Section: Support

Task 16: We document information we determined is needed to ensure energy management system effectiveness and demonstrate energy performance improvement, as well as that suggested by the guidance of the 50001 Ready Navigator. We have processes in place for creating, updating, and controlling our documented information.

Getting It Done

1. Ensure that your energy management system (EnMS) includes the documented information suggested by the guidance of the 50001 Ready Navigator for the processes implemented to this point. As you continue EnMS implementation, add the other required documented information.
2. Determine what additional documented information you need to ensure the effectiveness of the EnMS and to demonstrate energy performance improvement.
3. List your EnMS documents, assign document owners and document approvers, and define the relevant document controls. Make document owners responsible for conformance with the controls for the documented information to be maintained (i.e., documents).
4. List your EnMS records, assign record owners, and define the relevant record controls. Make record owners responsible for conformance with the controls for documented information to be retained (i.e., records).
5. If your organization has existing processes for controlling documents and records, customize them as necessary to meet the documentation needs for your EnMS. If your organization has an existing records policy, make sure that the controls implemented for EnMS records are consistent with the requirements of that policy.

Task Overview

Documenting the energy management system (EnMS) not only helps your organization implement the EnMS and ensure its proper functioning over time, it also provides evidence of activities performed and results achieved. In ISO 50001, some documented information is explicitly required. Additional documented information for the EnMS is determined by your organization based on your own needs, including the need to ensure the effectiveness of the EnMS and the need to demonstrate energy performance improvement.

The first part of this task involves understanding what is meant by the phrase “documented information” and ensuring that your EnMS includes the documented information explicitly required for the EnMS processes implemented to date. For the purposes of 50001 Ready you should consider what documents will help you make the best use of your EnMS. As you move forward with continued EnMS implementation, this resource can be used to help ensure that additional required documented

information is included in your EnMS. The next part of this task requires the energy team to plan how your organization will determine what additional documented information is needed for your EnMS in order to demonstrate energy performance improvement and effectiveness of the EnMS.

An EnMS or energy manual is not required by ISO 50001, although it can be very useful, especially for top management, as a high-level roadmap to the requirements and processes of the EnMS. This task suggests that you consider developing a manual for your EnMS.

Documented information must be controlled. The requirements for creating, updating, and controlling documented information that is *maintained* and *retained* are covered by a common set of controls specified in ISO 50001. In this task, you will define and implement controls for documented information. Keeping the controls simple helps to make implementation easier and can reduce the level of resources required to maintain the controls over time.

This guidance is relevant to Section 7.5 of the ISO 50001:2018 standard.

Associated Resources	**Short Description**
no resources for this questions	

Full Description

Determine necessary EnMS documents

While the 50001 Ready Navigator is guidance and does not contain explicit requirements in this section, the requirements of ISO 50001:2018 are presented for simplicity.

Documented information includes both documents and records.

- Documents provide information that guides action (e.g., behavior, activities, operations) or communicates expectations. They typically provide “what,” “when,” “who,” and often “how” information. They are used to state and implement current policies and commitments.
- Records are “snapshots in time” that provide information on activities that were performed or results that were achieved. They are used to provide evidence of what has occurred.

These two types of documented information are distinguished within ISO 50001 by requirements for documented information to be *maintained* and records to be *retained*. Documents such as work instructions, blank forms, videos, online training modules, and the like, would be *maintained*; while records such as meeting minutes, internal audit findings, and historical energy consumption data would be *retained.*

Learn More: **Generic examples documents**

- Policies
- System procedures

- Operational procedures
- Work instructions
- Manuals
- Blank forms
- Plans and programs
- Drawings and schematics
- Standards and specifications
- Videos and photographs

Learn More: **Generic examples records**

- Reports
- Data analyses
- Meeting minutes
- Training certificates
- Completed forms
- Databases
- Spreadsheets

For this task, make sure that you have the documented information required for the processes of the EnMS that have been implemented so far. As you continue with EnMS implementation, the energy team should use this resource to ensure that the documented information required for other parts of the EnMS has been included in the system.

Determine the documented information needed by your organization for its EnMS

Your organization decides what additional documented information is required for the EnMS based on its own needs. This means that you have both *the flexibility and the responsibility* to determine what documented information is needed to ensure the effective implementation and operation of your EnMS and to demonstrate energy performance improvement.

There are a number of factors that can influence the extent of documentation included in the EnMS. Before looking at what those are, consider the value of the documented information.

Learn More: **What is the value of documented information?**

Documented information can provide 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, documents enable tasks or activities to be performed consistently. They can also be useful for defining and communicating expectations and requirements to contractors and suppliers.

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 a means of tracking energy performance and demonstrating energy performance improvement. They can also benefit the organization as a form of memory for the organization. Records of what was done in the past and the results achieved can be very useful when, for example, there is workforce turnover or attrition over time and that institutional memory is lost.

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

General factors affecting the extent of documentation within an organization include:

- Size of the organization
- Types of activities (risk level)
- Complexity of the processes and their interactions
- Competence of personnel

The extent of documented information required for the EnMS will vary from one organization to another. Organizations with a large number of personnel tend to use documented information more extensively than smaller organizations. The types of activities, as well as the complexity of processes and their interactions, also influences the extent of documented information 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 documented information needed. In general, higher levels of competence among personnel can mean that fewer documents are needed. Consideration of the competence of personnel in deciding 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 more documentation.

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

Making decisions on whether documentation is needed is an ongoing process during EnMS implementation. Use the energy team to review documented information already incorporated into

the EnMS to date. Then, plan for how and when decisions related to documented information will be addressed as you continue to move forward with the development and implementation of your EnMS.

With the appropriate allocation of additional training, awareness, and communication resources, an organization can “establish” and “implement” processes and procedures that are not documented. Organizations that 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 documented. Additional training can be completed to reduce the number of needed documents, but be sure to retain any records related to competency and actions to attain competency.

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

Additional information is documented to ensure the effective implementation and maintenance of the EnMS and provide evidence of continual improvement in both the EnMS and energy performance.

To help your organization determine the documents needed for its EnMS, beyond those that are required, 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 documented information 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 optional Playbook worksheet.

When making decisions on documented information, don’t overlook the potential to leverage existing procedures and other documents and records, modifying them to include the needs of the EnMS. This is a resource-effective approach to creating documented information for the EnMS without creating new documented information to be managed.

Learn More: **What are the success factors for documented information?**

Success factors for EnMS documented information to be maintained include the following:

- Having EnMS documents that are either required or determined to be needed
- Not over-documenting
- Developing documents with input from users
- Making document formats and media user-friendly
- Clearly defining responsibilities and approval authorities
- Updating documents as needed

Success factors for EnMS documented information to be retained include:

- Meeting basic EnMS requirements
- Proving what you did and what the results were
- Demonstrating achievement of energy performance improvement
- Assigning “record owners”

Develop an energy manual (optional)

An energy manual is not required by the 50001 Ready Navigator or the ISO 50001 standard, but it is highly recommended because it can provide several benefits, including the following:

- As a documented overview or summary of the EnMS that is approved by top management, the energy manual can serve as a tool to establish and communicate the energy management commitments of the organization.
- The energy manual is useful to management, employees, and potentially other stakeholders as a “roadmap” to the EnMS, including information on the components of the system, how those components interact, and direction to the associated processes, procedures, and roles and responsibilities.
- The energy manual is a convenient mechanism for documenting some of the information about the EnMS that must be documented, such as the scope and boundaries of the EnMS and the energy policy. This can enable the organization to avoid the creation of additional documents that then would have to be managed and controlled.
- For smaller organizations, the energy manual can be a “one-stop shop” that contains all current documented information maintained for the EnMS.
- For organizations that are implementing an EnMS, the energy manual can be a document that serves to translate the requirements of the 50001 Ready Navigator or ISO 50001 standard into the organization’s own terminology.

Although the terms used in the ISO 50001 standard can be changed into the organization’s own terminology, the meaning of those terms (i.e., the definitions) cannot be changed. For example, an organization may refer to the “energy review” required by ISO 50001 as an “energy profile”; however, the definition of what is an energy profile should be the same as the definition of an energy review.

Organizations that have already implemented continual improvement-based management systems (e.g., ISO 14001, ISO 9001, ISO 45001, etc.) can choose to integrate their energy manual into an existing environmental, quality, or other management system manual. This option allows an organization to avoid having to manage and train on multiple management system manuals, and can facilitate the integration of management systems for sustainability or other business purposes.

Learn More: **The format, detail, and length of an energy manual**

There is no required format for an energy manual. It can be in any media. The energy manual may

be:

- A stand-alone document, maintained separately from any EnMS procedures
- A single document that includes other EnMS documented information maintained by the organization
- Incorporated into another management system manual or other documents
- An electronic-based hierarchical index or other electronic format, typically with hyperlinks to EnMS documents (such as plans, procedures, blank forms, etc.)
- Any combination of the above

The energy manual's format and level of detail will vary according to the size and complexity of the organization and the needs and expectations of the organization and its interested parties.

Less detail may be needed in some sections of the manual if details are provided in other types of EnMS documented information (e.g., documented procedures, blank forms, photographs, etc.). On the other hand, additional detail in some sections of the manual can help avoid development of additional and potentially unnecessary EnMS documents.

As a general rule of thumb, a stand-alone energy manual is 5 to 15 pages in length. The language and terminology used in the energy manual should be understandable to users, not designed for auditors.

Like other EnMS documents, the energy manual must be controlled. Top management is usually the designated approver(s) of the energy manual.

Including the energy policy within an energy manual can be a means to demonstrate approval of the energy policy by top management.

Learn More: **Items to consider including in an energy manual**

- The scope and boundaries of the organization's EnMS
- A description of the processes of the EnMS and their interaction

A common approach to providing an overview or roadmap of the EnMS involves brief descriptions of each of the processes involved in the Plan-Do-Check-Act continual improvement cycle. More detailed information on those processes could be available in other EnMS documented information maintained by the organization or embedded within the organization's training and communications.

An overview or roadmap of the processes that comprise the EnMS is often represented graphically, rather than by text. Most frequently, a graphic representation of the Plan-Do-Check-Act continual improvement cycle identifies the organization's specific processes for planning, supporting, operating, evaluating, and continually improving the EnMS. Graphics are also used to represent how energy applies within the defined scope and boundaries of the organization's EnMS. Such graphics can be a process map or other visual representation of the types of energy consumed by the

organization.

Although an organization may start its energy manual with a simple listing of the topics covered by the 50001 Ready Navigator, organizations implementing an ISO 50001 EnMS for third-party certification should avoid copying verbatim the content of each clause of the ISO 50001 standard as the description of the EnMS. Such an approach is typically frowned on by certification bodies.

- EnMS documented information or reference to it

Smaller organizations may want to include within the energy manual the documented information they are maintaining for their EnMS. This provides a one-stop source for all of the documented information maintained for the organization's EnMS, although it can present some challenges for control of the various documents included in the manual.

Many organizations decide to maintain and control the energy manual as a single document and only include within it references to related EnMS documented information. These references may be embedded in each section, listed at the end of each section, or listed on a documented information reference table that appears as the last page of the manual. One of the advantages of using a documented information reference table is that it is easily updated when necessary and avoids the need to review and locate references to other EnMS documents within each section of the manual.

For example:

Reference Table of Documented Information Maintained for the EnMS

Topic	Reference
Planning	EnP-01 Energy Review Process Steps EnD-02 Energy Legal and Other Requirements Matrix EnP-03 EnPI Methodology
…	…
Internal Audits	EnP-05 EnMS Internal Audit Procedure EnF-03 Internal Audit Finding Form (blank)
…	…

Define and implement controls for creating, updating, and managing documented information for the EnMS

The processes for managing documents and records must address how documented information is created, updated, and controlled. This ensures that:

- Current and correct information is available where needed
- External information and obsolete information are managed properly
- Evidence of activities performed and results achieved is retained

Start by determining how your organization currently manages documented information, including both documents and records. If there are already formal processes in place, such as mandated document

formats or a corporate records policy, you should follow those processes, making modifications as needed for the EnMS.

The optional Playbook worksheet can help you assess whether your existing processes for creating, updating and controlling documented information cover the ISO 50001 requirements. If you do not have processes in place, this checklist can be used to identify the features that will need to be addressed as you develop your processes for creating, updating, and controlling EnMS documented information.

Documented information that is *maintained* (i.e., documents) may be updated for a variety of reasons:

- Changes to business circumstances, sites, equipment, systems, or processes
- Internal or external audit results (Task 22 Internal Audit)
- Corrective actions (Task 24 Corrective Actions)
- Management review (Task 23 Management Review)
- Periodic reviews conducted to ensure that the information is still relevant, accurate, and adequate
- Revision of an external document, including legal and other requirements (Task 2 People and Legal Requirements Affecting the EnMS)

As evidence of activities performed and results achieved, documented information that is *retained* (i.e., records) is not updated, but it can be corrected, if necessary.

The following sections discuss the items that need to be addressed in your process for creating and updating documented information:

Learn More: **Updating and creating documented information: Identification and description**

When you look at documented information, you should be able to tell what it is and what activities it relates to. Your organization determines how the various types of documented information are identified. At a minimum, documented information to be maintained (documents) and retained (records) should be dated and have a title or subject indicator that accurately reflects its content. Often, document or reference numbers are applied as identifiers to documents.

Taking account of any existing documentation control processes within your organization, you need to decide on and apply the specific features that will be used to identify the different types of documented information in your EnMS. Not all documented information needs to be identified in the same way. The table below provides an example of how one organization chose to identify its documents.

In this example, Organization A created a table to identify the different types of documented information in its EnMS. Then, for each type, the relevant identification controls were established. Title and date were applied to all types, while document numbers were applied only to the energy manual and the procedures and work instructions.

Organization A – Identifiers for EnMS Documented Information

Type	Document Reference Number	Title	Issue/Revision Date

Energy Manual	•	•	•
Procedures	•	•	•
Work Instructions	•	•	•
Blank Forms		•	•
Plans and Programs		•	•
External Documents		•	•
Training Videos		•	•
Records		•	• (date completed)

Learn More: **Creating and updating documented information: Format and media**

In creating and updating documented information, are there any required formats for your organization, such as different languages, the use of graphics (e.g., flowcharts, photographs), or specific templates or software versions? What types of media are acceptable for documented information (e.g., paper, electronic)? Any requirements for the use of specific formats or media would be those imposed by your own organization. There are none specifically required by ISO 50001.

Learn More: **Creating and updating documented information: Review and approval**

The purpose of appropriate review and approval is to ensure that the documented information is suitable (for its intended purpose) and adequate (provides the needed information). Determine who is authorized to review and approve documents for suitability and adequacy, the process for review and approval, and the record of approval. Review and approval of documents helps ensure that the information is relevant, current, and correct.

Unlike documents, individual records are not reviewed and approved for suitability and adequacy. However, in the initial creation (or designation) of the different types of records to be retained for the EnMS, review and approval ensures that the record type is suitable and adequate for capturing that specific relevant data or information.

Not all documented information should be approved by the same positions. It should be approved by those responsible for the policies, decisions, or actions described. Avoid having too many approval levels, as this can complicate the document control system and hamper its efficiency.

Some organizations still use hand signatures as evidence of approval, but many others now manage their documentation electronically. A typical process is to upload an electronic document into a workflow that sends the document to each person responsible for approval. Upon receipt of the document, the person indicates approval or rejection. If rejected, the workflow sends the document back to the owner to resolve the issue. If approved, the document is electronically distributed to the appropriate locations.

In addition to ensuring appropriate identification, format, media, and review and approval when creating and updating documented information, there must be controls implemented to ensure that documented information is available and suitable at locations where it is needed. It also must be adequately protected.

Learn More: **Control of documented information: Availability and protection**

More and more organizations are using electronically documented information, but if your organization uses paper copies, they must be available at points of use and protected from unintended or improper use by removal of documented information that is obsolete.

For organizations using electronic documents, ensuring that the proper information is available where it is needed is typically a matter of authorizing the appropriate personnel to have computer access to it. It is necessary to know who is authorized to have access to each piece of documented information and to make it available where it is needed. Removal from points of use (e.g., when a document becomes obsolete or a record has been dispositioned for disposal) would mean making the documented information unavailable or inaccessible through the computer.

Organizations using print documents will need to identify and control a specific number of copies, which are then physically located at the appropriate points of use. In these circumstances, removal of obsolete hardcopy documents and records from points of use involve physically removing them from the specific areas where they are located. Information must be in place to ensure that document locations are known.

The protections needed for documented information (other than for protection from improper or unintended use) can vary by organization. Protecting documented information from loss of confidentiality generally relies on its availability only to authorized personnel and prohibitions from printing or copying. Protection from loss of integrity can be straightforward with respect to electronic documented information which can be locked and passcode protected, if needed. Regularly scheduled electronic backup of documented information is also a form of protection. For printed (hardcopy) documented information, conditions on use (e.g., no handwriting allowed on printed documents, use of plastic covers) can help prevent loss of integrity, as can secure storage.

Additional controls for documented information address the following activities, as applicable:

- Distribution, access, retrieval, and use
- Storage and preservation
- Control of changes
- Retention and disposition

Not all of these controls are applicable to all types of documented information. For example, documented information that is retained (i.e., records) do not generally need controls for distribution or changes. Records are evidence of what happened or what was achieved so they can only be corrected, not

changed as in what is meant by version control. They are not typically distributed, but they are stored, preserved for legibility and for specified periods of time (i.e., retention times), and then dispositioned (e.g., destroyed, archived) when the retention time has expired.

Documented information that is maintained (i.e., documents) do not generally have controls for retention and disposition, unless they are retained for legal, regulatory, or potential liability reasons.

When setting retention times for records (and for documents, as applicable), define a *minimum* retention time. Retention times may be different for different types of documented information. Organizational or company record retention policies, legal requirements, and business needs should be considered when setting retention times.

Control of changes (e.g., version control) applies to documents when they are updated; for example, to reflect current or new practice. Revision dates or revision levels (1, 2, 3 or A, B, C) are commonly used for version control. If you decide to identify for the user changes or updates made, consider using a "Revision History Table" at the end of a document to indicate a revision date and summarize the changes made. Other approaches include highlighting or underlining the revisions, or using training to identify and review the modifications.

Controls for access, retrieval, and use generally apply to both documents and records.

To implement these elements of documented information control, determine which controls apply to which types of documents and records and decide what those controls will be. One note of caution about preservation is that preservation includes legibility. In electronic documentation, legibility refers to the readability of the information. Sometimes organizations change software or operating systems and later discover they cannot read the files that were in the previous type of software

Learn More: **Controls for documented information: – Assigning responsibilities**

Designated owners—The responsibility for documents and records should be assigned to an owner who ensures that relevant controls are applied to the various types of documented information in the EnMS. In the case of documented information to be maintained, document owners are also responsible for the content of the document; its suitability, periodic review and updating; and removal of obsolete versions.

If your organization has the option of designating a Documents Coordinator/Manager as a central point of control for EnMS documented information, then responsibilities for the application of relevant controls can be moved from the document owners to the document coordinator. However, document owners always retain responsibility and accountability for the content, suitability, review, and updating of their assigned documents. The energy team typically assigns both document owners and document approvers and can serve as the central point of control for the distribution of documents to the locations (including electronic) where they are needed.

Record owners also are typically assigned by the energy team. They are responsible and accountable for ensuring that their assigned records are generated, retained, and controlled as

defined within the EnMS.

The “ownership” approach to maintaining and retaining documented information clearly assigns associated responsibilities and ensures accountability for the management and control of the documented information in the EnMS. Once the controls for documented information are defined and the process for applying them is developed, assign the owners and ensure that the responsibilities and controls are communicated to the appropriate personnel. If this level of documented information control is new to the organization, consider training to supplement the communication.

Decarbonization

Documenting the energy management system (EnMS) not only helps your organization implement the EnMS and ensure its proper functioning over time, it also provides evidence of activities performed and results achieved. When adding energy-related GHG emissions to your EnMS, you should consider keeping documented information that demonstrates energy-related GHG emission reductions in addition to the documented information suggested in this task. Documentation should provide a record of the methods, data, processes, systems, assumptions, and estimations used when adding energy-related GHG emissions to your EnMS.

Establishing a new EnMS prioritizing decarbonization

If you do not have an existing 50001 Ready-based EnMS in place and want to build one that helps your organization manage energy-related GHG emissions, for this task you should follow the guidance in the “Full Description” tab keeping the following in mind:

1. **Determine necessary EnMS documents**. Ensure that all the EnMS documented information includes the necessary energy-related GHG emissions elements as defined throughout the tasks.
2. **Determine the documented information needed by your organization**. Ensure that your documented information includes documents and records that demonstrate energy-related GHG emission reductions and that all documents and records are suitable and adequate to the organization’s needs.
3. **Define and implement controls**. Ensure that you establish control of energy-related GHG emissions-related documents, and that they meet the requirements of this task.

Adapting an existing EnMS to prioritize decarbonization

If you have an existing 50001 Ready-based EnMS and want to adapt it to manage energy-related GHG emissions, you should:

1. **Review your existing documented information**. Review your documented information to determine if additional documents or records need to be kept, especially relative to demonstrating energy-related GHG emission reductions. Update any documented information (e.g. energy policy,

objectives and targets) that changed as you included energy-related GHG emissions in your EnMS. If you have an energy manual, update the necessary documents or records.

2. **Review your controls for creating, updating, and managing documented information**. Review your processes for controlling documents and records to ensure they are still adequate.

Commercial ERP

The guidance for this task is from the following sections from the ERP Framework: ERP Framework Milestones 5.

The final ERP deliverable may not be a single document, and organizations may house things such as building-level plans elsewhere. The plan will be updated periodically based on changing external trends and technologies and is intended to be utilized as a living document to guide decarbonization. The completed ERP should meet each of the requirements defined in the scope of work. (Milestone 5)

Industrial ERP

Having a robust set of documents is necessary for an energy management system. A culture of thorough energy management system documentation will complement the documentation described in the ERP Industrial Framework, such as the GHG inventory, the ERP itself, and the work plan for implementation.

The guidance for Task 16 is found within the following sections of the ERP Industrial Framework:

Milestone 5:

In this final milestone, organizations create the ERP and define how the organization's emissions targets will be met and the timing of key emissions- reducing activities, assign responsibility to key stakeholders, outline financing plans, and communicate next steps. Once complete, the ERP is not a static document; it will be a dynamic, living document that organizations reference frequently and revisit periodically to ensure it is timely and meets their needs.

Ongoing Implementation:

Document and share key learnings from project implementation – Document and share experiences with project implementation rigorously and regularly. This allows for the discovery of best practices and makes similar projects easier to complete in the future. Documentation of information such as project specifications, employees involved, vendors and subcontractors, cost, and savings can help inform similar future projects. This can also inform ERP updates and adjustments to timelines, actions, roles, and prioritization for future projects.