

> ENERGY MANAGEMENT SYSTEM (EMS)

ISO 50001

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An effective Energy Management System (EMS) that is aligned with an organization's business strategy will allow visibility of energy use and areas where performance can be improved. Likewise, it provides structured policies, processes, procedures and action plans to apply energy savings opportunities. By establishing, implementing, maintaining and continually improving an energy management system, an organization will be able to not only address initial energy savings opportunities or “low-hanging fruit” but also identify and manage where, when and how energy is consumed. energy and identify energy efficiency improvements and reductions.

The International Organization for Standardization (ISO) has published management system standards, in order to help organizations improve their performance, the ISO 50001 standard related to Energy Management Systems, requires that an organization establish a line of base that serves as an indicator of energy performance that allows monitoring energy efficiency over time.

Recommended procedure for EMS implementation:

1. Plan: this involves establishing the objectives, goals, indicators and action plans to improve the energy performance of the organization, based on the energy policy, the energy review and the applicable legal requirements. The scope, limits and resources of the EMS must also be defined.

2. Do: refers to implementing the processes and operational controls necessary to ensure the efficient use of energy and compliance with action plans. Appropriate training, communication and documentation for the EMS must also be provided.

3. Verify: consists of monitoring, measuring and analyzing the energy performance of the organization, using the defined indicators and baseline. Internal audits and legal compliance assessments should also be performed to verify the conformity and effectiveness of the EMS.

4. Act: involves taking corrective and preventive actions to eliminate nonconformities and improvement opportunities identified in the EMS. A management review should also be conducted to evaluate the status and progress of the EMS and establish new guidelines and priorities.

The implementation of an EMS according to the ISO 50001 standard constitutes a valuable tool for organizations that have set out to improve their energy performance, motivated by cost reduction and sustainable business development.



» Source: GD5-Renewable Energy Management and Energy Efficiency. Polytechnic of Colombia. Image: <https://ingelcomteinforma.wordpress.com/2019/10/21/energias-renovables-uso-eficiente-igual-ahorro-de-dinero/>