



# Energy Surveys

## **What is... an Energy Survey?**

In simple terms an energy survey is a detailed look at the amount and type of energy being used in an organisation, how efficiently the energy is used and recommendations as to how consumption/costs may be reduced.

When considering an energy survey, it is important to understand more about the aims of these surveys in order that your business or organisation can obtain the maximum benefit. People are often surprised at the amount of energy that can be saved. Imagine the impact to your business if you were able to reduce your energy budget by between 10% - 25%.

## **Why are Energy Surveys now so important?**

After deregulation of the energy markets in the 1990's business consumers had come to expect year on year price reductions, with savings in excess of 50% fairly common place.

In an environment where costs were continually falling, it is easy to see that reducing consumption was often given a very low priority.

However, over the past few years the price of electricity and gas has risen dramatically and this

increase looks set to continue over the long term. This means that businesses are now required to spend thousands of pounds more each year on energy at a time when profit margins are already under intense pressure.

Past years of reducing energy prices have actually helped to make the situation worse. Many businesses are not aware their consumption may have been increasing, choosing only to focus on bottom line costs which were always going down.

Now that energy prices have risen so dramatically in such a short timescale, businesses are quite literally, paying dearly.

***Your business needs to do something about this...***

***...you can be sure your competitors are!***

## **What does an Energy Survey involve?**

The first stage of an energy survey of a premises should initially comprise of a desktop analysis of energy/cost consumption information, including floor area normalisation, to assess performance against published benchmarks. This provides an initial feel for the efficiency of a building compared to other similar types of buildings/businesses.

Secondly, a site survey should be carried out and a summary report produced. During the survey various personnel at the premises/site should be interviewed to discuss site requirements, occupancy patterns and site utilisation factors. Housekeeping practices may also be investigated.





## What should I expect from an Energy Survey

The following areas should be assessed for energy efficient operation where applicable, thus allowing recommendations to be made to target individual areas of concern.

- Lighting – efficiency, suitability, controls.
- Catering equipment - housekeeping, conversion from electric to gas.
- Building Fabric – draught-proofing, insulation.
- Boilers, Heating & Hot Water – isolation of redundant boilers, insulation, control. Boiler combustion efficiency should be measured where needed.
- Air Conditioning – heat recovery, re-circulation, variable volume, replacement of electric steam humidification with ultrasonic/high pressure spray humidification.
- Computer Equipment – assessment for savings in standby mode (PC's), efficiency improvement during upgrade.
- Building Energy Management Systems (BEMS) – interrogation for time schedules, set points, control, philosophies.
- Energy Management – recommendations for strategies, comments on current standard compared with expected.

- Monitoring & Targeting – analysis of current performance (normalised performance indicators), comparison with published standards. Trend setting where appropriate.

## What happens after the Energy Survey?

After the survey has taken place a report is compiled detailing the findings. Fundamental to the report will be the recommendations to improve energy efficiency. It is crucial that each of the recommendations demonstrate the potential energy saving along with any cost of implementation and payback period.

Energy surveys/reports all too often take place without any of the recommendations being put into action. It is therefore vital that any report is clear, easy to interpret and free from technical jargon.

Recommendations should be clearly listed and broken down into no cost, low cost, medium cost and high cost options. This allows the quick win savings to be clearly identified and put into action at the earliest opportunity.

Advice and support to help implement all appropriate recommendations is crucial to the success of any energy survey, since most people are just too busy to deal with these alone.

## Potential Savings

It is typical for energy surveys to demonstrate the potential for yielding around **15%** gross energy savings in the first year, from implementing no-cost / low-cost measures. In some cases savings well in excess of this can be found.

Energy Surveys can provide an ideal starting point for reducing energy consumption and cost within your company or organisation. Watt-Knots are able to undertake Energy Surveys on your behalf, providing expert help with implementation of recommendations and ongoing assessment and measurement of benefits.