



Guide for businesses: Energy Conservation

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Business Cost Consultants

WHY SHOULD YOU CONSERVE ENERGY?

If your business is wasting energy it is causing avoidable pollution. Wasting energy also reduces your profitability. For every one pound saved on energy costs, most UK businesses would have to make £10 worth of sales to make the same £1 of profit. Wasting £1,000 a year would thus need £10,000 worth of sales to make that much profit.

The Government's support programmes on energy efficiency have proved that most companies can reduce their energy costs by at least 10% through the implementation of simple housekeeping measures and by as much as 30% through the implementation of cost-effective measures.

Monitoring & Targeting (M&T) provides the means to identify where energy is used, where it is wasted and where to have the most effect in implementing energy savings measures. This guide includes a special quick start guide to energy M&T to help explain how this simple but effective management tool works.

HOW CAN YOU CONSERVE ENERGY?

Energy management is not a one-off exercise; to be effective it needs to be an ongoing process. This short guide provides a structured approach that businesses can adopt to manage their energy use.

5 STEPS TO EFFECTIVE ENERGY MANAGEMENT

STEP 1 - COMMITMENT

Make it your company's policy to use energy efficiently. A simple statement of policy objectives – perhaps as part of your environmental policy – will show senior management's commitment to energy efficiency. Once this has been decided, it is important that someone should be the 'energy champion' in your organisation. This person should have the support of top management and be given the necessary resources to be effective.

The energy champion should: act as the firm's eyes and ears for energy wastage; be responsible for reading the meters and checking the fuel bills; develop a weekly or monthly checklist of duties; and consider forming an Energy Action Team to report on progress and problems to stimulate further action.

Remember: The key factors for success in energy management, as in any other management discipline, are:

- pressure for change
- a clear shared vision
- capacity for change
- action.

The 5 steps in this guide should help you achieve that success. Of course it can pay to outsource this task and we are experts in the field of utility management and currently manage hundreds of sites across the United Kingdom. Visit our site www.businesscostconsultants.co.uk for more details.

STEP 2 - UNDERSTAND (ESTABLISH THE FACTS)

The maxim "*You can't manage what you don't measure*" is especially true for energy management. Invoices alone will not provide sufficient information for you to take full control over your energy costs. You need to take your own meter readings at regular and frequent intervals. This will enable you to:

- identify exceptional consumption and attend to the causes quickly;
- check utility invoices and ensure that you pay only for the fuel actually used;
- compare current costs and performance with previous years;
- compare several sites, processes or buildings in the company with each other;
- compare your performance against typical standards for similar businesses; and
- assess the seasonal pattern of consumption.

Making these comparisons will help you set improvement targets and identify where the greatest scope for saving energy exists in your business.

How often you take meter readings will be determined by how much energy is used. As a general rule of thumb, meters should be read monthly if invoicing is quarterly and be read weekly if invoicing is monthly. **IMPORTANT – Readings should be made at the same time of day and day of the week, particularly if the reading is weekly.**

Meter readings can be recorded on worksheets or on a computer spreadsheet. In either case consumption can then be displayed graphically, which is useful for detecting trends and giving warning of exceptional consumption.

One way to reduce energy costs is to buy your fuel at the lowest price. Shop around for the best deal. For electricity, there are several ways of paying less for each unit of electricity, for example:

- make maximum use of cheaper units, especially night-time units
- minimise use of peak rate winter units
- reduce peak demand where possible
- check the tariffs to ensure you are paying the minimum amount for availability and for your maximum demand against your agreed availability
- check with your supplier that your load has no unusual characteristics, such as low power factor.

If your maximum demand for electricity is greater than 100kW you should be able to negotiate a contract with a supplier. If it is less than 100kW you will probably be on a standard tariff but there is a wide range of tariff structures - discuss the options with your supplier.

Consider looking at fuels or energy sources that can reduce your liability to pay the Climate Change Levy - renewable energy sources and, where sufficient heat demand exists, Combined Heat and Power. We also offer a FREE guide to the Climate Change Levy at www.businesscostconsultants.co.uk/documents.shtml

STEP 3 – PLAN AND ORGANISE

The energy policy statement (step 1) can be used to raise staff awareness and demonstrate the commitment of senior management. In a small business this may be the proprietor. A simple policy statement should set out the main objectives, together with the performance targets that need to be met to fulfil the objectives.

Once objectives and targets have been agreed, action plans can be drawn up to drive the management plan forward and set down what needs to be done and when. Your action plan should:

- have management approval
- relate actions to particular objectives
- assign actions to individuals
- allocate resources (both time and money if needed) to each improvement

Use promotional material, internal newsletters and staff meetings to raise staff awareness. Although you may make one individual responsible for energy efficiency, the involvement and commitment of all staff is crucial to achieve success. All staff should be encouraged to participate.

STEP 4 - ACT

A good way of finding energy waste initially is to **conduct an energy walk-round**. Ask key members of staff to accompany you – both to identify problems and opportunities, and to ensure they feel part of the assessment process.

The pattern of energy use will vary throughout the day, so it is useful to vary the times that you carry out your walk-rounds, for example:

- when the cleaners are on duty
- at lunchtime
- at night or over weekends (if your meter readings indicate that there is unexpectedly high energy use during these periods).

Note where energy is being wasted because of lack of awareness, or procedures are being ignored, repair or maintenance work is needed to reduce energy costs, or there is a need for capital investment.

There is a very useful checklist called the "Better Business Guide to Energy Saving" publication (reference GPG 367) available from The Carbon Trust.

It is highly recommended that you obtain a copy of this useful guide that also includes practical advice on heating, lighting, office equipment, electrical equipment, refrigeration, compressed air etc. You can download the guide from the [Carbon Trust's website](#) or by telephoning the Environment & Energy Helpline Tel: 0800 585794.

There are also many useful case studies and good practice guides available from this programme that can give specific technical or management advice to help you.

STEP 5 – CONTROL, MONITOR AND REVIEW

Energy management should be a process of continuous control and improvement, not a one-off effort. You must therefore set up recording and monitoring systems to both check that targets are being met and to identify further cost reduction opportunities offering attractive returns on investment.

Use meter readings (Step 2) to monitor progress and compare results with your own targets and performance indicators.

In the UK, the process of continuous recording and monitoring of energy use against consumption targets is known as **Monitoring and Targeting (M&T)** and has been shown to be an effective management tool in numerous companies and organisations BUT it should be kept up. Experience has shown that once companies stop monitoring their energy use on a regular basis, waste starts to occur – often at least 10% in a relatively short time. This is because problems arise (for example failed or wrongly set controls) and procedures change and the effect on energy consumption goes unnoticed or unexplained.

M&T is not a substitute for the energy management steps 1 - 4. In fact, it can often provide useful information when implementing these steps and their associated energy saving measures or the effect of other activities. It can show the deviation from expected patterns of energy use (e.g. when controls are installed or re-set or production levels change). In businesses where there is an information-based programme of quality improvement already operating, energy M&T will almost certainly share some information, for example from the management information systems.

Contact us today to carry out all these functions for you.

We have the experience and knowledge of the market do deal with all this for you, saving you money and your staff time. E-mail us at info@businesscostconsultants.co.uk

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