

有關節能的網站

Related Websites

能源資訊園地

Energyland

<http://www.energyland.emsd.gov.hk>

環境保護署 — 同心協力改善環境

EPD – “How You can help”

http://www.epd.gov.hk/epd/tc_chi/how_help/tips_saveearth/save_energy.html

水務署 — 慳水錦囊

Water Supplies Department – Water Saving Tips

http://www.wsd.gov.hk/tc/education/water_conservation/water_saving_tips/index.html

香港可持續科技網

HK Sustainable Technology Net

<http://sustech.emsd.gov.hk>

港燈 — 慳電錦囊

Hk Electric – Smart Tips for Energy Efficiency

http://www.heh.com/hehWeb/CommunityAndEducation/EnergyEfficiencyAndConservation/SmartTipsforEnergyEfficiency/Index_zh.htm

中電 — 節約能源建議

CLP – Energy Saving Tips

<https://www.clponline.com.hk/MyBusiness/EnergyManagement/InformationHub/EnergySavingTips/Pages/Lighting.aspx>

機電工程署
EMSD



機電工程署 能源效益事務處
Energy Efficiency Office
Electrical and Mechanical Services Department

香港九龍啓成街3號
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節能小貼士

Energy Saving Tips



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引言 Introduction

這本小冊子[^]旨在提供辦公室節約能源的方法*。

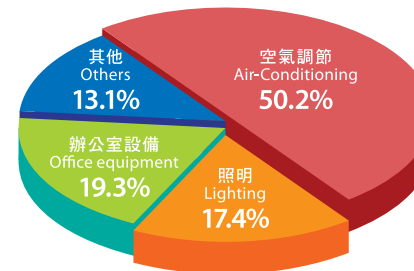
一些簡單辦公室的節能方法：

1. 在夏天時，調校並維持空調室溫在攝氏25.5度。
2. 在不需要時，關掉辦公室設備。
3. 選用附有時間掣或自動關機功能的電器，以免電器長期停留在備用狀態。
4. 購買辦公室設備，應選用具有能源效益的型號。
5. 辦公室設備須定時維修，以維持最佳能源效益的功能。
6. 離開辦公室前，安排最遲離開的員工檢查及關掉所有不需要的空調、照明和辦公室設備的電源。

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

Some simple energy saving tips at office:

1. Set and maintain air-conditioned room temperature at 25.5°C in summer.
2. Switch off office equipment that is not in use.
3. Use appliances with timer control or automatically switch-off control functions to avoid leaving appliances in standby mode for a long period.
4. Procure energy efficient office equipment.
5. Carry out regular maintenance on office equipment for optimal energy efficiency performance.
6. When leaving office, arrange for the last-man-out to check and switch off the power source to all AC, lighting and office equipment that are not in use.



辦公室的能源使用分佈
Breakdown of Energy Use of a Typical Office
(Average shares of the Energy Use between year 1999 to year 2008)

來源：機電工程署 — 香港能源最終用途數據
Source: EMSD – Hong Kong Energy End-use Data

[^] 本小冊子可從以下網址下載 This booklet can be downloaded from this link :
http://www.emsd.gov.hk/emsd/e_download/pee/Energy_Saving_Tips_for_Office.pdf

* 一些節約能源的方法亦適用於家居 Some energy saving tips are also applicable to homes.

空調及通風設備

Air Conditioning (AC) and Ventilation

- 在辦公室/會議室等房間使用完畢後，應立即關掉空調設備。並在房間出口貼上「節約能源」標貼以作提示。
- 在低使用率的區域（例如會議室），安裝用戶/移動感測器，自動控制空調的開關。
- 空調設備開啟時應關上門窗，並拉上窗簾，以阻隔陽光直射室內，來減低冷氣負荷。
- 關掉非必要的燈飾和發熱電器以減低冷氣負荷。
- Switch off the AC in offices, meeting rooms, etc. right after use. Affix "Save Energy" stickers as a reminder at the exit.
- Install occupancy/motion sensors to automatically switch on and off the air-conditioning in those areas infrequently used, e.g. in conference rooms.
- Keep the windows and doors closed when the AC is switched on and use curtains or blinds to shade against sunlight to reduce air-conditioning load.
- Switch off lighting and heat-producing appliances that are not in use to reduce air-conditioning load.



25.5°C



- 穿輕便衣服可將空調設備使用量減低。
- 在夏天，空調設備應調校並維持室溫在攝氏25.5度。
- 安裝溫度計以監察室溫，避免房間過冷。
- 把風機盤管的一般設定調為「低」扇速。如室內人數增多或熱量增大，可選擇較高扇速，而非把溫度調低。
- 如有需要，可使用風扇加強冷空氣流通，以達致清涼效果。
- 定期清洗隔塵網及盤管式風機。清除空調及通風設備或冷氣機入氣及排氣口的障礙物。
- Dress light to minimize the use of AC.
- Set the AC and maintain room temperature at 25.5°C in summer.
- Install thermometers to monitor the room temperature to avoid excessive cooling.
- Set the fan coil to "low" fan speed as the normal setting. Use a high fan speed rather than lowering the temperature setting to cater for increased cooling demand.
- If necessary, use fans to enhance the cooling effect by increasing cool air circulation.
- Clean dust filters and fan coil units regularly. Remove obstructions at air inlets and outlets of the AC and ventilation.



照明 Lighting

- 如沒需要，應把照明關掉，並在開關掣附近貼上「節約能源」的貼紙，以作提示。
- 在光線過強的地方，應減除過量的照明設備。
- 在低使用率的區域，只保留配合安全、保安或其他特殊用途所需的照明設備。
- 儘可能使用天然光線，以節省照明開支。
- 安裝拋物線型的燈光反射器，以較少數量的光管來反射充足的光線。
- 若辦公室人數不多，應將非必要的照明設備關掉及採用工作燈直接照明工作的地方。

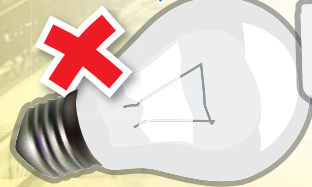
- Switch off lights that are not in use. Affix "Save Energy" stickers near the switches as a reminder.
- Remove excess lighting in areas that are too bright.
- Maintain only those lighting which are essentially needed for safety, security or other specific purposes in areas that are infrequently occupied.
- Make use of daylight whenever possible to reduce lighting costs.
- Install parabolic-type lighting reflectors to reflect sufficient light with fewer fluorescent tubes.
- With few people working in the office, switch off the non-essential lighting and use task lighting to directly illuminate work areas.

- 在公用地方例如走廊、洗手間，安裝用戶/移動感應器用以控制照明設備的開關。
- 在合適的地點安裝照明區域控制器，以便在不使用某些區域時能關閉其照明設備。
- 保持所有窗戶、燈泡和照明裝置清潔，以維持較佳的照明功能。
- 選用慳電膽代替鎢絲燈。用慳電膽比用鎢絲燈少用75%電力，而壽命則平均為6~8倍或以上。

- Install occupancy/motion sensors to automatically control on/off of lighting in public areas such as corridors, toilets etc.
- Install lighting zone control wherever possible to switch lighting off in unoccupied areas.
- Keep all windows, light bulbs and light fittings clean to maintain optimum lighting performance.
- Replace incandescent lamps with compact fluorescent lamps (CFLs). CFLs use 75% less energy than incandescent lamps, and on average last up to 6 to 8 times or more.



鎢絲燈
incandescent lamp



慳電膽
CFL



影印機和打印機 Photocopiers and printers

- 在下班後，應關掉影印機和打印機。
- 把低電量和關閉模式的預設時間調校至最低值。
- 依從製造商或供應商建議作定期維修。
- 啟動影印機會消耗額外電力，「整批複印」可減少因頻密開關而消耗的能源。
- 安排最遲離開的員工關掉影印機和打印機或安裝時間掣以減少耗電量。
- 在列印前使用列印預覽功能檢查文件編排和樣式是否符合要求。
- 調整每頁版面邊界和字體大小以便更有效用紙。
- Switch off photocopiers and printers after office hours.
- Set the "Low Power" and "Off" mode default intervals to the lowest setting.
- Follow the maintenance schedules of appliances as recommended in the instruction manual of the related appliance.
- Photocopy in batch as it can minimize energy consumption due to less frequent starting.
- Arrange the "last-man-out" to switch off all photocopiers and printers or use timer switches to reduce power consumption.
- Use the "Print Preview" function to check the layout and style of document before printing.
- Adjust the margins and font size of documents in order to optimize use of paper.



傳真機 Fax Machine

- 若有多部傳真機，可在非辦公時間把傳真信息轉移至一部或兩部傳真機而關掉其餘的傳真機。
- 把靜止模式預設時間調校至最低值。
- 使用具有能源調節功能的傳真機，例如有節能功能的型號。
- 避免使用全頁紙張作傳真首頁，如必要的話，使用貼紙代替，以節省用紙。
- Divert calls to one or two units after office hours and switch off the remaining units if there are many fax machines.
- Preset the "sleep" mode default period to the lowest setting.
- Select fax machines with power management capabilities, e.g. fax machines of model with energy saving function.
- Avoid using a full sheet of paper as a covering page for fax. If necessary, use a stick-on label instead of a covering page to save paper.



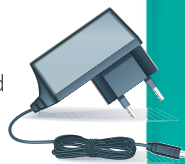
電腦 Computer

- 在非辦公時間或需要離開工作間時，應將電腦關掉，以減少耗電量。
- 按個別情況，應透過「電能管理」功能使電腦進入靜止或休眠設定模式。
- 關掉顯示屏比使用「屏幕保護程式」更能節省能源。
- 把屏幕光度調至使用者感覺舒適的最低水平。
- Switch off computers after office hours or when leaving the workplace to reduce power consumption.
- Use the power management feature to preset the PC to "sleep" or "hibernation" mode when it is idle.
- Switching off the screen can save even more energy than just letting the screen savers run.
- Reduce the brightness level of the screen to the lowest comfortable level.



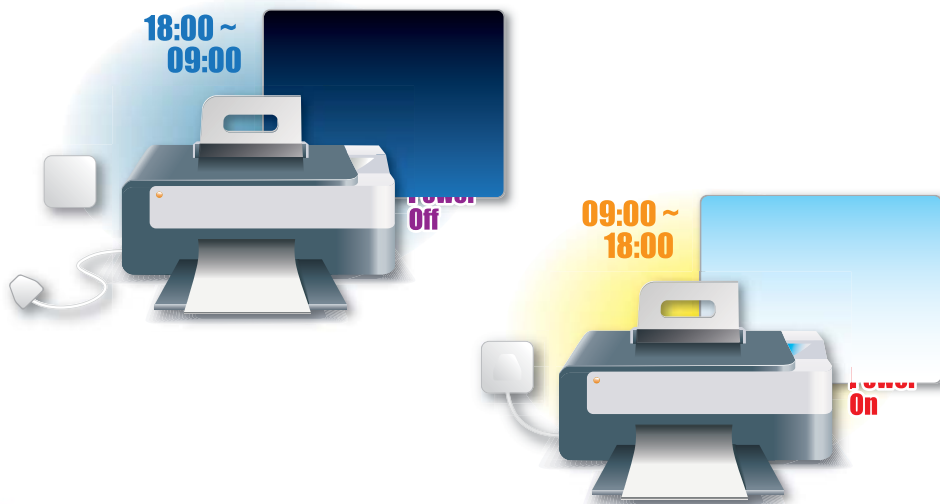
充電器 Charger

- 在不使用時，應將充電器及變壓器由插座拔除。
- Unplug all equipment chargers and adapters when they are not in use.



避免在非辦公時間使用備用模式 Avoid Standby Mode after Office Hours

- 在晚間處於備用模式的影印機所浪費的電力足以影印700張A4紙。
- The energy wasted by a photocopier left in "standby" mode overnight is enough for making up to 700 copies of A4 size paper.
- 桌面打印機在非辦公時間處於備用模式所浪費的電力，佔該打印機總耗電量的七成。
- The power wasted by a desktop printer left in "standby" mode after office hours accounts for 70% of the total energy consumed by the printer.



節約能源例子 Energy Saving Examples

具能源效益的產品能大幅減低能源消耗量。若消費者願意改用能源效益較高的電器，便可節省不少能源，以下是數個例子——

- 貼有「第一級」能源標籤的慳電膽能源效益最高，平均電燈壽命8,000小時或以上。「第五級」的平均電燈壽命則少於6,000小時。
 - 以幼身光管（T5光管）取代粗身光管（T12或T8光管配備傳統的電磁鎮流器）。一個1,000平方米的辦公室可每年節省\$10,000電費。
 - 以發光二極管「出路」標誌取代傳統的標誌。每個出路標誌，每年可節省\$220電費。
 - 將空調設備室溫設定調高攝氏1度，可節省耗能量約3%。
 - 下班時把電腦關掉，每部電腦每年可節省達\$600電費。
- Products with good energy efficiency performance produce substantial energy saving. Significant energy saving can be achieved, if consumers are willing to switch to energy efficient household appliances. For example –
- CFLs with "Grade 1" energy label are most energy efficient and have an average lamp life of 8,000 hours or above. "Grade 5" CFLs have an average lamp life below 6,000 hours.
 - Replace "fat" tubes (T12 or T8 fluorescent lamps with conventional magnetic ballasts) with "thin" tubes (T5 fluorescent lamps). For a 1,000 m² office, an electricity cost of up to \$10,000 can be saved each year.
 - Replace a conventional "Exit" sign with LED "Exit" sign can save up to \$220 of electricity cost per year.
 - Raising the temperature set point of the AC by 1 °C could reduce energy consumption by around 3%.
 - Switch off computers after office hours can save up to \$600 electricity cost for each computer each year.

