

Setting Up an Energy Management Scheme

Introduction

An effective energy management scheme saves money, demonstrates social responsibility, and often makes for greater employee comfort within the workplace.

As organisations have come under increasing pressure to reduce costs and protect the environment, energy-use and efficiency has become a priority concern. Exploding energy costs have increased the urgency, but our heightened awareness of its damaging effects on the environment has also contributed to concern. All organisations use energy in some form, and few now view it as a 'fixed cost' that cannot be reduced.

The legislative requirements of the Climate Change Levy (CLL), introduced in the April 2001 Act, also require organisations to increase their energy efficiency, and tax businesses on energy use. In certain cases, however, tax discounts are available for specific sectors.

National Occupational Standards for Management and Leadership

This checklist has relevance to the following standards:

B: Providing direction, unit 8

F: Achieving results, unit 1

Definition

An energy management scheme provides a systematic and continuous method of assessing, improving and evaluating an organisation's energy usage.

Action checklist

1. Designate an Energy Management Committee

The members of the Energy Management Committee should be drawn from all levels of the organisation. Members from the finance and purchasing departments should be included, together with the transport manager where applicable. The Committee will manage the assessment, improvement and evaluation of energy usage. Appoint a coordinator (someone with project management experience who commands respect and can get things done) to oversee the scheme. If expertise or resources available are limited consider calling in an energy management consultant, or appoint a member of staff.

2. Define the scope and coverage of the scheme

Depending on the size of the organisation it is advisable to concentrate on one building or site initially; experiences from this can be used to improve energy efficiency throughout the organisation. It may also be better to look at only one type of energy usage to start with, such as heating or use of company vehicles.

3. Gather information

Examine the energy bills over the last couple of years. Check the tariffs being paid. Do they look sensible, or are they too high? Look for variations in consumption over the year. Ask an alternative provider if they can quote, using your own consumption data. Consider a single supplier for both gas and electricity which may provide further savings. Several sites on the Internet allow comparisons of tariffs. E.g., www.uswitch.com, or www.simplyswitch.com.

4. Undertake an energy audit

This involves an examination of the organisation to highlight energy wastage. Checklists should be produced covering different areas.

Areas to cover and points to look for include:

Transport:

- a) Are vehicles properly serviced, maintained and tuned?
- b) Do employees share vehicles when they are travelling to the same place on business?
- c) Do some drivers appear to use too much fuel? Do they need advice on fuel economy?
- d) Is the most cost-effective form of transport used?
- e) Can diesel or lpg be used instead of petrol?

Lighting:

- a) Are the most efficient low-energy light bulbs and reflectors being used?
- b) Could more use be made of daylight by moving workstations nearer windows?
- c) Are lights switched off when rooms are not in use?
- d) Is task lighting an option?

Heating and insulation:

- a) Is the heating system serviced regularly?
- b) Are thermostats functioning correctly and are they set to the correct temperature?
- c) Is the heating switched off or turned down when the building is empty?
- d) Are windows double glazed?

- e) Is the most cost-effective fuel being used?
- f) Are waste emissions measured or monitored?
- g) Are the wall and roof insulation materials of the correct type and thickness?

Air conditioning:

- a) Do you really need this?
- b) Is the system kept clean and regularly maintained?
- c) Is it working against the heating system?

Ventilation:

- a) Do employees open doors or windows to cool the place down, rather than turning down thermostats?
- b) Are there excessive draughts from badly fitting doors and windows?

Equipment / machinery:

- a) Is machinery running efficiently?
- b) Could any heat / energy produced by processes be re-used?
- d) Is the right size of machine used for each job?
- e) Are computers and machines turned off when not in use?

5. Analyse the results and make improvements / modifications

Survey results should highlight areas where action can be taken immediately (for example turning down thermostats) and areas where investment may be needed to produce long-term gains (for example a more efficient boiler system). Ensure that the purchasing department takes energy efficiency into account when making acquisitions by asking suppliers about the energy consumption of machinery or equipment. Ask the department to seek energy-efficient machines that could replace the present ones cost-effectively, and innovations such as light switches which remain off automatically unless deliberately reactivated.

One of the most essential actions is to implement a system of regular servicing and maintenance of heating equipment and machinery, where one is not already in place.

Keep a record of all the changes made, so that improvements in energy usage can be monitored.

6. Communicate and inform staff

Communicate the benefits of reduced costs through improved energy management to all employees, including ways in which workers can reduce energy usage, for example, turning the heating down rather than opening windows to cool down an office. The checklists used to undertake the energy audit will help with this. Ask suppliers to provide training on the best ways to maintain and service specialist equipment. Reward staff who suggest successful ways in which energy usage can be reduced.

7. Evaluate the changes and look for further improvements

Check the energy bills after the scheme has been implemented and record any reductions. Communicate successes to all employees. Continue to look for further ways in which energy usage can be reduced.

Managers should avoid:

- skimping on regular and thorough maintenance and servicing
- failing to communicate the importance of reducing energy usage to all staff
- neglecting to consider energy efficiency when making an acquisition
- forgetting to record the amount spent on energy before the scheme is implemented
- stopping after one audit and set of responses - continually look for improvements.

Additional resources

Books

Green business, Bibi Van Der Zee
London: Dorling Kindersley, 2008

Green to gold: how smart companies are environmental strategy to innovate create value and build competitive advantage

Daniel C Esty and Andrew S Winston
New Haven Conn: Yale University Press, 2006

Environmental management in organizations: the IEMA handbook

John Brady ed
London: Institute of Environmental Management and Assessment, 2006

Making energy work, Confederation of British Industry

London: Caspian Publishing, 2003

Greening the corporation: management strategy and the environmental challenge, Peter Thayer Robbins

London: Earthscan, 2001

The CBI environmental management handbook: challenges for business

Ruth Hillary ed
London: Confederation of British Industry, 2001

This is a selection of books available for loan to members from the Management Information Centre. More information at: www.managers.org.uk/mic

Journal articles

How to develop a customized corporate energy strategy, Bill Ralston
Strategy and Leadership: Vol 36 no 2, 2008, pp30-39

Creating an enterprise level green strategy, Eric G Olson
Journal of Business Strategy: Vol 29 no 2, 2008, pp22-30

Managing energy and environment costs, Tom Brown
CMA Management, Feb vol 81 no 8, 2008, pp38-39,41

Save your energy, Emma Clarke
Supply Management, 22 Jun, vol 11, no 13, 2006, pp 18-19, 21, 23

This is a selection of journal articles available from the Management Information Centre. More information at: www.managers.org.uk/mic

Related checklist

Taking action on the environment (019)

Internet resources

DEFRA Guide to the Climate Change Levy (CLL)

www.defra.gov.uk/Environment/ccl/intro.htm

A comprehensive guide to the CLL with extensive useful links.

ManagEnergy www.managenergy.net

An initiative of the European Community offering a partner search system, case studies of good practice, and other resources.

Organisations

The Carbon Trust

8th Floor, 3 Clements Inn

London WC2A 2AZ

Tel: 0800 085 2005

www.thecarbontrust.co.uk/energy

Environment and Energy Helpline, Tel: 0800 585 794

Institute of Energy and Sustainable Development

Queens Building, De Montford University,

The Gateway, Leicester, LE1 9BH

Tel: 0116 257 7962

www.iesd.dmu.ac.uk

National Advice Service for VAT Customs & Excise

(Telephone and email service only)

Tel: 0845 010 9000, option 3. Email: estn@hmrc.gsi.gov.uk

Revised March 2009