

# ENERGY EFFICIENT PROCUREMENT

Products purchased and consumed by businesses can have significant impacts that are important to consider during energy efficient procurement. Staff responsible for purchasing products need to be aware of the wide range of products available. This factsheet aims to provide some guidance on how to adequately assess and compare potential products.

Along with standard procurement considerations such as cost, health and safety and availability, it is important to initially consider:

- Whether the product is essential;
- If the need can be met by resources or products already available;
- Whether the use of products can be reduced;
- Whether there is an alternative product that does not require electricity (e.g. gas cooker instead of electric).

## WHERE TO START?

1. Think of energy efficient procurement as incremental and start by choosing a small selection of products you regularly purchase that have clear impacts on energy usage that are readily known and understood'. For example, incandescent light bulbs are less efficient than fluorescent bulbs.

First consider what the main energy issues are and what criteria could be used to start differentiating between products.

Table 1 provides some examples of criteria for different stages of the product life cycle to assist with differentiating between products.

2. Next, assess the functionality, availability and cost of the preferred product. When making purchasing decisions it is very important to take a holistic view and not just focus on the initial capital cost but also consider the many hidden costs such as:

- Operational costs including water, energy, waste and on-going cleaning and maintenance;
- Repair, replacement, disposal costs;
- Administration and regulation costs;
- Staff training and health and safety considerations<sup>4</sup>.

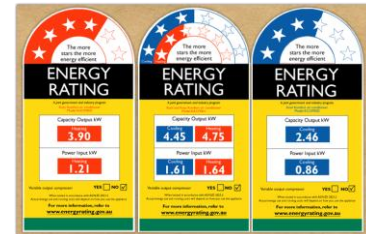
Table 1: Product comparison criteria

Impact of	Examples of criteria to start differentiating between products
Production	How much energy is used to manufacture the product (embodied energy) and how many emissions are generated in the process?
Transport	Where is the product manufactured? Are equivalent products available locally? How far does the product have to be transported? What mode of transport is used?
Use	Is the product fit for purpose (i.e. size, quantity and application efficiency)?
Rating	Does the product have an energy star or similar energy rating? (See Energy Rating Section for more information)

## HOW DO I FIND PRODUCT INFORMATION?

To find out the main energy issues which are relevant to your products and services and the credibility of information about your product, you may need to:

1. **Look for products with information available on their energy impacts across their lifecycle.** Lifecycle assessments (LCAs) provide important and useful information, however they are quite sophisticated and detailed so they will not always be available. A helpful source of information is [www.ecospecifier.com.au](http://www.ecospecifier.com.au). For example, "Reduced embodied energy" can be used as a sustainability criterion in the product search.
2. **Consider rating labels** such as energy rating or an ENERGY STAR® product. The Energy Rating Labelling Scheme is a mandatory scheme for a range of appliances, these currently include:
  - Refrigerators/Freezers
  - Clothes Washers/Dryers
  - Dishwashers
  - Air Conditioners
  - Televisions.



ENERGY STAR® was created by the US Environmental Protection Agency and has been adopted by Australia.

However, currently only office equipment and consumer electronics, including computers, printers, fax machines, photocopiers, televisions and DVD players may carry this endorsement label in Australia.



For more information on energy rating labels visit

[www.livinggreener.gov.au/energy/energy-rating-labels](http://www.livinggreener.gov.au/energy/energy-rating-labels)

The energy rating website by the Australian Government also provides a tool to compare products on their energy rating easily and effectively

<http://reg.energyrating.gov.au/comparator/product/types/>.



## CASE STUDY:

Fishes at the Point, North Stradbroke Island, Queensland

The Fishes at the Point restaurant has made steps toward a more sustainable business by recognising their cooking oil can serve a different purpose. The restaurant has partnered with local fishermen, who supply them with produce, to power fishing boats with used cooking oil.

This partnership has proven beneficial in many aspects, including reduced disposal costs and reduction of the restaurant's carbon footprint.

## PROCUREMENT POLICY

The most effective way to ensure energy efficient procurement is to develop standard procurement policies to help staff select the most suitable products available.

A procurement policy should consider the full range of energy issues across the lifecycle of a product (through production, transport, purchase, use, and everything in between). Policies should be simple and clear and outline decision making strategies that incorporate energy efficient procurement initiatives. Policies should specify:

- The types of products that can be purchased;
- Energy issues to consider;
- The basis of product comparison;
- The approval procedures to be followed.

Make sure policies are continuously reviewed and updated as new information on products becomes available<sup>2</sup>.

## PRODUCT INFORMATION

The following section will provide some information on what products to look out for in different areas of your business operations and how to ensure continuous energy efficiency.

### Lighting

Initial purchasing costs for energy efficient lighting products are often higher than conventional non-energy efficient products, but the energy savings over time can ensure a good return on investment.

When looking for efficient lighting products visit Eco Light Installations [www.ecolight.net.au](http://www.ecolight.net.au) to see a wide selection of energy efficient lighting options. The Victorian Government has also produced a helpful resource that could help guide your procurement policy [www.resourcesmart.vic.gov.au/documents/IBP\\_Lighting\\_Manual.pdf](http://www.resourcesmart.vic.gov.au/documents/IBP_Lighting_Manual.pdf)

Also consider the following when purchasing replacements or upgrades;

- Install pin-based CFLs that plug into a special fixture rather than screw-in CFLs. Pin-based lamps cannot be fitted with incandescent bulbs, this measure ensures continuous use of fluorescent

bulbs and increases the long-term energy and cost savings<sup>3</sup>.

When re-painting your business, consider lighter shades that better utilise natural light and bring forth the appearance of a well-lit space. This reduces the need for artificial lighting and, in turn, reduces energy usage and associated costs.

### Flooring

When re-carpeting floors, consideration should be given to other flooring options such as wood or tiles (where appropriate). This will help reduce energy usage in vacuuming.

## REPLACEMENT SCHEDULE

Complete a self-audit and determine what lighting fixtures need replacing and where possible (in a large, open office area, for example), consider group re-lamping. Group re-lamping tends to cost less on a per-lamp basis and helps ensure lighting of the same quality in areas where this is practiced.

### Appliances

A useful resource for identifying a wide range of energy efficient appliances is the Energy Rating website:

[http://reg.energyrating.gov.au/comparato/r/product\\_types/](http://reg.energyrating.gov.au/comparato/r/product_types/)

For a more specific run-down of brands Choice does detailed testing to see who rates the best in many different categories

[www.choice.com.au/green-home/saving-energy/green-products/where-does-my-electricity-bill-go.aspx](http://www.choice.com.au/green-home/saving-energy/green-products/where-does-my-electricity-bill-go.aspx)

### Water Saving Products

As explained in *Factsheet 4*, savings in hot water consumption will also save energy costs. Consider the following products to help achieve reductions.

#### Low-flow fixtures

Tap aerators and flow restrictors come with a range of flow rates, which are listed on the packet. They're available from most hardware stores and environment shops, for \$8-18<sup>4</sup>.

#### Low-flow showerheads

You do not usually have to buy these you can swap an old style showerhead for a low flow one for free, through your local water corporation (check what applies to your local area)<sup>4</sup>.

### Vehicles

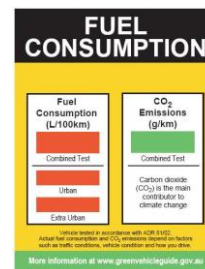
If vehicles are required for your business operations, this should also be considered in energy efficient procurement.

If you are considering

purchasing new vehicles, look for the fuel consumption label displayed. This label system was developed by the Australian government to assist in identifying more efficient vehicles.

The following website will also help your business identify the top performers in efficiency:

[www.greenvehicleguide.gov.au/GVGPublicUI/Home.aspx](http://www.greenvehicleguide.gov.au/GVGPublicUI/Home.aspx)



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### Disclaimer

The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any information or advice contained herein.



**Australian Government**  
Department of Climate Change  
and Energy Efficiency

## REFERENCES

<sup>1</sup> UN, 2008, Sustainable procurement: Buying for a better world - [www.un.org/SustainableProcurement/tools/UN/TRAINING\\_ResourceBook\\_UN SustainableProcurementTraining.pdf](http://www.un.org/SustainableProcurement/tools/UN/TRAINING_ResourceBook_UN SustainableProcurementTraining.pdf)

<sup>2</sup> UNDP, 2008, Practice Series - Environmental Procurement Practice Guide

<http://www.undp.org/content/dam/undp/documents/procurement/documents/UNDP-SP-Practice-Guide-v2.pdf>

<sup>3</sup> Stopwaste.org, 2009, A Guide to Green Maintenance and Operations. <http://www.stopwaste.org/docs/gbmg-dec-20-07ltr.pdf>

<sup>4</sup> Environment Victoria, 2012 *Some Things to Buy*, <http://environmentvictoria.org.au/content/super-cheap-and-not-quite-so-cheap-things-buy>