

## Energy Management System based on ISO 50001



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### What is an Energy Management System?

An Energy Management System (EnMS) is an integrated and systematic way of improving energy performance on an ongoing basis by continual improvement.

The foundation of an EnMS is a tailor-made energy policy devised by senior management and a set of energy objectives and targets. This is followed by a series of practical actions which reflect the policy and objectives by means of a structured, disciplined and integrated approach.

The key steps are to establish, implement, maintain and improve the system leading to continual improvement in energy performance. Internal audits and management reviews helps to provide continual improvement.

The management approach of “Plan, Do, Check, Act” will be familiar to companies who operate systems compliant with ISO 9001 (quality) and ISO 14001 (environment). The underlying management system approach is common to each system.

### What is ISO 50001?

ISO 50001 is the international Standard to improve energy performance. It is a set of criteria for a structured and co-ordinated approach to energy management by the design, operation and maintenance of an Energy Management System.

ISO 50001, developed by the International Standards Organisation (ISO), was launched in 2011 and has had rapid adoption across the world. Certification to ISO 50001 by industries is globally recognised as achieving good practice in energy management.

ISO 50001:2011 has now been replaced with ISO 50001:2018 which was published in August 2018. Since February 2020 it has not been possible to get certification to ISO 50001:2011. Only the 2018 version is available.

To obtain certification an organisation needs to:

- Establish and operate a tailored Energy Management System (EnMS) which is compliant with ISO 50001
- Appoint an accredited certification body to certify the EnMS to ISO 50001. The certification body should be accredited by UKAS.

## What are the Benefits?

The benefits of an EnMS certified to ISO 50001 are covered by the 7 'C's:

### 1. Consumption

The application of an EnMS will reduce energy consumption. Fossil fuels are limited and all proven reserves cannot be used without accelerating man-made climate change.

### 2. Cost

Reducing energy consumption reduces costs which improves profitability, competitiveness and business sustainability.

### 3. Carbon

Reducing energy consumption reduces the emissions of carbon dioxide (CO<sub>2</sub>) which is a greenhouse gas contributing to climate change. This reduces present and future carbon-based taxes.

### 4. Competitiveness

Reduced costs means lower operating costs which keeps the organisation's products or services competitive. Some savings can fund investment in more energy efficiency processes and equipment.

### 5. Competence

Certification to ISO 50001 involves the independent assessment of an organisation's competence in energy management and is globally recognised. It makes the organisation stand out against competitors and anticipates future supply chain requirements. Also in future some companies will require certification to ISO 50001 just to get on tender lists.

### 6. Compliance

Proactive energy management makes it easier to comply with existing and future energy/environmental legislation. ISO 50001 certification is a route to compliance for ESOS in 2019.

### 7. Continuity

A properly resourced EnMS means that energy management does not rest with a single individual but is a shared responsibility across the organisation. So there is continuity when staff change. Momentum is maintained because a system is in place.

All these benefits are inter-linked and reinforce each other to produce a better run, more efficient, more competitive and greener organisation.