

RESTAURANT, BAR & CATERING

Kitchens, restaurants, bars and other catering facilities are present in most tourism businesses. Catering facilities are often the most expensive part of a business to operate, accounting for 25% or more of turnover costs in food alone. These facilities are also significant users of energy, water and materials. However, with good management, financial and environmental savings can often be achieved.

The main opportunities for reducing costs and environmental impacts include:

- reducing food waste and packaging through effective purchasing
- reducing the quantity of food waste generated in the kitchen and dining room
- appropriate disposal of packaging materials
- reducing kitchen energy use
- utilising cleaning methods with the lowest environmental impact.

Purchasing Supplies

Reducing the amount of waste produced by your business will not only save money in disposal costs, but also save in time and effort required to manage bins and skips.

To reduce the amount of food waste generated, consider the following strategies:

- ordering and preparing appropriate quantities of food - this will also minimise chilling & storage needs.
- ordering food from local suppliers who can deliver fresh produce frequently

Reduce the amount of packaging and other solid materials by:

- avoiding over-packaged goods
- avoiding single use (disposable) items such as cutlery, plates, cups
- buying non-perishables in bulk
- using post-mix systems for mixers and soft drinks
- buying items in returnable containers
- liaising with suppliers to set up a system of returnable containers for transport (e.g. milk crates)
- buying items in containers which can be re-used on site
- purchasing concentrates and diluting on-site
- buying containers made from recycled material
- choosing containers and packaging which can be collected from your property and recycled

Disposal of Plastics, Glass, Metals, Packaging

After all practical strategies for reduction and re-use have been put in place, as much of the remaining material as possible should be recovered for recycling. The table below gives a guide to materials which may be collected from different areas.

Location	Materials	Comments
Kitchen	Plastic containers Glass Paper & cardboard Aluminium cans Milk Cartons	<ul style="list-style-type: none"> The plastics code number on the base of containers identifies the different plastics. Only three types of plastics are commonly recycled in Australia: PET (Code 1 - soft drink bottles), HDPE (Code 2 - milk and juice containers) & PVC (Code 3 – juice and cordial bottles). In some places codes 4 and 5 are also recycled - check with your contractor to see what is accepted locally.
Bar	Aluminium cans Glass Bottles Plastic Bottles Cardboard Corks	<ul style="list-style-type: none"> All these streams can be markedly reduced by using a post-mix system. In high volume bars, tap beer will be viable and will reduce the cost and labour associated with beer packaging. In low volumes, the beer wasted during cleaning and changing negates these savings. Encourage contractors to sort different coloured glass
Guest Rooms	Plastic containers Glass bottles Aluminium cans Paper & Cardboard	<ul style="list-style-type: none"> Encourage guests to segregate recyclables by providing recycling containers in rooms. Attractive twin-compartment bins are available.
Cafeteria/ Restaurant	Plastic containers Glass bottles Aluminium containers	<ul style="list-style-type: none"> Place bins adjacent to mixed waste bins in self-serve facilities.
Staff Facilities eg. Tea Rooms etc	As for kitchen	

Waste Wise Business Program

The Waste Wise Business program provides resources and support for businesses to improve their waste management practices and reduce the volume of landfill waste. Businesses can apply for Waste Wise certification which is a great way of demonstrating achievements to guests and staff. Certified organisations also have opportunities for publicity through workshops, forums, newsletters, website and published case studies.

The program is managed by Sustainability Victoria and delivered by experienced facilitators from within Sustainability Victoria and Regional Waste Management Groups around Victoria. With the support of your facilitator, the five steps of the Waste Wise program will guide you through the assessment of waste streams and costs, show you how to develop and maintain a waste reduction action plan, and help you to manage the change that will be an essential element of successfully achieving your goals.

The five steps to becoming Waste Wise are:

- Making a commitment
- Developing an action plan
- Implementing the action plan
- Monitoring and reporting results
- Building on experience to achieve continual improvement

The *Waste Wise Hotels Toolkit* has been designed to enable hotels to develop practical programs for reducing waste - and associated costs. The toolkit has been developed for hotel managers and those responsible for staff training programs and work practices.

The toolkit is divided into manageable sections to allow you to implement Waste Wise initiatives in your own way, including:

- Information on the where waste is produced in hotels and the key areas for savings
- Templates to assist with taking action to reduce, reuse and recycle waste
- Information sheets and tips for staff training
- Case studies and further resources

For more information on the Waste Wise Business program, or to download the Waste Wise Hotels Toolkit, got to the Sustainability Victoria website or call (03) 8626 8700.

Disposal of Food Waste

Consider the following environmentally preferred options for disposing of food waste:

Worm Farming & Composting

Most of the trimmings from food preparation and leftovers from restaurants can be reprocessed by composting or worm farming, producing a useful soil conditioner and fertiliser. You can either establish a facility on your own property or make arrangements with a commercial contractor to collect the material and reprocess it off-site.

As a rule, only material of plant origin can be re-processed in this way. Although this may require staff to separate vegetables leftovers from meat etc., there is likely to be an overall benefit from reduced waste disposal costs, convenience, reduced odour from mixed waste bins etc.

Information about worm farming and composting is widely available in the community as the benefits of these processes are recognised. Many local councils distribute literature and sell small-scale composting bins and worm farms. For information about commercial sized worm-farming, contact the Australian Worm Growers Association (<http://www.ausworm.com>)

Re-using and Recycling Cooking Oil

- Consider filtering and re-using cooking oil prior to disposal. The useful life of oil can be prolonged by ensuring oil (e.g. in deep fryers) is only heated when necessary for cooking.
- Have oil collected by a contractor who recycles cooking oil into useful products such as vehicle fuel, animal feedstock components, fertiliser and soil conditioner.

Maintaining Grease Traps

Grease traps are fitted to kitchen outlets to prevent greasy waste from entering and blocking sewers and increasing the contaminant load of effluent. Ensure environmental impacts are minimised by:

- Scraping solids off plates, pots and pans before washing up. Solids can then be added to compost or a worm-farm.
- Maintaining a regular pump out schedule to prevent discharge into sewer
- using biological dosing systems which use bacteria to break down oils and fats. See contact list for details.
- Having grease trap waste removed by a contractor who recycles the recovered fats into useful products.

Feeding Food Scraps to Animals

In general, the commercial feeding of food waste to animals is discouraged to prevent the spread of disease-causing agents such as bacteria, viruses and parasites. Allowable practices are regulated by animal and human health regulations and vary in each state. For further information, check details with the Department of Health.

Reducing Kitchen Energy Use

The main energy users in a kitchen are:

- cooking and food warming, and water heating for drinks
- dishwashing
- refrigeration - see [Refrigeration](#) section
- lighting is a less significant energy user in most kitchens - see [Lighting](#) section.

Cooking and Food Warming

- Use microwave or gas cooking in preference to electric cooking.
- Turn cooking appliances off when they are not required. This sounds obvious, but in many kitchens equipment is left on "in case it is needed".
- Plan menus to minimise high-energy processes, such as deep-frying.
- Plan to get the most value from the energy used in running an oven, by carrying out several tasks at once.
- Minimise the use of Bain Maries, as they use a lot of energy (usually electricity) and can easily be left on for longer than needed. There is also a health risk, as in many cases they will not keep food warm enough to prevent the growth of disease-causing micro-organisms
- Switch exhaust fans off when they are not needed. In an air-conditioned area, this will cut air-conditioning energy losses as well as saving on fan energy. In some cases it may be necessary to modify the fan switching; installing a one hour (adjustable) timer will stop the fan from being left on accidentally.
- When purchasing cooking equipment, include running costs in your selection criteria. Ask the supplier for energy and other operating cost data, and critically evaluate their response.

Boiling Water Units and Urns

Boiling water units are convenient, but expensive to run. To minimise costs:

- Switch the unit off when it is not required (ie. overnight).
- Ensure that the unit is not actually boiling - they are designed to heat to just below boiling. If you hear bubbling, this means that energy is being wasted.
- Use the smallest unit to suit your needs. In some cases an automatic kettle may do the job equally as well without inconveniencing people. If you can avoid buying a unit you will avoid the energy losses and the high capital cost (10 to 20 times the cost of an automatic electric jug) and maintenance costs.
- When buying a unit, ask the supplier for energy consumption figures, and select on the basis of the total cost over ten years, not just the up-front cost.

Dishwashing

To minimise water and energy use, consider the following actions:

- Operate appliances such as dishwashers and glass-washers with full loads.
- When buying kitchen appliances such as dishwashers, ask the supplier about water and energy use. Domestic dishwashers are labelled according to the water and energy efficiency – see charts below.
- Train staff to minimise water use by using plugs in sinks and scraping plates.
- Install flow control valves in kitchen sinks. Flow control valves regulate water flow through taps and can be installed in virtually all types of existing fixtures. They cost around \$4 each, and come in a variety of sizes to restrict the water flow to 6, 9 or 12 litres per minute.



The Water Efficiency Labelling Scheme

Common water-using appliances are registered and labelled under the WELS Scheme, which awards stars for water efficiency – the more stars, the more water-efficient the appliance. The following products are rated under this scheme:

- dishwashers
- clothes washing machines
- toilets & urinals
- showers
- indoor taps & flow controllers

A searchable database of all products can be found at www.waterrating.gov.au



Energy Efficiency Labelling

Common appliances that use electricity are registered and labelled under the Minimum Energy Performance Standards (MEPS) program, which rates their energy-efficiency – the more stars, the more energy-efficient the appliance. This mandatory rating program includes the following products:

- refrigerators & freezers
- air-conditioners
- clothes dryers
- clothes washing machines
- dishwashers

To search for an efficient appliance, go to www.energyrating.gov.au/appsearch

