



GUIDE

Environmental aspects - Inclusion in electrotechnical product standards

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Environmental aspects -
Inclusion in electrotechnical product standards**

FOREWORD

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This fourth edition of IEC Guide 109 has been prepared, in accordance with ISO/IEC Directives, Part 1, Annex A, by the IEC Advisory Committee on Environmental Aspects (ACEA).

This fourth edition cancels and replaces the third edition published in 2012.

This edition includes the following significant technical changes with respect to the previous edition:

- a) provide standards writers with reference documents, especially horizontal standards, for alignment;
- b) align with other guides (such as IEC Guide 108 and relevant documents published by other standards development organizations);
- c) introduction of checklists and recommendations to help product committees identify relevant environmental issues to their products.

The text of this IEC Guide is based on the following documents:

Draft	Report on voting
SMBNC/76/DV	SMBNC/77/RV

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

The language used for the development of this Guide is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

INTRODUCTION

This document provides requirements and recommendations to standards writers on how environmental aspects are addressed as applicable during the development of IEC documents including International Standards (IS), Technical Specifications (TS) and Publicly Available Specifications (PAS).

The need to optimize impacts (i.e. reduce the adverse impacts or increase beneficial impacts) on the environment caused by environmental aspects of a product¹⁾ during all stages of its life cycle from acquiring materials to manufacturing, distribution, use, and end-of-life treatment (e.g. reuse and material recycling) is recognized around the world. The choices made at early phases of product design and development largely determine what those impacts will be during each stage of the life of the product. The task of making the optimal choices is very complex. For example, choosing specifications that improve environmental aspects can involve difficult trade-offs, such as a higher durability by changing the materials used can make the product less recyclable.

Any standard that includes requirements for products can significantly influence the product's environmental aspects and the resultant impacts. Standards can promote flexibility in the selection of the choices to improve environmental aspects. Furthermore, it is important that standards addressing environmental aspects do not impede innovation in any sense. Standards writers can encourage the protection of the environment, for instance, by specifying requirements that lead to the appropriate design and manufacturing process and product use.

In this context, it is also important that standards writers give careful consideration to environmental aspects when specifying test methods.

¹⁾ Although the term "product" has been used throughout this document, the concept also embraces systems, services and processes as appropriate.

1 Scope

This document provides requirements and guidance on how to consider aspects resulting in impacts on the environment caused by electrotechnical products. It is intended for standards writers developing documents containing provisions relevant to environment as defined in this document.

NOTE The IEC Standardization Management Board (SMB) has decided that Guides such as this one can have mandatory requirements which shall be followed by all IEC committees developing technical work that falls within the scope of the guide, as well as guidance which may or may not be followed. The mandatory requirements in this Guide are identified by the use of "shall". Statements that are only for guidance are identified by using the verb "should". (See IEC Directives Supplement Part 1, A.1.1.).

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.

IEC Guide 123, *Assignment and management of horizontal functions within the area of environment*

IEC Guide 121, *Securing credible environmentally relevant performance assessment methods in standards*

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- [4] IEC 62430:2019, *Environmentally conscious design (ECD) - Principles, requirements and guidance*
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- [6] United Nations framework convention on climate change, 1992
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- [10] ISO/IEC Guide 51, *Safety aspects - Guidelines for their inclusion in standards*
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⁸ Under preparation. Stage at the time of publication: IEC FDIS 60050-193:2026.