

ISO 50001:2018

Energy Management Systems Manual

[Preview]

[Company Name]

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Energy Management Systems Manual Revision Index

Revision	Issue Date	Revision Description
A		Initial issue
B		Change of structure and modifications relevant to the transition to the new version of ISO 50001:2018

SAMPLE



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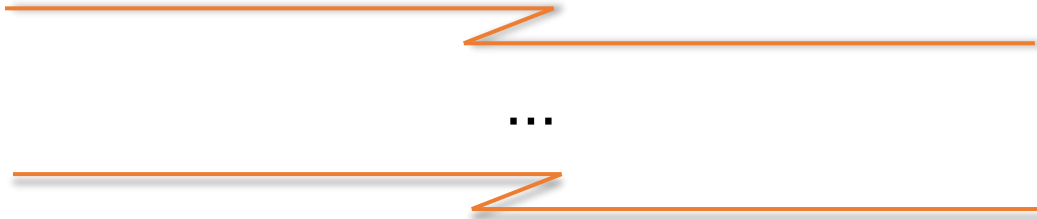
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4.2 Understanding the needs and expectations of interested parties

Interaction of [Company Name] with the interested parties (fig. 4.2-01) includes:

- defining interested parties relevant to the EnMS;
- monitoring and analysis of interested parties' needs and expectations.

Defining interested parties relevant to the EnMS is carried out in the Management review (sec.9.3).

Monitoring and analysis of interested parties' needs and expectations is conducted on a regular basis in accordance with the diagram shown in Fig. 4.2-01.

Interested party	Basic Needs and Expectations of Interested Parties	Form of Information about Interested Parties Needs and Expectations
Owners Stakeholders	Reducing the cost of production, increase profits, increase competitiveness. The development of energy-saving technologies. Increase of market capitalization	Shareholders (owners) Meetings minutes – reviewed by the Leadership
State via <u>legal requirements and other requirements related to energy efficiency, energy use and energy consumption</u>	Ecology improvement and minimal depletion of energy resources, as the State sustainable development component. Compliance with national laws and international standards	<u>See below</u>
Society	Ecology improvement. Increased energy availability	External communication (sec.7.4.3)
Employees	Improving working conditions	Internal communication (sec.7.4.2)

Interested party	Basic Needs and Expectations of Interested Parties	Form of Information about Interested Parties Needs and Expectations
Customers	Reduced product prices. Improving the image of the organization.	Customer relations information - analyzed and used in advertising by marketing and sales services

Fig.4.2-01. Monitoring and Analysis of Interested Parties Needs and Expectations Diagram

The two-way communication is carried out between the organization and the interested parties, that includes the transfer of information about the organization’s activities and the EnMS.

Identification and updating of legal requirements and other requirements related to energy efficiency, energy use and energy consumption include:

- Selection and, if necessary, procurement of information sources containing legislative and other requirements;
- Identification of the main legislative and other requirements for the use, consumption and conservation of energy and drafting of the legislative and other requirements list;
- Providing access to the list of requirements to employees of the organization.

Sources of information for identification and updating of legislative and other requirements used in the organization are:

- computer reference and information databases of normative legal documents that are established in the organization and are periodically updated;
- Computer reference and information database of standards that are implemented in the organization and updated periodically.

Responsible for control of documented information ensures set up and quarterly update of the Register of rules and regulation. Register of rules and regulation is controlled in accordance with the requirements for documented information (sec.7.5).

In case the legislative and other requirements are applicable to the activities of a particular structural subdivision, the EnMS Energy team leader together with the Energy management team of the structural subdivision (sec.6.3) determines:



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- How the legislative and other requirements are applicable to the nature of energy use and consumption, as well as energy conservation;
- How these requirements should be taken into account in the EnMS and its improvement (*for example, by changes in regulations, additional training, etc.*);

In case the legislative and other requirements are applicable to the activities of the entire organization and (or) their implementation involves additional resources, the EnMS Energy team leader prepares proposals for management review (sec.9.3).

Informing external providers of processes, products, and services about the applicable legislative and other requirements that the organization committed to comply to is carried out:

- by including requirements in contractual obligations;
- When conducting briefings for visitors to structural subdivisions and external providers' employees.

Project managers who complete the contract are responsible for communication of legislative and other requirements to the external providers of processes, products, and services. Control over completeness of fulfillment of the requirements by external providers is carried out at the acceptance of works under the contract.

The results of monitoring and analysis of the interested parties' needs and expectations are taken into account:

- when defining the scope of the EnMS (sec. 4.3);
- in the Management review (sec. 9.3);
- in operational planning and control (sec.8.1).



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4.4. Energy management system

[Company Name] developed, implemented, maintains, and continually improves energy performance and EnMS in compliance with the requirements of ISO 50001:2018 that includes:

- EnMS processes
- EnMS documented information, including procedures (sec.7.5)
- Resources, including personnel (sec.7.1, sec.7.2)
- Organizational structure, roles and responsibilities (sec.5.3)

Organization leadership defines EnMS processes within the management review activity (sec.9.3), in compliance with the ISO 50001:2018 requirements, based on the strategic directions of the organization's development, internal and external context (sec.4.1), needs and expectations of interested parties (sec.4.2) and scope of the EnMS (sec.4.3).

EnMS processes include:

- Actions to address risks and opportunities (sec.6.1)
- Energy planning (sec.6.3, sec.6.4, sec.6.5, sec.6.6)
- Control of personnel (sec.7.1.1, sec.7.2)
- Control of monitoring and measuring resources (sec.7.1.2)
- Communication (sec.7.4)
- Control of documented information (sec.7.5)
- Operational planning and control (sec.8.1)
- Design (sec.8.2)
- Procurement (sec.8.3)
- Evaluation of compliance with legal requirements and other requirements (sec.9.1.2)
- Internal audit (sec.9.2)
- Management review (sec.5, sec.9.3)
- Corrective action (sec.10.1)

In addition to these processes listed above, actions to improve EnMS (10.2) are the integral part of the EnMS.

EnMS processes interact in accordance with the PDCA model (Figure 4.4-01).

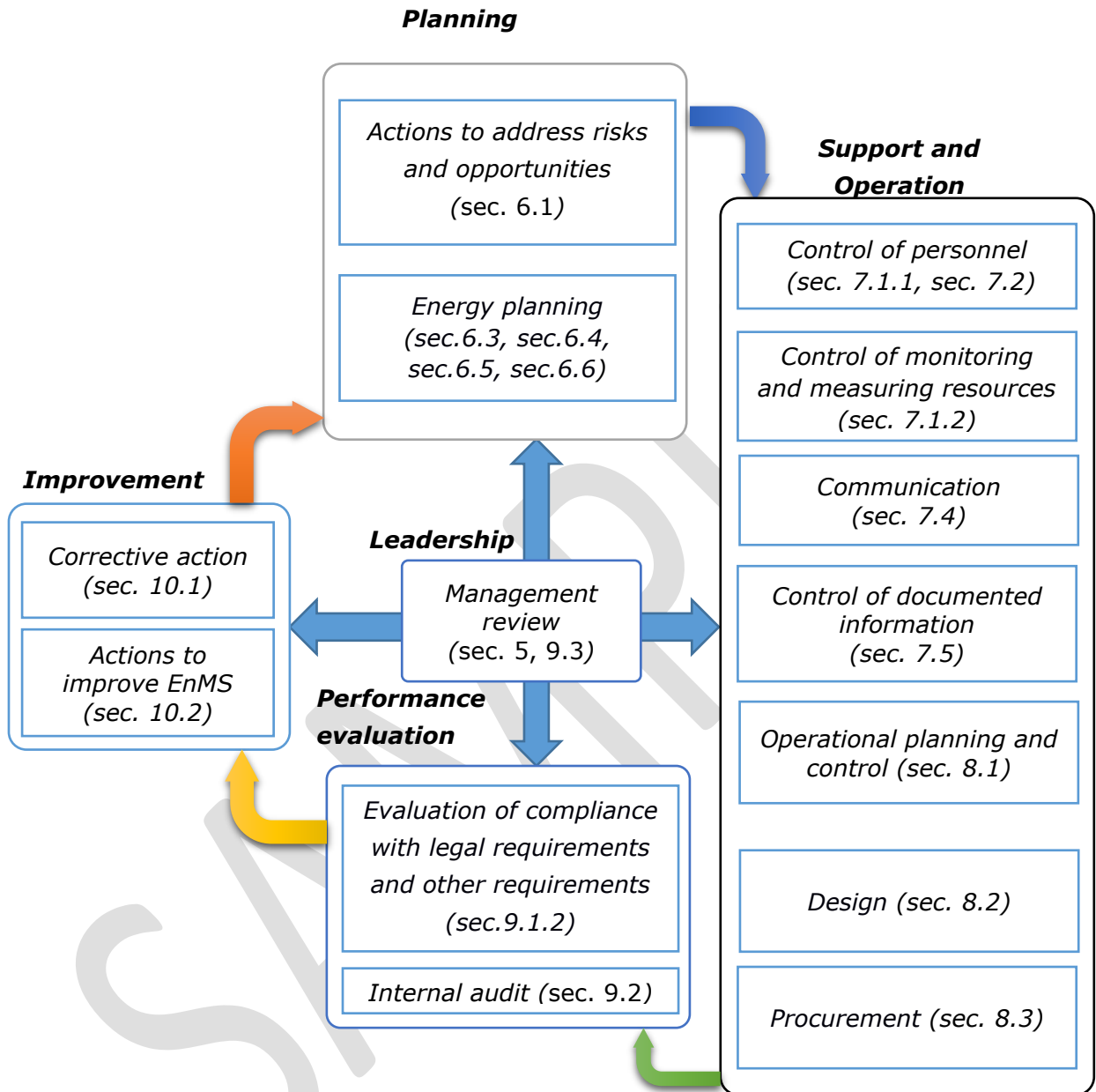


Figure 4.4-01 EnMS Processes interaction diagram

EnMS processes implementation is regulated by this Manual as well as the documented procedures. It includes definition of required inputs, expected outputs, processes sequence and interactions.

Process owners are responsible for process operation and, above other, ensure:

- The completeness of process description;
- Definition of responsibilities and authorities of process operators;
- Sufficient resources within the process budget;
- Definition of Process criteria; expert group (in case of expert evaluation) establishes the frequency of process criteria evaluation and analysis;
- Analyses of trend and provision of information for management review;
- Identification, analysis, and treatment of risks and opportunities (sec.6.1);
- Activities to improve the process using process resources and (or) the initiation (and escalation to the leadership) of process improvement projects that require the budget of the organization (sec.6.2, sec.10.2).

EnMS processes' activities are carried out in all business processes of the organization, that are in scope of the EnMS.

Control of changes is an essential part of the EnMS operation. Analysis of changes in the EnMS is done via Management review (sec.9.3). Monitoring of the results of changes in the EnMS is carried out during Internal audits (sec. 9.2).

Section 9: Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation of energy performance and the EnMS

9.1.1 General

[Company Name] conducts monitoring, measurement, analysis and evaluation of energy performance in order to:



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- demonstrate the implementation of Energy policy and achievement of Objectives and energy targets;
- increase energy performance;
- meet compliance obligations that the organization committed to comply with;
- provide data to interested parties to confirm the energy performance and the EnMS effectiveness;
- obtaining data EnMS effectiveness evaluation;
- identify and eliminate causes of undesired effects, develop positive experiences and achieve continual improvement of suitability, adequacy and effectiveness of EnMS (sec.10.3)

Energy management teams of structural subdivision define methodologies for monitoring and measurement performance, operational control points and conformity to the objectives and targets on regular basis as per defined frequency. These provide quantitative as well as qualitative measures to meet organization need as well as monitor the key energy characteristics of operations, which have significant energy impacts, and achievements of EnMS objectives and operational process and the activities. The key energy characteristics are relevant to the following:

- the effectiveness of the action plans in achieving objectives and energy targets;
- EnPI(s) (sec.6.4);
- operation of SEUs (sec.6.3);
- actual versus expected energy consumption;
- data for evaluation of compliance with relevant EnMS legislation and regulations.

Energy management teams of structural subdivisions develop and ensure implementation of Energy measurements plan.

The results of monitoring and measurements are documented by records; their format is defined by the monitoring and measurement methodologies. Records are controlled in accordance with the requirements stated in sec. 7.5.



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Accuracy and reproducibility of the results of monitoring and measurement is ensured by control of resources of monitoring and measuring (sec.7.1.2).

Energy management teams of structural subdivisions review the results of monitoring and measurement to determine the areas of success and to identify areas requiring corrective action and improvement. Exceeding the energy consumption level for more than 5% in comparison with the planned indicator is considered significant and is noted by the Energy team leader. Corrective actions are carried out (sec.10.1) in respect of significant excess of energy consumption.

Results of the analysis of monitoring and measurement are documented by:

- Energy management action plan progress report;
- Annual energy consumption report;
- Monthly energy consumption report.

Energy team leader provides information on monitoring and measurement for management review (sec.9.3).



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