
**Energy management and energy
savings — Building energy data
management for energy performance
— Guidance for a systemic data
exchange approach**



Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative reference	1
3 Terms and definitions	1
4 The process of obtaining and managing data	3
4.1 General	3
4.2 Process for defining data needs for energy management	4
4.2.1 General	4
4.2.2 Determination of a data management plan	4
4.3 Characteristics of data to be recorded in a data management plan	5
5 Potential issues pertaining to data for managing energy	6
5.1 General	6
5.2 Data timing	6
5.3 Data composition	6
5.4 Independent building occupants	6
5.5 Changes in automatically provided data	7
5.6 Standardization to facilitate automatically provided data	7
6 Documented information	8
6.1 Guidance on documented information	8
6.2 Confidentiality	8
Annex A (informative) Representative data needs of energy management systems	9
Annex B (informative) Protocols	11
Annex C (informative) Developing measurement plans	12
Bibliography	13

Introduction

The successful implementation of an energy management system (EnMS), particularly ISO 50001, requires information to complete almost every action. In some situations, the data required to provide this information will be readily available or easy to access; whereas in other situations the required data can be difficult to obtain. The availability of data may affect which energy performance goals or indicators can be used by the organization. Establishing regular information transfers for an EnMS, whether based on ISO 50001 or another similar approach, is often one of the most challenging implementation tasks. This document provides a process for the energy management team (EnMT) to use in situations where the required data are difficult to obtain. It also provides high-level guidance useful for planning and maintaining information access. This document is about the management process and not the technology of data measurement or transfer.

Establishing regular information collection or data transfers for an EnMS, for example to determine, calculate or evaluate the values of energy performance indicators (EnPIs), may require the EnMT to work with other parts of the organization to obtain the necessary data. Regular information or data transfers can be facilitated by implementing a formal data interface or transfer capabilities as part of the organization's standard business practices. These capabilities can be described in a data management plan (DMP). In the best case, data transfers can be automated. Formal data transfer capabilities, whether automated or not, can increase uniformity and consistency, and can reduce the risks, costs and errors associated with the implementation of an EnMS.

In presenting guidance on management processes, this document emphasizes that when the decision is made to incorporate specific data into the EnMS, particular attention should be paid to:

- a) management need for that data (e.g. objectives, targets) as used in the organization's EnMS;
- b) data definition, attributes and formats.

The aim of this document is to facilitate the work of the EnMT. Since data often comes from outside their activities, the providers of these data can also be interested in the requirements of the EnMT. Accordingly, users of this document can include:

- EnMTs, including those implementing ISO 50001 or calculating EnPIs;
- building energy managers;
- equipment manufacturers and instrumentation engineers;
- building information system (BIS) managers;
- organizations that operate buildings.

This document provides guidance on documenting data and the associated processes.

[Figure 1](#) shows the relationship of this document to ISO 50001, which uses the Plan-Do-Check-Act (PDCA) cycle and concept of an EnPI. The straight arrows in the figure indicate where data may be needed in the PDCA process.

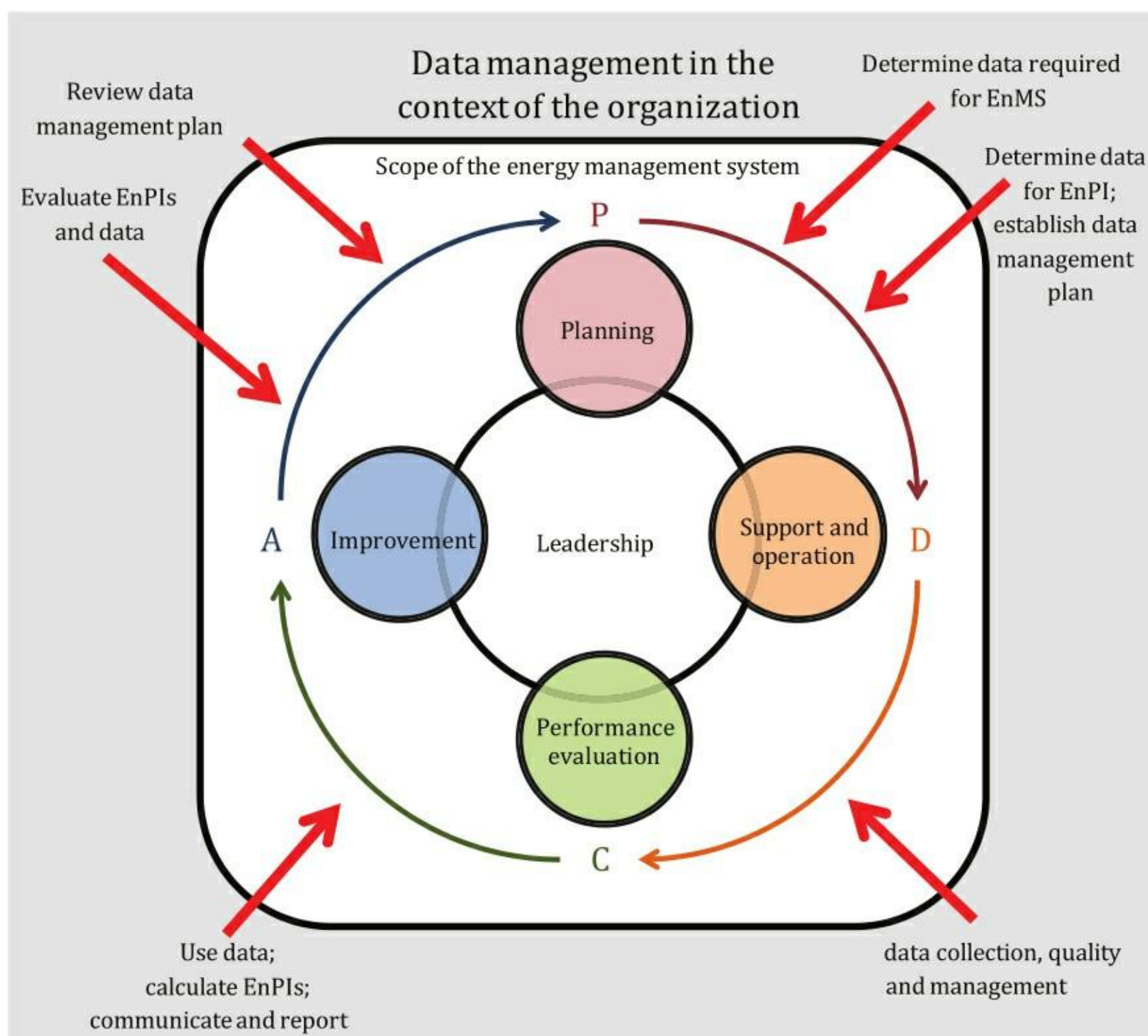


Figure 1 — Relationship to ISO 50001