

## CICS' Quick Guide to ISO 50001, the New Energy Management System Standard



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Energy is high up on everyone's agenda at the moment; from governments worldwide who are keen to support energy efficiency drives through both legislation and voluntary schemes to organisations of all shapes and sizes, and in all sectors, who, due to rising energy costs are keen to manage and reduce their energy consumption.

In order to facilitate this energy management drive, a new ISO standard has been developed – ISO 50001 Energy Management Systems (EnMS) standard.

## The Background to ISO 50001

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In response to a request from The United Nations Industrial Development Organisation (UNIDO), ISO (International Standards Committee) set up a group in 2008, comprising the American National Standards Institute (ANSI), the World Energy Council (WEC) and the Associação Brasileira de Normas Técnicas (ABNT), to develop an energy management systems standard.

## What is ISO 50001?

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Launched in June 2011, ISO 50001 is the international EnMS standard. Its purpose is to provide a framework and guidance to monitor, manage and reduce your energy consumption.

Written to be compatible with the Quality Management System, ISO 9001, and the Environmental Management System, ISO 14001, standards, ISO 50001 is however, different from these, in that it is a *performance* standard – as such, it requires an improvement in energy performance and, consequently, a reduction in energy usage. The standard itself stipulates no reduction targets, rather it is left to the individual organisation to set its own targets and to put in place an EnMS in order to continuously improve performance.

Central to improved performance is, of course, the establishing of a baseline against which to measure future performance and reduction. The baseline can be measured in a way which is most suitable and meaningful to the organisation, for example, per unit, per employee or per m<sup>2</sup>. Indeed, this should be one of the first priorities when setting up the EnMS.

## How Does ISO 50001 Differ from ISO 14001?

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Although ISO 14001 considers energy from the point-of-view of environmental impact, it places no emphasis on the reduction of energy. ISO 50001 does and, furthermore, it focuses solely on energy; as discussed, a necessity in the current economic climate.

Furthermore, the standard encourages the gaining of knowledge through the systematic measurement of energy which, in turn, provides information on which building/plant/operational activity uses the most energy and when – put simply, a trend analysis. This helps an organisation to gain greater security regarding its energy supply as it understands its energy risk exposure (where energy is being

used, how much and when) and can therefore identify areas that are at greater risk. This then impacts on energy procurement – i.e. which areas of the business to invest in first because they have the highest risk and/or offer the biggest energy savings.

For those organisations that already have an Environmental Management System, the implementation of an EnMS should be straightforward as many of the management systems and practices should already be in place. That said, it is by no means necessary to have ISO 14001 before ISO 50001 can be adopted; ISO 50001 is a standalone standard which can be implemented regardless of whether any management systems are already in place.

## How Do We Set Up an Energy Management System?

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Setting up any management system requires a team approach across all levels of the organisation. Of particular importance is senior management commitment in order to produce an energy policy and to establish objectives, targets and action plans for continued improvement.

Like ISO 14001, ISO 50001 follows a Plan-Do-Check-Act approach:

Plan – review energy usage, establish baselines, set objectives, targets and action plans, develop an energy policy.

Do – put all your plans into action.

Check – continuously monitor performance against the objectives, targets, action plans and energy policy.

Act – learn from what has been done and take actions to improve energy performance and the EnMS on an ongoing basis.

## What Value Does Certification to ISO 50001 add to the EnMS?

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- Certification to ISO 50001 and the structured routine assessment provided by an independent third party, such as CICS, will ensure that your EnMS is maintained and effectively monitored, thereby improving both its effectiveness and the efficiency of your processes.
- Environmentally-aware organisations prefer to do business with like-minded companies who can demonstrate a commitment through internationally recognised standards such as ISO 50001. Being certified to ISO 50001 proves to your stakeholders that you are committed to reducing energy and to limiting your impact on the environment.
- Continuous assessment from a rigorous certification body ensures that your EnMS is functioning optimally, providing a basis for continual improvement of energy performance.

# What are the Benefits to an Organisation?

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ISO Secretary-General Rob Steele sums up the benefits:

*“Individual organisations cannot control energy prices, government policies or the global economy, but they can improve the way they manage energy in the here and now. Improved energy performance can provide rapid benefits for an organisation by maximising the use of its energy sources and energy-related assets, thus reducing both energy cost and consumption. The organisation will also make positive contributions toward reducing depletion of energy resources and mitigating worldwide effects of energy use, such as global warming.”*

- A quantitative baseline of energy consumption can be established and long-term goals can be set to continuously reduce consumption which, in turn, reduces energy costs.
- Current energy-consuming assets can be maximised and good management behaviours and best practices created.
- Trust, communication and transparency to stakeholders and across all levels of the company, through active management of energy resources and ownership, is facilitated.
- Quantitative analysis of the impact of new energy-efficient technologies upon the organisation is enabled.
- New business can be won by being more competitive in the market place and by having enhanced green credentials which improve brand image and reputation to both retain customers and to win new ones. Having the energy information, with a formalised energy policy and objectives, aids in the procurement process and meets increasing customer demands for environmental transparency and a commitment to sustainability.
- ISO 50001 provides management strategies to improve energy performance and efficiency. This reduces costs and therefore facilitates a company to become more competitive, improve environmental performance and be able therefore to secure more business. Possessing a certificate which verifies the company's green credentials and energy management commitment gives a positive company image.

## Who Has Benefited?

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Many organisations are currently implementing ISO 50001 into their management systems.

A few examples:

**Volvo New River Valley** plant was the first US facility to be certified to the ISO 50001 standard. They set themselves a 10-year target to reduce the intensity of energy per unit by 25%. They met this target in one year and many of the energy-saving ideas came from employees.

**Cook Composites and Polymers Company** achieved a 14% improvement in energy efficiency over two years without any capital investments. They now have a management system in place to proactively sustain improvements in energy resources.

**University College Cork** in Ireland has become the first university worldwide to achieve the ISO 50001 standard in energy management.

## Conclusion

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Having an EnMS makes sound commercial sense – by managing energy usage, energy performance can be continuously monitored and improved, resulting in reduced usage, costs reduction and a signalling to stakeholders that your organisation is committed to the environment.

Can you afford not to have an ISO 50001 certified EnMS?

## About CICS

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CICS (Complete Integrated Certification Services Ltd) provides sustainability assurance, management systems certification and training, and product certification. Services include third party independent assurance of carbon/water footprints, sustainability/corporate responsibility/environmental reports, and verification under the Emissions Trading Scheme, North American Climate Registry, WRI/WBCSD GHG protocol, Carbon Disclosure Project, PAS 2050 and GRI (Global reporting Initiative). CICS also provides ISO Certification services, including management system certification to ISO 9000, ISO 14001, OHSAS 18001, ISO 50001 and Product Certification. All services are accredited to internationally recognised standards and guidelines and based upon a policy of providing a unique combination of: industry sector knowledge, specialist auditors, service orientation, cost effectiveness and global reach.

## About the Author

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### **Ann-Marie Currey** **Sales Consultant**

Ann-Marie studied Chemistry at The University of Leeds and started her career working in analytical industrial chemistry where part of her role was to conduct ISO 9001 and ISO 14001 internal audits. With sales and business development experience, she is looking to grow CICS' commercial activity into new business streams, initially concentrating on ISO 50001, the new Energy Management Standard Certification and Carbon Footprint Verification.