



**TÜRK  
STANDARLARI  
ENSTİTÜSÜ**

**Türk Standardı**

**TS EN 50600-4-3/A1**

**Nisan 2019**

ICS 35.020; 35.110; 35.160

**RENKLİ İÇERİK**

**Bilgi teknolojisi - Veri merkezi tesisleri ve altyapıları -  
Bölüm 4-3: Yenilenebilir Enerji Faktörü**

Information technology - Data centre facilities and infrastructures - Part 4-3:  
Renewable Energy Factor

Technologie de l'information - Installation et infrastructures de centres de  
traitement de données - Partie 4-3 : Coefficient d'énergie renouvelable

Informationstechnik - Einrichtungen und Infrastrukturen von Rechenzentren -  
Teil 4-3: Anteil erneuerbarer Energien



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Bu düzeltme, üç resmi dilde yayınlanan EN'nin eki olarak Ocak 2019 tarihinde CENELEC tarafından onaylanan ve Türk Standardları Enstitüsü tarafından adapte edilerek yayınlanan TS EN 50600-4-3:2017 standardının ekidir.

ICS 35.020; 35.110; 35.160

English Version

Information technology - Data centre facilities and infrastructures  
- Part 4-3: Renewable Energy Factor

Technologie de l'information - Installation et infrastructures  
de centres de traitement de données - Partie 4-3 :  
Coefficient d'énergie renouvelable

Informationstechnik - Einrichtungen und Infrastrukturen von  
Rechenzentren - Teil 4-3: Anteil erneuerbarer Energien

This amendment A1 modifies the European Standard EN 50600-4-3:2016; it was approved by CENELEC on 2019-01-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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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

This document (EN 50600-4-3:2016/A1:2019) has been prepared by CLC/TC 215 “Electrotechnical aspects of telecommunication equipment”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-01-18
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-01-18

This document updates 5.2 and Annex B.

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.

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

## 1 Modification to the Introduction

Replace Figure 1 with:

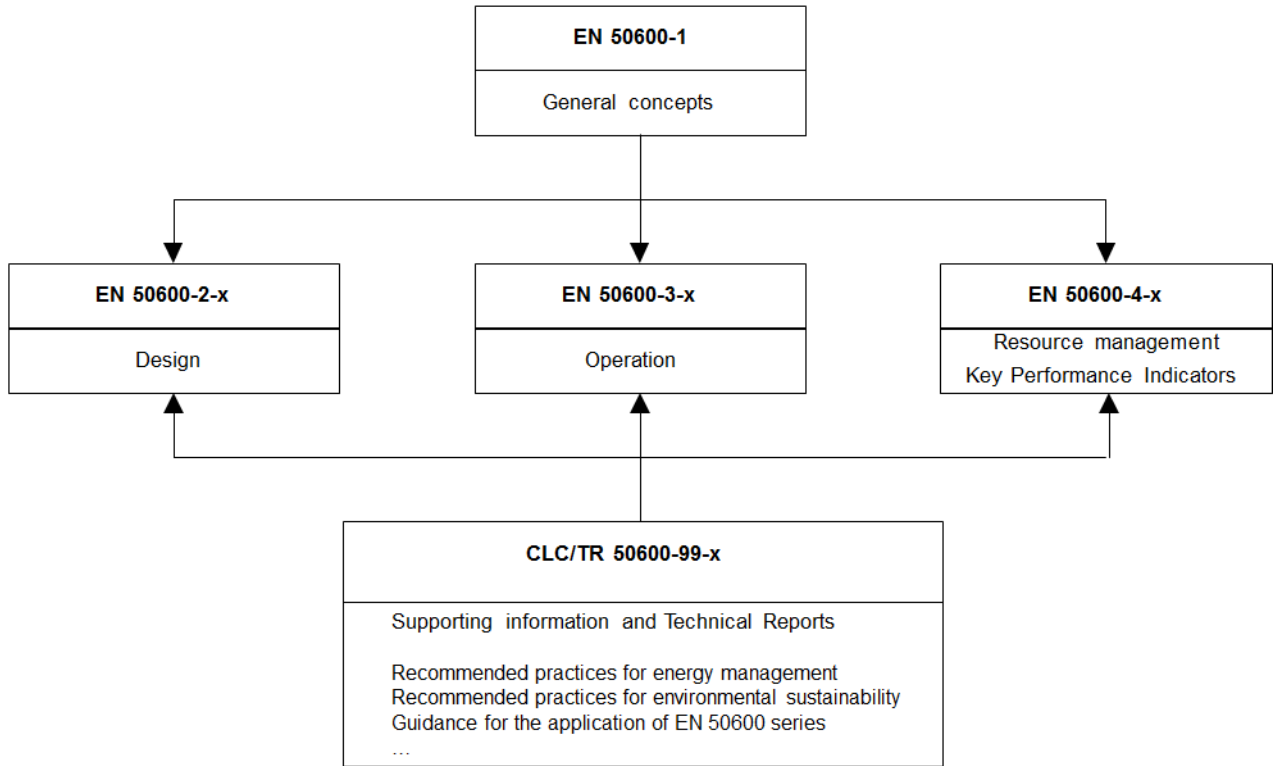


Figure 1 — Schematic relationship between EN 50600 series of standards

## 2 Modification to 5.2, Total data centre energy consumption

Replace paragraphs 5 to 7 with:

Gaseous or liquid fuels shall be metered in kWh or converted into kWh using the heat of combustion values for the fuel used. Where information on combustion values is not available and no local regulation applies, the following values shall be applied:

- diesel: 9,9 kWh/l;
- gas: 10,5 kWh/m<sup>3</sup>;
- hydrogen: 38,9 kWh/kg;
- bioethanol: 6 kWh/l.

The energy contribution of fluids for cooling shall be measured using heat meters (providing information on flow rate and differential temperature) and multiplied by the relevant conversion factor  $X$  of the system used to provide the fluid used.

For the conversion of thermal energy to its electrical equivalent, the conversion factor  $X$  shall be obtained from the supplier; in case there is no equivalent available, a conversion factor  $X = 0,4$  shall be used.

Technical subsystems, e.g. on-site co-generation of heat and electricity, shall have meters at their output and are considered external to the system.

### 3 Modification to Annex B (informative), Examples of Renewable Energy Factor calculation

Replace Figure B.4 with:

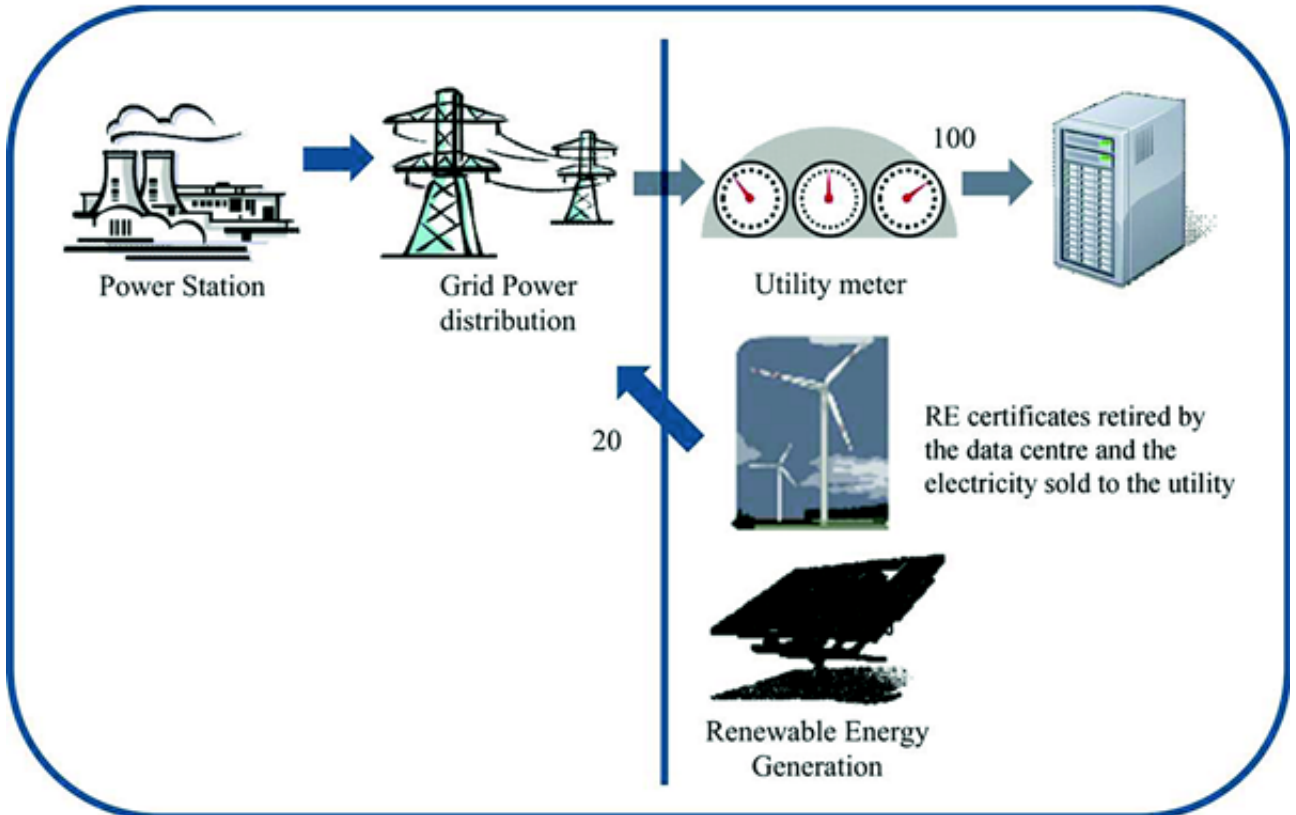


Figure B.4 — Locally generated energy sold to the utility with RE certificates retired by the data centre