

Eco-efficiency

for Small Business

Fact sheet Cafe



ecoBiz is the Department of Environment and Resource Management's signature partnership program with Queensland business and industry. **ecoBiz** can help your business to achieve cost savings and take advantage of the profitability of improved environmental performance.

This fact sheet will broaden your environmental awareness as well as provide you with money-saving

eco-efficiency tips that you can implement in your cafe.

We encourage you to discuss the environmental and economic benefits of the proposed eco-efficiency changes with your staff to generate enthusiasm for the program.

Consider setting up an in-house team to identify opportunities and discuss the way ahead. Staff that are engaged and motivated will be an invaluable source of ideas for improvements that could be made in your cafe.

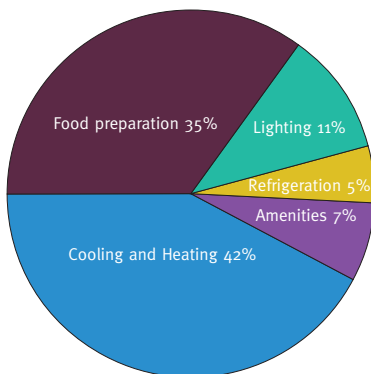
Train your staff on the aims of the **ecoBiz** program and how they can tell your customers about sustainability.

Find a 'champion' to place signs around the cafe to inform staff and customers of the eco-efficient changes you have made. Let your customers know what you are doing to improve the environment.

Energy - power to control what you spend

Cafes use energy for heating, air-conditioning and ventilation, cooking, refrigeration and lighting. A typical small to medium-sized food service business uses an average of 234MWh of electricity per year – about the same as 36 Queensland households and costing an average of \$36 000 per year.

Fast food outlet - Energy use



Energy saving tips:

- Use natural ventilation and fans where possible.
- If air-conditioning is used, close all windows and doors to reduce the escape of cool air.



Replace traditional incandescent bulbs with fluorescent lamps to reduce running costs by up to 75%. Fluorescent lights produce much less heat than incandescent lights so you would also save on cooling.

- Switch off heating and cooling after hours.
- By increasing the air-conditioning temperature by 1°C in summer, you could save as much as 10% off your energy bill.
- Set air-conditioner systems to a minimum of 24°C in summer and 19°C in winter and recirculate air to minimise costs.
- Make use of natural lighting options e.g. sky lights, and use light colours on walls and ceilings to improve reflected light.
- Switch all lighting off after hours and in areas such as store rooms that are not going to be used for at least 10 minutes. Using separate light switches for different regions in your cafe allows this to occur easily.
- Select equipment and appliances with energy-efficient labels when purchasing new equipment, for example the energy star rating system.
- Ensure fridge/freezer door seals and oven gaskets are in good repair.
- Install auto door-closers on walk-in coolers.
- Place refrigerators in well ventilated areas; sun-light and hot areas such as windows, ovens and bain-maries increase the cooling load on refrigerators. Locate the heat outlet of the refrigerator away from the cafe air-conditioning thermostat to prevent unnecessary air-conditioning.
- Use night covers on display cases.
- Switch off non-perishable fridges at night.
- If you have a lower night electricity tariff, use a plug-in timer to switch the fridge back on one hour prior to the tariff change over.

Only 20% of the electricity consumed by standard halogen down lights (50W) is used to make light, the remaining 80% is made into heat. This means that not only do these lights consume a lot of energy they also make your air-conditioning work harder. For a similar lighting effect choose 20W down lights or better still compact fluorescent lamps (CFLs), this will reduce lighting costs by at least 60% while at the same time reducing the load on your air-conditioning system.

Load non-perishable goods such as bottles of drink into fridges when they are cool. Cooling 20 two litre bottles of drink from 30°C to 4°C uses 1kWh of electricity whereas cooling them down from 17°C to 4°C uses half as much electricity.



- Use coffee makers only to make coffee and not to keep it warm. Coffee warmers use significantly less energy than coffee makers.
- Where possible, turn off PCs, monitors and printers every night, or purchase equipment that 'powers down' after a user-specified period of inactivity. Use laptop computers - they consume 90 per cent less energy than standard desktop computers.

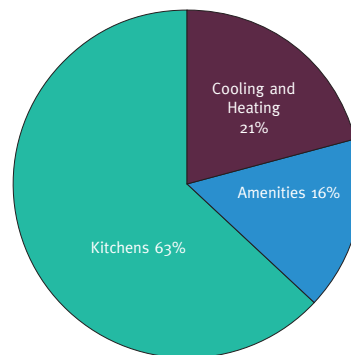
Display case lighting can account for as much as 50% of the energy running costs for the machine. Turn lights off after hours.



Water – wasted water is money down the drain

Cafes use water for serving, cleaning, food preparation, amenities, and washing. An average medium sized food service business uses 2200kL of water annually at a cost of \$2900. Conserving water will reduce your business water charges, trade waste charges and energy costs for heating water.

Cafes/Restaurant - Water Use



One of the best ways to be water wise in your cafe is to educate staff on water saving practices. There are many things you can do, from using your dishwasher more effectively to training and monitoring staff to avoid water wastage.

Water saving tips:

- Rinse fruit and vegetables in still water rather than under running water.
- Thaw frozen food in the refrigerator rather than under running water or in the microwave to reduce both water and energy consumption.
- Consider installing sensor taps or knee or foot valve faucets for hands-free operation whilst preparing food.
- Use dishwashers and glasswashers only when they are fully loaded, using the economy cycle. Scrape rather than rinse before placing items in the dishwasher.

Cafes serving Asian-style food should consider water-efficient water spouts, water efficient steamers and a waterless wok. Water efficiencies in woks and steamers can save up to 2500L/day or \$1200 per year.



- Pre-soak utensils and other implements in still water rather than in running water. Consider using recycled water for pre-soaking, such as final rinse water or water from a bain-marie.
- Purchase water-use appliances/equipment that have a five or six star rating under the Water Efficiency Labelling and Standards Scheme (WELS).
- Replace single flush toilets with dual flush toilets; this can save up to 8L per flush on average. Convert existing urinals to waterless or sensor flush control with flow restrictors.
- Install low flow aerating restrictors on water outlets and older model taps. Install high pressure, low flow trigger nozzles on dishwashing taps.

What does water really cost?

The cost of purchasing 1000L (1kL) of water is approximately \$1.32/kL; however, the true cost of purchase, use and disposal may be a lot more.

Water supply cost	\$1.32/kL
Heating water to 60°C costs (energy)	\$9.61/kL*
Trade waste disposal costs	\$1/kL**

This means that every 1kL of water you use, heat and dispose of could cost you \$11.93.

* Based on a tariff of \$0.155/kWh

** Category B in BCC

- Minimise water use on outdoor plants. Install a rainwater tank and use native plants.
- Use dry clean practices such as brooms and vacuums rather than mops or hoses. Retain the water in buckets from wet spot cleans rather than filling up for every clean.

Fix it and save!

A dripping tap can waste up to 31,000 litres each year - more than half the volume of a backyard swimming pool. That's \$46 in water consumption and \$31 in trade waste charges. If it is a hot tap it would cost you an additional \$298. A total of \$375 - more than the cost of replacing a washer!

Trade waste – don't wash money down the sink

An average small to medium size food service business generates 1500kL of trade waste each year, resulting in an annual fee of \$1500.

Trade waste is any liquid waste produced by your business that is approved for disposal in the sewer. All trade waste from business and industry must be treated before it can be released back into the environment. Councils charge businesses for their trade waste to recover some of these costs.

Trade waste charges are based on the quantity and in some cases the strength (the amount of organic matter such as food scraps, oil and grease) of your trade waste. The smaller the volume of trade waste and the fewer pollutants, the less you will be charged.

Implementing the following suggestions may result in your business being considered for a lower trade waste category. If your water usage or quality changes considerably once these actions have been applied, speak to your council about possible changes to your trade waste charges.

Trade waste tips:

- Have a licensed transporter regularly pump out and clean your grease trap. Contact your council for advice on cleaning frequency.
- Keep cleaning chemicals in a designated area and handle carefully to avoid spills.

Rinsing fruit and vegetables under running water instead of in a sink of water can cost you plenty

Running water: 30 min/day uses 131 kL/yr

Water supply cost: \$172/yr

Trade waste cost: \$131/yr

Total cost: \$303/yr

Sink of water: 6 x 15L/day uses 33 kL/yr

Water supply cost: \$43/yr

Trade waste cost : \$33/yr

Total cost: \$76/yr

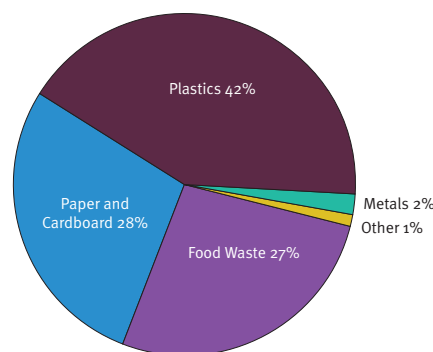
A total saving of \$227/yr!

- Grease traps prevent most grease, oil and food from entering the sewerage system. Overloading these systems can result in blocked drains or sewers and lead to pollution of the environment. Prevent this from occurring by placing used oils, fats and grease into containers for dedicated collection.
- Consider using quick break detergents that emulsify grease and oil during cleaning and allow their quick release once in grease/silt traps.
- Minimise the amount of detergents you use as detergents can reduce the effectiveness of your grease trap.
- Removing or disconnecting in-sink garbage disposal units could save your business thousands of dollars. Disposal units increase the load on the grease traps and decrease the quality of your trade waste. Consider composting instead.
- Use screens or strainers in drains to prevent food scraps entering the grease trap. Scrape or wipe oil and grease from kitchen utensils and equipment prior to washing with water.

Waste - reduce, reuse, recycle

Cafes often generate large volumes of packaging and food waste. Reducing this waste can save your business money on raw materials, and supply and disposal costs.

Cafes/Restaurant - Waste Composition



Waste reduction tips:

- Working with your suppliers can be a great way to reduce your waste. Suppliers may be able to provide goods in reusable or recyclable packaging or reduce the amount of cardboard and plastic packaging they use. Polystyrene boxes and milk crates are examples of packaging that can be returned for reuse.
- Other ways of reducing packaging at the source are to only purchase in line with demand. Purchasing products in bulk or concentrated form limits packaging requirements.
- Recycle cardboard, paper, corks, glass, plastics, oil, steel and aluminium cans. Provide clear signage on bins to promote and encourage recycling.
- Use refillable sugar and condiment dispensers, as well as reusable cutlery, tableware and food storage containers where possible.
- Consider composting, a worm farm or Bokashi bin compost system to reduce the amount of organic waste going to landfill.
- Cooperate with surrounding businesses to set up central facilities for recycling and organic waste collection. This has the potential to reduce your recycling and waste disposal costs as well as developing alliances for future eco-efficiency initiatives.



Useful references

For further information on the ecoBiz program:
www.derm.qld.gov.au/ecobiz

Energy:

www.climatechange.gov.au

www.energyrating.gov.au

Water:

www.environment.gov.au

www.qwc.qld.gov.au

Water Efficiency Labelling and Standards Scheme (WELS): www.waterrating.gov.au.

Waste:

www.derm.qld.gov.au/environmental_management/waste

For more information

- > **visit** www.derm.qld.gov.au/ecobiz
- > **email** ecoBiz@derm.qld.gov.au
- > **call** 13 74 68 (13 QGOV)