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## Energy audits - Part 2: Buildings

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Energieaudits - Teil 2: Gebäude

This European Standard was approved by CEN on 3 July 2022.

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## European foreword

This document (EN 16247-2:2022) has been prepared by the Joint Technical Committee CEN-CENELEC/JTC 14 “Energy management and energy efficiency in the framework of energy transition”, 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of an identical text or by endorsement, at the latest by February 2023, and conflicting national standards shall be withdrawn at the latest by February 2023.

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

This document supersedes EN 16247-2:2014.

Significant changes compared to the previous edition are:

- a) terms and definition updated;
- b) structure aligned with EN 16247-1.

This document is part of series EN 16247 “Energy audits”, which comprises the following:

- *Part 1: General requirements;*
- *Part 2: Buildings;*
- *Part 3: Processes;*
- *Part 4: Transport;*
- *Part 5: Competence of energy auditors.*

This Part provides additional material to Part 1 for the Buildings sector and is intended to be used in conjunction with Part 1.

This document has been prepared under a mandate given to CEN and CENELEC by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN and CENELEC websites.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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## Introduction

An energy audit can help an organization to identify opportunities to improve energy performance. It can be part of a site wide energy management system.

The use and operation of buildings requires the provision of services such as heating, cooling, humidification, dehumidification, ventilation, lighting, domestic hot water, transportation systems (e.g. elevators, escalators and moving walkways) in buildings, information systems, including building automation and control systems, and processes. In addition, energy is used by appliances within the building.

The energy consumption depends on:

- local climatic conditions;
- the characteristics of the building envelope;
- the designed indoor environment conditions;
- the characteristics and settings of the technical building systems;
- activities and processes in the building;
- occupant behaviour and operational regime.

Dealing with buildings, the audited objects are sometimes similar, technically simple and numerous (as in the residential sector) but can also be unique, complex and highly technical (such as hospitals, swimming pools and spas, etc.).

Energy audits in buildings may include the whole building or parts of the building or some technical system.

Energy performance indicators (benchmark values, if available) or average statistical specific energy consumption data are usually published nationally for different building types and ages. This information can be used in the analysis to provide comparative energy performance evaluation.

**NOTE** The energy audits covered under this standard might be independent from building energy performance certification and other legislative requirements.