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Energy management systems — Measurement and verification of energy performance of organizations — General principles and guidance

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National foreword

This British Standard is the UK implementation of ISO 50015:2014.

The UK participation in its preparation was entrusted to Technical Committee SEM/1/1, Energy Management Systems and Energy Audits.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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ISBN 978 0 580 76914 6

ICS 27.010

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2015.

Amendments issued since publication

Date	Text affected

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INTERNATIONAL STANDARD

ISO 50015

First edition
2014-12-15

Energy management systems — Measurement and verification of energy performance of organizations — General principles and guidance

Systèmes de management de l'énergie — Mesure et Vérification de la performance énergétique des organismes — Principes généraux et recommandations

Reference number
ISO 50015:2014(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is Technical Committee ISO/TC 242, *Energy management*.

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Introduction

The purpose of this International Standard is to establish a common set of principles and guidelines to be used for measurement and verification (M&V) of energy performance and energy performance improvement of the organization. M&V adds value by increasing the credibility of energy performance and energy performance improvement results. Credible results can contribute to the pursuit of energy performance improvement.

This International Standard can be used irrespective of the type of energy used.

This International Standard can be used in several organizational contexts:

— by organizations with or without existing energy management systems, such as ISO 50001;

— for the M&V of energy performance or energy performance improvement;

— for all or part of an organization.

This International Standard can be used by organizations of any size, M&V practitioners, or any interested parties, in order to apply M&V to the reporting of energy performance results. The principles and guidance in this International Standard can be used independently or in conjunction with other standards and protocols. The principles and guidance in this International Standard are not required by ISO 50001, but can be applied by organizations using ISO 50001.

This International Standard does not specify calculation methods; rather, it establishes a common understanding of M&V and how M&V could be applied to different calculation methods. These principles and guidelines are applicable irrespective of the M&V method used.

Annex A provides an overview of the M&V flow that is used throughout this International Standard.

This International Standard is one of a family of International Standards developed by ISO/TC 242 and ISO/TC 257, on energy management and on the evaluation of energy savings related to regions and projects. Both ISO/TC 242 and ISO/TC 257 address organizational energy management and energy savings.

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INTERNATIONAL STANDARD ISO 50015:2014(E)

Energy management systems — Measurement and verification of energy performance of organizations — General principles and guidance

1 Scope

This International Standard establishes general principles and guidelines for the process of measurement and verification (M&V) of energy performance of an organization or its components. This International Standard can be used independently, or in conjunction with other standards or protocols, and can be applied to all types of energy.

2 Normative references

There are no normative references.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
baseline period
specific period of time used as the reference for comparing with the *reporting period* (3.19)

Note 1 to entry: Use for comparing energy performance and the calculation of the *energy performance* (3.9) and of the *energy performance improvement action* (3.5).

3.2
consequential effect
indirect energy effect (3.3) or *non-energy effect* (3.4)

3.3
indirect energy effect
effect on organizational *energy performance* (3.9) beyond the direct effect of the *energy performance improvement action* (3.5)

EXAMPLE The reduced load on the cooling system due to the improved efficiency of the lighting system resulting in an indirect energy effect.

3.4
non-energy effect
effect of implementing *energy performance improvement actions* (3.5) that is additional to the energy impact

EXAMPLE As a result of the installation of a more efficient washer, less water is needed resulting in a water non-energy effect.

Note 1 to entry: The M&V objective defines to what extent non-energy items that result from energy performance improvement actions are considered.

3.5
energy performance improvement action
EPIA
action or measure or group of action or measures implemented or planned within an *organization* (3.17) intended to achieve *energy performance improvement* (3.10) through technological, managerial or operational, behavioural, economical, or other changes

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