

## Understand EnMS Documentation

Documentation is a key component of an ISO 50001-2011 energy management system (EnMS). Documentation can guide behavior and activities and demonstrate what has been done within the EnMS. Documentation helps you:

- implement the EnMS,
- ensure its proper functioning over time, and
- maintain evidence of the results that are achieved.

The purpose of this guidance is to help you understand the basics of EnMS documentation. It provides information on items that must be documented or recorded, as well as guidance for determining what additional documentation your specific organization needs to:

- ensure effective implementation and maintenance of the energy management system, and
- provide evidence of continual improvement in both the EnMS and energy performance.

In ISO 50001, there are some documents and records that are explicitly required. Other documentation is determined by the organization itself based on its own needs and organizational culture.

The topics addressed in this guidance include:

***What are the basic types of documentation?***

***What is the value of documentation?***

***What general factors affect the extent of documentation within an organization?***

***What documents are required for the EnMS?***

***What records are required for the EnMS?***

***When do you decide what additional EnMS documentation is needed?***

***How do you decide what additional EnMS documentation is needed?***

***What are the success factors for documents?***

***What are the success factors for records?***

### ***What are the basic types of documentation?***

Information is fundamental to any organizational process. One way to communicate information is through the use of documentation. Documentation may be in any format or type of medium, including print, electronic, magnetic, optical, photographic, or other.

There are two basic types of EnMS documentation:

**Documents** say what you do

**Records** are proof you did what you said

To understand management system documentation, it is useful to distinguish two types or basic categories of documentation:

- **Documents**, which provide information that guides actions or communicates expectations in the present (today); and,
- **Records**, which provide information about the past (“snapshots in time”).

<b>What are the differences between documents and records?</b>	
<b><i>Documents</i></b> <b><i>(set expectations for the present)</i></b>	<b><i>Records</i></b> <b><i>(reflect past history)</i></b>
<ul style="list-style-type: none"> <li>• state current policies and commitments</li> <li>• implement policies and commitments</li> <li>• guide activities and operations, typically defining:               <ul style="list-style-type: none"> <li>✓ what is to be done</li> <li>✓ who is to do it</li> <li>✓ when it will be done</li> <li>✓ how it will be done</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• state results achieved</li> <li>• provide evidence of activities performed</li> </ul>

Documents provide information that guides action or communicates expectations. Documents are used to implement current policies and commitments. Documents express expectations—they guide our behavior, activities and operations, typically providing “what,” “who,” “when” and sometimes “how” information.

<b>Examples of Generic Documents</b>	<b>Examples of EnMS Documents</b>
<ul style="list-style-type: none"> <li>• Policies</li> <li>• System procedures</li> <li>• Operational procedures</li> <li>• Work instructions</li> <li>• Blank forms</li> <li>• Manuals</li> <li>• Plans and programs</li> <li>• Drawings and schematics</li> <li>• Standards and specifications</li> <li>• Videos</li> <li>• Photographs</li> <li>• Sample boards</li> </ul>	<ul style="list-style-type: none"> <li>• Description of core elements of the EnMS and their interaction</li> <li>• Energy policy</li> <li>• Energy objectives and targets</li> <li>• Energy management action plans</li> <li>• Methodology and criteria used to develop the energy review (or energy profile)</li> <li>• Methodology for determining and updating the EnPIs</li> <li>• Other documents determined necessary</li> </ul>

On the other hand, records reflect “past history.” They capture what was done (an action or activity) or what was accomplished or attained (i.e. results). Records can take many different forms.

<b>Examples of Generic Records</b>	<b>Examples of EnMS Records</b>
<ul style="list-style-type: none"> <li>• Reports</li> <li>• Data analyses</li> <li>• Meeting minutes</li> <li>• Training certificates</li> <li>• Completed forms</li> <li>• Databases</li> </ul>	<ul style="list-style-type: none"> <li>• Energy review</li> <li>• Energy baseline</li> <li>• Energy performance indicators (EnPIs)</li> <li>• Training records</li> <li>• Decision regarding external communication</li> </ul>

Examples of Generic Records	Examples of EnMS Records
<ul style="list-style-type: none"> <li>• Spreadsheets</li> </ul>	<ul style="list-style-type: none"> <li>• Results of design activities</li> <li>• Monitoring and measurement results</li> <li>• Energy performance results</li> <li>• Audit results</li> <li>• Management review records</li> </ul>

Documents and records are controlled separately under different sets of requirements. “Control of documents” and “control of records” are addressed in Step 3.3 in Level 2 of the U.S. DOE eGuide.

***What is the value of documentation?***

<b>Value to the Organization</b>	
<b><i>Documents</i></b>	<b><i>Records</i></b>
<ul style="list-style-type: none"> <li>• Provide guidance to existing employees and employees in new roles</li> <li>• Ensure consistency in tasks or activities performed</li> <li>• Communicate requirements to contractors and suppliers</li> <li>• Facilitate training and support employee understanding and awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure clear evidence of activities and results</li> <li>• Provide a basis for data analysis</li> <li>• Can serve as “organizational memory” for those who come later</li> </ul>

Documentation provides a number of benefits to an organization. For example, documents can provide guidance for existing employees or for employees who have taken on or assumed new roles or positions within the organization. Relevant documents can orient them to the processes, operations and activities associated with specific job functions. Documents can communicate what the expectations are for performance of their responsibilities, as well as for others within that department or functional area.

Documents frequently serve to facilitate training as they typically provide information to support and reinforce the learning and awareness that occurs in training. When properly implemented (i.e. followed by the appropriate personnel), documents enable tasks or activities to be performed in a consistent manner.

In addition, documents can be useful for defining and communicating expectations and requirements to contractors and suppliers. Some examples of documents that can be used for this purpose include brochures, pamphlets, handbooks and purchasing specifications.

Records related to activities performed are useful as evidence that the appropriate actions were taken. Also, since records are used to capture results achieved, they provide an excellent basis for data analysis, including the tracking of energy performance. Records can also benefit an organization as a

form of memory for the organization. Records of what was done in the past and the results achieved in the past can be very useful when, for example, there is workforce turnover or attrition over time.

***What general factors affect the extent of documentation within an organization?***

Misperceptions about the level of documentation required for a continual improvement-based management system are not uncommon. It is important to keep in mind that management systems based on the Plan-Do-Check-Act continual improvement model such as those for energy, quality, environmental, safety and health, and others, are intended to be *documented management systems*, and **not** *systems of documents*.

<b>General Factors Affecting the Extent of Documentation Within an Organization</b>
<ul style="list-style-type: none"><li>• Size of the organization</li><li>• Types of activities</li><li>• Complexity of the processes and their interactions</li><li>• Competence of personnel</li></ul>

The extent of management system documentation will vary from one organization to another. Organizations with a large number of personnel tend to use documentation more extensively than smaller organizations. The types of activities, as well as the complexity of processes and their interactions, also influences the extent of documentation within an organization. Complex processes and high risk activities tend to be more thoroughly documented, both in terms of documents *and* records, than simple processes or low risk activities.

Competence of personnel is another factor that influences decisions on the extent of documentation needed. In general, higher levels of competence among personnel can mean that fewer documents are needed. Consideration of the competence of personnel in decisions on whether documents are needed should take into account the robustness of the organization’s ongoing training systems. For most organizations, training and documentation are a balancing act—meaning that organizations with robust training systems tend to need fewer documents, while organizations with more limited training resources may need to rely on having more documentation in place.

***What documents are required for the energy management system?***

The ISO 50001 EnMS is very “lean” on the number of required documents. For example, there are no explicit requirements for “documented procedures.” There are limited requirements for “documented processes.” Documented processes for energy planning and internal audits are required. Most of the decisions on what documents are needed are left to the organization. This provides the organization with both *the flexibility and the responsibility* to determine what documents are needed to ensure the effective implementation and maintenance of its EnMS.

There are some items that ISO 50001 does require to be documented. One item is information that describes the core elements of the EnMS and their interaction. Many organizations develop an energy manual to address this requirement; however, ISO 50001 does not require an energy manual. Other

items that must be documented include the energy policy, energy objectives and targets, and energy management action plans. These and other documents are listed in the *EnMS Documentation Guidance Table*.

**What records are required for the energy management system?**

Although a variety of information within the EnMS must be recorded, just as with documents, *your organization is responsible* for determining what additional records it needs in order to demonstrate conformance with the requirements of the EnMS and the energy performance results achieved.

Some of the items that must be recorded include the energy baseline, monitoring and measurement results, audit results and management reviews. These and other records are listed in the *EnMS Documentation Guidance Table*.

**When do you decide what additional EnMS documentation is needed?**

Making decisions on whether documentation is needed is an ongoing process during initial EnMS implementation. Use the energy team to plan for how and when documentation issues will be addressed and decisions made as you progress through development and implementation of your ISO 50001 EnMS.

Also, consider that although EnMS documentation requirements are few in number, there are many action verbs associated with the basic requirements of an ISO 50001 EnMS. These action verbs can be viewed as opportunities to initiate conversations among members of the energy team and others about what documentation, if any, may be needed.

ISO 50001 Action Verbs Provide Convenient Decision Points for EnMS Documentation	
<ul style="list-style-type: none"> <li>• “address”</li> <li>• “appoint”</li> <li>• “consider”</li> <li>• “define”</li> <li>• “determine”</li> <li>• “establish”</li> </ul>	<ul style="list-style-type: none"> <li>• “evaluate”</li> <li>• “identify”</li> <li>• “implement”</li> <li>• “inform”</li> <li>• “plan”</li> <li>• “review”</li> </ul>

With the appropriate allocation of additional training, awareness and communication resources, an organization can “establish” and “implement” processes and procedures that are not documented. It can ensure that it “determines” or “identifies” specific information without documenting the process for doing so because it devotes the proper personnel training and communication resources to fully implement the process. The *EnMS Documentation Guidance Table* identifies most of the action-based EnMS elements as “decision needed” points for considerations related to whether or not documents are needed to implement those elements of the EnMS.

It bears repeating that organizations which make significant investments in ongoing workforce training are able to maintain a minimum number of documented procedures, work instructions, or other similar

documents. In deciding whether to document a procedure or process that is not required to be documented, a key factor to consider is what resources are available for additional training if a procedure is not to be documented. Additional training can be completed to reduce the number of needed documents, but it is important to remember that records of training are required.

***How do you decide what additional EnMS documentation is needed?***

<b>Decisions on additional documentation are made with the following overall goals in mind:</b>
<ul style="list-style-type: none"><li>• Ensuring the effective implementation and maintenance of the EnMS, and</li><li>• Providing evidence of continual improvement in both the EnMS and energy performance.</li></ul>

To help your organization determine the documents needed for its ISO 50001 EnMS (beyond those that are required), it is useful to establish “rules of thumb” or other criteria. Some of the factors influencing decisions on the number of documents already have been introduced (see above: *What general factors affect the extent of documentation within an organization?*). Other relevant factors could include legal requirements, customer requirements, or prior nonconformities. Examples of possible factors or criteria to help your organization determine needed documents are provided in the *Making Decisions on EnMS Documentation Checklist*.

And lastly, in making documentation-related decisions, don’t overlook the potential to leverage existing procedures and other documents, modifying them to include energy management. This makes sense and is a resource-effective approach to documenting information for the EnMS without creating new documents to be managed. If there are only minimal documents in place or if it is not possible integrate with what already is in place, then harvest what is there and adapt it for the EnMS.

***What are the success factors for documents?***

<b><i>Success Factors for Documents</i></b>
<ul style="list-style-type: none"><li>✓ Having the EnMS documents that are either required or determined as needed</li><li>✓ No over-documentation</li><li>✓ Developed with input from users</li><li>✓ User-friendly formats and media</li><li>✓ Clearly defined responsibilities and approval authorities</li><li>✓ Updated as needed</li></ul>

Two important success factors for EnMS documents are having the documents that you need (including those that are required) and not having documents that you don’t need. Avoid over-documenting your system.

Remember that whatever documents you make part of your EnMS, whether needed or not, must be controlled. Like other processes in the EnMS, controlling documents involves a certain ongoing allocation of resources; in this case, to ensure that document controls are properly applied and maintained. In the case of an over-documented system, these resources can easily be overburdened or even wasted when unnecessary documents are involved.

Successful documents must address user needs if they are going to get used. Involving users in the development of documents increases the likelihood that the documents will be relevant, accurate, current, and followed by the appropriate personnel. Remember that documents do not need to be “text on paper.” Whatever media or format works best is acceptable.

Clearly defined responsibilities and approval authorities contribute to the success of documents because they ensure ownership of the information and the application of the defined document controls.

Change happens regularly and documents need to stay abreast of current plans, programs, procedures, practices and processes. Documents may be updated as a result of:

- changes in equipment, systems and processes
- organizational changes or business circumstances (e.g. acquisitions, mergers, reorganizations, major customer changes)
- changes in applicable legal and other requirements subscribed to by the organization
- internal or external audit results
- corrective actions and preventive actions
- management review decisions and actions

***What are the success factors for records?***

<b><i>Success Factors for Records</i></b>
Records that: <ul style="list-style-type: none"><li>✓ meet basic EnMs requirements</li><li>✓ prove what you are doing</li><li>✓ demonstrate achievement of improved energy performance</li><li>✓ have assigned “record owners”</li></ul>

Successful implementation, maintenance and continual improvement of your EnMS and its energy performance relies in great part on records that meet EnMS requirements, provide evidence of what you doing, and demonstrate the improved energy performance. And, clearly defining responsibilities for specific records through the designation of “record owners,” for example, helps ensure that needed records are maintained.