

# Save Energy

## 1. Buildings and Offices



### 4 Use air conditioners and electric radiators as a last resort

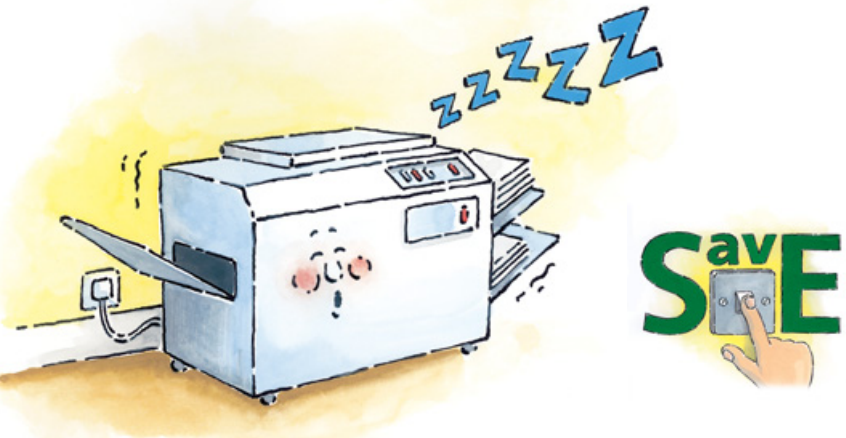
- **The building's heating systems should be adjusted to meet the minimal heating levels.** There are great savings in being able to ventilate a building to cool it rather than turning on the air conditioning. Consider opening windows before heading towards the air conditioning switch. In the cooler months, ensure the building does not allow too much heat to leak out through open doors and windows, reducing the need for heating. Make sure that windows and doors are kept shut. Additional heating for individuals should only be considered as a last resort due to high running costs.

Fit timers to your heaters – don't leave them on all night.



**QUESTION:** What next?

**ANSWER:** If, after reading through the Building and Offices bulletin, you have any further questions or would like to report any areas of potential energy inefficiency on your site, please contact the Energy Champions (David Gazzard / Mark Hamilton) via telephone, email or fax. You will then be contacted with relevant help and assistance to improve energy efficiency at your site.



**Did you know**



- Turning the heating thermostat down by 1°C can save 10% on the energy bill, typically worth £50-80 per year for a house. As a guide, 19-20°C is the recommended office temperature.
- A monitor uses more than 60% of a PC's total electricity. A PC monitor left on at all times would result in CO<sub>2</sub> emissions of 0.8 tonnes per year!
- Screensavers **DO NOT** save energy!
- Flat screens are much more energy efficient and only use around 30-50% of the energy used by traditional monitors.
- Printers consume 30-40% of their peak power requirement even when idling.
- A photocopier left on overnight wastes enough energy to make 800 A4 copies. Place the photocopier on standby when you have finished with it, and check that it is switched off at the end of the day.
- By fitting simple plug-in timers to vending machines, they can be automatically switched off overnight and at the weekends – significantly reducing energy by around 70%!

- It's always cheaper to turn lights off than to leave them on (even fluorescent strip lighting). With modern fluorescent lights, it is **NOT** true that you consume more energy than you have saved when they are turned on again. Turn off lights in offices, meeting rooms and toilets when they are not being used.
- The extra CO<sub>2</sub> produced to air-condition a typical office building is enough to fill around 30 hot air balloons every year or equivalent to printing almost 900 million A4 sheets of paper!

## Please help us to Save by:

- ✓ Ensuring that windows are closed when air conditioning or heating systems are switched on
- ✓ Always turning lights off when not required, even if only for short periods of time
- ✓ Turning off printers and photocopiers at the end of the day
- ✓ Always switching off the monitor when leaving your desk.

**i** If you are responsible for the operation and maintenance of buildings and offices at your site then read below:

### TOOLBOX

#### How to reduce energy consumption in buildings and offices:

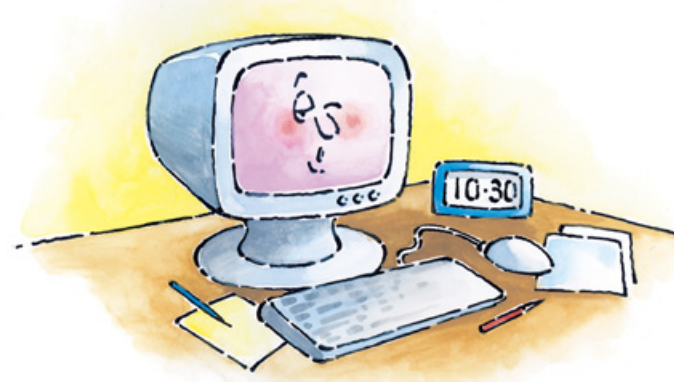
- 1 Ensure energy saving features are activated
  - **Modern computers and other office equipment have energy saving features that should be activated.** Computer screen savers do not save energy, it is much more efficient to simply turn the monitor off.

- **Turn photocopiers and printers to 'standby' mode.** The power used when a machine is at standby is usually 20-40% of the normal operating power, and so significant savings are possible with very little effort. Machines on standby take minimal time to wake-up and therefore productivity won't be affected.

As part of the standardisation of the desktops in MQP the screen saver comes on after 5 minutes and the screen is powered off after one hour.

To reactivate the screen move the mouse, rather than hit any key, because if the screen has gone off while the user is in an application, then pressing a key may select an option in the application. Moving the mouse should bring the screen back without affecting the application.

- **Switch off computers at night.** By leaving your machine on, you run up the electricity bill, more dust is drawn into the machine, and you make your computer more vulnerable to power surges. Individually, the energy saved by switching the computers off may be small but considering the number of PCs throughout MQP, the total effect will be significant.



#### 2 Learn how to operate office equipment efficiently

- **Changing settings and fixing problems on photocopiers and other office machines can result in savings.** Double-sided printing is a good example but knowing how to replace toner cartridges, clearing blockages, loading paper properly, setting and activating energy-saving features, etc can all help to increase energy efficiency in building and office environments.

#### 3 Reduce the use of personal printers and make the best use of networked printers instead

- **Minimise the number of printers and photocopiers in use.** Many printers and photocopiers actually operate for less than 5% of the time. If you have two or more printers in a small office, try networking to one printer, and switching the other(s) off. The benefit of this approach is that the better-used machines are replaced more often, allowing newer energy efficient technology to be introduced more frequently.