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S T A N D A R D S

Energy Management Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 213 2020

Edge and Core Facilities Energy Metrics

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1. Introduction

1.1. Executive Summary

SCTE 213 provides procedures that help cable operators measure at the critical facility level, how effective changes in the service impact energy consumption from both high level and functional work perspectives. It enables cable operators the ability to craft a uniform baseline, and ultimately measure wins and improvements against that baseline using the agreed upon metrics. It also improves tools to communicate with executive management a set of common and consistent reports comparable across regions, by measurement against energy KPIs. This document also enables prioritization of energy efficiency spend during budget cycles.

1.2. Scope

This document provides a metric to help operators measure how changes in the service impact energy consumption at the critical facility, from both a high level and functional work perspective.

The metric is designed to:

- Drive the energy strategy and direction of the organization
- Provide a focus of energy for an operator
- Help make decisions regarding energy
- Drive performance operationally, financially and environmentally
- Measure energy change and within the organization
- Produce good internal and external public relations regarding energy impact

The scope of the energy metric standard includes edge and core network facilities servicing the customers. Excluded from this standard are labs and testing facilities, people space, parking lots, parking garages, warehouses, and customer premise equipment (CPE). Please refer to SCTE 211, Energy Metrics for Cable Operator Access Networks, for similar metrics for the access portion of the network.

1.3. Benefits

SCTE 213 provides operators a uniform way to assess and rank edge and core facility inventory for energy efficiency and productivity, creating ability to allocate capital budget/projects efficiently to facilities most in need. It also provides operators with a quantitative way to capture and show energy data, tracking improvements and translating those improvements to real operational and financial gains to support/validate business cases for energy improvement projects.

1.4. Intended Audience

Cable operator critical facility professionals and procurement teams.

1.5. Areas for Further Investigation or to be Added in Future Versions

Impact of DAA on core and edge facilities and their metrics.

2. Normative References

The following documents contain provisions, which, through reference in this text, constitute provisions of this document. At the time of Subcommittee approval, the editions indicated were valid. All documents are subject to revision; and while parties to any agreement based on this document are encouraged to

investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents might not be compatible with the referenced version.

2.1. SCTE References

- No normative references are applicable.

2.2. Standards from Other Organizations

- ISO/IEC 30134-2 2016 Information technology — Data centres — Key performance indicators — Part 2: Power usage effectiveness (PUE)
<https://www.iso.org/standard/63451.html>

2.3. Published Materials

- No normative references are applicable.

3. Informative References

The following documents might provide valuable information to the reader but are not required when complying with this document.

3.1. SCTE References

[i1] SCTE 184 2015, SCTE Recommended Practices for Cable Facilities

[i2] SCTE 211 2020, Energy Metrics for Cable Operator Access Networks

[i3] SCTE 210 2015, Performance Metrics for Energy Efficiency & Functional Density of Cable Data Generation, Storage, Routing, and Transport Equipment

3.2. Standards from Other Organizations

[i4] ETSI ES 205 200-2-1 ATTM Energy management; Global KPIs; Operational infrastructures; Part 2: Specific requirements; Sub-part 1: Data centres

3.3. Published Materials

[i5] “*PUETM*: A Comprehensive Examination of the Metric”, ASHRAE Datacom Series Book 11

[i6] “Harmonizing Global Metrics for Data Center Energy Efficiency”, Joint Statement of The Green Grid Taskforce, March 13, 2014