



ENERGY EFFICIENCY GUIDANCE

FOR BUILDING OWNERS AND TENANTS

GUIDANCE ON HOW ENERGY EFFICIENCY MIGHT BE IMPROVED – **BUILDING OWNERS**[^]

Guidance about...	To improve building energy efficiency, a building owner can:
1. having an energy management plan	<ul style="list-style-type: none"> A. develop and promote a corporate-wide energy management policy B. implement the policy with an action plan that includes targets, responsibilities and resources C. establish a program of regular, independent energy audits, and implement the recommendations made by audits.
2. reviewing skills and responsibilities	<ul style="list-style-type: none"> A. assign responsibility for managing energy to a key member of a management team responsible for the building B. ensure the on-site building manager understands how all building systems and services are designed to operate C. set up an ongoing program of energy management training for key staff.
3. tenant collaboration	<ul style="list-style-type: none"> A. collaborate with managers and tenants to improve and maintain energy efficiency B. advise tenants about the building owner's commitment to managing energy in the building C. formalise shared responsibilities between the building owner and a tenant by making specific commitments, for example, by negotiating with the tenant to have energy efficiency clauses in a lease contract (a green lease) D. provide a building user guide for occupants of the building and run information sessions about how lighting and how heating, ventilation and air conditioning (HVAC) systems influence comfort and energy costs E. include in a user guide mentioned in paragraph (d), information about how daily tasks like opening and closing blinds and switching-off lights can improve energy efficiency F. seek regular tenant feedback on thermal comfort and lighting levels, and set up systems for responding to complaints G. discuss with tenants the use of economical indoor temperature ranges, and recommend, for example, a temperature range of 20–22 °C in winter and 23–25 °C in summer H. liaise with tenants about their hours of occupation, and realign HVAC operating times to reflect any changes to the hours of operation.
4. improvements to lighting energy efficiency	<ul style="list-style-type: none"> A. replace old lights with energy efficient ones, for example, with compact fluorescent lamps that use existing fittings B. label light switches with clear descriptions of the associated lighting areas C. install motion or noise sensors, and install switch-off timers, for lights in areas that are not always occupied, for example, in storage areas D. recommission lighting system controls to ensure they are working correctly E. remove light fittings from over-lit areas (after seeking advice about light levels and consulting with occupants).

[^] Source: *Building Energy Efficiency Disclosure Determination 2011*



Guidance about...	To improve building energy efficiency, a building owner can:
5. opportunities for further energy saving improvements and upgrades	<ul style="list-style-type: none"> A. check whether the temperature settings on domestic hot water systems can be reduced B. ask tenants to trial using the recommended minimum settings for domestic hot water systems as follows: <ul style="list-style-type: none"> (i) for storage systems – the minimum safe level is 60 °C (ii) for instantaneous systems – the minimum safe level is 50 °C. C. ask tenants to switch off hot water systems in areas where they are not essential D. check whether hot water systems can be switched off overnight and on weekends E. install programmable timers on instantaneous hot water systems F. install flow control devices on hot water taps and showerheads and insulate hot water pipes and tanks where it is appropriate to do so G. upgrade outdated electrical appliances and equipment with more energy efficient models H. make sure that electrical equipment is operating on low energy mode or standby mode and is switched off when not in use I. seek advice about upgrading the building envelope’s thermal performance, for example, advice about insulation, air seals and solar controls on glazing.
6. on-site management systems and procedures	<ul style="list-style-type: none"> A. install real-time smart metering devices for sub-metering major equipment and tenancies B. monitor energy consumption in the building (for example, by making regular checks on bills, building management control system data, metering data and other relevant data), look for trends and diagnose areas of energy waste C. keep management records up to date (for example, commissioning data, asset plans, complaints logs, and operations and maintenance manuals).
7. equipment settings, maintenance procedures and replacement schedules	<ul style="list-style-type: none"> A. identify heating, ventilation and air conditioning (HVAC) equipment that is due for replacement and seek advice about energy efficient replacement options B. check temperature sensor locations and move equipment (or sensors) if heating or cooling sources are interfering with HVAC settings C. develop a preventative maintenance program and revise the operations and maintenance (O&M) manuals to reflect this D. train the on-site building manager to carry out simple HVAC maintenance tasks, and highlight the tasks and the building manager’s responsibilities in the O&M manuals E. check that all preventative tasks relating to the maintenance of the HVAC system are included in the HVAC maintenance contract F. aim for long-term maintenance contracts, recognising that a longer term can enable contractors to better diagnose problems and identify areas for improvement G. encourage maintenance contractors to provide feedback on energy waste, and ensure this feedback is acted upon.
8. alternative fuels	<ul style="list-style-type: none"> A. prioritise energy efficiency initiatives over the purchase of alternative fuels, recognising that the purchase of alternative fuels can reduce the building’s carbon emissions but will not reduce the building’s actual energy consumption B. seek advice from suppliers about the suitability of purchasing alternative fuels.



GUIDANCE ON HOW ENERGY EFFICIENCY MIGHT BE IMPROVED – TENANTS^{^^}

Guidance about...	To improve the energy efficiency of an area of a building, a tenant can:
1. lease negotiations	<ul style="list-style-type: none"> A. ask the building owner to include energy efficiency clauses in the lease contract (a green lease) B. use the negotiation period for the green lease to establish procedures for collaborating with the building owner on energy saving initiatives.
2. improvements to lighting energy efficiency	<ul style="list-style-type: none"> A. discuss the results of the tenancy lighting assessment (that building owners are required to arrange before entering a new lease) with the building owner to identify opportunities for improvement B. replace old lights with energy efficient ones where they suit the existing fittings, and seek expert advice in the case of more complicated upgrades C. label light switches with clear descriptions of the associated lighting areas D. ask the building owner to adjust lighting controls so they suit the tenant's requirements E. look for opportunities to install automatic lighting controls, such as timers or sensors, for areas that are not always occupied.
3. building management	<ul style="list-style-type: none"> A. arrange a site meeting with the building manager before installing or adjusting supplementary heating or cooling systems B. seek advice about temperature settings and other energy saving devices for IT server rooms C. ask the lessor for an upgrade from normal tenant sub-metering to real-time or smart metering, and discuss the options and breakdowns for monitoring and reporting D. ask the lessor for occupant-controlled master isolation switches so the last person to leave the office can switch off lighting and appliances E. ask the building manager to provide a building user guide that includes instructions about using blinds, windows and doors, being a guide that explains how tenants can make shading and natural ventilation work with the heating, ventilation and air conditioning system rather than against it F. ask the building manager for advice about the optimum location of appliances, such as fridges, that generate heat G. set up procedures for the prompt reporting of complaints and feedback about building services H. ask the building manager to make seasonal adjustments to indoor temperatures that are within the range of 20–22 °C in winter and 23–25 °C in summer.
4. energy efficiency policies and procedures	<ul style="list-style-type: none"> A. develop and promote a corporate-wide energy management policy and action plan that includes targets, responsibilities and resources, and schedule regular progress reviews at senior management, executive or board meetings B. check that all equipment and appliances are operating in low energy or standby mode; C. introduce a switch-off policy that requires staff to switch-off equipment when they leave the office or when the equipment is not in use D. switch off printers, computers, monitors and other electronic equipment that consumes energy, even in standby mode, overnight E. specify energy efficiency savings for all equipment and appliances in procurement guidelines F. commission energy audits to be conducted by an independent third party, and check that the tenant's energy action plan is being implemented.

^{^^} Source: *Building Energy Efficiency Disclosure Determination 2011*



Guidance about...

To improve the energy efficiency of an area of a building, a tenant can:

5. education and awareness

- A. appoint a staff member to be an 'energy efficiency champion' and make the person responsible for implementing the energy action plan, including the switch-off policy mentioned in item 4
- B. make the building user guide available to staff, and ensure it is covered by induction sessions for new staff
- C. use information sessions, posters and signs to remind staff about saving energy and reducing the load on the air conditioning system
- D. focus the awareness of staff on day-to-day activities that will improve comfort and allow building services to operate in the most energy efficient way, for example, activities such as:
 - (i) opening and closing blinds to make the most of natural light or to block unwanted heat
 - (ii) switching off lights or hot water systems when they are not in use
 - (iii) switching off supplementary air conditioning systems in vacant rooms
 - (iv) using dishwashers only when they are full.
- E. make sure all staff members know how to use the building's air conditioning system correctly
- F. check with the building manager about the most efficient way of using building services after hours
- G. make a note if staff attempt to alter or supplement the heating, ventilation and air conditioning system, for example, by blocking diffusers or by using personal heaters, and, in each case:
 - (i) asking the building manager for help in diagnosing the problem
 - (ii) ensure action is taken to resolve it.
- H. ask staff to use hot water efficiently and immediately report hot water leaks.

6. alternative fuels

- A. prioritise energy efficiency initiatives over the purchase of alternative fuels, recognising that the purchase of alternative fuels can reduce the building's carbon emissions but will not reduce the building's actual energy consumption
- B. seek advice from suppliers about the suitability of purchasing alternative fuels.