CARBON TRUST

Better business guide to energy saving

Introducing measures to help businesses reduce their energy consumption

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Preface

Reducing energy use makes perfect business sense; it saves money, enhances corporate reputation and helps everyone in the fight against climate change.

The CarbonTrust provides simple, effective advice to help organisations take action to reduce carbon emissions, and the easiest way to do this is to use energy more efficiently.

This guide introduces the key energy saving opportunities for small businesses. By taking simple actions you can save energy, cut costs and may increase profit margins. By taking simple actions you can save energy, cut costs and may increase profit margins.

Contents

Introduction

Most businesses can achieve meaningful cost savings through reducing their energy consumption. Experience shows that even low and no-cost actions can usually reduce energy costs by at least 10% and produce quick returns, enhancing profitability.

This guide shows how to identify measures where energy and cost savings can be easily made with little or no cost.

It is designed for use by anyone new to carbon saving (especially in smaller businesses) and recognises that not everyone has the time or resources to undertake a full carbon management programme.

This guide can be used on its own or as an introduction to the many sector and technology specific publications in the Carbon Trust's library. Publications can be downloaded from www.carbontrust.com/resources.

As shown in the graph, the greatest energy consuming non-domestic sectors include industrial, retail and offices.

As shown in the pie chart, across all non-domestic sectors, the most significant energy consuming end uses include heating and lighting.

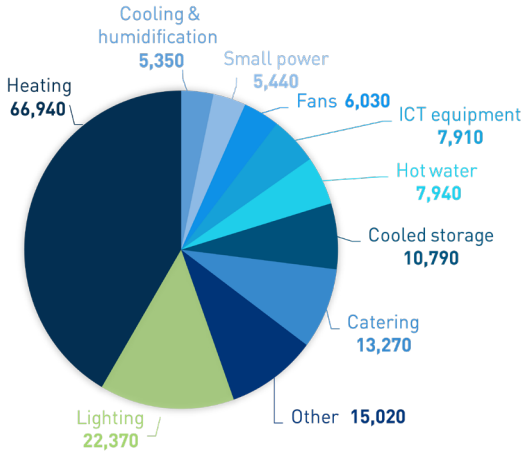


Figure 1 Energy consumption (GWh) by end use across all non-domestic sectors in 2014-15 according to the BEIS Building Energy Efficiency Survey 2016

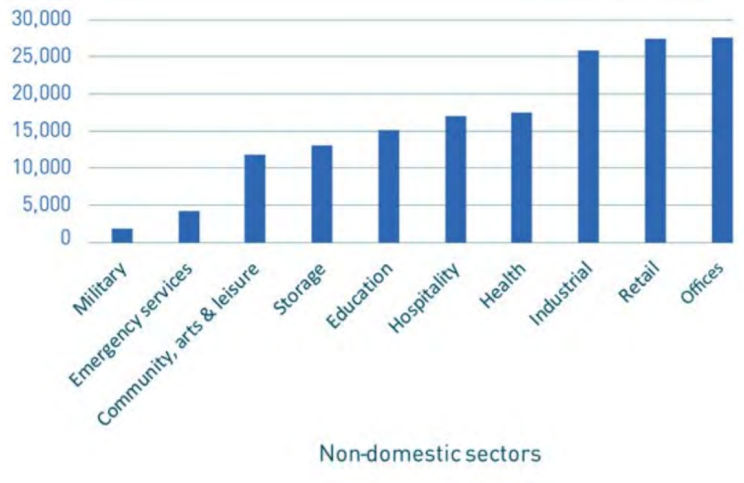


Figure 2 Total energy consumption (GWh) by sector in 2014-2015, according to the BEIS Building Energy Efficiency Survey, 2016

This guide therefore focuses on the key energy efficiency opportunities across those sectors and end uses.

A 20% cut in energy costs represents the same bottom line benefit as a 5% increase in sales in many businesses.

Carrying out an energy walk round

Conducting regular housekeeping walk rounds and noting down and acting on any maintenance issues can identify opportunities for energy savings and avoid expensive problems later on.

To identify where energy savings can be achieved, it is best to start by looking at how energy is currently being used. Conducting a walk round with a checklist will help to identify:

- Staff concerns / unfavourable staff behaviours.
- Where energy is being wasted.
- Opportunities for savings.

It will also demonstrate a commitment to improving energy performance.

The main areas to look at on a walk round are heating, lighting, office equipment and, if applicable, factory and warehouse equipment. The checklist opposite is a useful guide, and the sections that follow give more information on what to look for.

As the pattern of energy use will differ throughout the day, it is useful to conduct a series of walk rounds and to vary the times that they are carried out, for example:

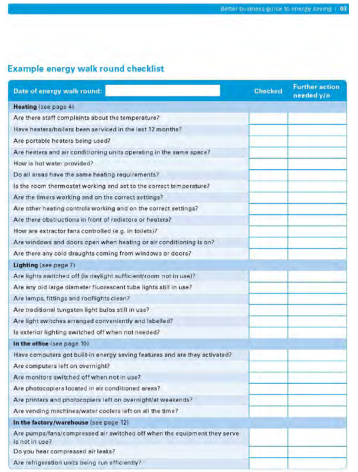
- At the start and end of the working day.
- During operational hours.
- Just before a weekend/holiday period.
- After starting a staff awareness campaign.

Varying the times of walk rounds will provide a better picture of when and where energy might be wasted. It is helpful to plan future walk rounds for dates such as when the clocks change and at the beginning and end of the heating season. This will ensure that controls are set correctly for the time of year. Key members of staff can and should get involved with walk rounds, both to help identify problems and opportunities and to ensure they feel part of the process. Involving staff in decision making will further help to ensure that employees are on board and incentivised to reduce their energy consumption within the workplace.

Comparing the findings of the walk round with meter data will further help to pinpoint areas of high energy use.

It is important to prioritise energy saving actions once they have been identified, rather than expecting to do everything at once. Set clear, achievable targets that can be completed in manageable work streams. Usually, those actions with the biggest savings potential or least disruption to the business will help decide this.

Energy walk round checklist


Example energy walk round checklist

Date of energy walk round:	Checked	Further action needed y/n
Heating (see page 4)		
Are there staff complaints about the temperature?		
Have heaters/boilers been serviced in the last 12 months?		
Are portable heaters being used?		
Are heaters and air conditioning units operating in the same space?		
How is hot water provided?		
Do all areas have the same heating requirements?		
Is the room thermostat working and set to the correct temperature?		
Are the timers working and on the correct settings?		
Are other heating controls working and on the correct settings?		
Are there obstructions in front of radiators or heaters?		
How are extractor fans controlled (e.g. in toilets)?		
Are windows and doors open when heating or air conditioning is on?		
Are there any cold draughts coming from windows or doors?		
Lighting (see page 7)		
Are lights switched off (is daylight sufficient/room not in use)?		
Are any old large diameter fluorescent tube lights still in use?		
Are lamps, fittings and rooflights clean?		
Are traditional tungsten light bulbs still in use?		
Are light switches arranged conveniently and labelled?		
Is exterior lighting switched off when not needed?		
In the office (see page 9)		
Have computers got built-in energy saving features and are they activated?		
Are computers left on overnight?		
Are monitors switched off when not in use?		
Are photocopiers located in air conditioned areas?		
Are printers and photocopiers left on overnight/at weekends?		
Are vending machines/water coolers left on all the time?		
In the factory/warehouse (see page 12)		
Are pumps/fans/compressed air switched off when the equipment they serve is not in use?		
Do you hear compressed air leaks?		
Are refrigeration units being run efficiently?		

Download

In some cases the savings are easy to identify and calculate; this guide should help you to estimate the potential savings of many of the common improvements. Where the savings are more difficult to calculate and assistance is required, the Carbon Trust can offer a variety of support mechanisms to identify the most cost effective and least disruptive efficiency options (details can be found inside the back cover).

Heating

Heating typically accounts for up to 40% of the energy used in non-domestic buildings. Heating should be considered a key target area when considering energy saving measures, due to the availability and ease of efficient options.

Overheating is often the result of heating areas that do not need to be warmed (such as storage areas or corridors) to the same temperature as those that do, such as occupied areas. Overheating can also be the result of poor control of heating systems. A survey of heating can therefore provide an indication as to the overall efficiency of a whole business, and to what scale of change is needed.

Preventing as much heat loss as possible through improving insulation and draught control can also significantly reduce heating bills.

Key areas and issues to look out for when carrying out an energy walk round, are:

Equipment and heat usage

When were the heaters or boilers last serviced?

- Heating costs can increase by 30% or more if the boiler is poorly operated or maintained. Ensure they are serviced at least annually and adjusted for optimum efficiency. More information can be found in the Heating, Ventilation and Air conditioning overview.

Is there evidence of use of portable heaters?

- Portable electric heaters are expensive to run. If portable heaters have to be used, install a simple time switch so they turn themselves off after a designated period, for instance 30 minutes.
- The use of portable heaters indicates that employees are unhappy with current workplace temperatures. Alternative solutions should be considered and discussions held with employees regarding options ranging from wearing warmer clothes to rearranging the workspace (eg moving desks away from windows or ventilation outlets), or adjusting centralised heating.

Are there heaters and air conditioning units operating simultaneously in the same space?

- Simultaneous heating and cooling of a space is commonplace and wastes a lot of money. Set a 'dead band' of 5°C between heating and cooling, to avoid this happening.

Heating costs rise by about 8% for every 1°C of overheating.

Further information

The Carbon Trust has a broad range of publications on saving energy aimed at all levels of experience. Visit www.carbontrust.com/resources.

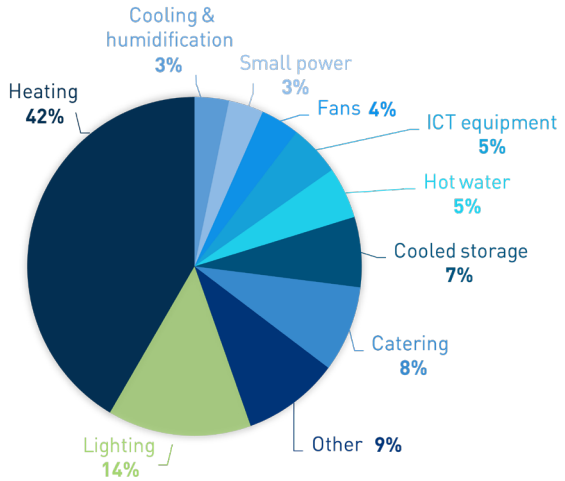


Figure 3 Breakdown of energy consumption by end uses in non-domestic buildings in 2014-2015. Source: BEIS, Building Energy Efficiency Survey, 2016

How is the hot water provided?

- Consider installing local instantaneous water heaters where small quantities of hot water are required a long way from the main heating plant. This may also allow the main boiler to be switched off in the summer.
- Insulate all hot water tanks, boilers, valves and pipework unless they provide useful heat to occupied spaces.

Do all areas have the same heating requirements?

- Consider heating the building in zones to allow heating to be adjusted for each area. Areas such as storerooms and corridors, or areas where there is a high level of physical activity, require less heat.

Smart control systems now offer cost-effective ways to regulate the temperatures of buildings, based upon levels of occupancy and usage.

- Warehouses are sometimes heated in an attempt to reduce humidity and maintain product quality, but warm air can often hold more moisture than cold air and heating may actually increase humidity. Dehumidification can be more efficient for this purpose.
- Remember the effect of sunlight – are you heating areas that are already warmed by the sun?

Controls and timing

Are thermostats correctly set?

- Thermostats should generally be set at 19-20°C for heating, however consider the activities taking place on site. In a warehouse where people are active, air temperature will not need to be heated as high.
- Install thermostatic radiator valves where possible to provide local control of radiators and make sure they are used correctly.
- Are thermostats placed in the correct locations – away from draughts and direct sunlight and at a distance from any heating sources?

Are time controls correctly set?

- Does heating come on only when needed?
- Control heating using seven-day timers to allow it to be turned off or down during regular unoccupied periods.
- Money can be saved by adjusting any preheat period in the morning to match weather conditions. Optimum start controls are available that can do this automatically.

How are extract fans, for example in toilets, controlled?

- Fans left running extract warm air and waste money – consider fitting time switches or occupancy detectors.

Further information

For more information on energy saving opportunities with regards to heating, please refer to the Carbon Trust's Heating, ventilation and air conditioning (CTV046 v3).

Draughts and avoiding heat loss

Are windows and doors left open during the heating season?

- Windows are often opened because rooms are overheated. Not only does this waste money but also indicates inefficient heating systems, and should therefore be avoided.
- Instead of opening windows, turn down thermostats a little until a comfortable temperature is reached. It is important employees are on board and consulted regarding any temperature adjustments.
- Use promotional material in the form of emails/ newsletters, displays and posters to raise staff awareness. The Carbon Trust often run programmes that can offer free advice on increasing staff awareness of energy efficiency.

Are there cold draughts coming from windows and doors?

- Draughts are not only a cause of complaint and discomfort, but waste money.
- Fit draught strips and seal up windows and doors that are no longer used. Such opportunities can be highlighted during an energy walk round of the workplace.

Is the building well insulated and the building fabric in good condition, without holes and gaps?

- A well insulated building, with no holes or gaps to let the outside air in, will require less heating, thus reducing costs.
- For detailed guidance on building fabric opportunities, please refer to the Carbon Trust's Building fabric Guide (CTV069 v3).

Case study

The Sovereign Group

Sovereign Group is a leading manufacturer and installer of bespoke windows and doors. The group supplies units to a variety of local authorities, health trusts, schools, colleges and universities. With a growing operational chain, the Sovereign Group were determined to ensure that their environmental credentials did not suffer in response to enhanced business growth.

The group applied for a Green Business Fund loan and successfully received £2,700 to contribute towards the installation of new heating controls. The implementation of an Optimised Stop Programme successfully regulated temperatures in the last hours of the working day. The successful application to Green Business Fund financing and installation of this technology will work towards delivering gas savings of £4,900 per year for the Sovereign Group.

Lighting

There are many simple and inexpensive ways to reduce the energy consumption and costs associated with lighting without compromising health and safety or comfort levels.

Key areas and issues you should look out for when carrying out an energy walk round are:

Are the lighting systems in place inefficient?

- Traditional lighting units such as older fluorescent installations are no longer considered to be the most efficient lighting option.
- Light Emitting Diode (LED) units are now rated as the most effective and efficient lighting technology on the market for most applications, and should now be installed where possible. They have a longer life, lower maintenance costs and can represent cost savings of up to 80% for a business.
- LEDs also have greater efficacy in comparison to existing lighting technologies, and can contribute towards a more productive workplace (Figure 1).

Are lamps, fittings and rooflights clean?

- Lighting is essential for providing a pleasant and productive working environment so it is important to keep windows, skylights and light fittings clean.

Figure 4 **Showing the additional benefits of installing improved lighting in the workplace**

Are traditional (tungsten) light bulbs and halogen spotlights / downlights still being used?

- These bulbs are very expensive to run for long periods and produce more heat than light!
- 'Task lighting' is a good way to minimise the amount of electric light being used, by lighting just the working area to a higher level and providing background lighting at a lower level for the rest of the space. The use of 'task lighting' can also reduce glare on computer screens making it more comfortable for employees.

Top tip: Label light switches

Light switches around the workplace which are clearly labelled will help employees to select only those lights that are needed at that time. Effective labelling can therefore help to reduce energy consumption and improve employee awareness.

The BEIS Building Energy Efficiency Survey (2016) found that in non-domestic buildings, 17% of energy consumption was for lighting. Installing efficient lighting units will help to reduce high levels of electricity consumption across commercial businesses.

Is the exterior lighting always switched off when it is not needed?

- Exterior lighting should be limited to the hours of darkness.
- It may not be necessary to have lights on continuously throughout the night. Consider fitting lighting controls to limit hours of use.
- LED installations are also applicable in external locations, and should be considered as an effective alternative to existing fittings.

Are lights switched off when the premises are not occupied?

- A lot of energy is wasted when unnecessary lights are left on out of hours.
- Fluorescent tubes use only a few seconds' worth of power in startup – therefore, it is always better to switch them off when leaving a room.
- Carry out an out-of-hours check to see if this is a problem.
- Make staff responsible for switching off the lights.
- Posters and stickers are available from the Carbon Trust to raise awareness amongst staff (see the inside back cover for details).

Case study

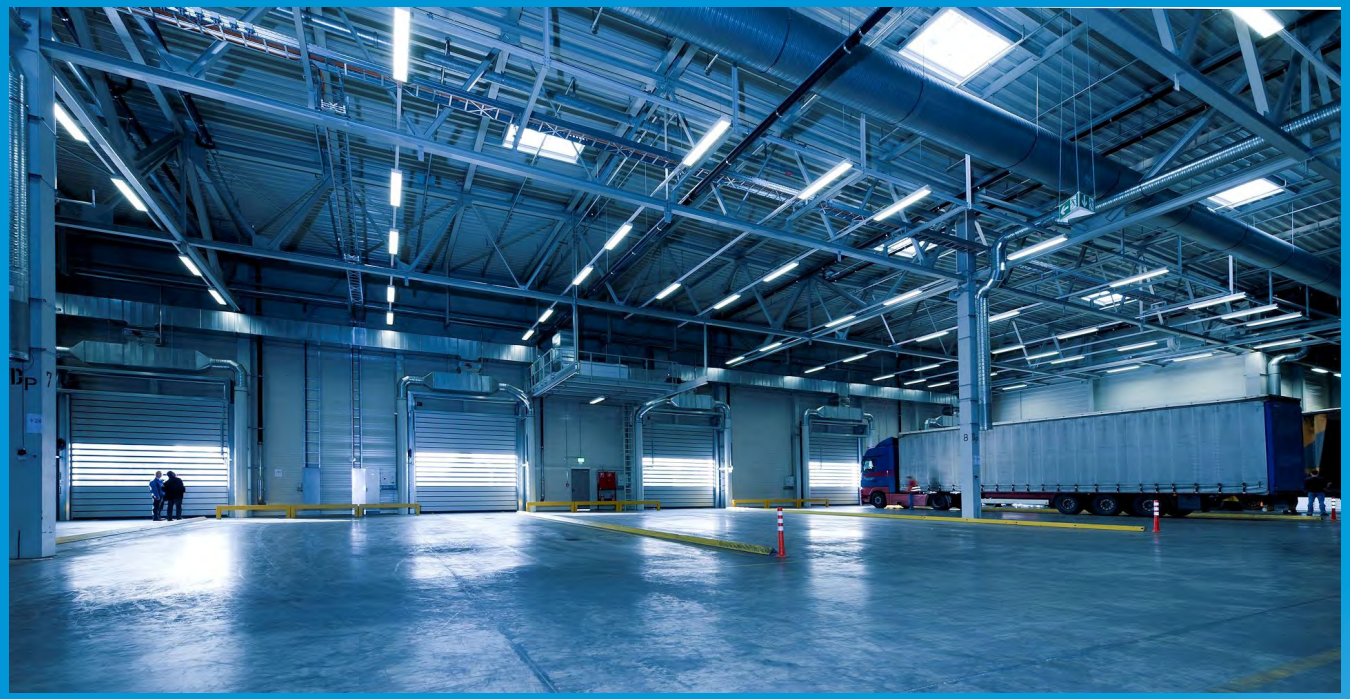
Pentagon Plastics

Pentagon Plastics, a plastic injection moulding business, has worked with the Carbon Trust to determine where energy savings can occur across the business. Pentagon Plastics offer a wide range of services including design assistance, development, toolmaking and injection moulding to a variety of customers and industries.

Upon successfully applying for a Carbon Trust expert to conduct an onsite energy assessment as part of the Green Business Fund, 3 key recommendations were made which would serve to improve the energy efficiency of the organisation:

1. Improve the management of energy as a controllable resource
2. Upgrade onsite lighting to LED fittings with controls
3. Implement time controls, leak detection and repairs on compressed air equipment.

These recommendations were then made possible through the financial support provided as part of the



Green Business Fund, which was used to fund up to 15% of the capital costs of the actions outlined above. By taking on board the advice provided by the Carbon Trust, Pentagon Plastics have been able to reduce their annual energy bills by £8,000, with a payback period of 1.8 years.

"Thanks to the Carbon Trust's Green Business Fund we got a comprehensive report with recommendations for improvements to our plant, which will benefit the environment and our bottom line."

Liz Ratcliffe, Financial Control Manager, Pentagon Plastics

In the office

Businesses rely on a range of office equipment. From computers and photocopiers to teleconference facilities, these items have become integral to daily activity. However, it is not always appreciated how much this equipment can cost a company.

Apart from heating and lighting savings, energy consumption in offices can be reduced by looking at the way equipment is used.

In an air conditioned office it can take half as much energy again to remove the heat generated by office equipment as it takes to run the equipment in the first place.

Have the computers got in-built energy saving features?

The best known energy label for office equipment is the Energy Star rating, whereby equipment automatically enters a low power mode after a preset amount of time.

However, these savings can only be achieved if the energy management software has been enabled.

- Screensavers do not save energy. They only save the screen image from 'burning in' when the image does not change for a long period.
- Laptops now offer greater efficiency and accessibility in comparison to desktops, and should be considered as an alternative solution when upgrading PCs.

Are computers left on overnight?

- By switching computers off at nights and weekends, rather than leaving them running, their energy consumption can be reduced by 75%per year.
- If the monitor is also turned off when not being used (including lunchtimes, etc), and the standby options are activated, energy consumption can be reduced by 90% per year.

Are photocopiers located in air-conditioned areas and switched off when not in use?

- Place photocopiers in areas that are naturally ventilated where possible. This will help avoid any air conditioning plant having to compensate for the associated heat gains.
- Activate energy saving mode where available on printers and copiers, as this will allow the machine to automatically power-down after a set time period.
- A photocopier left on overnight uses enough energy to make over 5,000 A4 copies.

On average, 25% of the total energy consumption in commercial offices is accounted for by ICT Equipment according to the BEIS Building Energy Efficiency Survey (2016).

Have offices been refurbished?

- If offices need refurbishment, large opportunities for energy saving can arise. When carrying out office refurbishments, businesses should adhere to sustainable guidelines to maximize the energy efficiency of new developments.
- Assessment processes such as the RICS SKA rating tool present opportunities for businesses to source sustainable office materials for refurbishment. For more information on appropriate materials for office refurbishments, please refer to the Carbon Trust Building Fabric Guide (CTV069 v3).

Is the latest available technology being used?

- Making use of the latest technology can represent a significant method through which energy savings can be achieved. Through the use of 'virtual meeting' software or conference calling, transport costs of your business can be significantly reduced, alongside carbon emissions.

Further information

For more information please refer to the Carbon Trust's Energy Saving for Office Based Companies Guide (CTV007).

In the factory/warehouse

There are some excellent opportunities for energy saving that can be made on the factory floor or in the warehouse. The exact equipment used and the processes will be unique to each business, however it is possible to highlight some common areas in which opportunities can often be found.

Compressed air

Is the system leaking?

- Check for wasteful leaks in the compressed air system (20-50% leakage is not uncommon) and repair them immediately – this simple measure could produce dramatic savings.
- It is easiest to check for leaks during quiet periods when there is no demand for air.

Does the compressor run when not needed?

- Many factories run their compressor for most of the day, even when compressed air is not needed, and are unaware of how much this is costing them – encourage staff to switch the compressor off when not in use.

Electrical equipment

Is equipment left running when it is not being used?

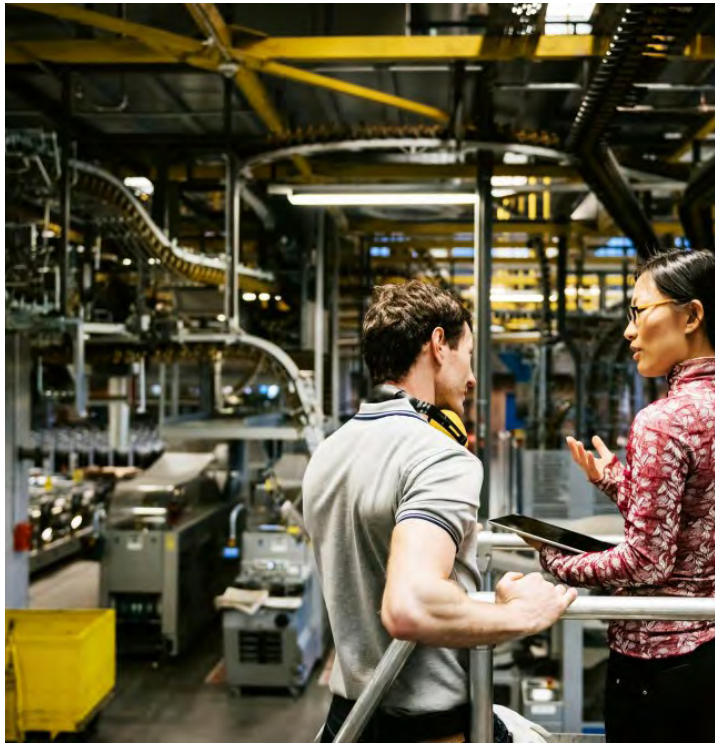
- Conveyor systems, machine tools and other equipment should be switched off when not in use.

Are Higher Efficiency Motors fitted?

- Higher efficiency motors can save at least 3-5% of the running cost, and quickly pay back any additional purchase cost.

Are Variable Speed Drives (VSDs) fitted to equipment?

- In many cases, using a VSD to reduce the speed of a pump or fan by just 20% can halve its running cost.



Motors can consume their purchase price in energy costs in just a few weeks!

Refrigeration

Are the seals on refrigerated areas/equipment in good condition?

- Replacing worn or damaged seals can drastically reduce refrigeration costs.

Make sure that doors to refrigerated areas are being kept closed.

- If doors to refrigerated areas are left open, even for short periods, costs can rise significantly.
- Are the doors adequate to prevent warmer air entering the chilled space?

Is the refrigeration equipment well maintained?

- Badly maintained chiller plant will increase energy consumption.
- Are chiller units free of ice build-up and are they regularly serviced?
- Is the chiller outlet free of debris and blockages?

Case study

Blackout Ltd

London based Blackout Ltd, who specialise in providing products to the event and theatre industry, will be able to save £9,000 per year as a result of upgrading warehouse lighting units.

As part of the Green Business Fund, Blackout Ltd received £6,800 to fund the installation of new LED lighting technologies across the two warehouses that the organisation currently operates across. The size of the warehouses currently in use by Blackout Ltd, which are used for around 50 hours per week, has ensured that the funds provided by the Green Business Fund have contributed towards substantial cost and energy savings for the business.

"With support from the Green Business Fund we were able to upgrade from a rudimentary replacement programme to a state of the art PIR controlled LED lighting installation. The application process is simple, quick, and very easy to navigate."

Martin Wood, Blackout Ltd

Further information

For more information please refer to the Carbon Trust's relevant guides.

Refrigeration (CTG046)

Motors and drives (CT V048)

Using bills and meter readings to investigate energy use

Looking at energy bills and taking regular meter readings should be considered a key activity for every business. Analysing energy consumption will help identify where energy wastage can be minimised, and can contribute towards better overall decision making.

Reviewing energy invoices and checking meter readings regularly will help build a picture of your energy performance. These measures will also help to:

- Ensure that only the fuel actually used, is paid for.
- Assist with comparing current consumption and costs with previous years.
- Enable assessment of the seasonal pattern of consumption.
- Identify unexpectedly high or unusual patterns of energy use so that quick action can be taken.

Electricity and gas meters are two of the most important tools in helping to identify opportunities to save energy. Taking regular meter readings should help to establish a pattern of energy consumption, which can be compared against what the business should be using. Inconsistencies between the two could show where energy is being used unnecessarily.

The meter

Know where energy meters are.

- Remember, there may be more than one meter for each type of fuel. Ensure that relevant employees know where meters are located across the business. Information of this nature can be communicated during awareness campaigns.

What type of meter is it?

- Meters that need to be read manually will have either a digital display or an analogue dial.
- Have you got a smart meter yet? Electricity and gas suppliers need to demonstrate that they have done all they can to roll out smart meters to all their domestic and small business customers by the end of 2020. Smart meters monitor your energy consumption in real time, meaning that you can do away with estimated billing and have a more accurate understanding of your consumption. Small companies should contact their energy supplier to request the installation of a smart energy meter. Larger companies should also consider installing advanced meters to provide more detailed energy data (for example half-hourly energy readings).

Analysing data

- Record meter readings regularly. If there is a change that can't be explained, or no reduction when you would expect to see one (e.g. summer holiday periods) check controls and settings – equipment may be left on when it is not needed. Ideally energy use should be plotted over time graphically to make it easier to see trends.
- Fluctuations in energy use may have many possible explanations, including variations in workload, holidays, the season or the weather.
- If there is an unexpected fluctuation, then it is worth looking further to check if an equipment malfunction or change in working method has caused an increase in energy use.

Key Opportunity

Information regarding the importance of effective meter readings to monitor energy use should form an integral part of company awareness campaigns. Information of this nature that is communicated to employees will help improve understanding of the impact that individual actions can have.

Pay less for your energy

There are many factors that affect the price of a unit of electricity. To reduce costs, bear in mind that the price of a unit can vary significantly throughout the day and be substantially cheaper at night.

Contact the electricity supplier for further information.

There are several ways of paying less for each unit of electricity, for example:

- Make maximum use of cheaper electricity rates, especially those at night-time.
- Minimise use of peak rate and winter units.
- If possible, reschedule work activity so that the maximum daily demand for electricity does not fall in peak rate times.
- Check tariffs to ensure you are paying the minimum amount.
- Check with the supplier that the load (the amount drawn from the supply) has no unusual characteristics that may affect the unit price.
- Check the power factor .

In addition, Electricity Profile Classes will also determine the cost of electricity supply. Each business will be assigned an electricity profile class which is based on a business's overall consumption and load profile. Business's should check with their suppliers if they feel they have been placed in the incorrect profile class.

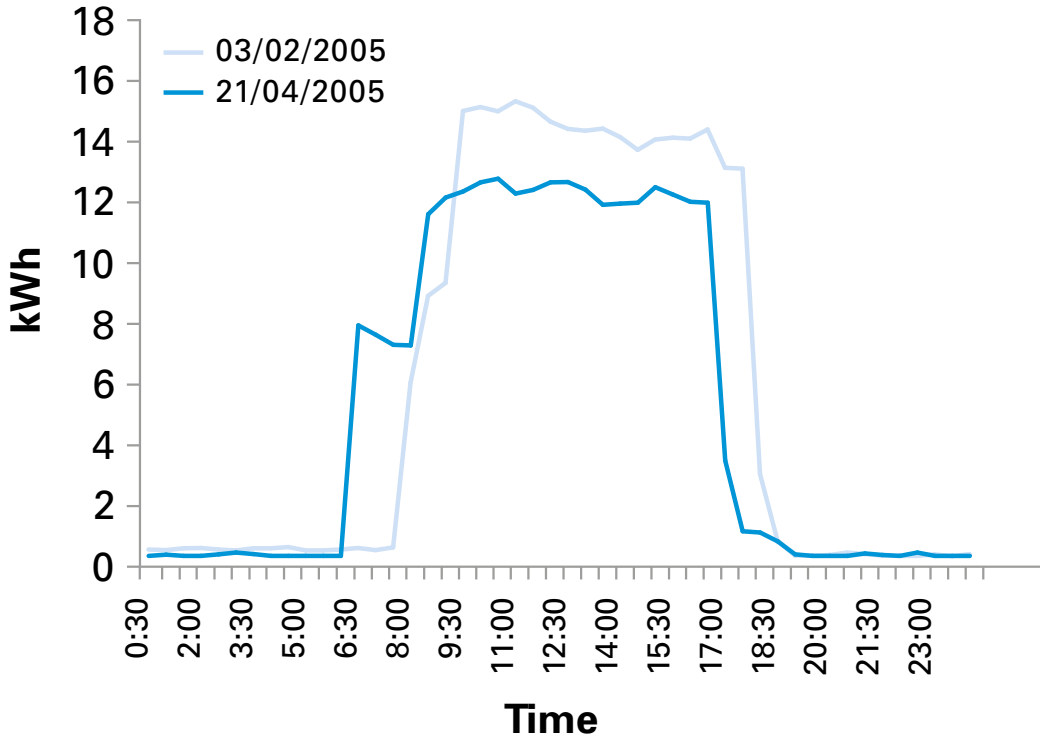


Figure 5 **Energy consumption graph from half hourly meter data**

Profile class 00: Peak load usage of electricity above 100 kW

If the maximum demand for electricity is greater than 100kW, you are required to have a meter that records consumption every half hour that automatically sends the reading to the supplier or meter reader. dss Other profile classes may also have half hourly read meters i.e. 05-08 (depending on when the contract was last renewed).

Lower prices can be obtained by minimising the maximum demand in any half-hour period during the day and, depending on the details of the contract, minimising demand during the peak times (usually 4.30pm to 7.30pm Monday to Friday).

Maximum demand less than 100kW

If the maximum demand is less than 100kW the organisation may be on a standard tariff, depending on the type of business and assigned profile class. There is a wide range of tariff structures and it is important to check that the tariff is the most economical for the organisation's consumption pattern. Contact the supplier to discuss the available tariffs and which is likely to be appropriate.

Some electrical equipent, e.g. motors and fluorescent lighting, can exhibit an effect known as power reactance (a bit like driving a car with the brakes on). The combined measure of this unwanted effect in a business is the power factor. A low factor places an increased load on the power supply and means that the electricity could be more expensive. However, Power Factor Correction (PFC) equipment is available which corrects the power factor effect.

It is always advisable to consult an independent consultant when exploring this measure – it can produce significant cost savings but is not applicable in many businesses and needs expert help to implement.

Many businesses pay too much for their electricity and gas and paying less needn't always involve switching supplier.

Further information

For more information on energy management, please refer to the Carbon Trust's Effective energy management for business guide.

Next steps

Once the opportunities for savings have been identified, it's time to act. The following steps should help you to take effective measures.

Step 1. Make someone responsible

Give one person responsibility for an energy saving initiative at the site. They could:

- Be responsible for reading the meters and checking fuel bills.
- Carry out a walk round at designated times to identify new sources of wasted energy.
- Manage specific energy saving projects.
- Make sure other staff know about the main areas of energy waste and show them how to save energy – and the benefits of doing so.

Step 2. Plan and organise

Draw up an action plan which should be a simple schedule of the improvements that need to be made, when they will be made, and who will be responsible for them. When writing an action plan:

- Make someone responsible for each improvement.
- Allocate resources – both time and money if needed – to each improvement
- Where possible, set deadlines for the completion of each improvement and keep checking to ensure each has been done.
- Identify a team structure and reporting lines so that the person(s) with day to day responsibilities has a Director level contact in charge of ensuring that the improvements proceed as planned.
- Prioritise improvements according to energy cost savings and time taken to recoup the cost.

Step 3. Involve staff

Although one individual may be responsible for energy efficiency, the involvement and commitment of all staff is crucial to achieving success. Encourage all staff to participate in a campaign of energy efficiency. Raising awareness is the first step towards ensuring staff participation. Proactive behavioural measures can save an organisation up to 5% of their energy bills.

Posters, stickers and leaflets are an inexpensive, effective way of reminding staff to be energy efficient.

Using internal communication networks, such as staff newsletters and magazines to promote energy efficiency can also serve as an effective engagement tool. To include employees in the decision making process, consider the development of internal suggestion schemes based around how to improve energy efficiency. Some companies have also introduced incentive schemes to ensure that actions are undertaken and that all staff contribute to energy saving measures.

Key opportunity

Effective action to reduce energy consumption within a business must come from the top and align with overall mission statements. Businesses should also ensure that action is not simply a one-off initiative. Performing regular activity reviews will help to ensure that energy saving policies across the business are effective.

Go online for more information

The Carbon Trust provides a range of tools, services and information to help you implement energy and carbon saving measures, no matter what your level of experience.

Website – Visit us at www.carbontrust.com for our full range of advice and services.

www.carbontrust.com

Tools, guides and reports – We have a library of publications detailing energy saving techniques for a range of sectors and technologies.

www.carbontrust.com/resources

Our client case studies – Our case studies show that it's often easier and less expensive than you might think to bring about real change.

www.carbontrust.com/our-clients

Events and workshops – We offer a variety of events, workshops and webinars ranging from a high level introductions to our services through, to technical energy efficiency training.

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The Carbon Trust is an independent company with a mission to accelerate the move to a sustainable, low-carbon economy. The Carbon Trust:

- **advises businesses, governments and the public sector on opportunities in a sustainable, low-carbon world;**
- **measures and certifies the environmental footprint of organisations, products and services;**
- **helps develop and deploy low-carbon technologies and solutions, from energy efficiency to renewable power**

www.carbontrust.com
+44 (0) 20 7170 7000

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