not necessarily need to be paid to reduce sustainability risk.<br>- Supplier performance should be regularly reviewed and suppliers may need to be changed to achieve value for money and ensure the organisation is up to date with the latest sustainability innovations/improvements. |

**Determining if a cost premium should be paid to achieve a higher sustainability outcome**

Depending on the sustainability approach chosen, the outcomes of a procurement process may result in a purchase that is at a premium to less-sustainable goods/services, even when a whole-of-life cost is considered. Cost premiums should be considered for goods/services which can demonstrate substantial or important sustainability benefits or opportunities.

When deciding if a cost premium should be paid to achieve a preferred outcome, the decision may be justifiable on sustainability grounds. A justification of higher up-front costs can be made through longer-term paybacks because of a particular sustainability outcome that is specifically desired, for example, reduction of greenhouse gas emissions or acquisition of equipment that takes into account future expected changes.

The increased use of non-price attributes in major construction tenders, is one procurement approach that can be utilised to achieve greater sustainability outcomes.

**Using pre-qualified suppliers**

At this stage, sustainability performance is not part of the pre-qualification process. However, sustainability criteria can be integrated into contract requirements which, having specified the minimum standards for sustainability performance, may provide VicRoads with the additional confidence in the ability of suppliers to deliver more sustainable goods/services.

**Gainshare and incentives**

Although there are many examples where profitability and sustainability go hand in hand for suppliers, there are occasions where improving sustainability is not in suppliers' short term financial interests. Examples include:

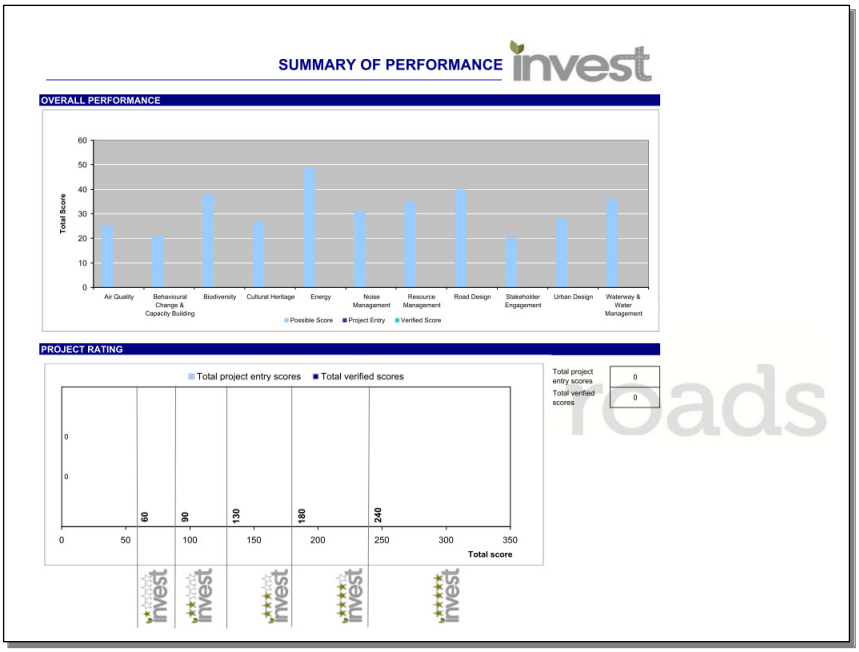
- waste contractors who are paid by the tonne may have little interest in reducing waste at the source or improving recycling
- IT equipment has technological obsolescence and short life cycles and is more often replaced than upgraded
- landlords have no incentive to improve the efficiency of water, gas and electricity if they are not responsible for the utility bills.

In these cases, changes to contractual arrangements may be necessary to re-align profits with sustainability. For example:

- Fixed Price Contracts: Contractor is paid a on waste volume rather than tonnes or contractor is incentivised based on volume recycled rather than disposed to landfill.
- Savings Gainshare: Savings from reducing energy are shared between VicRoads and the contractor. This energy contract is referred to as an energy performance contractor and was the basis of arrangements set in place to finance the replacement of the traffic signals with LED lights.
- Target Driven: Greenhouse Reduction Clauses are now being included into Construction Contracts. These clauses permit the successful contractor to submit proposals to identify a potential saving in greenhouse emissions over the life of projects. A provisional sum is allocated to implement these proposals at the discretion of the Superintendent to ensure that funds are being allocated to encourage the uptake of new technologies or products which will reduce the greenhouse footprint of the project, whilst still being fit for purpose. In time, it is intended that greenhouse performance benchmarks will be established for construction projects.

## Benchmarking

With the release of the sustainability rating tool for road projects – INVEST - there is the opportunity to incorporate benchmarking into tender documents. For example, tenders may include the requirement to attain a two or three star rating which will establish the benchmark for future projects.


## Standard specifications

By the inclusion of standard specifications, contractors/consultants are already required to meet sustainability requirements. Examples of standard specifications with existing sustainability requirements are:

| | |
|---|---|
| Section 204 | Earthworks (use of shredded tyres as a drainage layer in landscaping works or whole tyre engineered walls as reinforced soil structures) |
| Section 407 | Hot Mix Asphalt (the use of recycled asphalt product and glass and the use of warm mix asphalt) |
| Section 421 | Bitumen Crumb Rubber Asphalt (granular crumb rubber can constitute between 2.5 and 3.0% of the asphalt mix by mass) |
| Section 610 | Structural Concrete (the use of fly ash and slag as part of cement addition) |
| Section 703 | General Concrete Paving (use of geopolymer concrete as an alternative to Portland cement) |

# 8. SELECT SUPPLIER, PRODUCT OR SERVICES

We are increasingly being encouraged to use sustainable products and materials. But what makes a product sustainable? How do you evaluate the relative sustainability aspects of different products?

In many cases you have to rely upon the manufacturer's claims and published statements. In addition, independent assessment systems, such as the energy star rating, R-rating for insulation, star water rating and product-specific ratings such as lifecycle analysis can be used to help your decision. You can also use the sustainable procurement checklist provided in Appendix A[1].

Selecting sustainable materials and products by evaluating characteristics such as reused and recycled content, zero or low off-gassing of harmful air emissions, zero or low toxicity, sustainably harvested materials, high recyclability, durability, ease of use, longevity, and local production will promote resource conservation and efficiency.

At all times in selecting a supplier, product or service, plan to use the least amount of materials to do the job, and to use materials that reduce energy costs both during construction and in service.

Examples of this application are:

- Encourage suppliers to:
    - adopt design, manufacturing, production, distribution and service processes that reduce the use of resources (energy, water), reduce greenhouse gas emissions, minimise the release of hazardous substances and minimise waste disposal to landfill..
    - be responsible for end-of-life product impact through extended producer responsibility programs and take part in available government approved product stewardship schemes (NB: Current schemes are in place for management of waste oil and used packaging material, with proposed produce stewardship schemes in place for tyres, televisions and computers likely to be passed in 2011. Other industry arrangements are also under discussion)
    - become signatories to (and participants in) national commitments and government programs to improve environmental sustainability (e.g. Australian Packaging Covenant)
    - work together with their supply chain partners to adopt environmental management systems to track progress towards environmental stewardship by reporting on the sustainability of their operation.
- Encourage a philosophy and practice of continuous improvement and innovation in sustainability by suppliers.
- Provide feedback to non-successful suppliers which will promote market pull towards sustainable services and products.


The ability to influence suppliers is a function of the value of the account and the value VicRoads represents as a customer (refer Figure 3 overleaf).

If VicRoads is viewed as a “nuisance” account, the supplier may show little interest in the business. The aim of both parties should be to reduce the transaction costs and risks. In some cases, VicRoads may wish to consider sourcing from other suppliers that may value the business more highly. In these circumstances the potential exists to develop local and regional suppliers.

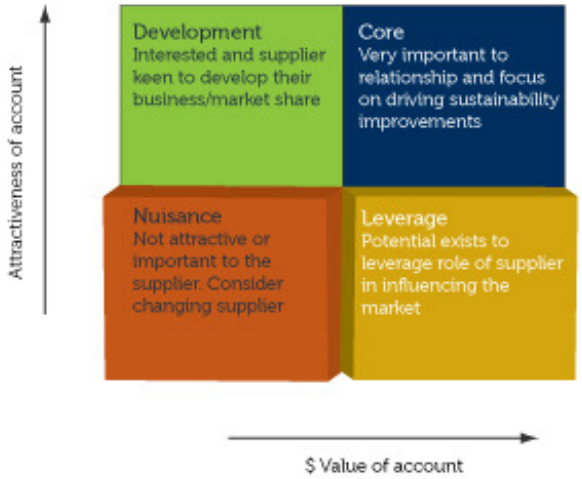
If the account has “development” potential, it may be seen as attractive because of possible opportunities for more valuable business in the future, or because the account has a high profile. For these reasons, the supplier may be willing (at least in the short term) to meet additional sustainability requirements in order to win more business. In such situations there can be many supplier development opportunities, including improving the capacity and performance of these suppliers.

[1] Most products will still need to be evaluated through the standard tendering process.

If the account is “exploitable”, the supplier may have a high volume of sales but the account is still regarded as unattractive. This may be due to low profitability, or other factors such as location or inconvenience. Where suppliers are keen to increase prices, the aim should be to make the relationship more attractive by considering more efficient ways to transact business.

If the account is a “core” part of the supplier’s business, in most cases it is possible to establish a rewarding business relationship in which the supplier continually seeks to add value.

**Figure 3:** ***Identifying Market Dynamics***



# 9. REVIEW PERFORMANCE

Once you have engaged your supplier or obtained your product, it is beneficial to review the performance to ensure that it is still the best value for money and most environmentally sustainable. A product/service review should address both its operation and maintenance phases and information from these reviews should be recorded for future reference for use by other business areas and to inform future purchasing strategies.

The information may be of use in the justification of future purchases with a higher purchase price.

A number of things that may be reviewed:

- Determine whether the desired sustainability objectives have been met.
- Evaluate the performance of the product/service.
- Consider the on-going service requirements of any product purchased.
- Consider the establishment of management systems to monitor and report consumption levels.
- Determine whether there are changes in terms of new supplier or products that are better value for money than the current product/service.
- Determine whether the project's key performance indicators (KPIs) have been met.
- Feedback from suppliers/users.

# 10. APPLICATIONS

An overview of the application of sustainable procurement practices in key sectors of VicRoads operations is provided in this section. Key impacts for each activity are outlined, together with activities to address sustainable procurement requirements.

## 10.1. Corporate Office, Regional Offices, Project Offices and Customer Service Centres

| Impact | Approach |
|---|---|
| ▪ The consumption of energy in offices for lighting, heating, cooling, ventilation, hot water and appliances and resulting greenhouse gas emissions<br>▪ The consumption of virgin materials during construction<br>▪ The consumption of virgin materials in equipment and supplies used<br>▪ Waste generation<br>▪ Water use | • Maximise the energy performance of offices (NB: Government is required to achieve a five star rating for all new office buildings and to meet energy efficiency benchmarks for commercial office buildings and retail buildings outlined in the 2010 Building Code of Australia).<br>• Ensure high energy efficiency standards for heating, cooling, ventilation, hot water systems, lighting and electrical equipment<br>• Encourage the installation of water-saving technologies<br>• Reuse or refurbish office furniture where possible<br>• Maximise the use of electronic records and storage<br>• Decrease the quantity of packaging used and promote take back options<br>• Encourage the use of materials with a recycled content<br>• Increase use of teleconferencing and videoconferencing<br>• Encourage waste segregation to minimise the amount of material going to landfill |

### Case Study – Western Highway Project

The Western Highway project wanted their new office building to be sustainably designed.

Specifically, the tender required that the building must be fit for purpose and:

- promote a healthy and productive workplace by maximising natural light and fresh air
- minimise energy consumption and energy demand and make use of renewable energy whenever practicable
- have limited ongoing maintenance and minimise running costs and environmental impact
- not require major work for a minimum period of 25 years.

The result was a new project office with the following features:

- thermal “Thrombe Wall” to assist with natural heating of the conference room
- building oriented to maximise the natural daylight into office areas
- the floor covering made with natural material such as Rosin, Wood flour, Cork flour, linseed oil, limestone and jute
- double glazed windows throughout
- solvents with low Volatile Organic Carbon (VOC) content
- locally produced external block work
- low energy fluorescent and LED fittings
- timed and motion sensor controls lights
- rainwater tanks for use in toilets and external watering.

## 10.2. Construction & Maintenance

| Impact | Approach |
|---|---|
| ▪ The consumption of virgin materials during construction<br>▪ The consumption of water resources during construction and for landscaping during maintenance and operation<br>▪ Discharges to air, land and water during construction that could lead to harm to human health and the environment<br>▪ Greenhouse gas emissions resulting from the transportation of construction materials and products<br>▪ Waste generation<br>▪ Emissions from construction equipment | ▪ Encourage the use of localised renewable energy sources and high efficiency cogeneration<br>▪ Include a systematic life cycle approach to construction materials<br>▪ Encourage the installation of water-saving technologies and increase the use of non-potable water during construction<br>▪ Use energy efficient vehicles for transportation to and from construction projects and optimise the number of trips/loads that are required<br>▪ Use renewable alternatives to raw materials where the functionality of the materials is not compromised<br>▪ Apply effective supply chain management systems<br>▪ Minimise waste production, recover materials for reuse and recycling where possible and ensure proper disposal of residual construction and maintenance waste<br>▪ Require catalytic converters on all diesel equipment. |

### Case Study – M80 Upgrade

The Design and Construct contract for the M80 upgrade from Western Hwy to Furlong Rd included non-price attributes for tender evaluation.

Tenderers were asked to submit details of proposed initiatives, innovations and efficiencies in relation to five core areas (construction methodology including bridgeworks, project management; stakeholder management, traffic management and environmental management and sustainability) and to demonstrate how they would exceed the requirements of the specification and achieve industry benchmarks in those areas.

## 10.3. Transportation – Vehicles & Commuting

| Impact | Approach |
|---|---|
| ▪ Greenhouse gas emissions<br>▪ Pollutant emissions including nitrogen oxide and particulates that can cause local health and respiratory problems, and damage to the environment, buildings and monuments<br>▪ Noise pollution<br>▪ Energy consumption<br>▪ Generation of waste oil and tyres | ▪ Procurement of low emission vehicles<br>▪ Reduce fuel consumption through tyre pressure monitoring systems, low viscosity lubricants and low rolling resistance tyres<br>▪ Ensure the correct collection and management of used oil and tyres<br>▪ Use of smart movement alarms for vehicles particularly in noise sensitive areas and/or where working outside normal hours (refer Section 1200.12 of DC1 or Section 177 H1)<br>▪ Increase use of teleconferencing and videoconferencing<br>▪ Co-ordinate and /or participate in a car pool<br>▪ Purchase public transport tickets |

### Case Study 4 –TravelSmart

TravelSmart better ways to go

Victoria The Place To Be

The TravelSmart program is an initiative run out of the Department of Transport and the City of Borondorra to encourage employees to choose a method alternative to driving a car to travel to work. It is being implemented in the Kew and Camberwell offices of VicRoads.

The TravelSmart Program aims to increase the number of staff from Kew and Camberwell VicRoads offices travelling sustainably to and from work each day by walking, cycling, public transport use, or through carpooling.

The targets for VicRoads Kew and Camberwell sites over a two year timeframe (2010-12) are:-

| ID | Description | Current | Target |
|---|---|---|---|
| T1 | Achieve awareness of VicRoads Travel Plan (TravelSmart Program) | N/A | TBC |
| T2 | Increase # of staff that change to 1 day/week using TravelSmart alternatives to/from work | N/A | TBC |
| T3 | Reduce average # of staff driving to/from work alone | 62.5% | 52.5% |
| T3.a | Increase average # of staff using PT to/from work | 17.0% | 22.0% |
| T3.b | Increase average # of staff carpooling to/from work | 7.5% | 9.6% |
| T3.c | Increase average # of staff cycling to/from work | 2.6% | 5.0% |
| T3.d | Increase average # of staff walking to/from work | 2.1% | 2.6% |

## 10.4. Kitchens & Catering

| Impact | Approach |
|---|---|
| ▪ High energy and water consumption in food products purchased<br>▪ Packaging waste<br>▪ High energy and water consumption of kitchen appliances<br>▪ High consumption of cleaning agents and other chemicals which might have a negative impact on the environment<br>▪ Decreased availability and/or increased costs of landfill due to lack of recycling of kitchen wastes<br>▪ Greenhouse gases generated from breakdown of putrescibles wastes | ▪ Procurement of seasonal products<br>▪ Procurement of energy and water efficient kitchen appliances<br>▪ Procurement in bulk or in packaging that has a high recycled content<br>▪ Use of reusable cutlery, crockery and glassware<br>▪ Use of environmentally friendly products<br>▪ Minimisation of the use of hazardous chemicals and the use of environmentally friendly cleaning and dishwashing agents<br>▪ Separation of wastes into organic, recyclable and landfill |

### Case Study – VicRoads Keep Cups

| | |
|---|---|
|  | By choosing to use the Keep Cups instead of using disposable cups, we reduce the number of trees destroyed and the carbon dioxide produced and energy consumed in the production and transportation process.<br><br>Each Keep Cup is estimated to consume one third the water and half the energy compared to disposable cups. These savings increase over the expected lifespan of the KeepCup of four years. |

## Appendix A – Assessing Product Sustainability

| Sustainability Issue/Impact | Sustainability Questions for Suppliers |
|---|---|
| Climate Change | • Have you measured the greenhouse footprint associated with the product/service<br>• What actions have been taken to reduce the greenhouse gas emissions during the product manufacture<br>• Are any of the products offered carbon neutral and if so, provide evidence of certification (eg Greenhouse Friendly Program)<br>• What actions have been taken to reduce the greenhouse gas emissions during product use |
| Energy | • What actions/initiatives have been taken to address energy use during product development and transport<br>• What actions/initiatives have been taken to improve energy efficiency during use<br>• Please specify energy consumption in the following three modes:<br>  ○ On(normal/operating use)<br>  ○ Standby<br>  ○ Off<br>• What is the energy rating of the product<br>• Are there any other energy-saving features associated with the product |
| Water Use and Water Quality | • What actions/initiatives have been taken to address water use during product development<br>• What actions/initiatives have been taken to improve water efficiency during use<br>• What actions have been taken to address water pollution during manufacture and at the end of the product life<br>• What is the water efficiency rating (Water Efficiency Labelling and Standards Scheme [WELS])<br>• Can recycled water be used as opposed to potable water and if so, what are the water quality parameters |
| Waste | • Please list the types of packaging used in delivering the product and specify the following:<br>  ○ Type of packaging (content)<br>  ○ Proportion of recycled materials used in the packaging<br>  ○ Whether the packaging can be reused or recycled locally<br>  ○ Does the packaging include any loose fill materials<br>• Is the product appropriately labelled to ensure correct recycling at end of use<br>• Will your company accept return of packaging<br>• Is your company a signatory to the packaging covenant<br>• Is the packaging bio-degradable<br>• Is the product made from by-products or other processes and if so, what is the source of these by-products<br>• Are the offered products manufactured to facilitate reuse or repair/replacement of components<br>• Do you offer a take back service/scheme at the end of product life? If so, are there any special provisions/exclusions in this scheme<br>• Can the offered products be multi-packed (for example packed up to six units in a single box, rather than each item being individually packaged) |

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| Toxic Substances/Emissions | • What targets are in place to reduce the hazardous substances in the offered products and what actions have you successfully implemented to achieve these targets<br>• What measures have been taken to reduce the emissions to atmosphere during the product manufacture and during product use |
| Resource Use | • What warranty is provided with the product and how does the warranty contribute to life extension<br>• Does the warranty incorporate a warranty for the spare parts and if so, provide details of the additional warranty provisions<br>• Provide details of any environmentally-conscious design considerations that are incorporated into the offered products (considerations could include “design for life” modular design with exchangeable parts, life extension considerations, recycle-ability of the materials in all component parts)<br>• What type of post-consumer products are used in the manufacture of the offered product<br>• What consumables/maintenance inputs are required for the product |
| Social Responsibility and Ethical Practices | • Are raw materials used in the product or production sourced from legal and sustainably managed sources and if so, provide details/evidence including any certification schemes of the full chain of custody |

For further information please phone **13 11 71**
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