



Bright Green Business helps Scottish businesses recruit skilled students & graduates, improve environmental practices & develop business networks. To find out more about our other services visit our website

[www.brightgreenbusiness.org.uk](http://www.brightgreenbusiness.org.uk).

## Introduction

When people consume resources – through the manufacture of goods, driving a car or turning on a tap – there are associated impacts on the environment. As our society grows there is a higher demand on these resources, in order to continue using energy but not exceed the environmental limits, we must increase the efficiency with which natural resources are used, limit our usage and save our environment.

All businesses use energy throughout the entire work day, if energy is not managed appropriately it can be running 24 hours a day, 7 days a week.

The first step in reducing your resource use is to decide what measurements are required to monitor your usage and see the current situation. Your collected data will help you:

- Identify energy usage in your workplace;
- Begin a measuring system;
- Establish a baseline;
- Highlight areas for improvement;
- Set targets for reductions.



Monitoring and measuring your organisations energy usage can help save costs and reduce your environmental impact.

## Legislation

The Scottish Government plans to move towards a low carbon economy as part of the 2020 targets for Renewable Energy in Scotland. Energy production has an impact on emissions of greenhouse gases that are contributing to climate change. Reducing the carbon impact of energy supply will help ensure that Scotland's economic growth is sustainable.

The Scottish Government is committed to working towards the achievement of 20% of total Scottish energy use coming from renewable sources by 2020 and is working with the UK Government and European partners.

Further information on the Scottish Government's climate change objectives, greenhouse gas emissions in Scotland, and emissions trading can be found on their [climate change pages](#).

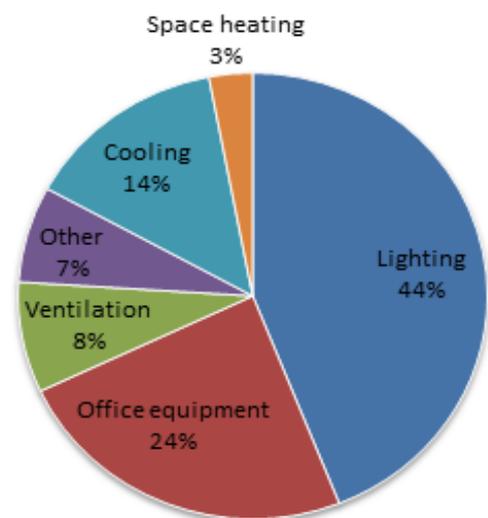
## Why is Energy Management Important?

Taking regular measurements and analysing your environmental and financial data will help you to:

- Reduce the true cost of energy to your company
- Determine the base line against which to judge the progress of your resource efficiency
- Identify cost-effective opportunities to prevent and reduce energy
- Control your services/processes more effectively
- Set improvement objectives and targets
- Measure progress towards your targets and set new ones

## Uses of Energy in the Workplace and Home

- Office equipment
- Lighting
- Heating
- Air Conditioning
- Ventilation
- Kitchen appliances



## Costs associated with Energy

The cost of energy is associated with how much energy is used per kWh. This will include all electrical equipment in the workplace; most electrical equipment in the office is on for a typical work day at around 7-8 hours per day.

## Raising Awareness in your Organisation

Awareness raising campaigns in the workplace can be an effective tool for staff to understand why it is important to reduce energy usage. Using posters, weekly roundups or staff training can raise awareness of minimisation measures in your workplace.



Awareness raising posters from the Carbon Trust

## Benefits of Monitoring and Measuring

- Determine a baseline and benchmark
- Improve budget setting
- Control service/processes more effectively – increase throughput
- Set improvement objectives & targets
- Identify cost-saving opportunities
- Quantify savings achieved
- Compliance with legislation
- Provide feedback for staff awareness

## Why should you Monitor & Measure energy?

***If you don't measure it, you can't manage it!***

Measuring to manage can also help your company to improve its environmental performance and to identify opportunities to increase throughput without the need for major investment. The success of the programme depends on regular measurements and analysis of the resources (raw materials, energy, water, packaging etc.), used by your company and the wastes it produces.

There are a number of ways your company can begin auditing the energy usage in your organisation:

- The first step to take is to walk around your site and draw up a site plan which takes all energy aspects into consideration.

- In this walk around, identify all uses of energy e.g. lighting, computers, heating, printers, heating etc.
- Look for energy meters around your office, taking direct readings from your meter will provide reliable data.
- If you cannot read the meter safely, look out current and past energy bills – these can be based on consumption and are usually monthly. This will give you a baseline of costs and usage.
- Take the data and begin collating and interpreting it for the company to detail to staff.

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