

# ENERGY EFFICIENCY

## QUICK REFERENCE GUIDE FOR BUSINESS



## INTRODUCTION

There are many excellent reasons why all organisations should take energy-efficiency seriously, from improving the economic health of the organisation to helping to reduce damage to the environment.

Reasons to manage your energy consumption include:

- Minimising energy waste means saving money through lower energy bills, including lower Climate Change Levy payments.
- Increasingly, regulation at both the UK and European level is being applied to drive improvements in energy efficiency. Energy efficiency is not just a matter of operating efficiently; it can also be a factor in operating legally.
- Controlling energy costs through energy efficiency now will help to mitigate the impact of increases in energy prices or taxes in the future.
- Organisations that have not looked seriously at energy efficiency can typically save 20% on their energy consumption, and consequent emissions of greenhouse gases, through no-cost and relatively low-cost measures, yielding significant reductions in their energy bills.
- Wasting energy not only wastes money, it results in unnecessary pollution, particularly through emissions of the main greenhouse gas, carbon dioxide.

This guide offers practical advice on how your organisation can save and manage its energy consumption. The information is easily accessible and intended as a quick reference guide.

If you would like more detailed information on energy efficiency, please refer to our more comprehensive document [Energy Efficiency Advice For Industrial and Commercial Customers](#).

## SPACE AND WATER HEATING

- Set time switches to the minimum period.
- Ensure radiator and thermostats settings are adequate, but not excessive.
- Use the heating plant only when required and switch off in summer (unless required for specific systems such as hot water).
- Use heating only in occupied areas, and reduce or switch off in non-working hours.
- Stored hot water tanks should be well insulated.
- Hot water consumption can be reduced by using flow restriction, spray or push taps.
- If large areas require pre-heating, switch off mechanical ventilation first. This will avoid any unnecessary heat loss.
- Keep radiators clear.
- Don't use portable or supplementary heaters - they are expensive to run and consume more energy.
- Reducing the temperature of a room by just 1<sup>o</sup>C can cut the heating bill by as much as 10%

## LIGHTING

- Nominate someone to be responsible for switching off common electrical equipment in each room or area when not in use.
- Keep windows and roof lights clean to make the best use of daylight.
- Use working areas near windows whenever possible.
- Label light switches and encourage people to turn them off after use.
- Use timers on display lighting to control use.
- Replace older 38mm (T12) fluorescent tubes with 26mm T8 types that give a better colour light and use 10% less energy.
- Review the use and control of exterior lighting. Sodium lights are most cost effective for night-time security. Fit automatic photocell switching.

## AIR CONDITIONING AND VENTILATION

- Make sure humidifiers do not run unnecessarily.
- Ensure the refrigeration plant runs only when necessary (for example, chilled water).
- Use time switches to control fans and pumps.
- Ensure windows are not being opened to control temperature in winter months - the heating should be lowered instead.
- Ensure filters are cleaned regularly and equipment is regularly serviced.
- Improved air movement and ventilation can significantly lower temperatures and improve occupant comfort. Consider switching off air conditioning, and using ceiling fans and opening windows to circulate air and reduce temperatures.
- Switch off the main ventilation plant and extractor fans outside occupancy hours.
- Switch off kitchen fans when no cooking is taking place.

## OFFICE EQUIPMENT

- Encourage staff to turn off office equipment when not in use, especially at the end of the day.
- Ensure someone is responsible for turning off common user equipment such as copiers and printers overnight and at weekends.
- Get into the habit of switching off your PC monitor over lunch and any other time when not in use (two thirds of the energy used by a typical PC is consumed by the monitor).
- Does the printer need to be switched on immediately when the first person comes in to the office in the morning? Get into the habit of switching on only when needed.
- Set the energy saving mode on the photocopier to best suit the working practices of your office.
- A laptop left connected to the mains in sleep or standby mode whilst not in use can treble the energy it consumes (and you pay for) compared to when in use only. Always shut down properly if not needed.
- Make plug sockets more accessible - this may encourage staff to switch off at the mains.

## USEFUL CONTACTS

**THE CARBON TRUST** is a not-for-profit company with the mission to accelerate the move to a low carbon economy. They provide specialist support to help business and the public sector cut carbon emissions, save energy and commercialise low carbon technologies. By stimulating low carbon action they contribute to key UK goals of lower carbon emissions, the development of low carbon businesses, increased energy security and associated jobs. The Carbon Trust can also provide help and information about energy efficiency financing and tax savings.

Tel: 020 7170 7000

Web: [www.thecarbontrust.co.uk](http://www.thecarbontrust.co.uk)

**THE ENERGY SYSTEMS TRADE ASSOCIATION (ESTA)** is an energy management trade association, focusing on demand side energy efficiency of buildings, building service and process services in the non-domestic sector. ESTA represents over 100 suppliers of products and services covering the energy efficient monitoring, control, operation and management of buildings, building services and process services.

Tel: 07041 49 20 49

Web: [www.esta.org.uk](http://www.esta.org.uk)

**THE ENERGY SAVINGS TRUST** is the UK's leading impartial organisation helping people save energy and reduce carbon emissions. We do this by providing expert insight and knowledge about energy saving, supporting people to take action, helping local authorities and communities to save energy and providing quality assurance for goods, services and installers. They providing free, impartial, expert insight and knowledge about energy saving, supporting people to take action, help local authorities and communities to save energy and provide quality assurance for goods, services and installers.

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