

WHITE PAPER

ISO 50001

Energy Management System

A simple way to minimize the utility
of energy resources.



Success through management excellence



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 will establish a framework for industrial plants ; commercial, institutional, and governmental facilities ; and entire organizations to manage energy. Targeting broad applicability across national economic sectors, it is estimated that the standard could influence up to 60% of the world's energy use.

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 the 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.

BENEFITS OF ENERGY MANAGEMENT STANDARD

- 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.

STRATEGY TO ENERGY MANAGEMENT SYSTEM

EnMS requires an 'Energy review' through strategic direction to find out the ways to determine the energy baselines that shall support to control the set target of energy utilization. To find out the EnPI for the conformity of Energy management system.

Our experts can provide the following energy management and assessment support:


- Comprehensive analysis, including identification of the degree of compliance with legal and standard requirements; alignment with existing management systems.
- Screening analysis of energy and material flows, capturing and analysis of energy data.
- Action plan for EnMS establishment and implementation and for realising potential areas of savings.
- Establishing energy management policy, objectives, targets and programmes.
- Identification, organisation and documentation of organisational and operational structures in a process map, including existing management systems.
- Mapping/modelling of all organisational processes (e.g. production, plant design, energy purchasing, measurement of energy consumption, efficiency assessment, maintenance, energy reporting, employee training).
- Recommendation of methods and tools to measure, capture and record energy consumption data. Implementation of all system components.
- Training and internal communication. Preparation and carrying out of internal audits to monitor processes and workflows.
- Consulting on the continuous improvement of your energy management system.



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