

Energy Saving Fact Sheet | **Industrial Companies**



Making business sense  
of climate change

# Take action!

## Start saving energy today

Allocate responsibility to a member of staff or small team who can drive forward energy saving measures, like these:

1. Find out how much you are spending on energy. This will give you a base figure to monitor the success of any energy saving measure.
2. Check process, heating and cooling controls to ensure they are set at the appropriate temperatures, speeds, timings, etc.
3. Prepare a list of good housekeeping measures, including simple actions such as turning off lights and equipment. These can be put up around the office to remind staff of their responsibilities.
4. Compile an energy checklist. Walk round your premises, and complete a checklist to identify where energy savings can be made. An example checklist is available in our **Better Business Guide**.
5. Start raising awareness today. We've got plenty of posters and stickers that will motivate your staff to take simple energy saving measures.

Call our helpline today for your FREE Energy Awareness Pack.

Helpline 0800 58 57 94 [www.thecarbontrust.co.uk/energy](http://www.thecarbontrust.co.uk/energy)

## Benchmarking your business.

If you don't know how much energy you're using, how can you tell how much you're saving? Our Carbon Trust team can help you monitor how much energy your building uses annually. It's a matter of dividing your annual energy consumption by your floor space. This will give an indication of how many kilowatts you're using per square metre.

If this sounds complicated, give our helpline a call and they can guide you on how to achieve the 'ideal standard' for your industry. They can show you how you to measure the energy you're saving compared with previous performances.

# Stop wasting energy, start saving money

Did you know you could cut energy costs by up to 20% by employing easy measures that may not cost anything? This practical fact sheet can help you identify the areas where you can save money and energy.

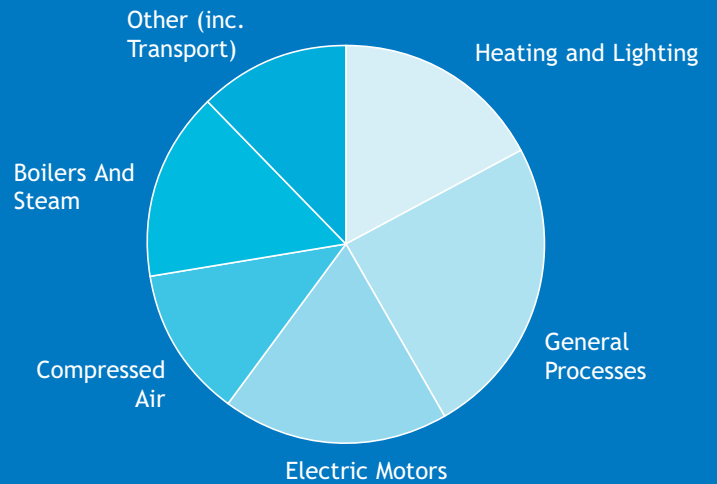
## Energy wasting hot spots

Want to know where you can start saving energy? Our guide below offers some top tips on how to minimise energy use and costs. The main areas you should look at are: processes, electric motor powered equipment, heating and lighting, boilers and steam, and compressed air. For many more helpful hints simply call our helpline.

## Fact!

30% of the energy consumed in the UK is wasted, costing business millions of pounds in lost revenue every year. This contributes to global environmental problems such as climate change.

## Breakdown of energy use in the average industrial environment



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### Electrically Powered Machinery

*Did you know a typical 11kW motor can use over £2000 of electricity per year! Small measures like these can produce big money savings:*

- **Switch off** equipment when not in use! Operators who leave machinery running when they go for lunch or finish their shifts are throwing money away.
- **Aim higher.** Consider fitting higher efficiency motors to machinery. They cost no more than ordinary motors and pay for themselves through the energy saved.

### Compressed Air

*Compressed air leaking through a single 3mm hole could cost £500 per year! So it's worth keeping your system well maintained:*

- **Fix those leaks!** Make regular inspections of your compressed air system and either listen for escaping air, or hire inexpensive leak detection equipment.
- **Switch it off** when it isn't needed. An average compressed air system costs around £15,000 to run but many companies waste 30% of this by leaving the compressor on when it isn't required.
- **Don't rely on compressed air.** Switch to electrically powered tools and equipment where possible - it wastes less energy and saves money!

# Regular maintenance pays off.

Machinery that's well maintained wastes less energy and materials, and is less likely to malfunction. Increase productivity and reduce downtime with regular inspections of your machinery and equipment. Look out for signs of wear and tear on:

- Gears and linkages
- Drive belts
- Pinch rollers
- Bearings

As a guide, check that the tension and alignment on moving parts is correct, and that they are suitably lubricated. Refer to the manufacturer's instructions to find the correct settings.

Proper and regular maintenance has big paybacks - production will run more smoothly and your energy bills will be reduced.

## Boilers and Steam

*Did you know a leak in your steam system could cost around £14,000 a year? Keep an eye on heat and steam by following these measures:*

- **Check it regularly.** A poorly maintained boiler can waste 30% in heat loss. Check it regularly and look out for these warning signs: leaking pipe work, burn marks to boilers and flues, loud noises from pumps and burners.
- **Keep it under wraps.** Poor insulation could account for 10% of your steam or heating bill. Make sure all pipe work, valves, and flanges are insulated.
- **Keep it cool.** Check the steam temperature required for each individual process and use the lowest possible temperature of steam at all times.
- **Watch out for leaks.** A leak in a steam system is extremely costly. Check regularly, and make sure any leak is repaired immediately.

## Heating and Lighting

*You could save 10% of your heating costs and 15% on your lighting costs, just by following these simple measures:*

- **Turn it down.** Did you know you can save 8% on your heating bills for every 1°C reduction in temperature? 19-20°C is the recommended temperature at work, but it can be less for warehouses or where manual work is undertaken.
- **Turn it off.** Make sure your heating isn't on when the building isn't occupied, either overnight or at weekends. Ensure heating timers are set correctly to reflect working hours.
- **Keep it closed.** When not in use, keep factory and loading bay doors closed to prevent heat loss. Consider fitting draught strips or automatic openers if doors are frequently used.
- **Switch them off.** Switching off lights in unoccupied spaces could save 15% of your site's lighting costs.

# How to improve your process control systems.

Better process control is the key to improving energy efficiency in many production operations. Processes are often overheated or run for more than the optimum time - all of which wastes a great deal of energy. Here are some pointers on keeping your processes under control:

1. **Cut out the middleman.** Eliminate manual controls and fit automatic control systems; they needn't be expensive and can save a considerable amount of money.
2. **Fine Tuning.** Ensure that controls are correctly set and calibrated. A badly tuned controller is often worse than manual control.
3. **Keep everyone informed.** The best way to make a difference is to make operators aware of the cost of wasting energy. You can then make it their responsibility to ensure everything is managed efficiently.
4. **How effective is your current process control?** As a guide identify where waste is generated and why. Then calculate the cost of this waste. You'll soon see how effective your processes are.
5. **Upgrade.** This will almost always result in an energy saving benefit. However, before investing in new systems, it is vital that a simple cost-benefit analysis of potential improvements is undertaken.

For projects requiring substantial investment, it's wise to seek expert advice.

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## Transport

*Fuel for transport can represent a significant proportion of overhead costs. Keep them in check with these simple, low-cost measures:*

- **Check tyres** regularly for signs of irregular wear and under-inflation. Irregular wear occurs when steering is misaligned, which increases fuel consumption. Under-inflated tyres also increase fuel consumption by 3% on a drop in pressure of 2 psi.
- **Watch your weight.** Check that drivers remove any unnecessary weight from their vehicles whenever possible. Excess weight will increase fuel costs.
- **Improve airflow.** Consider improving the aerodynamics of commercial vehicles. Remove unnecessary attachments such as roof racks which increase air resistance. A vehicle with less drag will save fuel and money.



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The Carbon Trust helps businesses and public sector organisations cut their energy costs to combat climate change through the provision of free, professional advice and assistance.

### Want to find out more?

Here are some useful publications on energy saving available at [www.thecarbontrust.co.uk/energy](http://www.thecarbontrust.co.uk/energy) or by contacting our helpline.

- GPG367** Better Business Guide to Energy Saving
- GPG316** Undertaking an Industrial Energy Survey
- FOCUS** A Managers Guide to Saving Energy
- PAC011** Energy Awareness Pack

We've got many more tips that apply specifically to your business, and will help you save energy and money. So give our helpline a call today.

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