

Energy measurement and monitoring plan - Design and implementation - Principles for energy data collection

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English version

Energy measurement and monitoring plan - Design and implementation - Principles for energy data collection

Plan de mesure et de surveillance de l'énergie -
Conception et mise en œuvre - Principes pour la
collecte des données énergétiques

Plan für die Energiemessung und -überwachung für
Organisationen - Gestaltung und Umsetzung

This European Standard was approved by CEN on 12 May 2019.

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European foreword

This document (EN 17267:2019) has been prepared by CEN/CLC/JTC 15 “Energy measurement plan for organizations”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2020, and conflicting national standards shall be withdrawn at the latest by January 2020.

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Introduction

Existing energy management standards often refer to the measurement of energy as an important improvement of energy performance, but do not detail how a measurement and monitoring plan should be designed and implemented:

- EN 16247-1:2012, Energy audits: in specific cases an energy audit requires to get specific data measurement (§ 5-2 b) 5-3, 5-5). An energy measurement plan has to be set up in order to collect this data. But there are no guidelines given on how to design or implement an energy measurement plan: The future standard will help to fulfil this step;
- EN 15900:2010, Energy Efficiency Services: the energy efficiency service has to be based on collected data (4-1 b). If there is not available or reliable data an energy measurement plan is needed;
- ISO EN 50001:2018 states in 6-6: "The organization shall define and implement an energy data collection plan appropriate to its size, its complexity, its resources and its measurement and monitoring equipment. The plan shall specify the data necessary to monitor the key characteristics and state how and at what frequency the data shall be collected and retained." EN 17267 provides principles for the design and implementation of an energy data collection plan;
- ISO 50006:2014, "Energy management systems — Measuring energy performance using energy baselines (EnB) and energy performance indicators (EnPI) — General principles and guidance", provides some recommendation related to measurement (§ 4.2.6.2);
- ISO EN 50015:2014, describes the process of "Measurement and verification" (M & V) to help organizations determine and validate in a systematic way the improvement of its energy performance, within specified boundaries. As can be seen in Clause 5.2 [h) k) l) m)], the M&V process relies upon a number of measurements, without giving the methodology on how to organize the measurement. To ensure the quality of these measurements (reliability, accuracy as well as appropriateness) a "measurement plan" is needed.

The measurement and monitoring plan should be considered as a tool to facilitate the operational implementation of those cited standards.

1 Scope

This document specifies the requirements and principles for the design and implementation of an energy measurement and monitoring plan for an organization in order to improve its energy performance. The measurement and monitoring plan defines a measurement system for monitoring and analysing the energy performance of an organization, taking into account its influencing factors.

This document applies to all forms of energy, to all energy uses and to all types of organizations. It does not apply to domestic dwellings.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 50001:2018, *Energy management systems — Requirements with guidance for use*

ISO 50006:2014, *Energy management systems — Measuring energy performance using energy baselines (EnB) and energy performance indicators (EnPI) — General principles and guidance*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 Definitions related to energy management systems

3.1.1

energy management system

EnMS

set of interrelated or interacting elements of an organization to establish an energy policy, objectives, energy targets, action plans, and process(es) to achieve the objectives and energy targets

[SOURCE: ISO 50001:2018]

3.1.2

energy performance indicator

EnPI

measure or unit of energy performance, as defined by the organization

Note 1 to entry: EnPI(s) can be expressed by using a simple metric, ratio, or a model.

Note 2 to entry: See ISO 50006 for additional guidance.

[SOURCE: ISO 50001:2018]

3.1.3

energy performance improvement

improvement in measurable results of *energy efficiency*, or *energy consumption* related to *energy use*, compared to the *energy baseline*

[SOURCE: ISO 50001:2018]