ENERGY
# SAVING
TIPS
FOR OFFICE

Contents

Introduction

This booklet^ aims to provide tips for saving energy in the office.

Some simple energy saving tips at office:

- Set and maintain air-conditioned room temperature between 24°C and 26°C in summer.

- Switch off office equipment that are not in use.

- Use appliances with timer control or automatic power-off function. Do not leave them in standby mode for a long period of time or after office hours.

- Procure energy efficient office equipment, such as those with an energy label.

- Carry out regular maintenance on office equipment for optimal energy efficiency performance.

- Before leaving the office, arrange the last-man-out to check and switch off the power sources to all air conditioning, lighting and office equipment that are not in use.

^ This booklet can be downloaded from this link:
http://www.emsd.gov.hk/en/energy_efficiency/energy_management/publications/index.html
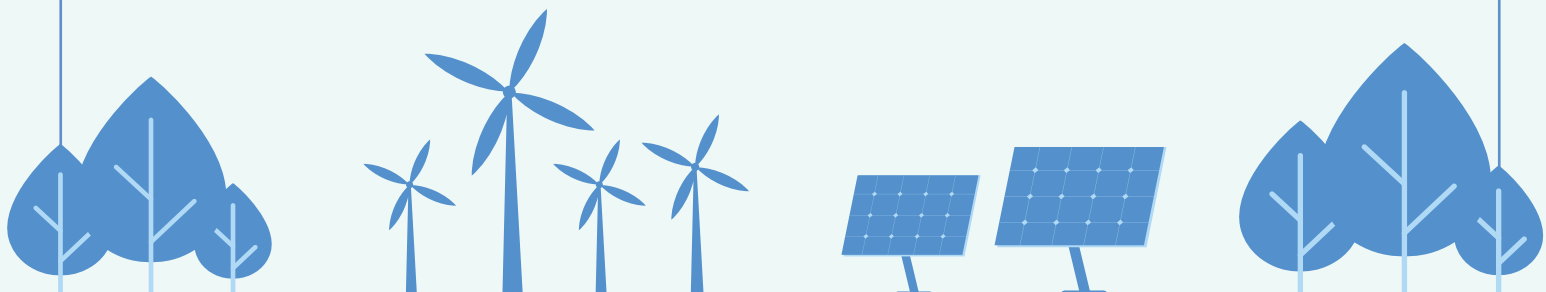
Air Conditioning and Ventilation

- Set and maintain air-conditioned room temperature between 24°C and 26°C in summer.

- Switch off the AC and ventilation equipment in offices, meeting rooms, etc. right after use. Affix "Save Energy" stickers as a reminder at the exits.

- Keep the windows and doors closed when the AC is turned on and use curtains or blinds to shade against sunlight.

- Keep doors closed between air-conditioned and non-air-conditioned areas, such as those between the office and the outdoor, lift lobbies, toilets or stores.

- Switch off lighting and heat-producing appliances that are not in use to reduce AC cooling load.

- Consider using an electric fan in conjunction with AC to spread cooled air more effectively.

- Set an indoor AC unit to low fan speed as the normal setting. Use a high fan speed first rather than lowering the temperature setting to cater for an increased cooling demand.

- Dress light to minimize the use of AC.

- Install occupant sensors to automatically switch on and off the AC and ventilation equipment in areas that are infrequently used, e.g. conference rooms.

- Install thermometers to monitor the room temperature to avoid excessive cooling.

- Clean dust filters of AC and ventilation equipment regularly.

- Remove obstructions from air vents of AC and ventilation equipment.
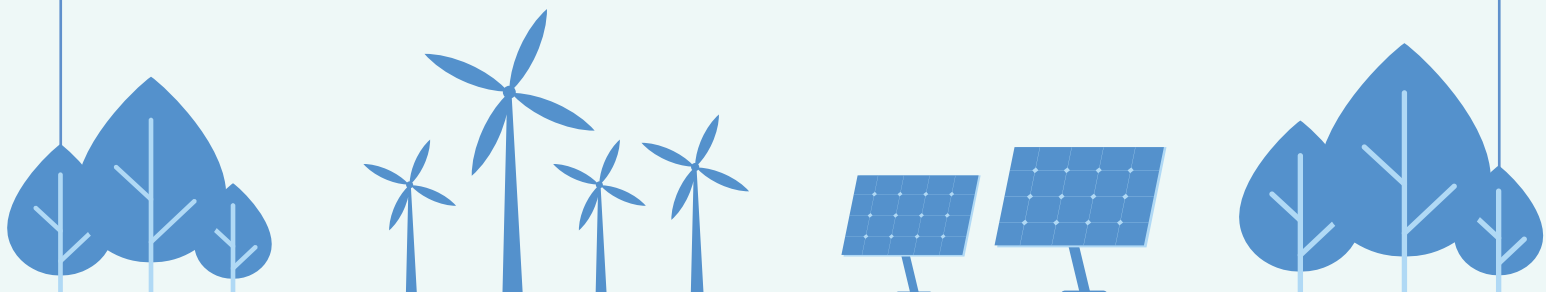
Lighting

- Use lamps with high energy efficiency, such as Light Emitting Diode (LED) lamps. Make reference to the energy label on the product, where a "Grade 1" product is the most energy efficient, "Grade 5" is the least.

- Maximize daylight usage.

- Switch off the lights that are not in use. Affix "Save Energy" stickers near the light switches as a reminder.

- With few people working in the office, switch off the non-essential lighting, and minimize the use of general lighting by using task lights to directly illuminate the work areas.

- Maintain only those lighting which are essentially needed for safety, security or other specific purposes in areas that are infrequently occupied.

- Remove excessive lighting in areas that are too bright.

- Install parabolic-type lighting reflectors to reflect sufficient light so that fewer lamp sources are used to achieve the required illumination level.

- Install occupancy/motion sensors to automatically control on/off of lighting in public areas such as corridors, toilets etc.

- Install lighting zone control to switch off the lighting in unoccupied areas.

- Replace conventional internally illuminated exit and directional signs with LED type for energy saving and longer lamp life.

- Keep all windows and light fittings clean to achieve optimum lighting performance.
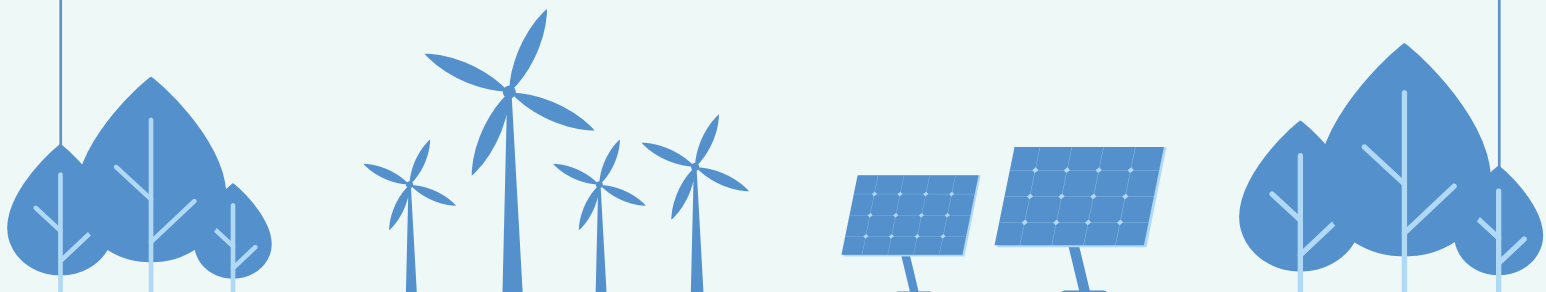
Photocopiers and Printers

- Choose energy efficient photocopiers and printers, such as those with an energy label.

- Use timer switches or arrange the last-man-out to switch off all photocopiers and printers after office hours to reduce power consumption.

- Set photocopiers and printers to enter as soon as possible the "Low Power" or "Off" mode when idling.

- Do not leave photocopiers in standby mode for a long period of time. The energy wasted by a photocopier left in standby mode overnight is sufficient for making up to 700 copies of A4 sized document.

- Do not leave printers in standby mode for a long period of time. The power wasted by a desktop printer left in standby mode after office hours accounts for 70% of the total energy consumed by that printer.

- Photocopying in batches to minimize the energy consumption due to frequent starting of a photocopier.

- Adjust the margins and font sizes of a document to optimize the use of paper.

- Use the "Print Preview" function to check and confirm the layout and style of a document before printing to minimize wastage of paper and energy due to printing errors.

- Follow the maintenance schedules of the appliances as recommended by the manufacturers or suppliers.

Office Equipment
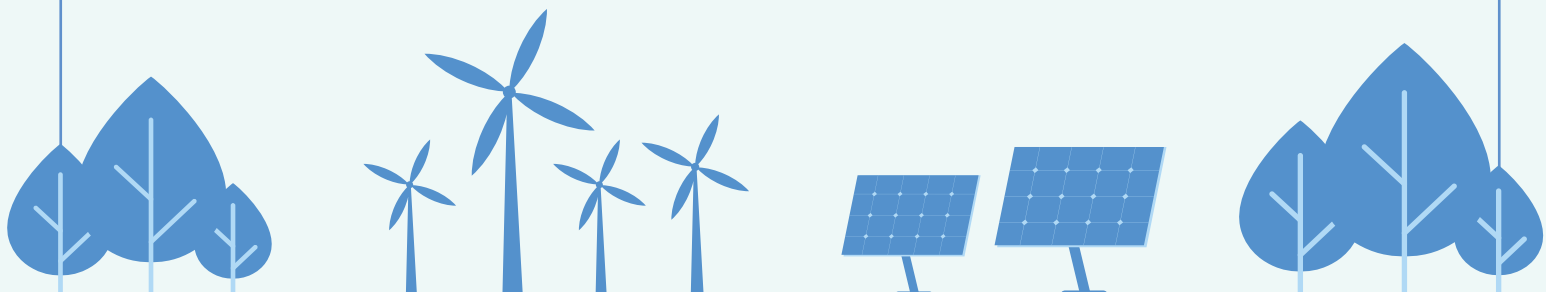
Fax Machine

- Choose energy efficient fax machines, such as those with an energy label.

- If there are multiple fax machines, divert all faxes to one or two units in non-office hours and switch off the remaining units.

- Set fax machines to enter as soon as possible the "Sleep" mode when idling.

- Avoid using a full sheet of paper as the cover page of a fax. If necessary, use a stick-on label instead of a cover page to save paper.

- Using existing computers to receive faxes can save the resources of printing out the faxes.

Computer

- Choose energy efficient computers and monitors, such as those with an energy label.

- Switch off computers after office hours or before leaving the workplace to save energy.

- Switch off computer servers of non-essential services before weekends and public holidays to reduce power consumption.

- Use intelligent power extension unit to automatically switch off peripheral devices, such as monitors and printers, to reduce standby power consumption.

- Switching off the screen saves more energy than running the "screen saver" programme .

- Reduce the brightness of a screen to the lowest level with which the user is comfortable.

- Set the PC into "sleep" or "hibernation" mode as appropriate when it is idle.
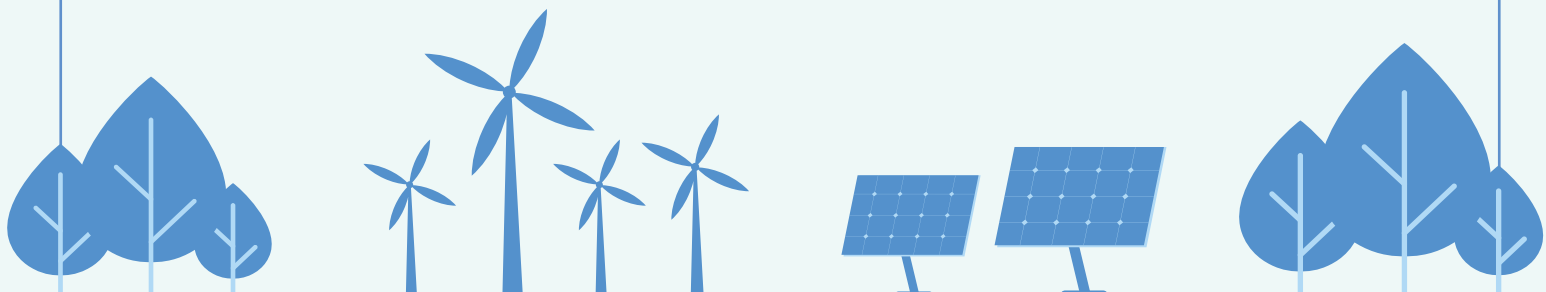
Standby Power Consumption

What is standby power?

- Standby power is the electricity consumed by an appliance when it is not performing its primary functions, but plugged in to a power source and ready to be used. For example : a television continues to draw a little power to maintain the control function after the user switches it off with the remote control device. Standby power is expressed in watts (W).

## How much energy is consumed in standby mode? Why is it so important?

- The electricity consumption of different electric appliances in standby mode varies. Assuming that the standby electricity consumption for an appliance is 1 Watt and a family normally has about 10 to 20 electrical appliances* in standby mode, switching off all such standby appliances may reduce household electricity consumption by up to 3%.

* These appliances include broadband modem; Wi-Fi router; cordless telephone; computer; computer monitor; printer; charger for mobile phone, tablet computer, notebook computer and backup battery pack; television; video player; digital video recorder; video game console; radio; electric fan; electric toothbrush and electric shaver.

Tips for reducing Standby Power Consumption

Establish company wide energy efficiency policy

- Establish an Energy Efficiency Policy and Measures to indicate top management's commitment.

- Get staff to understand and commit to good energy saving practices by setting up housekeeping practices such as assigning designated officers to inspect workplace; and having discussion sessions for identifying areas of improvement, etc.
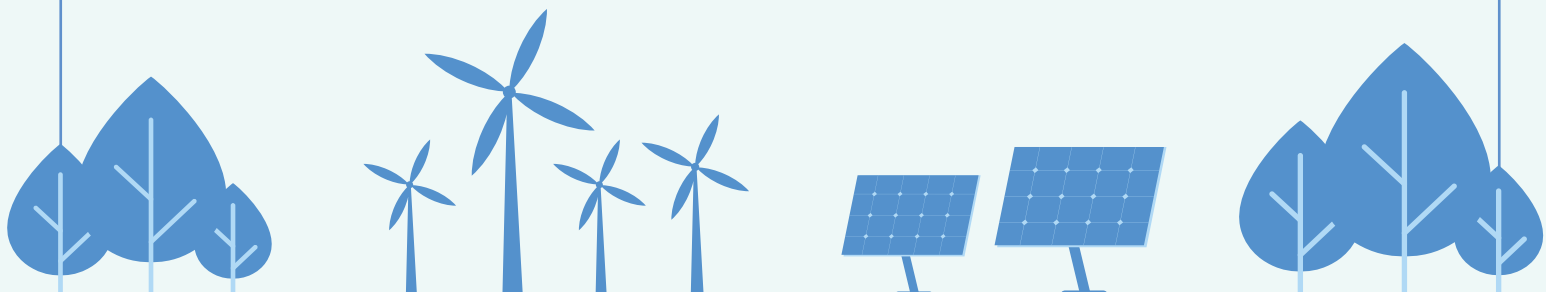
Standby Power Consumption

Equipment setting and staff training

- By providing continuous training and communications, inform staff of the power management features of office equipment and commit to good energy saving practices.

- Request suppliers to pre-set power management features on equipment and provide training to staff.

Use of office equipment

- Switch computers to sleep or hibernation mode and switch off monitors, printers when leaving office for long time (e.g. during meetings, lunchtime, etc.)

- After office hours or before leaving the workplace, switch off the power sources to computers and the connected peripheral devices, such as monitors and printers, etc.

- Use appliances with timer control or automatic power-off function. Do not leave them in standby mode for a long period of time or after office hours.

- Before leaving the office, arrange the last-man-out to check and switch off the power sources to all air conditioning, lighting and office equipment that are not in use.

- Keep the number of switched on equipment that has to perform its primary function during non-office hours to a minimal, such as by switching off computer servers of non-essential services before weekends and public holidays to reduce power consumption.
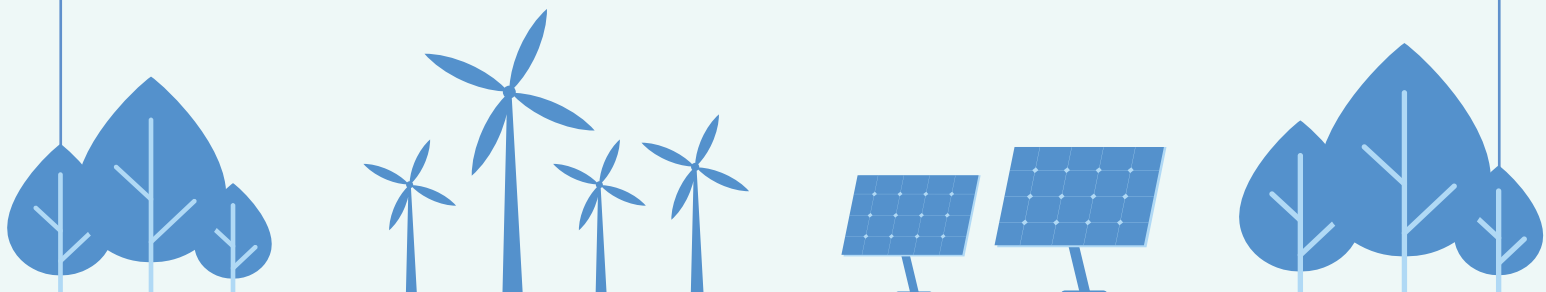
Related Websites

Environment and Ecology Bureau/Electrical and Mechanical Services Department - Energy Saving for All
https://www.energysaving.gov.hk/en/home/index.html
https://www.emsd.gov.hk/energyland/en/home/index.html
https://ee.emsd.gov.hk/english/index.html
https://re.emsd.gov.hk/english/index.html
https://www.emsd.gov.hk/energylabel/en/about/background2.html
https://www.emsd.gov.hk/en/energy_efficiency/voluntary_energy_efficiency_labelling_scheme/index.html

Water Supplies Department - Water Conservation
https://www.waterconservation.gov.hk/en/home/index.html

HK Electric - Smart Power Services
https://www.hkelectric.com/SHW-en

CLP - Energy Saving Tips
https://powerconnect.clp.com.hk/en/CLP-PowerConnect/Energy-Saving-Tips

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