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Switchgear and controlgear and their assemblies for low voltage – Energy efficiency

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SWITCHGEAR AND CONTROLGEAR AND THEIR ASSEMBLIES FOR LOW VOLTAGE – ENERGY EFFICIENCY

FOREWORD

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The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC TR 63196, which is a technical report, has been prepared by committee 121: Switchgear and controlgear and their assemblies for low voltage.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
121/44/DTR	121/47A/RVDTR

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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INTRODUCTION

Energy efficiency (EE) is a horizontal topic spanning the IEC domain and may be dealt with in standards in various forms across a wide range of technologies and for different products, processes and services.

The horizontal nature of the topic and increasing integration of products, processes and services entering the market implies that standard writers identify which aspects of energy efficiency are relevant for standardization, and:

– use a systematic approach (see IEC Guide 119);

– adopt a systems approach.

The objective of an energy efficiency management system is to improve continuously the energy performance of an energy using system such as a production facility or an office building. As shown below in Figure 1 (see dark blue boxes), it is based on the particular organization's energy policy, supporting energy objectives and it is implemented by processes (planning, operations, assessment, etc.) to achieve those objectives.

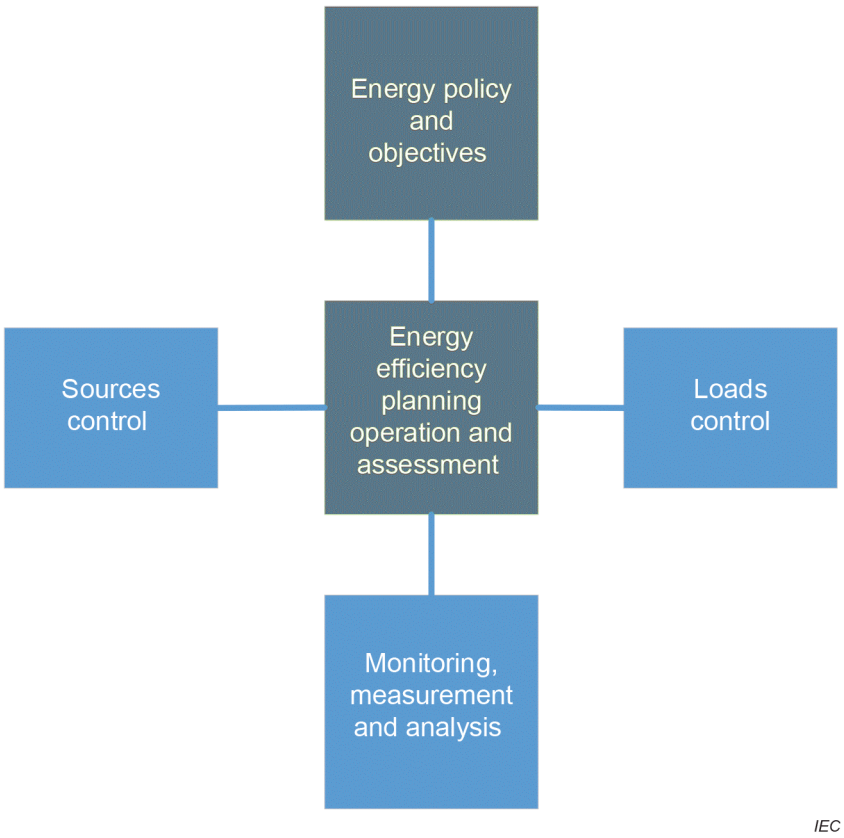

Figure 1 – Overview of energy efficiency management

Many types of equipment, including switchgear and controlgear and their assemblies, depicted in the light blue boxes in Figure 1, make an important contribution to the overall energy efficiency of a system.

This document aims to give guidance to product standards writers and other interested parties on the way energy efficiency should be considered for switchgear and controlgear and their assemblies.

By following this document, experts in standards will be encouraged to:

– consider energy efficiency aspects in their product standards and any associated publications;
– use a structured method;
– use a systems approach;
– support the dissemination of energy efficient technologies;
– accelerate the uptake of the next generation of energy efficient technologies;
– create the prerequisites for energy efficiency through enabling technologies.

SWITCHGEAR AND CONTROLGEAR AND THEIR ASSEMBLIES FOR LOW VOLTAGE –ENERGY EFFICIENCY

1 Scope

This document is following the principles of IEC Guide 119. This document defines the energy efficiency aspects of switchgear and controlgear products complying with IEC 60947 (all parts), IEC 61095 and IEC 62626 (all parts), and associated assemblies complying with IEC 61439 (all parts), in the context of the overall system energy efficiency. This document references energy policy aspects, as well as product and system aspects.

This document generally assumes electrical energy input, whereas the output can be a number of different products and/or services.

This document:

– helps to harmonize the energy efficiency requirements and guidance in product standards;
– raises awareness that provisions in publications can generally influence energy efficiency;
– helps to identify energy efficiency aspects;
– promotes the use of a systems approach to energy efficiency.

Other than energy efficiency aspects, this document does not cover environmental impacts (see IEC TS 63058).

2 Normative references

There are no normative references in this document.