



ISO 14001:2015 TO ISO 50001:2018 GAP GUIDE



43,000
CERTIFICATES
GLOBALLY 

1000+
EMPLOYEES
WORLDWIDE 

AVERAGE
CUSTOMER
PARTNERSHIP 

OPERATING
COUNTRIES 

This document explains how to use your existing ISO 14001 environmental management system to meet the requirements of ISO 50001. It identifies the common elements to both standards as well as the specific additional requirements of ISO 50001 you will need in order to implement an effective Energy Management System (EnMS).

GAP ANALYSIS AND GUIDANCE

ISO 50001:2018
CLAUSES

ISO 14001:2015
CLAUSES

GUIDANCE

4 Context of the organization

<p>4.1 Understanding the organization and its context</p>	<p>4.1 Understanding the organization and its context</p>	<p>This clause is almost identical in both standards and your existing understanding of environmental context will already include issues related to energy use. The key is to ensure that issues both positively and negatively impacting on ability to improve energy performance are understood.</p>
<p>4.2 Understanding the needs and expectations of interested parties</p>	<p>4.2 Understanding the needs and expectations of interested parties</p>	<p>The needs and expectations of interested parties must also include at this point relevant and applicable legal and other non-legislative requirements. This is a key difference between the two standards.</p> <p>ISO 50001 now has no separate clause for compliance obligations and still uses the term 'Legal and other requirements'. The ISO 14001 method is however an acceptable method of complying with this requirement.</p>
<p>4.3 Determining the scope of the energy management system</p>	<p>4.3 Determining the scope of the environmental management system</p>	<p>Broadly similar requirements. However, the organization must have the authority to control its energy use, efficiency and consumption within the defined scope.</p> <p>It is not permissible to exclude an energy type that is used within the defined scope of the system.</p>
<p>4.4 Energy management system</p>	<p>4.4 Environmental management system</p>	<p>Similar requirements however the EnMS must facilitate a continual improvement in energy performance.</p>

5 Leadership

<p>5.1 Leadership and commitment</p>	<p>5.1 Leadership and commitment</p>	<p>The leadership requirements across both standards are similar. ISO 50001 does have an additional key headline commitment to continual improvement in energy performance.</p> <p>Whilst neither standard has the requirement for a formal energy/environmental manager position, ISO 50001 does require top management to ensure the formation of an energy team.</p>
<p>5.2 Energy policy</p>	<p>5.2 Environmental policy</p>	<p>An energy policy is required; it can be a separate policy or integrated with the environmental policy. There are a number of common commitments between the two sets of requirements.</p> <p>The energy policy additionally needs to include a commitment to ensuring the availability of information and resources to achieve objectives and targets. It should support the purchase of energy-efficient products, services and design for energy performance improvement. Must also include a commitment to continual improvement of energy performance.</p>

5 Leadership (continued)

<p>5.3 Organizational roles, Responsibilities and authorities</p>	<p>5.3 Organizational roles, Responsibilities and authorities</p>	<p>The existing elements of your EMS will cover a large proportion of the requirements of ISO 50001.</p> <p>There is one additional role that needs formally assigning:</p> <ul style="list-style-type: none"> • Implementing plans to achieve continual improvement in energy performance
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6 Planning

<p>6.1 Actions to address risks and opportunities</p>	<p>6.1 Actions to address risks and opportunities</p>	<p>The key additional requirement in ISO 50001 is to ensure that plans are in place to ensure that the EnMS meets its intended outcome namely the continual improvement in energy performance. This includes identifying the risks and opportunities and planning to maximise the positives and mitigate the negatives.</p> <p>Plans must take into account issues raised under context in clause 4.1 and though must be given as to how to evaluate the effectiveness of such plans.</p>
<p>6.2 Objectives, energy targets and planning to achieve them</p>	<p>6.2 Environmental objectives and planning to achieve them</p>	<p>The EMS process for Environmental Objectives will help you to meet this requirement to set energy objectives. The EnMS process will need to include methods for verifying improvements in energy performance and results.</p> <p>ISO 50001 still uses the term targets however, the intention is the same in both standards</p>
<p>6.3 Energy Review</p>	<p>Stand-alone requirement</p>	<p>You will need to undertake an energy review to identify the areas of significant energy uses (SEUs). This will include an analysis of measurement and other data which may potentially be able to be provided by your EMS's monitoring and measurement process.</p> <p>Identify opportunities for improving energy performance some of which may have already been identified under some of the EMS's processes</p> <p>The energy review should be used to direct the implementation of the EnMS, similar to how the aspects and impacts process should be used to direct the implementation of an EMS.</p> <p>The key output is the prioritisation of Significant Energy Uses (SEUs) and the determination for each of:</p> <ul style="list-style-type: none"> • Relevant variables • Current energy performance • Person(s) who control of affect SEUs
<p>6.4 Energy performance indicators</p>	<p>Stand-alone requirement</p>	<p>You need to establish and document EnPIs to monitor and measure energy performance against the established energy baseline. These should be suitable to allow for the demonstration of energy performance improvement.</p>
<p>6.5 Energy baseline</p>	<p>Stand-alone requirement</p>	<p>You need to identify an energy baseline to establish your energy use and consumption patterns over a suitable representative data period. This should include the normalisation of EnPI values where relevant variables affect energy performance.</p> <p>The baseline must be revised if there have been major changes within the business.</p>
<p>6.6 Planning for collection of energy data</p>	<p>Stand-alone requirement</p>	<p>Plans must be drawn up detailing how the key characteristics identified are to be measured, monitored and analysed.</p> <p>Measurement must be accurate and repeatable.</p>

7 Support

7.1 Resources	7.1 Resources	Identical clause in both standards - relates to resourcing the establishment, maintenance and importantly the continual improvement of the EnMS.
7.2 Competence	7.2 Competence	Broadly a similar clause in both standards. Persons now need to be competent if they can affect the organization's energy performance or the operation of the EnMS.
7.3 Awareness	7.3 Awareness	Your existing process for Competence, Training and Awareness will help you to meet this requirement.
7.4 Communication	7.4 Communication	Requirements - as with ISO 14001 include the need to ensure that it is planned including what, when, how and with whom communications are made, and that the communications take into account compliance obligations, are consistent with the EnMS and are dependable.
7.5 Documented information	7.5 Documented information	This clause is identical in both standards and ensuring that any document control, storage or retrieval systems include energy related documentation will ensure compliance.

8 Operation

8.1 Operational planning and control	8.1 Operational planning and control	<p>Specific reference is made to the planning and control of processes related to an organization's SEUs.</p> <p>Controls for processes should include effective operation and maintenance of facilities, equipment, systems and energy using processes.</p> <p>Implementing the controls in accordance with the set criteria and keeping documented records that they have been carried out as planned.</p> <p>There are requirements for the control of planned changes and the review of unintended changes. It is now specified that outsourced processes are to be controlled or influenced. Any outsourced SEUs or processes must be similarly controlled</p>
8.2 Design	Stand-alone requirement	You will need to make sure that you consider energy performance in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on energy performance.
8.3 Procurement	Stand-alone requirement	<p>ISO 14001 requires a life-cycle approach and therefore some elements of purchasing will be in place.</p> <p>In addition, a process to ensure that energy performance is considered when procuring energy services, products, equipment and energy itself is required.</p>

9 Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation of energy performance and the EnMS	9.1 Monitoring, measurement, analysis and evaluation	<p>A very similar clause across both standards. ISO 50001 adds in the monitoring and measurement of:</p> <ul style="list-style-type: none"> • the operation SEUs • actual vs expected energy consumption. <p>A comparison of EnPIs against the baseline should be made along with responding to significant deviations in expected energy performance.</p>
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9 Performance evaluation (continued)

<p>9.1.2 Evaluation of compliance with legal requirements and other requirements</p>	<p>9.1.2 Evaluation of compliance</p>	<p>An identical clause albeit one that uses slightly different terminology to ISO 14001. Bear in mind that ISO 50001 has no separate clause for compliance obligations. These are included in 'needs of interested parties'.</p>
<p>9.2 Internal audit</p>	<p>9.2 Internal audit</p>	<p>A broadly similar clause across both standards. Many companies certified to both standards have a combined audit programme. ISO 50001 has one additional requirement in that the audit programme must provide information on whether the EnMS is providing an improvement in energy performance.</p>
<p>9.3 Management Review</p>	<p>9.3 Management Review</p>	<p>There are again, many similarities across the two standards and many companies run combined management reviews. The energy element of the review must include the status of energy performance improvement based on the above monitoring and measurement results.</p>

10 Improvement

<p>10.1 Nonconformity and corrective action</p>	<p>10.2 Nonconformity and corrective action</p>	<p>An identical clause. You can use the existing ISO 14001 system to meet these requirements.</p>
<p>10.2 Continual improvement</p>	<p>10.3 Continual improvement</p>	<p>Whereas ISO 14001 requires that the EMS itself is improved as a way of enhancing environmental performance, ISO 50001 requires that the EnMS is improved but has a more formal requirement that continual improvement in energy performance has to be demonstrated.</p>

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