The quickest way to understand and implement International Standards

iguru Store

White Paper of
Energy Management System

ISO 50001:2018

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ABSTRACT

White Paper of 'Document Kit of ISO 50001:2018' has been established by iguru store for the users to understand its values through benefits and expected resourses to be utilized by the organization.

Energy Management System ISO 50001 is an international standard developed by ISO to cater the need of using the energy resource effeciently in organizations and industries to save money and to use it to arrange other necessary resources to excel the industries and organizations.

ISO 50001 is based on the management system model of continual improvement also used for other well-known standards such as ISO 9001 or ISO 14001. This makes it easier for organizations to integrate energy management into their overall efforts to improve quality and environmental management.

ISO 50001 identifies energy management as business management; having the framework to encourage suppliers and customers to better control their energy, and thus promoting energy efficiency through the supply chain, is encouraged. Successful Energy Management Systems require a strong top management involvement and leadership; appointing an EnMS representative from higher management to manage system across the organization would help with its implementation and control.

ISO 50001 provides a framework of requirements that help organizations to:

- Develop a policy for more efficient use of energy
- Fix targets and objectives to meet the policy
- Use data to better understand and make decisions concerning energy use and consumption
- Measure the results
- Review the effectiveness of the policy
- Continually improve energy management

An energy management system involves implementing a systematic approach to energy efficiency and is superior to ad hoc or traditional project-based approaches to improving energy performance. Typically, energy management systems combine best practices in project management, energy monitoring, and energy awareness along with an energy policy that governs an organization's approach towards energy use and performance. This benefits an organization by enabling significant energy savings that are persistent since the organization's personnel must continually monitor energy use and resolve anomalies or incidents that cause energy waste.

The aim of iguru is to ensure the availability of resources to the user form the apart of professional documentation for intended use of any management system that is required during internal and external/ certification audits.

Those kits can also be used for second party/ customer audit requirements reference to the proper use of guidelines. Refer to 'Kit of Implementation'.

WHAT IS THE CHANGE

STRUCTURE

ISO 50001:2018 is based on Annex-L – a high level structure (HLS) that brings a common framework to all ISO management systems. This helps to keep consistency, align different management system standards, offer matching sub-clauses against the top-level structure and apply common language across all standards.

AUDITABLE CLAUSES

4- Context of Organization

5- Leadership

6- Planning

7- Support

8- Operation

9- Performance Evaluation

10- Improvement

DOCUMENTED INFORMATION

As part of the alignment with other management system standards a common clause on 'Documented Information' has been adopted. The terms "documented procedure" and "record" have both been replaced throughout the requirements text by "documented information".

Documented information is reference to the standard requirements of approx 18 documents specifying both procedures and records.

18 Requirements of Documented Information

4.3 The scope of EnMS available as documented information.

5.2 The EnMS policy available as documented information.

6.2.2 The EnMS objectives and plans to achieve them are maintained and retained as documented information.

6.2.3 Plan of action to achieve objectives and targets.

6.3 Retain the documented information for energy reivew(s).

6.4 Retain the documented information for energy perfromance indicator(s).

6.5 Retain the documented information for energy baseline.

6.6 Retain the documented information for planning to collect energy data.

7.2 Documented information is retained as evidence of competence of workers.

7.4 Relevant EnMS communications are received and maintained as documented information.

7.5 Documented information is required to by the standard.

8.1 Documented information to provide confidence that processes have been carried out as planned.

8.2 Conisder energy performance improvement opportunities and operational control in the design of new, modified and renovated facilities.

9.1.1 Evidence of the monitoring, measurement, analysis and evaluation results are retained as documented information.

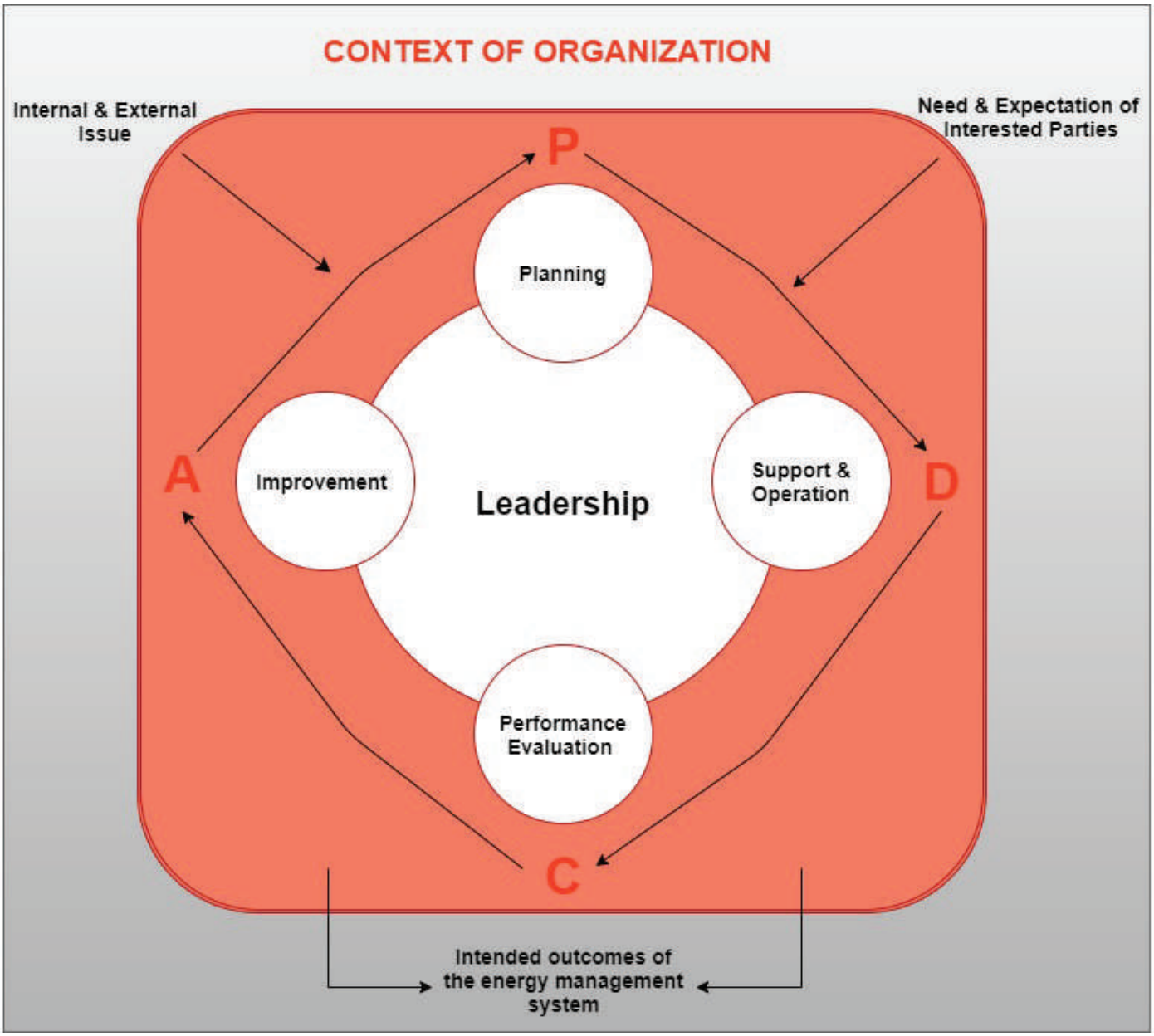
9.1.2 Results of the compliance evaluation are retained as documented information.

9.2.2 Evidence of the implementation of the audit program and the audit results is retained as documented information.

9.3 Evidence of the results of management reviews is retained as documented information.

10.1 Evidence of the nature of incidents or nonconformities and actions taken with results and effectiveness of correction is retained as documented information and communicated.

PDCA MODULE


CONTEXT OF ORGANIZATION
Internal & External Issue
Need & Expectation of Interested Parties
P
Planning
A
Improvement
Leadership
Support & Operation
D
Performance Evaluation
C
Intended outcomes of the energy management system

ANNEX-L

A new high level structure for all management standards

Annex-L, is a type of structure that was introduced by ISO technical committee to eliminate the gap among all its management standards. This provides the framework of 'common structure' with similar use of terms, definitions, clause patterns and easy integration of standards for organization at the same
time.

The common structure of standard requirements:

Clause 1: Scope
Clause 2: Normative references
Clause 3: Terms and definitions
Clause 4: Context of the organization
Clause 5: Leadership
Clause 6: Planning
Clause 7: Support
Clause 8: Operation
Clause 9: Performance evaluation
Clause 10: Improvement

WHO CAN ADOPT EnMS

Though any company who belongs to industrial aspectrum can adopt ISO 50001:2018 standard and its document kit to penetrate its business processes into energy management system that includes:

● Industries ● giant warehouses ● Steel Industries ● Textile Industries ● Pharmaceutical Sector ● Construction Sector ● Cement Sectors ● Other giant manufacturing units

The quick contact to igurustore shall be in benefit to introduce your organization for true means of this standard with effective implementation. igurustore is passionate to deliver for the change and integration with similar standards.

BENEFITS OF ISO 50001:2018

- Develop a policy for more efficient use of energy
- Fix energy efficiency targets and objectives to meet the policy
- Use data to better understand and make decisions concerning energy use and consumption
- Measure the results of energy efficiency improvements
- Review the effectiveness of the energy policy
- Continually improve energy management
- ISO 50001 supports the development of an energy policy and contributes to the structure of an energy plan to achieve targets.
- ISO 50001 facilitates engagement (commitment and agreement) of management and has a positive contribution towards the energy targets.
- An ISO 50001-based EnMS creates awareness and a commitment about energy (i.e. consumption, use, efficiency, renewable sources) within the organization.
- ISO 50001 improves the ability of organizations to manage energy risks concerning possible impacts in an efficient and effective way.
- ISO 50001 strengthens the competitiveness of organizations and reduces their vulnerability with respect to energy price fluctuation and availability of energy.
- ISO 50001 allows the establishment of a benchmarking process.
- An ISO 50001-based EnMS allows organizations to gain credible external visibility of energy saving actions.
- An ISO 50001-based EnMS provides a better understanding between predictable energy demand and supply.
- An ISO50001-based EnMS reduces energy costs and improves profitability.

KEY PERFORMANCE INDICATORS

- *Risk Based Strategy*
- *Identification of EnPIs*
- *Objective Planning*
- *Energy Baselines*
- *Energy Reviews*
- *Monitoring & Measurement of Performance*
- *Continual Improvement*

igurustore ensures to provide the essence of all the core principles of ISO 50001:2018. The KPI of this standard shares the central idea to adopt this standard to mitigate organizational hazards.

CONTEXT OF ORGANIZATION

Energy Management System is significantly diversified in terms of its context to implement or impose the requirements. Context of the organization raises the opportunity for the organization to understand its internal and external environment refers to the business process and strategies.

Business scope is the second vital element of this clause where the organization has to highlights the limitations of the business process and their associated risks. i.e. processes, locations, remote access, online access.

Monitoring the needs and expectation of interested parties to cater for the further requirements of EnMS compliances. i.e. Legal requirements, stakeholders requirements (Shareholders, employee, suppliers, contractors, competitors).

- ***Understanding the organization and its context***
- ***Understading the needs and expectation of interested parties***
- ***Determining the scope of energy management system***
- ***Energy management system***

LEADERSHIP

The organization's ultimate aim is to be accountable for the compliances of EnMS at all level, following EnMS requirements from start to end.

Introducing a road map for the employee to direct them to achieve the goals of EnMS compliances by identifying the PDCA model, creating roles and assigning them responsibilities and authorities.

Establishing the policy as a comprehensive statement to deliver the central idea of the organization for the EnMS.

- ***Leadership and commitment***
- ***Energy policy***
- ***Organization roles, responsibilities and authroties***

PLANNING

In this part of the EnMS Standard, the organization must consider its planning using 'Proactive Approach'. A risk-based thinking strategy. i.e. designing the methodology for the mitigation of internal and external risks or threats.

Setting energy objectives to achieve those mitigation actions or new milestone to achieve the goal of EnMS compliances. Through the help of measurable objectives organization can reduce its cost of energy using analytical data.

The organization is to review its energy by studying the utilization, consumptions, performances. To determine the performance indicators measuring and monitoring its energy performance that enable the organization to demonstrate energy performance improvement. The data an organization collects against energy utilization helps make wise decisions and continue making more correct policies and procedures to comply with the issues.

- ***Actions to address risks and opportunities***
- ***Objectives, energy targets and planning to achieve them***
- ***Energy review***
- ***Energy performance indicators***
- ***Energy baseline***
- ***Planning for collection of energy data***

SUPPORT

The successful implementation requires support activities that consist of resources, competent people of the organization, periodically well aware of the issues, communication channels, and documented information to maintain the records.

This organization must assign a team of skilled employee to ensure the execution of support activities.

- ***Resources***
- ***Competence***
- ***Awareness***
- ***Communication***
- ***Documented information***

OPERATION

Meeting the requirement of this clause is essential to sustain the Energy Management System by monitoring and maintaining the SEU – Sustainable Energy Units by planning, implementing and controlling the processes.

There is a need to establish criteria for the processing for the effective operation and maintenance of facilities to avoid significant deviations from intended energy performance.

In this aim, there is a need for "Design" to create new and modified versions of renovations of facilities and resources to achieve the conformity of the energy management system.

Procurement is the most crucial element in selecting external providers, acknowledging them to deliver the energy-efficient equipment and appliances to meet the objective of the energy management system.

- ***Operational planning and control***
- ***Design***
- ***Procurement***

PERFORMANCE EVALUATION

Measuring the performance of energy management system directs to make evidence-based decisions that require organizations to monitor SEU's, EnPI's, energy consumptions as planned and legal requirements.

To monitor overall EnMS performance, an "Internal Audit" is a mandatory requirement to be met by the organization by following the documented and systematic procedure through competent and skilled auditor to get the realistic outcomes of the audit.

Management reviews to sum up the overall performance in the form of reviews in the presence of top management or leadership to investigate the matters intensely making new decisions, objectives, and through change management changing the risks treatments.

- ***Monitoring, measurement, analysis, and evaluation of energy performance and the EnMS***
- ***Internal Audit***
- ***Management Review***

CONTINUAL IMPROVEMENT

During the execution of operational activities, EnMS must face deviations against its plan, which is called non-conformance, that must be resolved by this improvement clause, taking into consideration correction and corrective actions.

Encourage continual improvement to enhance energy management system and sustain energy consumptions.

- ***Nonconformity and corrective action***
- ***Continual improvements***

Document Kit | Internal Audit Kit | Online Consultation

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iguru ISO 9001:2015

iguru ISO 14001:2015

iguru ISO 45001:2018

iguru ISO 50001:2018

iguru ISO 27001:2013

iguru cGMP

iguru ISO 22000:2018

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