Improving your Energy performance using ISO500001:2011

– what's not to like?

Gary Sims of Fathom Energy & Environment Ltd examines the business case for formalising energy management.

Management Systems are a familiar feature in many organisations; frequently the result of organisations needing to demonstrate certifiable control to stakeholders. Quality, Environmental and Health and Safety Management systems are now familiar in many workplaces. Many will also have noticed how the emphasis on performance improvement has been an increasingly important feature of what these standards intend to achieve. It is now possible to accredit Energy Management Systems (EnMS) with the International Organisation for Standardization (ISO) introducing ISO50001 in 2011, and performance improvement is very much the central driver as to why we should consider it.

ISO 50001:2011 *Energy Management Systems – Requirement with guidance for use* in its own words is:

"…..intended to lead to reductions in greenhouse gas emissions and other related environmental impacts and energy cost through systematic management of energy".ISO50001:2011

The standard therefore needs to be very practical because to achieve meaningful performance improvement, energy management needs to be incorporated into the everyday practices of our organisations. It therefore follows that successful energy management requires a culture of energy awareness at every level, location and in all related practices.

The language of business is money. This is where energy management and the fundamental building block of organisations –fiscal control- totally align. There is often not such an obvious link with Environment or Health and Safety, with practitioners in these areas regularly having to 'translate' the imperatives of their disciplines.

The consumption of energy has a direct effect on any organisations bottom line, and optimising its use instantly creates savings. ISO50001:2011 creates a framework for the identification and implementation of optimisation opportunities, together with the measurement and reporting of the results achieved. All this is set within the familiar context of a modern management systems commitment to continually improve performance.

Many organisations with an Environmental Management System, to ISO14001 for example, will more than likely have energy consumption as one of the significant environmental aspects, with greenhouse gas emission reductions and air quality objectives and targets being the likely outworking. Many more organisations will fall under the EU Emission Trading Scheme, UK Carbon Reduction Commitment and perhaps the associated Climate Change Agreements. Even aside from

normal accounting practices, many of these will involve establishing a baseline and all include a need to at least measure and report on energy matters.

Making the leap to a formal EnMS is therefore not as onerous as one might expect. ISO50001:2011 maintains a very practical leaning; emphasising the role of robust energy performance indicators (EnPIs) and their meaningful links to objectives, targets and action plans.

Energy Management Systems are not to be confused with Building Management Systems (BMS) which provide the mechanical and electrical control for many organisations facilities. An EnMS however informs what needs to be controlled, how the performance is monitored and evaluates the success for reporting purposes. Facilities with BMS technology installed can therefore often fast-track the development and implementation of an EnMS. However if your organisation does not have sophisticated controls there is always information from which to build, not least in the form of utility bills. Most organisations will also some quite detailed information available for example half hourly electricity consumption profile information is a feature of many business meters. A lot can be determined from the overall consumption figures readily available, with the granularity of this improving with time-based profiles and sub-metering.

The core of ISO50001:2011 if therefore very practical, but like many things it will only work if built on good foundations. In the case of EnMS this means getting a good handle on the basics and developing from there. An Energy Review is therefore an essential component of the EnMS planning comprising:

1. Analysis of the energy used and its consumption – remember all energy sources and gather usage information in totals but also, where available, time-based
2. Identify Areas of Significant energy use and consumption – for the EnMS to deliver meaningful achievements a top down approach is often needed.
3. Identify opportunities for improving energy performance – it is likely that energy consumption and costs have already been looked at but often performance slips if efforts are not sustained. Also available technologies improve, so make sure these areas are included in the review

The output from these steps results in an up to date Energy Baseline from which the following EnMS components can be developed - ISO500001:2011 providing the defined framework for their implementation:

- Energy Performance Indicators (EnPI)
- Objectives
- Targets
- Action Plans

Bringing the 'normal' policy, training, culture, auditing and management review elements common to ISO management systems, completes the Plan-DO-Check-Act cycle of energy management system rationale.

Development of an EnMS is therefore within the reach of many organisations, often building on existing understanding and practices. Certification against ISO50001:2011 brings on-going rigour

and stakeholder credibility advantages, which can meaningfully result in improved compliance, financial performance, organisation culture, and competitive position……what's not to like?!

For further information or to discuss the implantation of Energy or Environmental Management Systems for your organisation contact:

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