



Office-based organisations

Energy efficiency guide



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Get smart, save energy

'Office-based organisations' can cover a wide range of businesses. (See our definition to the right.) However, it's still possible to identify common opportunities for energy efficiencies across the sector.

Turning on the heating system and lighting – as well as the ventilation, air conditioning and office equipment – will comprise a large percentage of your energy costs. In addition to focusing on these areas, there are some more general ways to cut back on your usage too.

What do we mean by office-based organisations?

When referring to this sector, we're including:

- Professional service organisations
- Those engaged in office/administrative and general services
- Management companies and consultancies

5 steps to reducing your energy consumption

- 01 Commit to continuous improvement – involve staff, set goals and track progress
- 02 Analyse your start point performance, develop benchmarks and track improvements
- 03 Set realistic, measurable goals and target dates to see how you're doing
- 04 Choose the steps you'll take to achieve those goals and involve your employees
- 05 Implement and measure results, communicating all wins, no matter how small



How your office-based business can save energy



We've used the Carbon Trust's energy saving report for [office-based companies](#), and its research into [other areas](#), as sources of information for the following suggestions.

These tips highlight areas of consumption that, with improved efficiency, could deliver valuable savings. The amount you recoup depends upon your organisation and your investment.

To help with your budgeting and energy efficiency planning, the tips cover (where possible) three options: no-cost, low-cost, and long-term savings.



No-cost changes

You can make these simple changes quickly – and it won't cost a thing.



Low-cost changes

For a minimal spend you can soon achieve worthwhile savings – and relatively easily too.



Long-term savings

Make a more substantial investment now – and you'll see the returns over time.

Heating



No-cost changes

- Keep the temperature 21–23°C, the optimum for sedentary work.
- If it's possible to do so while remaining in the optimum temperature range, reduce temperature by 1°C. Doing so can save enough energy to print 40 million sheets of A4 paper.
- Keep furniture and equipment away from radiators/vents to improve heat circulation.



Low-cost changes

- Clean/replace heating filters as often as manufacturers recommend.
- The location of your thermostats could affect their performance, for example if they're too close to sources of heat or heat loss. In these instances, moving them - while requiring an upfront cost - could improve accuracy, avoid raising or lowering the temperature unnecessarily and save you money.
- Service your gas boiler once a year and the oil boiler twice a year to save as much as 10% on heating costs.



Long-term savings

- Insulate pipes, boilers and tanks to minimise heat loss.
- Upgrade your heating controls for a return on investment in about two years. Compensators regulate the temperature of a building based on the weather outside. Optimum start controllers optimise heating based on the time it takes to reach the desired temperature.
- Create zones within your buildings with different thermostats and different default temperature settings.



Ventilation / air conditioning (VAC)



No-cost changes

- Check that you don't leave extraction fans or ventilation devices running unnecessarily. Despite its small baseload, an extractor increases the need for heat by around 5%.
- Take advantage of natural ventilation by opening doors and windows where possible (and without posing a risk to your staff or others on your premises).
- Align cooling times with working hours and occupancy, so you don't over-cool out of hours.
- Reduce AC use by minimising sources of unexpected and/or unnecessary heat - e.g. office equipment left on when not in use; artificial lighting on when daylight's available.
- Adopt a temperature range - e.g. 19–24°C - when heating and cooling are both off.



Low-cost savings

- Regular maintenance and performance reviews will ensure your VAC systems are operating at maximum efficiency.



Long-term savings

- Consider interlocked controls with time switches and sensors. These will automatically turn off ventilation when you turn specific equipment off.
- Look for energy efficient fans. Despite their higher purchase prices, they'll save you money in the long-run.



Lighting



No-cost changes

- Have a 'switch off policy' and use simple light switch stickers so everyone feels confident they're turning off the right lights.
- Keep windows, skylights and light fittings clean to let through as much natural light as possible. Without regular maintenance, light levels can drop up to 30% within three years.
- Move people closer to daylight and have blinds open during the day.



Low-cost changes

- Use blinds that redirect daylight to the ceiling or the wall rather than block it altogether and open blinds when there's no glare.
- Use timers to match artificial lighting to working hours and/or occupancy.
- Replace conventional bulbs with LEDs.
- See the Energy Saving Trust report: ['The right light – selecting low energy lighting'](#).



Long-term savings

- Invest in energy-efficient technology. Occupancy sensors in toilets or less-used areas save up to 30% on lighting costs. Daylight sensors turn artificial light off when there's enough daylight.



Office and small power equipment



No-cost changes

- Office equipment is the fastest growing energy user in the business world: the electricity it consumes represents 15% of total energy consumption in offices. So encourage your people to turn off non-essential items at the end of the day to save energy, lower cooling costs and extend the lifespan of the equipment. (A single computer left on 24/7 costs £45 per year; using turn off and standby could reduce it to less than £10 per year.)
- Place heat-emitting equipment like printers in a cooler area of the office - e.g. north side of the building - with good ventilation.
- Use less paper for a more efficient workspace and to reduce both printing and damage to the environment.



Low-cost changes

- Use inexpensive plug-in timers on non-essential equipment by setting them to cut power automatically outside of working hours. Make sure you let your people know in advance!
- Clean equipment parts regularly for optimum efficiency.
- When buying new equipment, account for energy efficiency ratings rather than just the initial cost.



Building fabric (walls, floors and ceilings)



No-cost changes

- In autumn, check your building(s) for damp and faulty gutters or downpipes.
 - Retain heat – keep windows/doors closed (unless you want natural ventilation) and close curtains/blinds at the end of the day.
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Long-term savings

- Insulate walls, roof spaces, cavity walls and pipes.
- Consider sealing unused windows or improving glazing (triple glazing's the most efficient) to reduce draughts.
- To reduce heat loss, install two sets of doors (one closes when the other opens) in your lobby area / entrance - or automate the doors.



Low-cost changes

- If you can insert a 1p coin on its side between a window/door and its frame, fit draught strips.



Catering



No-cost changes

- You could reduce your energy bill just by raising awareness among your employees and advising them to:
 - Avoid switching on appliances before they're needed
 - Avoid using the ovens to warm the kitchens
 - Switch off cooking appliances after use, plus lights and extraction fans when not in use
 - Keep the doors of refrigeration units closed, defrost them regularly, and ensure they're well-ventilated



Long-term savings

- Buy equipment with an A+ energy rating that (preferably) has built-in sensors to automatically switch off when not in use.
- Buy ovens with large double-glazing viewing windows. These reduce the number of times your staff open the doors, which wastes heat.
- Consider installing heat recovery units in the kitchen to heat water.





What's next?

Smart meters are the first step towards energy efficiency, automating your readings and enabling insights into your energy use. But they can also support you on your journey to net zero, too.

Join the smart revolution by registering your interest in smart meters today. Call 01473 617213 or email smart@drax.com.

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