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Operational energy Efficiency for Users (OEU); Global KPIs for ICT Sites

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Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Operational energy Efficiency for Users (OEU).

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**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).

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Introduction

Further to the 1997 Kyoto protocol [i.7], the European Commission has issued, and will issue, Directives in order to improve energy management of networks, sites included, of whole industry sectors.

Therefore suppliers and users of information and communication technology (ICT) equipment are obliged to implement "Green" tools (indicators, recognized Green levels) to monitor the efficiency of their greener networks.

ICT sites constitute one of the most important areas of the worldwide growing energy consumption. Consequently, the first target of ETSI ISG OEU has been the development of this Position Paper defining appropriate Objective and Global Key Performance Indicators (KPIs) to be used for operational ICT sites.

The present document has been developed by ISG OEU members (ICT world Users) supported by the CTO Alliance/CRIP in order to define the most efficient tools.

The present document presents the Objective KPIs of the ETSI ES 205 200-2-1 [2] in a simple format and uses them to define a Global KPI which indicates data centre energy usage and efficiency. It is expected that the present document will influence the development and maintenance of the ETSI ES 205 200 Series [i.8] under the responsibility of ETSI ATTM.

1 Scope

The present document defines the current position of the ISG OEU members in relation to the so-called Global Key Performance Indicators (Global KPIs) enabling the monitoring of data centre (DC) energy management.

The present document defines Global Key Performance Indicators in relation to energy management for ICT sites including, but not limited to: operator data centres (ODC), operator sites (OS) and customer data centres (CDC). It addresses the following objectives:

- energy consumption;
- task efficiency;
- energy reuse;
- renewable energy.

The present document defines:

- four KPIs addressing these objectives (Objective KPIs);
- one Global KPI which combines the four Objective KPIs.

The Objective and Global KPIs defined here apply to ICT sites of any size from initial operation to end of life.

2 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.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

2.1 Normative references

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

[1] ETSI ES 205 200-1: "Access, Terminals, Transmission and Multiplexing (ATTM); Energy management; Global KPIs; Operational infrastructures; Part 1: General requirements".

[2] ETSI ES 205 200-2-1: "Access, Terminals, Transmission and Multiplexing (ATTM); Energy management; Global KPIs; Operational infrastructures; Part 2: Specific requirements; Sub-part 1: Data centres".

[3] CENELEC EN 50600 Series: "Information technology - Data centre facilities and infrastructures".

[4] CENELEC EN 1434 Series: "Heat meters".