

Environmentally Conscious Design (ECD) - Principles,  
requirements and guidance

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62430:2019 sisaldab Euroopa standardi EN IEC 62430:2019 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62430:2019 consists of the English text of the European standard EN IEC 62430:2019.
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English Version

**Environmentally conscious design (ECD) - Principles,  
requirements and guidance  
(IEC 62430:2019)**

Écoconception (ECD) - Principes, exigences et  
recommandations  
(IEC 62430:2019)

Umweltbewusstes Gestalten (ECD) - Grundsätze,  
Anforderungen und Leitfaden  
(IEC 62430:2019)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## European foreword

The text of document 111/536/FDIS, future edition 2 of IEC 62430, prepared by IEC/TC 111 "Environmental standardization for electrical and electronic products and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62430:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-08-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-11-26

This document supersedes EN 62430:2009 and all of its amendments and corrigenda (if any).

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

## Endorsement notice

The text of the International Standard IEC 62430:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62430:2009	NOTE	Harmonized as EN 62430:2009 (not modified)
IEC 62474	NOTE	Harmonized as EN IEC 62474
ISO/IEC Guide 2:2004	NOTE	Harmonized as EN 45020:2006 (not modified)
ISO 9000:2015	NOTE	Harmonized as EN ISO 9000:2015 (not modified)
ISO 9001:2015	NOTE	Harmonized as EN ISO 9001:2015 (not modified)
ISO 14001:2015	NOTE	Harmonized as EN ISO 14001:2015 (not modified)
ISO 14006:2011	NOTE	Harmonized as EN ISO 14006:2011 (not modified)
ISO 14040:2006	NOTE	Harmonized as EN ISO 14040:2006 (not modified)

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ENVIRONMENTALLY CONSCIOUS DESIGN –  
PRINCIPLES, REQUIREMENTS AND GUIDANCE**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62430 has been prepared by IEC Technical Committee 111: Environmental standardization for electrical and electronic products and systems, and ISO Technical Committee 207: Environmental management.

It is published as a double logo standard.

This second edition cancels and replaces the first edition published in 2009. This edition constitutes a technical revision.

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

- a) Scope is extended from electrotechnical product and systems to all products including services.
- b) As a consequence of the scope expansion, non-electrotechnical products, services in particular, are taken into account to modify requirements.
- c) Clause 6 is added as a guidance.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
111/536/FDIS	111/553/RVD

Full information on the voting for the approval of this International Standard 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.

It has the status of a horizontal standard in accordance with IEC Guide 108.

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.



## INTRODUCTION

The main purpose of this document is to set requirements and give guidance on how an organization can integrate environmentally conscious design (ECD) into their design and development. It is not a product standard and so does not describe requirements that apply to individual products, or a series of products.

This document uses the term ECD but other terminology used worldwide with the same meaning includes ecodesign, design for environment (DFE), green design and environmentally sustainable design.

This document covers physical goods, services, and a combination of the two, all of which are referred to as 'products'.

ECD is not a separate activity; it is rather an integral part of an organization's existing design and development. While this is not a management system standard, its requirements regarding ECD can be incorporated into an organization's existing management system, such as created to support conformance with ISO 14001 and ISO 9001.

NOTE ISO 14001 links management of an organization's processes with environmental impacts, but it does not specify requirements for the management processes associated with design and development. Therefore, this ECD standard can be an addition for organizations which have ISO 14001 in place, as ISO 14001 does not specify how to incorporate ECD into products. ISO 14006 provides guidance on how to incorporate ECD into an environmental management system, however, it does not specify how to apply ECD.

Every product has environmental impacts, and these can occur during all stages of its life cycle. These impacts can range from slight to significant; they may be short-term or long-term; and they may occur at the local, national, regional or global level (or a combination thereof).

In order to minimize these impacts, it is essential to implement ECD within design and development. ECD is a systematic approach to achieve reduction of these adverse impacts of a product throughout its entire life cycle.

Multiple benefits can be achieved for the organization, its customers, and other stakeholders by applying ECD, such as an overall environmental improvement, a cost reduction, and better marketability.

This document is intended for those, directly and indirectly, involved in the implementation of ECD into the design and development.

This document does not preclude sectors from generating their own ECD specific standards or guidance. However, where such documents are produced, the authors are encouraged to use this document as a reference to ensure consistency across areas of various products and supply chains.

# ENVIRONMENTALLY CONSCIOUS DESIGN – PRINCIPLES, REQUIREMENTS AND GUIDANCE

## 1 Scope

This document describes principles, specifies requirements and provides guidance for organizations intending to integrate environmental aspects into the design and development in order to minimize the adverse environmental impacts of their products.

This document applies to processes on how ECD (environmentally conscious design) are integrated into the design and development. This document applies to any organization, regardless of its size, type or sector.

This document does not provide requirements for assessing the conformity of individual products.

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

There are no normative references in this document.

## 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:

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

### 3.1 Terms related to design and development

#### 3.1.1

#### **environmentally conscious design**

#### **ECD**

systematic approach which considers environmental aspects in the design and development with the aim to reduce adverse environmental impacts throughout the life cycle of a product

Note 1 to entry: Other terminology used worldwide with the same meaning includes ecodesign, design for environment (DFE), green design and environmentally sustainable design.

Note 2 to entry: This note applies to the French language only.

#### 3.1.2

#### **product**

any goods or service