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S T A N D A R D S

Energy Management Subcommittee

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Energy Metrics for Cable Operator Access Networks

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140 Philips Road
Exton, PA 19341

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1. Introduction

1.1. Executive Summary

This document enables cable operators to measure how effective changes in the access network (AN) service impacts energy consumption from both a high-level and functional operations perspective. It enables operators to gauge individual progress, as well as measure progress against the cable industry, without ambiguity. This document also serves as a reliable compass by focusing operator resources on areas of the network with the greatest opportunity and prioritizing energy efficiency spend during budget cycles.

1.2. Scope

This document contains metrics for measuring the energy efficiency of access networks (ANs) that are utilized to transport information between a service provider and a plurality of users. For the purposes of this document, the AN includes all active and passive equipment between the headend or hub, referred herein as the “hub,” and the demarcation point at the user premises. This document does not include any equipment inside the hub, nor does it include any customer premises equipment (CPE).

The metrics defined in this document are designed to capture the overall energy efficiency of the network and are not designed to evaluate the energy efficiency of individual components within the network.

The metrics defined in this document may be calculated for the entire operator network as a whole or across individual segments of the network. Additionally, the metrics may be calculated over various time spans, ranging from hours to days or weeks. The period over which calculations are performed should be clearly noted along with the results.

1.3. Benefits

This document can be used to influence, measure and communicate the progress of energy efficiency improvements in the AN. It enables operators to predict and evaluate the energy efficiency and monetary impact of new equipment being considered for deployment. When used in conjunction with SCTE 212, SCTE 211 allows operators to translate operational energy management successes into financial results.

1.4. Intended Audience

Cable operator: outside plant engineering, metrics teams, access network engineers, and access network managers; or others responsible for measuring energy performance.

This document also provides energy efficiency guidance to equipment manufacturers.

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

None at this time of release.

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.