

STN	Prístup, koncové zariadenia, prenos a multiplexovanie (ATTM) Zavádzanie širokopásmového pripojenia a riadenie životného cyklu zdrojov Časť 2: Sídla ICT	STN EN 305 174-2 V1.1.1 87 5174
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Access, Terminals, Transmission and Multiplexing (ATTM); Broadband Deployment and Lifecycle Resource Management; Part 2: ICT Sites

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/19

Obsahuje: EN 305 174-2 V1.1.1:2018

128186

ETSI EN 305 174-2 V1.1.1 (2018-02)



Access, Terminals, Transmission and Multiplexing (ATTM); Broadband Deployment and Lifecycle Resource Management; Part 2: ICT Sites

Reference

REN/ATTM-002

Keywordsbroadband, energy management, ICT,
sustainability**ETSI**

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Access, Terminals, Transmission and Multiplexing (ATTM).

The present document is part 2 of a multi-part deliverable, covering lifecycle resource management of broadband deployment as identified below:

ETSI EN 305 174-1: "Overview, common and generic aspects";

ETSI EN 305 174-2: "ICT Sites";

ETSI TS 105 174-4: "Access Networks";

ETSI EN 305 174-5: "Customer network infrastructures";

ETSI TS 105 174-6: "Cable Access Networks";

ETSI TS 105 174-7: "Digital multiservice cities";

ETSI EN 305 174-8: "Management of end of life of ICT equipment (ICT waste / end of life)".

Other documents are planned for development to extend this multi-part deliverable. These are listed in annex B and are mentioned in the present document.

National transposition dates	
Date of adoption of this EN:	22 February 2018
Date of latest announcement of this EN (doa):	31 May 2018
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2018
Date of withdrawal of any conflicting National Standard (dow):	30 November 2018

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"must" and "must not" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

The increasing interaction between the different elements of the Information Communication Technology (ICT) sector (hardware, middleware, software and services) supports the concept of convergence in which:

- multi-service packages can be delivered over a common infrastructure;
- a variety of infrastructures is able to deliver these packages;
- a single multi-service-package may be delivered over different infrastructures.

As a result of this convergence, the development of new services, applications and content has resulted in:

- an increased demand for bandwidth, reliability, quality and performance, with a consequent increase in the demand for power which has implications for cost and, in some cases, availability;
- an associated continuous evolution of ICT equipment.

It is therefore important to consider the environmental viability of all network elements necessary to deliver the required services in terms of the management of their operational aspects i.e. energy management (including energy efficiency) and the management of the End-of-Life (EoL) of the ICT equipment.

NOTE: The term "environmental viability" is used while recognizing that well established treatments of "sustainability" feature three separate viability objectives (environmental, economic and social). For the purposes of this multi-part deliverable only operational aspects of environmental viability are considered. A wider approach to environmental viability takes other factors into account including the use of raw materials and avoidance of hazardous substances in the construction of infrastructure or ICT equipment- these factors are not considered.

New technologies and infrastructure strategies are expected to enable operators to decrease the energy consumption, for a given level of service, of their existing and future infrastructures, thus decreasing their costs. This requires a common understanding among market participants that only standards can produce.

This multi-part deliverable specifies the general engineering of various broadband infrastructures to enable the most effective energy management (and management of other resources) and the appropriate measures for EoL treatment of ICT equipment. Certain of the standards may specify requirements for interoperability.

The present document is part 2 of a multi-part deliverable and specifies requirements for ICT sites within broadband deployment infrastructures.

The present document has been produced by ETSI Technical Committees Access, Terminals, Transmission and Multiplexing (ATTM) and Cable in close collaboration with CENELEC, via the Installations and Cabling Co-ordination Group (ICCG).

1 Scope

The present document is part 2 of a multi-part deliverable which specifies the general engineering of various broadband infrastructures to enable the most effective energy management (and management of other resources) and the appropriate measures for EoL treatment of ICT equipment.

The present document specifies the requirements for resource management of ICT sites, as a combination of:

- energy management;
- management of the End-of-Life (EoL) procedures for ICT equipment by reference to ETSI EN 305 174-8 [1].

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

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The following referenced documents are necessary for the application of the present document.

- [1] ETSI EN 305 174-8: "Access, Terminals, Transmission and Multiplexing (ATTM); Broadband Deployment and Lifecycle Resource Management; Part 8: Management of end of life of ICT equipment (ICT waste / end of life)".
- [2] ETSI EN 305 200-2-1: "Access, Terminals, Transmission and Multiplexing (ATTM); Energy management; Operational infrastructures; Global KPIs; Part 2: Specific requirements; Sub-part 1: ICT Sites".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] CEN EN 15978: "Information Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method".
- [i.2] CENELEC CLC/TR 50600-99-1: "Information technology - Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".
- [i.3] CENELEC EN 50600-1: "Information technology - Data centre facilities and infrastructures - Part 1: General concepts".
- [i.4] CENELEC EN 50600-2-2: "Information technology - Data centre facilities and infrastructures - Part 2-2: Power supply and power distribution".

- [i.5] CENELEC EN 50600-2-3: "Information technology - Data centre facilities and infrastructures - Part 2-3: Environmental control".
- [i.6] CENELEC EN 50600-2-4: "Information technology - Data centre facilities and infrastructures - Part 2-4: Telecommunications infrastructure".
- [i.7] CENELEC EN 50600-4-2: "Information technology - Data centre facilities and infrastructures - Part 4-2: Power usage effectiveness".
- [i.8] CENELEC EN 50600-4-3: "Information technology - Data centre facilities and infrastructures - Part 4-3: Renewable energy factor".
- [i.9] ISO EN 14001: "Environmental management systems. Requirements with guidance for use".
- [i.10] ISO EN 14040: "Environmental management. Life cycle assessment. Principles and framework".
- [i.11] ISO EN 14044: "Environmental management. Life cycle assessment. Requirements and guidelines".
- [i.12] ISO EN 50001: "Energy management systems. Requirements with guidance for use".
- [i.13] ETSI EN 305 200-3-1: "Access, Terminals, Transmission and Multiplexing (ATTM); Energy management; Operational infrastructures; Global KPIs; Part 3: ICT Sites; Sub-part 1: DCEM".
- [i.14] ETSI TS 105 174-2: "Access, Terminals, Transmission and Multiplexing (ATTM); Broadband Deployment and Energy Management; Part 2: ICT sites".
- [i.15] EU Code of Conduct for AC Uninterruptible Power Supplies.
- [i.16] ISO/IEC 20000 series: "Information technology. Service management".
- [i.17] CENELEC EN 50600-3-1: "Information technology - Data centre facilities and infrastructures - Part 3-1: Management and operational information".
- [i.18] Mandate M/462: "Standardisation mandate addressed to CEN, CENELEC and ETSI in the field of ICT to enable efficient energy use in fixed and mobile information and communication networks".

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