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Date: 23 January 2020

Origin: European

Latest date for receipt of comments: 17 March 2020

Project No. 2019/01404

Responsible committee: SEM/1 Energy Management

Interested committees:

Title: Draft BS EN 16247-1 Energy audits. Part 1: General requirements.

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- iii) requires additional national guidance or information

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

January 2020

ICS 03.120.10; 27.015

Will supersede EN 16247-1:2012

English version

Energy audits - Part 1: General requirements

Audits énergétiques - Partie 1: Exigences générales

Energieaudits - Teil 1: Allgemeine Anforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 14.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN and CENELEC 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation. Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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42 **European foreword**

43 This document (prEN 16247-1:2020) has been prepared by Technical Committee
44 CEN/CLC/JWG 14 “Energy audits”, the secretariat of which is held by BSI.

45 This document is currently submitted to the CEN Enquiry.

46 This document will supersede EN 16247-1:2012.

47 This part covers the general requirements common to all energy audits. There are four further
48 parts of EN 16247, which provide additional material to Part 1 for four specific sectors.

49 The other parts of EN 16247 will be:

50 — *Energy audits — Part 2: Buildings;*

51 — *Energy audits — Part 3: Processes;*

52 — *Energy audits — Part 4: Transport;*

53 — *Energy audits - Part 5: Competence of energy auditors.*

54 **Introduction**

55 An energy audit is an important step for an organization, whatever its size or type, wanting to
56 improve its energy efficiency, reduce energy consumption and bring related environmental and
57 other benefits.

58 This document defines the attributes of a good quality energy audit. It states the requirements
59 for energy audits and corresponding obligations within the energy auditing process. It
60 recognizes that there are differences in approach to energy auditing in terms of scope, aims and
61 thoroughness, but seeks to harmonize common aspects of energy auditing in order to bring
62 more clarity and transparency to the market for energy auditing services. The energy audit
63 process is presented as a simple chronological sequence; this does not preclude however
64 repeated iterations of certain steps.

65 This document applies to commercial, industrial, residential and public-sector organizations.
66 This document does not deal with the energy audit programme/scheme properties (such as
67 programme administration, training of energy auditors, quality control issues, energy auditors'
68 tools, etc.).

69

1 Scope

This document specifies the requirements, common methodology and deliverables for energy audits. It applies to all forms of establishments and organizations, all forms of energy and uses of energy. This document covers the general requirements common to all energy audits. Specific energy audit requirements complete the general requirements in separate parts dedicated to energy audits for buildings, industrial processes and transport.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 16247-5:2015, *Energy audits - Part 5: Competence of energy auditors*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

energy audit

systematic inspection and analysis of energy use and energy consumption of a site, building, system or organization with the objective of identifying energy flows and the potential for energy efficiency improvements and reporting them

3.2

energy auditor

individual, group of people or body carrying out an energy audit

Note 1 to entry: A group or body can include subcontractors.

3.3

audited object

building, equipment, system, process, vehicle or service which is the subject of the energy audit

3.4

organization

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

[SOURCE: ISO 50001:2018, 3.1.1]

- 108 **3.5**
109 **energy consumption**
110 quantity of energy (3.16) applied
- 111 [SOURCE: ISO 50001:2018, 3.5.2]
- 112 **3.6**
113 **energy efficiency**
114 ratio or other quantitative relationship between an output of performance, service, goods,
115 commodities, or energy (3.16), and an input of energy
- 116 EXAMPLE Conversion efficiency; energy required/energy consumed
- 117 Note 1 to entry: Both input and output should be clearly specified in terms of quantity and quality and be
118 measurable.
- 119 [SOURCE: ISO 50001:2018, 3.5.3]
- 120 **3.7**
121 **energy performance**
122 measurable result(s) related to energy efficiency (3.6), energy use (3.10) and energy
123 consumption (3.5)
- 124 Note 1 to entry: Energy performance can be measured against the organization's (3.4) objectives, energy
125 targets (3.20) and other energy performance requirements.
- 126 Note 2 to entry: Energy performance is one component of the performance of the energy management
127 system (3.18).
- 128 [SOURCE: ISO 50001:2018, 3.4.3]
- 129 **3.8**
130 **energy performance indicator**
131 **EnPI**
132 measure or unit of energy performance (3.7), as defined by the organization (3.4)
- 133 Note 1 to entry: EnPI(s) can be expressed by using a simple metric, ratio, or a model, depending on the
134 nature of the activities being measured.
- 135 Note 2 to entry: See ISO 50006 for additional information on EnPI(s).
- 136 [SOURCE: ISO 50001:2018, 3.4.4]
- 137 **3.9**
138 **energy efficiency improvement measure**
139 amount of saved energy determined by measuring and/or estimating consumption before and
140 after implementation of one or more energy efficiency improvement measures, whilst ensuring
141 normalisation for factors that affect energy consumption
- 142 **3.10**
143 **energy use**
144 application of energy (3.16)
- 145 EXAMPLE Ventilation; lighting; heating; cooling; transportation; data storage; production
146 process