

# Measurement is vital to management

**Ian Robinson**, group director, The IMC Group, explains that energy monitoring is the crucial first step towards making sure that buildings are sustainable and efficient

**R**esearch from the Carbon Trust has shown that around 90% of building control systems are inadequate and inefficient. This costs the industry up to £500m a year in additional energy costs.

When you consider the proportion of modern buildings now in place, as well as the recent government changes to building regulations to incorporate energy use, energy conservation and carbon emissions - that is a staggering sum.

As energy costs continue to rise, it is becoming more and more important for users to ensure that a building's heating, ventilation, cooling and lighting equipment is set-up, operated and maintained correctly to prevent unnecessary spending.



**Above: environmental monitoring played a key role within a major British supermarket chain's chilled distribution depot**

**Left: The IMC Group installed its IceSpy System 5 to provide the supermarket with a more reliable and accurate monitoring system**

The implications of potential cost savings and corporate responsibility guidelines makes it hard to argue against the need for businesses to ensure that a building operates as efficiently as possible.

## Step one

Environmental monitoring can provide a detailed insight into the effectiveness of heating and other electrical infrastructure and is the first step on the road to efficiency. In order to take control of energy usage, it's vital to understand when and where energy is currently being used - proving the old adage that you can't manage what you don't measure.

Smart monitoring systems are capable of gathering data from differ-

ent areas of a large building to build up a picture of environmental performance over a sustained period. Conclusions drawn from such data can allow intelligent decisions to be made on building controls and in-turn reap savings in energy costs, repairs and maintenance.

## A case study

An example of what environmental monitoring can achieve comes from The IMC Group's recent work with a major supermarket chain's chilled distribution depot. The previous, hard wired system employed by the company became obsolete and frequently stopped working. This had a major impact on the energy consumption of the depots but the supermarket was

also concerned about the possible impact on the quality of its products.

The British supermarket quickly recognised the need to upgrade their temperature monitoring system to an advanced wireless system, giving them the flexibility to utilise the system throughout each site effectively.

The IMC Group installed its IceSpy System 5 to provide the supermarket with a more reliable and accurate monitoring system. This wireless monitoring and alarm solution is designed to help ensure that optimum temperatures are maintained, as well as saving the time spent by staff doing manual checks.

Following installation of the system within the supermarket's chilled distribution depots, the site

managers reported a 17% reduction in energy costs, saving a dramatic £85,000 per annum. The possibilities with effective building controls are endless - a huge range of parameters can be explored thanks to the emergence of new technology.

## Welcome to the revolution

IMC's iSense range has created something of a revolution within environmental monitoring because it expands the variety of locations and situations where you can monitor from. As long as there is a mobile signal, the GPRS technology within the iSense devices can transmit data to a central point at regular intervals, allowing not only daily monitoring but, because the data is stored, you can assess and analyse trends over the long term.

In addition, IMC incorporated a new way of extending the battery life, so a single device can stay on-site for more than three years without any problems, depending on the demands of the particular deployment.

IMC has helped businesses reduce electricity bills simply by giving them visibility of power usage across different parts of a building.

It is the belief of The IMC Group that measuring is the key to effective building controls. By having a detailed and comprehensive record of what is happening in and around a building, users can identify areas of concern and be alerted when repairs and maintenance are necessary. Most importantly, energy costs can be reduced considerably allowing businesses to operate more efficiently and sustainably.

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