ecoBiz
Queensland

ecoBiz Queensland

Eco-efficiency

for Small Business

Office

Fact sheet
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ecoBiz is the Department of Environment and Resource Management's signature partnership program with Queensland business and industry. **eco**Biz 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 office.

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 office.

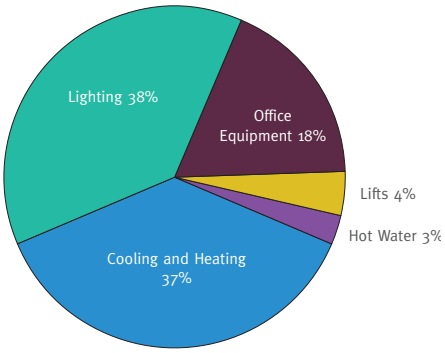
Train your staff on the aims of the ecoBiz program and how they can best convey sustainability messages to your clients.

Find a 'champion' to place signs around your workplace to inform staff and clients of the eco-efficient changes you have made.

Energy - Power to control what you spend

Lights, air-conditioning and office equipment are all big energy users in the office. Reducing your electricity costs directly improves your bottom line.

Office Building - Energy Use



Energy saving tips:

- Replace traditional incandescent bulbs with fluorescent bulbs to reduce running costs by up to 75%. Fluorescent lights produce much less heat than incandescent lights so you would also save on cooling costs in summer.
- 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 areas in your office allows this to occur easily.
- Install movement sensors or timer switches in areas such as store rooms, meeting rooms and photocopy rooms to reduce light usage.

Ever wondered whether to switch off a light when you leave the room?

Turing on a fluorescent light uses the same amount of energy as running it for five seconds.

Fluorescent lights can be switched on approximately 6600 times before they will fail to start.

When comparing the cost of replacing a light bulb with the cost of electricity a simple rule of thumb to follow is: if the light is not going to be used for 10 minutes or more, switching it off will save you money.

- Consider the use of photo-electric (PE) sensors to maximise the use of natural lighting and minimise the use of artificial lighting.
- The average computer uses approximately 100-120W per hour (or 0.1kW), with the monitor using up to 50% of that total. Where practical, purchase small monitors or ensure your monitor is set to automatically hibernate if left unused for more than 15 minutes.

- Replace 50W halogen downlights with 20W. This gives a similar lighting effect using only 40% of the energy.
- LCD screens use approximately half as much electricity as a CRT of equivalent size. The energy consumption of LCD screens can be reduced by half as much again by adjusting the brightness.
- Photocopiers and printers are left to idle approximately 95% of the time. When left on, small machines use approximately 100-120W/h when idle, while larger machines use even more energy. Minimise the number of photocopiers and printers in the office to increase their productive time. Switch equipment off when not in use (e.g. at night) and program equipment to hibernate when not in use during office hours.
- Use natural ventilation and fans where possible.
- If air-conditioning is used, close all windows and doors to reduce the escape of cool air.
- Switch off heating and cooling after hours.
- Set air-conditioner systems to a minimum of 24˚C

Did you know?

Turning your computer off at night does not damage the computer. Computers are designed to handle approximately 40,000 on/off cycles before causing a fault. This means you could turn off your computer every night for approximately 109 years.

To switch or not to switch?

If a computer was left on all year, it would run for 8760 hr/yr at a cost of $135 per year. Alternatively, if the computer was only left on for 2600 hours, or 50 hr/wk, it would cost only $40 per year to run, saving you $95, or $950 per year for an office of ten people.

To work out your potential energy savings for a single computer, use the calculations below:

(8760 - total hours left on/yr) x computer energy consumption x cost of energy from your energy bill = savings

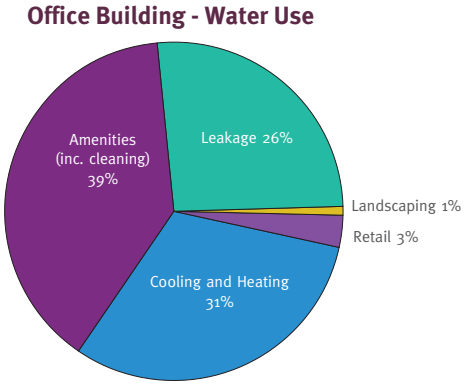
e.g. (8760-2600) h/yr x 0.1kWh x $0.155/kWh* = $95

Multiply this saving for every computer in the office that will be switched off at night to work out the overall savings you could achieve annually. Additional savings would be achieved if all photocopiers, printers and fax machines were also switched off when not in use.

* Based on an energy tariff of $0.155/kWh.

Water – saving water is smart business

Experience has shown that savings of 30-40% are often achievable in office buildings. We've compiled a list of handy tips to help you cut costs and make the most of your business's water.



Water saving tips:

- Purchase water-use appliances /equipment that have a five or six star rating under the Water Efficiency Labelling and Standards Scheme (WELS).
- Use dishwashers only when they are fully loaded, using the economy cycle. Scrape rather than rinse before placing items in the dishwasher.
- Replace single flush toilets with dual flush toilets. This can save 8L/flush on average.
- Install five or six star urinals, waterless urinals or sensor flush control with flow restrictor.

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 $40 in water consumption and $30 in trade waste charges. If it is a hot tap it would cost you an additional $300. A total of $370 - more than the cost of replacing a washer.

- For existing sensor flush control urinals, adjust the control so that it is triggered only by users and not by passing traffic. Increase the time delay to 15 minutes and reduce flush time to 5 seconds. Confirm automatic flush urinals flush less than once every 15 minutes and only during work hours. Ensure urinals are not flushing at night or on weekends. Reduce the amount of water used per flush to less than 1.5L/single stall.
- Inform cleaning staff of your commitment to water reduction and discuss with them their methods of cleaning, looking for opportunities to reduce water use, such as not running taps whilst cleaning sinks.
- Minimise water use on outdoor plants. Install a rainwater tank and landscape using plants native to your area.
- Encourage staff and cleaners to report leaks.
- Install low flow aerating restrictors on water outlets to reduce water output from 12 to 18L/min to between 2 to 6L/min. Install water efficient shower roses to reduce water flow from 20L/min to 7L/min.

Save money with flow restrictors!

A flow restrictor on one tap, used for 30 min per day, will save you 66kL/yr or $87 per year. If your office has five taps, you could save as much as $435 per year.

Waste - reduce, reuse, recycle

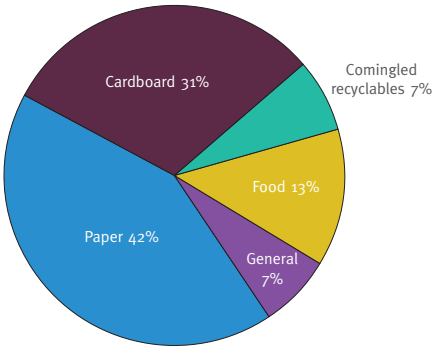
Just one office worker can throw away one quarter of a tonne of materials in a year. Reducing this waste can save your business money on raw materials, as well as supply and disposal costs.

Waste reduction tips:

- Purchase office equipment capable of double-sided printing. Alternatively, you can save paper by using the manual duplex settings in File/Print/Properties on your computer. Manual duplex gives you double-sided printing when your printer doesn't automatically support it.

Improved eco-efficiency can strengthen market position, provide competitive advantage and growth.

Office - Waste Composition



- Reuse single-sided paper as draft copies or notepaper within the office.
- Encourage suppliers to be more sustainable by asking them to provide your office with double-sided documents.
- Buy recycled paper and stationery made from recycled material. Using recycled paper does not mean a reduction in the quality of your final product. Recycling paper is only the first stage - buy recycled to complete the loop!
- Inform your cleaning service of the waste recycling system so that recyclables do not accidentally end up in general waste.
- Buy in bulk to reduce packaging and return packaging to suppliers where possible.
- Think of the environment before you print. Do you need a hard copy of the document? Would it be possible to read from the computer screen or use electronic means of communication?

Resource NSW conducted an audit of offices and found that 55% of office waste was paper, most of which was printed on only one side. Auditors calculated that approximately 39 reams of paper were being used every year per employee. If employees printed double-sided on only half of this paper, it would reduce paper usage to only 29 reams, a saving of approximately $60 per person, or $600 per year for an office of 10 people.

Unlike its non-recycled counterpart, duplex printing on 100 reams of recycled office paper saves two trees, eliminates over one tonne of greenhouse gas, and leaves almost a cubic metre of landfill space empty.

Place recycling bins next to the general waste bins to encourage recycling. Ensure recycling bins are clearly labelled to assist recycling, e.g. paper, glass, aluminium cans and plastic drink containers. Arrange for collection of items for recycling.

Promote paper recycling by providing individual paper recycling boxes.

- Save paper: provide draft documents electronically. Use the track changes feature when reviewing drafts to reduce the number of hard copies printed. Where possible, provide clients with an electronic version of final reports and documentation. Distribute meeting minutes via email or circulate a single hardcopy copy instead of issuing individual hard copies, this will save reams of paper annually. Remember, 1 ream of paper costs approximately $6.00.
- Reuse document tubes rather than buying new ones.
- Use mugs, glasses and metal cutlery rather than disposable cups, cutlery or stirrers.
- Refilling your printer and toner cartridges, rather than replacing them, could save you up to $100 with every refill and reduces waste production.

What a waste!

Don't discard stationery unnecessarily. An audit of office buildings in NSW found $23 worth of reusable stationery was thrown out every year per employee.

Useful references

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

Energy:

www.greenhouse.gov.au and www.energy.qld.gov.au; www.energyrating.gov.au

Water:

Download the Water Eficiency Guide: office and public buildings: www.environment.gov.au/settlements/publications/government/water-efficiency-guide.html

Waste:

www.derm.qld.gov.au; www.environment.nsw.gov.au and www.sustainability.vic.gov.au.

For more information

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

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