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Standards at the Heart of Energy Efficiency

ISO 50005:
Overview implementation guide

By Royal Charter

Contents

Introduction

Better energy use with standards

With the ongoing climate crisis, global fuel shortages and volatile prices, we're all having to think about how we use energy, both now and in the future. As well as searching for more sustainable sources of energy, exploring better ways to manage and use energy is becoming central to how efficiently businesses run.

For any organization, better energy management can help lower energy bills, manage costs and minimize greenhouse gas (GHG) emissions. An energy management standard can also give you a thorough understanding of how your organization uses energy for manufacturing, heating, cooling, lighting and help you identify where you can reduce your energy usage.

What is energy management and why does it matter?

"Energy management" simply means taking a systematic approach to the control, use and consumption of energy in an organization. Doing this well, and in a structured manner, has been proven to save energy, reduce costs and cut greenhouse gas emissions

· Implementing ISO 50005 helps you create an energy management system (EnMS)

· Through this EnMS, targets for reduction may be set, and then measured, monitored and evaluated for performance improvement

· A management review process ensures that targets are met, any issues are dealt with and that continual improvements are made over time

What to expect from this guide

This guide will show you how you can implement ISO 50005 as a small to medium-sized business to enjoy both quick wins and long-term benefits of implementing an EnMS.
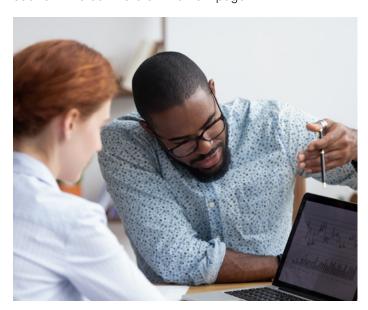
Download your free copy of ISO 50005

Improving your energy management

Using standards to implement an energy management system (EnMS)

ISO 50001 is an energy management standard that can help you use less energy, cut costs and operate more efficiently. It does this by showing you how to create an EnMS, which essentially means taking a structured and phased approach to how your business controls, uses and consumes energy, setting targets and then measuring and monitoring energy usage to ensure your EnMS is working.

For SMEs, ISO 50005 simplifies and supports the process of developing and implementing an EnMS. That means you can enjoy the benefits of energy saving even sooner. Find out more on the next page.

What does an EnMS do?

Cost advantage: An EnMS helps keep energy bills under control, saving money that can be used to support further investment in energy management or business development.

Climate change mitigation: As energy use is the largest contributor to most organizations' carbon emissions, reducing your energy consumption can help you play a key role in achieving the UK Government's goal of Net Zero by 2050.

Competitive advantage: Increasingly, businesses are being judged on environmental, social and governance (ESG) criteria and need to demonstrate that sustainability is at the heart of their activities. Organizations that can demonstrate effective energy management are more likely to win bids, contracts and new business.

65% of companies say that using standards enhances their reputation

79% of exporters say that using standards increased trade revenues

68% of companies say standards encourage innovation

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Improving your energy management

What does ISO 50005 do?

ISO 50005 supports and simplifies the implementation of an EnMS. It provides a clear and guided pathway for SMEs to save energy, reduce costs, and reduce their carbon footprint.

Instead of implementing the full requirements of ISO 50001, ISO 50005 shows organizations how to develop a practical, low cost and phased approach to energy management which enables those organizations to achieve quick wins and then build upon that success.

ISO 50005's phased approach involves identifying the organizations maturity and gradually introducing a culture of better energy management based on that maturity level. When and if the company is ready, it can choose to fully implement ISO 50001 which offers a more comprehensive approach to energy management – and can result in even greater savings.

Who is ISO 50005 for?

The standard is intended to support small to medium-sized organizations to develop an EnMS.

It breaks down ISO 50001 into 12 key elements, to simplify implementation for a smaller organization, and practical guidance is given on each. This method means organizations can focus their resources on a particular element, prioritize the most beneficial parts of the standard and implement it step-by-step.

Key benefits of ISO 50005

- Save time and money
- Reduce carbon emissions
- Ability to develop an EnMS at own pace
- Flexibility to choose which elements to target
- Enjoy quick wins by aligning to areas of greatest improvement
- Motivate employees and teach them new skills
- Create a positive energy management culture
- Establish a foundation to implement ISO 50001

Download ISO 50005 for free

As part of the Department for Business, Energy and Industrial Strategy's (BEIS) commitment to supporting UK SMEs, BEIS is sponsoring the giveaway of 100,000 copies of ISO 50005.

The standard supports the UK Government's efforts to help the UK achieve Net Zero, by supporting smaller businesses to manage their energy performance and reduce their emissions.

The 12 key elements of ISO 50005

1 Context of the organization

This simply means knowing of internal or external issues such as restrictions on your energy supply or your organization's sustainability goals, as well as the needs and expectations of stakeholders and other interested parties, and how this will impact your energy management.

2 Leadership

Top management commitment is essential. This can include setting informal targets, to establishing a formal energy policy, with targets and objectives, together with a review process to demonstrate continual improvement.

3 Resources

Leadership needs to ensure that resources such as personnel, technology, data, and specialist skills needed for the EnMS are available. Maturity can vary from an informal team, to regular management reporting against agreed budgets.

4 Energy review

Significant energy uses (SEUs) and consumption need to be identified to understand opportunities for continual improvement. An organization which has already carried out an energy audit may already be at a higher maturity.

5 Setting energy performance indicators

These need to match consumption to relevant variables to enable an organization to demonstrate improvement against an energy baseline. Using such metrics can establish whether energy targets have been met or if top management need to take corrective action.

6 Objectives and energy targets

The phased approach allows an organization to consider which objectives and energy targets they would like to achieve first. An action plan should support the activities required to achieve the objectives and energy targets and identify risks and opportunities.

The 12 key elements of ISO 50005

7 Competence and awareness

Guidance on necessary competence of personnel related to the EnMS and energy performance and what action should be taken to fill any gaps, and on raising awareness across all employees.

8 Operations and maintenance (O&M)

Optimizing planning, implementation and control processes supports the EnMS. The standard helps frame the right questions to ask in relation to processes, communication, and documentation.

9 Procurement and design

Practical guidance on informing the supply chain that energy performance is part of the evaluation criteria and ensuring design considers energy use.

10 Communication and document control

Practical support in terms of internal and external communications, given the level of competence of personnel, and how to document information to the level required for an EnMS.

11 Monitoring and measurement

Analysis and evaluation of energy performance is key to understanding if the planned activities have realized their targets and objectives or if corrective action is needed. The standard supports an organization to evaluate where it is on the maturity scale.

12 Management review

Top management review is required to ensure the EnMS is effective. The standard supports in the review and internal audit process by offering practical suggestions including for remedial actions.

Once these 12 elements have all been implemented, your organization will quickly start to notice improvements in energy usage and – as a result – energy costs begin to go down. This also creates strong foundations to continually improve the EnMS or, if you want to, go on to work towards ISO 50001 implementation.

Top tips for ISO 50005 implementation

1 Apply best practice

Explore the best practice advice within the standard and decide whether you wish to adopt it in full and reach certification with ISO 50001, or prefer to use ISO 50005 only to improve your energy management.

2 Prevent data silos

Think about how different departments work together to avoid silos. Make sure the organization works as a team for the benefit of customers and the organization.

3 Get everyone involved

Top management commitment is key to making implementation of ISO 50005 a success. They need to be actively involved, committed to the changes required and approve any resources or investment that may be needed.

4 Assess and evaluate

Review systems, policies, procedures and processes you have in place – you may already do much of what's in the standard – and make it work for your business. The standard should work with your business – you don't need to implement elements that don't add value.

5 Ask for advice

Speak to your customers and suppliers. They may be able to suggest improvements and give feedback on how you're currently doing things, or offer insights from changes they've made or any standards they may have implemented.

6 Encourage staff training

Train your staff to carry out internal audits of the system. This can help with their understanding of the standard while also providing valuable feedback on potential problems or opportunities for achievement.

7 Continue your journey

Once you've completed your adoption of ISO 50005, you have the option to move towards implementing ISO 50001, further enhancing your EnMS. Then (if you choose to) you can get certified to the standard.

Download your free copy of ISO 50005

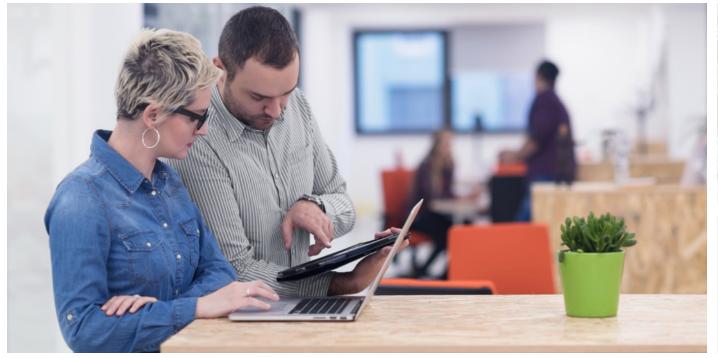# Other energy management support

BS EN ISO 50001

ISO 50001 is the world's leading international standard for energy management. It's widely used by larger organizations to achieve compliance with the UK Energy Savings Opportunity Scheme (ESOS) and improve overall energy management.

The energy management solution pack

This solution pack has been specifically curated for any organization that is committed to improving its energy performance and wants to create, maintain and continually improve an energy management system (EnMS).

By giving you access to all the standards you need - in one place, the solution pack offers a more comprehensive approach to developing and implementing an EnMS.

Start your standards journey

Visit BSI Knowledge to explore over 60,000 standards. For more information about ISO 50005 or other energy management standards, contact our customer service team on 0345 086 9001.