7:500

Energiajuhtimissüsteemid. Nõuded koos rakendamisjuhistega (ISO 50001:2011)

Energy management systems - Requirements with guidance for use (ISO 50001:2011)



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 50001:2011 sisaldab Euroopa standardi EN ISO 50001:2011 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 50001:2011 consists of the English text of the European standard EN ISO 50001:2011.	
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.	
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.10.2011.	Date of Availability of the European standard is 26.10.2011.	
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.	

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 27.010

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

ICS 27.010

EN ISO 50001

October 2011

Supersedes EN 16001:2009

English version

Energy management systems - Requirements with guidance for use (ISO 50001:2011)

Systèmes de management de l'énergie - Exigences et recommandations de mise en oeuvre (ISO 50001:2011)

Energiemanagementsysteme - Anforderungen mit Anleitung zur Anwendung (ISO 50001:2011)

This European Standard was approved by CEN on 25 October 2011.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



CEN Management Centre: Avenue Marnix 17, B-1000 Brussels CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2011 CEN/CENELEC All rights of exploitation in any form and by any means reserved worldwide for CEN national Members and for CENELEC Members.

Ref. No. EN ISO 50001:2011 E

Foreword

The text of ISO 50001:2011 has been prepared by Technical Committee ISO/TC 242 "Energy Management" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 50001:2011 by Technical Committee CEN/CLC/JWG 3 "Energy Management and related services - General requirements and qualification procedures" the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 16001:2009.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 50001:2011 has been approved by CEN as a EN ISO 50001:2011 without any modification.

Contents

Forew	ord	iv
Introdu	uction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Energy management system requirements	5
4.1	General requirements	
4.2	Management responsibility	5
4.2.1	Top management.	
4.2.2	Management representative	6
4.3	Energy policy	
4.4	Energy planning	
4.4.1	General	
4.4.2	Legal requirements and other requirements	
4.4.3	Energy review	
4.4.4	Energy baseline	
4.4.5	Energy performance indicators	8
4.4.6	Energy objectives, energy targets and energy management action plans	
4.5	Implementation and operation	
4.5.1	General	
4.5.2	Competence, training and awareness	
4.5.3	Communication	
4.5.4	Documentation	
4.5.5	Operational control	
4.5.6	Design	
4.5.7	Procurement of energy services, products, equipment and energy	
4.6	Checking	
4.6.1	Monitoring, measurement and analysis	
4.6.2	Evaluation of compliance with legal requirements and other requirements	
4.6.3	Internal audit of the EnMS	
4.6.4	Nonconformities, correction, corrective action and preventive action	
4.6.5	Control of records	
4.0.5	Management review	
4.7.1	General	
	Input to management review	
4.7.2 4.7.3	Output from management review	12
Annex	A (informative) Guidance on the use of this International Standard	14
Annex	B (informative) Correspondence between ISO 50001:2011, ISO 9001:2008, ISO 14001:2004 and ISO 22000:2005	20
Biblio	graphy	22
	J.	

Introduction

The purpose of this International Standard is to enable organizations to establish the systems and processes necessary to improve energy performance, including energy efficiency, use and consumption. Implementation of this International Standard is intended to lead to reductions in greenhouse gas emissions and other related environmental impacts and energy cost through systematic management of energy. This International Standard is applicable to all types and sizes of organizations, irrespective of geographical, cultural or social conditions. Successful implementation depends on commitment from all levels and functions of the organization, and especially from top management.

This International Standard specifies energy management system (EnMS) requirements, upon which an organization can develop and implement an energy policy, and establish objectives, targets, and action plans which take into account legal requirements and information related to significant energy use. An EnMS enables an organization to achieve its policy commitments, take action as needed to improve its energy performance and demonstrate the conformity of the system to the requirements of this International Standard. This International Standard applies to the activities under the control of the organization, and application of this International Standard can be tailored to fit the specific requirements of the organization, including the complexity of the system, degree of documentation, and resources.

This International Standard is based on the Plan - Do - Check - Act (PDCA) continual improvement framework and incorporates energy management into everyday organizational practices, as illustrated in Figure 1.

- NOTE In the context of energy management, the PDCA approach can be outlined as follows:
- Plan: conduct the energy review and establish the baseline, energy performance indicators (EnPls), objectives, targets and action plans necessary to deliver results that will improve energy performance in accordance with the organization's energy policy;
- Do: implement the energy management action plans;
- Check: monitor and measure processes and the key characteristics of operations that determine energy performance against the energy policy and objectives, and report the results;
- Act: take actions to continually improve energy performance and the EnMS.

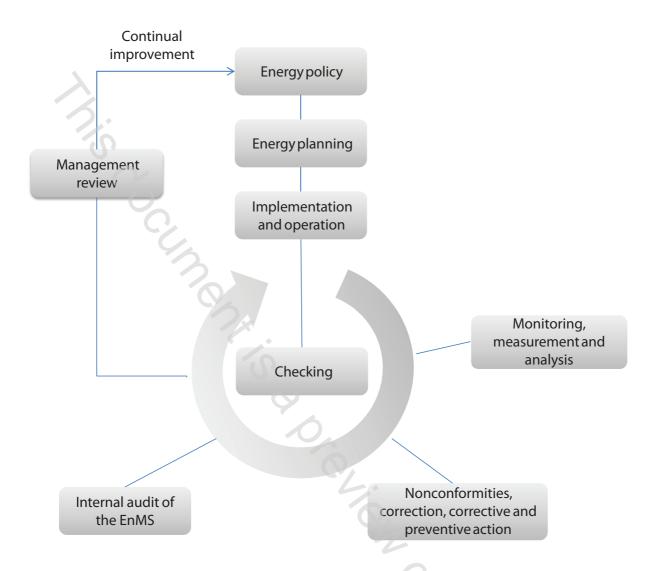


Figure 1 — Energy management system model for this International Standard

Worldwide application of this International Standard contributes to more efficient use of available energy sources, to enhanced competitiveness and to reducing greenhouse gas emissions and other related environmental impacts. This International Standard is applicable irrespective of the types of energy used.

This International Standard can be used for certification, registration and self-declaration of an organization's EnMS. It does not establish absolute requirements for energy performance beyond the commitments in the energy policy of the organization and its obligation to comply with applicable legal requirements and other requirements. Thus, two organizations carrying out similar operations, but having different energy performance, can both conform to its requirements.

This International Standard is based on the common elements of ISO management system standards, ensuring a high level of compatibility notably with ISO 9001 and ISO 14001.

NOTE Annex B shows the relationship between this International Standard and ISO 9001:2008, ISO 14001:2004 and ISO 22000:2005.

An organization can choose to integrate this International Standard with other management systems, including those related to quality, the environment and occupational health and safety.

Energy management systems — Requirements with guidance for use

1 Scope

This International Standard specifies requirements for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use and consumption.

This International Standard specifies requirements applicable to energy use and consumption, including measurement, documentation and reporting, design and procurement practices for equipment, systems, processes and personnel that contribute to energy performance.

This International Standard applies to all variables affecting energy performance that can be monitored and influenced by the organization. This International Standard does not prescribe specific performance criteria with respect to energy.

This International Standard has been designed to be used independently, but it can be aligned or integrated with other management systems.

This International Standard is applicable to any organization wishing to ensure that it conforms to its stated energy policy and wishing to demonstrate this to others, such conformity being confirmed either by means of self-evaluation and self-declaration of conformity, or by certification of the energy management system by an external organization.

This International Standard also provides, in Annex A, informative guidance on its use.

2 Normative references

No normative references are cited. This clause is included in order to retain clause numbering identical with other ISO management system standards.

3 Terms and definitions

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

3.1

boundaries

physical or site limits and/or organizational limits as defined by the organization

EXAMPLE A process; a group of processes; a site; an entire organization; multiple sites under the control of an organization.

3.2

continual improvement

recurring process which results in enhancement of energy performance and the energy management system