ISO 50001:2018/Amd 1:2024   Test of Understanding
Level 1 – Practitioner

Test Syllabus

The main purpose of the ISTO Test of Understanding (the "Test") is to offer an evidence-based qualification to professionals who have demonstrated an appreciation of the intent and an accurate understanding of the requirements (and the non-requirements) of the standard, including its applicability and underlying management principles. Such knowledge and skills are crucial in providing a value-adding service related to the standard, be it implementation, advisory or auditing.

The Test of Understanding is not an auditor qualification. There are no questions directly related to auditing.

The topics set out in 1.1 to 1.3 are not intended to limit the subject matter or be all inclusive of what might be covered in the Test. Candidates will be expected to apply their knowledge to organizations with different sizes and complexity.

1.1. Applicability (A)
- ISO 50001 purpose
- ISO 50001 intended outcomes
- Scope and boundaries of an energy management system

1.2. Concepts, principles and Terminologies (Co, T)
Energy
- Types of energy, energy uses, energy consumption, energy efficiency
  (E.g. Basic knowledge of energy, energy sources, units of energy, energy conversion etc.)
- Typical measurement of energy performance.
  (E.g. Energy consumption; Coefficient of Performance (COP); Energy performance indicators (EnPI))

ISO 50001 Clause 3 Terms and definitions
  Understanding of the following terms:
  Top management, interested party, management system, energy policy, objective, effectiveness, documented information, competence, requirement, monitoring, measurement, corrective action, energy performance indicator, energy baseline, static factor, relevant variable, normalization, energy review, energy use, energy consumption

Management Systems
- Risk-based thinking
- The hierarchy and interrelationship of documented information within the management system, as well as the associated risks
- Root cause analysis and simple analytical tools such as Pareto chart
- The application of the Plan-Do-Check-Act cycle within the management system
- Typical measurements of management system performance.
  (E.g. Training hours; achievement of objectives; number of nonconformities)

ISO 50001 EnMS requirements structure
- Sequence of activities in the requirements of the standard

1.3. Clause reference, Requirements and Unspecified requirements (C, U, R, Ac, E)

Clause Reference (C)
- Identify the clause reference of a particular ISO 50001 requirement.
  (E.g. The requirement to determine competence is given in clause 7.2a.)

Requirements versus Unspecified requirements (R, U)
- Requirements specified in the ISO 50001 standard
  (E.g. Conduct management review)
- Differentiate from non-requirements
  (E.g. Clause 5.1 does not require a strategic plan; Clause 6.1 does not require a formal method for risk management.)

Key requirements of the ISO 50001 EnMS: **Management System related**
Planning
- Context, interested parties' requirements, risks/opportunities and actions to address; consideration of climate change
- Leadership and commitment
- Energy policy, objectives and actions to achieve
- Roles, responsibilities and authorities

Performance evaluation and improvement
- Monitoring and measurement
- Monitoring and measuring equipment control
- Evaluation of compliance
- Analysis and evaluation
- Internal audit
- Management review
- Corrective action
- Improvement
- Management system non-requirements

Key requirements of the ISO 50001 EnMS standard: **Operations related**
Planning
- Applicable legal requirements and other requirements
- Energy review
- Energy Performance Indicator, Energy Baseline
- Planning for collection of energy data

Support
- Resources
- Competence and awareness
- Communication
- Documented information creation and control, and to maintain and retain

Operation
- Operational planning & control
- Design
- Procurement
- Support and operational non-requirements

Actual documented information requirements versus Erroneous Requirements (Ac, E)

In order to provide flexibility to organizations of different sizes and background, ISO 50001 is written with minimal documentation requirements. Based on their contextual factors, organization shall determine the complexity of their documented information required to support their energy management system.

- Requirements specified in the ISO 50001 standard

(E.g. competence documented information)

- Differentiate from non-documentation requirements

(E.g. management system manual; documented procedure; approved supplier list; signatures.)

Reference sources

The reference sources and sites detailed in this section contain information that will support your learning and better position you to pass your ISTO Test.

ISO 50001:2018/Amd 1:2024
Energy management systems — Requirements

ISO 50002:2014
Energy audits — Requirements with guidance for use

ISO 50004:2020
Energy management systems — Guidance for the implementation, maintenance and improvement of an energy management system

ISO 50006:2023
Energy management systems — Measuring energy performance using energy baselines (EnB) and energy performance indicators (EnPI) – General principles and guidance

ISO 50015:2014
Energy management systems — Measurement and verification of energy performance of organizations – General principles and guidance

Reference sites *(free of charge)*

ISO Annex SL Appendix 2 (2024)	https://www.iso.org/committee/54996.html?t=-Duqtv8H-DoUiDQTNCpLN0UhREpjaZ13OOrwm4_WLY97n2yln9bslL_OpNRJZCit&view=documents#section-isodocuments-top *(Note: The link above provides access to the 2024 version of Annex SL Appendix 2. It should be noted that the contents of ISO 50001:2018/Amd 1:2024 may not necessarily incorporate all the latest Annex SL changes. The ISTO Test of Understanding is based on the ISO Management System Standards (MSS) and not on Annex SL Appendix 2.)*
ISO 50001 – Energy management systems	https://www.iso.org/publication/PUB100400.html

Other ISO References

Glossary – Guidance on selected words used in the ISO 9000 family of standards	https://www.iso.org/files/live/sites/isoorg/files/standards/docs/en/terminology-ISO9000-family.pdf
Guidance on the requirements for Documented Information of ISO 9001:2015	https://committee.iso.org/files/live/sites/tc176sc2/files/documents/ISO%209001%202015%20-%20Implementation%20guidance%20docs/ISO9001_2015_Guidance_on_Documented_Information.docx