
**Energy efficiency and renewable
energy sources — Common
international terminology —**

**Part 1:
Energy efficiency**

*Efficacité énergétique et sources d'énergie renouvelables —
Terminologie internationale commune —
Partie 1: Efficacité énergétique*

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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 ISO/IEC JPC2, *Energy efficiency and renewable energy sources — Common terminology*.

ISO/IEC 13273 consists of the following parts, under the general title *Energy efficiency and renewable energy sources — Common international terminology*:

- *Part 1: Energy efficiency*
- *Part 2: Renewable energy sources*

Introduction

The aim of this part of ISO/IEC 13273 is to support activities related to energy and that deal with energy efficiency. The terms were selected based upon their relevance and transverse nature. This International Standard is a horizontal standard in accordance with IEC Guide 108. It addresses the fundamental principles and concepts of energy efficiency and energy management terminology, which is relevant to a number of technical committees, with the goal of improving coherence and common characteristics for energy terms. This International Standard does not address terms specific to topics such as environmental sustainability or nuclear energy but rather transverse energy terminology.

It is intended to be of help to technical practitioners and other interested parties who either use or develop International Standards in these subject fields.

With the growth in the number of International Standards that directly or indirectly relate to energy, there is an increasing need for an agreement on common language in the domain.

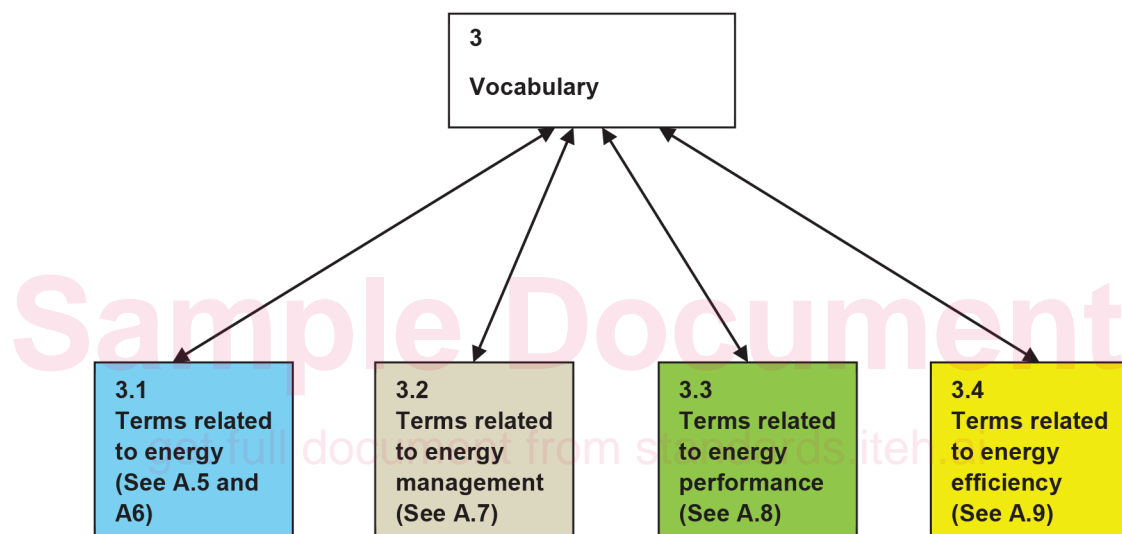


Figure 1 — Vocabulary structure

This part of ISO/IEC 13273 deals with concepts belonging to the general subject field of energy and, within that, transverse concepts in the field of energy efficiency. For renewable energy sources see ISO/IEC 13273-2.

The arrangement of terms and definitions in this International Standard is based upon concept systems that show corresponding relationships among energy efficiency and renewable energy sources concepts (see Figures A.4 to A.8 for additional diagrams on each group of terms). This arrangement provides users with a structured view of transverse energy concepts and facilitates their understanding. This terminology promotes a common understanding among all parties involved in energy efficiency and facilitates effective communication. This part of ISO/IEC 13273 includes terms and definitions that are commonly used in energy efficiency. The organization of terms is illustrated in Figure 1. This International Standard is a first effort in the development of a complete set of terms related to energy, and will be updated as further terms and definitions are agreed upon. (See [Clause A.3](#), [Figure A.4](#)).

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Energy efficiency and renewable energy sources — Common international terminology —

Part 1: Energy efficiency

1 Scope

This part of ISO/IEC 13273 contains transverse concepts and their definitions in the subject field of energy efficiency. This horizontal standard is primarily intended for use by technical committees in the preparation of standards in accordance with the principles laid down in IEC Guide 108.

One of the responsibilities of a technical committee is, wherever applicable, to make use of horizontal standards in the preparation of its publications. The contents of this horizontal standard will not apply unless specifically referred to or included in the relevant publications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

This clause has been maintained to match the numbering of ISO/IEC 13273-2 and for potential future use.

3 Terms and definitions

3.1 Terms related to energy

3.1.1 energy E

capacity of a system to produce external activity or to perform work

Note 1 to entry: Commonly the term energy is used for electricity, fuel, steam, heat, compressed air and other like media.

Note 2 to entry: Energy is commonly expressed as a scalar quantity.

Note 3 to entry: Work as used in this definition means external supplied or extracted energy to a system. In mechanical systems, forces in or against direction of movement; in thermal systems, heat supply or heat removal.

[SOURCE: 1986 World Energy Conference Energy Terminology glossary, modified – The word “the” at the beginning of the description was removed, the symbols were added as was the Note 1 to entry from ISO 50001:2011.]

3.1.2 energy carrier

substance or medium that can transport energy

EXAMPLE Electricity, hydrogen, fuels.