Project Management for EnMS Implementation

**Introduction**

Like any other project undertaking, implementation of an energy management system (EnMS) is an initiative that should be planned. Planning enables the organization to set expectations and identify and allocate the needed resources. An implementation plan can not only help to keep the effort on track, but also provides a mechanism to ensure that changing circumstances that affect the effort are taken into account and the appropriate adjustments made.

The steps involved in establishing the structure for EnMS implementation are:

Step 1 - Set the timeframe for implementation

Step 2 - Develop the implementation plan

Step 3 - Establish communication channels

Step 4 - Celebrate success often

**Step 1 - Set the timeframe for implementation**

The management representative works with top management to determine the timeframe to implement the system. This timeframe needs to:

* dovetail with other priorities of organization,
* be consistent with the organization’s business drivers
* align with the organization’s strategic goals
* meet any customer required timeframe, and
* be realistic.

The number of hours that it takes to implement an EnMS varies dramatically. Top management commitment and the level of resources allocated to the project affect the time required. Some organizations include only the internal time of their team and its activities. Others include every activity, meeting, and training discussion or session for all of the employees involved in the effort. This accounts for the wide range of time estimates that have been reported.

On average, it takes 12-24 months to implement an EnMS based on ISO 50001. If an organization already has a continual improvement-based management system such as ISO 9001 (quality) or ISO 14001 (environmental) in place, it can take less time.

**Step 2 - Develop the implementation plan**

The implementation plan defines the expectations for EnMS implementation. Top management buy-in and commitment are critical for the success of the implementation effort, and the implementation plan provides the information needed by management to approve the required resources and schedule.

The management representative has overall responsibility for ensuring the EnMS is implemented. The implementation plan provides the structure needed to enable the management representative to monitor the progress of the implementation. There are many tools that can be used to develop an implementation plan. Some examples of commonly used software packages are Microsoft Project and Microsoft Excel.

The implementation plan is typically prepared by the management representative, together with the energy team, following basic rules of project management. The level of detail within the plan needs to be appropriate for the organization, and the format should be whatever project management process is used by the organization.

The plan needs to:

* be developed with a clear understanding of the available resources,
* involve employees throughout the organization,
* make assignments that are appropriate to the person and to the time they have available, and
* provide realistic and achievable timeframes.

The level of detail in an implementation plan will vary depending on the size and complexity of the project. As a minimum, the following will be identified in the plan.

* tasks and associated deliverable(s);
* position responsible for ensuring each task is completed;
* other resource needs such as outside consultants, software or hardware;
* date each task and deliverable is to be completed.

|  |
| --- |
| Implementation Plan = What + Who + When |

It is imperative that the team members be held accountable for their roles and responsibilities. This can sometimes be difficult since the management representative and member of the energy team may have job positions at different levels within the organization. In any case, regardless of job positions, the management representative must be authorized to hold members of the energy team and other personnel participating in the project responsible for their assigned implementation tasks. Some organizations hold personnel accountable by including the implementation effort in their yearly individual work plans and during the annual evaluation of their work.

The fact that a person has been given a task does not always mean they must **do** the task, but they must ensure the task is completed.

It is a good idea to include dedicated “team time” in your implementation plan. Having “team time” as an assigned priority for your team is important to overcome other needs that will arise due to normal business issues.

The *EnMS Implementation Plan-Example 1* (see Attachment 1) shows the typical content of a plan for implementing an EnMS. *EnMS Implementation Plan-Example 2* (see Attachment 2) is an example of a simple implementation plan showing the minimum information and several examples of content.

For organizations who intend to seek 3rd party certification of their EnMS, tasks such as the certification audit, resolution of any nonconformities, and other related activities would need to be added to the implementation plan.

The management representative presents the plan to management for approval and allocation of resources. The management representative briefs management on the plan, answers any questions related to the plan, and ensures the plan is updated as needed to reflect management feedback. Once approved, the management representative and the energy team ensure the implementation plan is communicated to other affected management and to personnel who have been assigned tasks.

The implementation plan is of no value if it is out of date. Update it often to reflect the current situation and communicate changes to management, the energy team, and others who have responsibilities in the plan. Changes to the plan that affect schedule or resources are approved by management.

Some obstacles typically encountered during implementation include:

* Insufficient resources or personnel time
* Unclear or insufficient authority
* Supervisors or managers who have not bought into the process
* Doing it alone
* Conflicting priorities
* “Not my job” mentality

Having an implementation plan, which defines expectations and is approved by management, helps to overcome these obstacles. Resource needs are defined, schedules are set, and responsibilities are assigned in the plan before the effort begins. Therefore, once the implementation plan is approved and communicated to affected management and personnel, resource issues have been addressed, organizations are clear as to priorities, and assigned personnel know what is expected of them.

In summary, the implementation plan:

* establishes the structure of the EnMS implementation,
* defines the overall timeframe for implementation,
* defines the tasks, deliverables, and milestones along the way, and
* assigns roles, responsibilities and resources.

|  |
| --- |
| The implementation plan provides a roadmap for success. |

This project management approach:

* establishes expectations,
* ensures the most appropriate individuals are performing the tasks,
* decreases work duplication,
* improves efficiency of the organization and teams, and
* decreases employee frustration.

**Step 3 - Establish communication channels**

Communication among personnel who were assigned task(s), energy team members, the management representative, and management is essential to the success of the implementation effort. The management representative is responsible for monitoring the progress of the implementation effort and this can only be accomplished through communication with energy team members and assigned personnel. The energy team and assigned personnel are responsible for bringing any issues they cannot resolve to the attention of the management representative as early as possible. The management representative then works with the energy team and assigned personnel to resolve those issues. The management representative makes management aware of any issues that require their involvement and obtains approvals as needed.

A typical communication flow is shown in the diagram below:

Management

**Typical Communication Flow**

Energy

Team

Management Representative

Personnel assigned

responsibilities for task(s)

As the management representative, work with the energy team and assigned personnel. Be proactive in your monitoring and focus on the future, not the past. Identify problems early and solve them as quickly as possible. Monitoring includes verifying the activities are on schedule and that the needed resources are available. Some ways you can monitor progress are:

* review deliverables as they are completed;
* receive status reports from team members;
* hold periodic team meetings;
* meet with individual team members; and,
* send out reports.

It is a good idea to include scheduled energy team meetings and meetings with management as part of the implementation plan. A formal schedule helps ensure these meetings are conducted. Team members and responsible personnel should not wait for the scheduled meeting to report issues, but should notify the management representative as soon as an issue arises. You may want to have team members complete a Task Status Report (see Attachment 3) for each of their tasks and submit at regular intervals or at each team meeting for review. Documenting the status of each task may not be necessary, or practical, in all organizations and you may decide that verbal communication is adequate. The important thing is that the information gets communicated and issues are resolved such that the implementation effort is successful.

Once you get feedback from team members, decisions need to be made and action needs to be taken. Below are some questions you may want to consider when a deliverable will not be completed by the due date.

* Is it possible to get back on track for the due date?
* Is the cause of delay valid?
* Is the proposed solution acceptable?
* Does project plan need to be updated?
* Does this affect the overall timeframe of the implementation?
* What other tasks might this impact or delay?

A *Task Status Report* (see Attachment 3) can be useful for documenting these decisions.

Once the status of the tasks is known, it is the job of the management representative, together with the energy team, to assess the situation. Some questions to be considered at this point are:

* Is the work progressing according to schedule?
* Are the assignments appropriate?
* Are the resources adequate?
* Has there been a change in resources or priorities?
* Is communication happening?
* Are people getting trained?

An *EnMS Implementation Status Report* (see Attachment 4) or similar tool can be useful for documenting the status of implementation and the associated actions taken and actions needed.

The management representative and the energy team review the status of the implementation and propose changes as needed. The management representative reports on the status to management as defined in the implementation plan or more frequently when needed. Communication with management includes communicating successes and identifying needs. Resource needs and changes in priorities or schedule are discussed with management and, when they are approved, the implementation plan is revised to reflect the decisions. The management representative then communicates the changes to the plan to the interested parties.

Management also has a responsibility to inform the management representative and the energy team of any changes that could impact the implementation effort. An example is a change in resources or priorities. The management representative revises the implementation plan as appropriate and ensures all affected parties are informed.

**Step 4 - Celebrate success often**

Personnel have many other priorities and are always pressured to “get the product (or service) out the door”. Take opportunities to share success stories with employees, energy team, management, contractors and the local community as appropriate. Ongoing awareness, reinforcement of progress being made, and letting people know their efforts are recognized as essential in the success of an implementation are very important.

Consider having a luncheon to kick-off the implementation effort or a meeting to celebrate the accomplishment of a milestone. Recognize employees for completing tasks early, meeting their milestone, or for identifying areas for energy improvement.

Initial implementation of an EnMS can take a great deal of personnel time and other resources. It is the beginning of an ongoing process of continual improvement in energy management and energy performance that is intended to become an integral part of how the organization manages its activities and operations. Continue to celebrate successes along the way as a means to support continued participation in the effort and motivate contributions from others. Keep in mind that personnel are more likely to engage in behaviors that are reinforced.

**Attachment 1**

**EnMS IMPLEMENTATION PLAN–EXAMPLE 1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
| **Tasks and Deliverables** | **Responsible Position** | **Due Dates** | | **Notes** |
|  |  | **Start** | **Finish** |  |
| Document Scope and Boundary |  |  |  |  |
| Document Energy Policy |  |  |  |  |
| Address Legal and Other Requirements |  |  |  |  |
| Collect Energy Data |  |  |  |  |
| Perform Energy Review |  |  |  |  |
| Establish Energy Baseline |  |  |  |  |
| Determine EnPIs |  |  |  |  |
| Determine Energy Objectives |  |  |  |  |
| Define Energy Targets |  |  |  |  |
| Develop Energy Management Action |  |  |  |  |
| Initiate Internal Communications on Energy |  |  |  |  |
| Develop Key Characteristics |  |  |  |  |
| Define Competency Requirements For Persons Working with Significant Energy Uses |  |  |  |  |
| Define Training Needs |  |  |  |  |
| Develop Mechanism For Controlling EnMS Documents |  |  |  |  |
| Develop Mechanism For Controlling EnMS Records |  |  |  |  |
| Complete Awareness Training |  |  |  |  |
| Complete Competency Records |  |  |  |  |
| Update Training Records for Energy |  |  |  |  |
| Determine If Organization Will Communicate Externally About EnMS |  |  |  |  |
| Develop Management Review Process |  |  |  |  |
| Determine Operational Controls |  |  |  |  |
| Determine Maintenance Requirements |  |  |  |  |
| Implement Any Identified Changes to Design and Procurement Processes |  |  |  |  |
| Ensure Monitoring and Measurement of Key Characteristics and Appropriate Calibration |  |  |  |  |
| Define Processes for Nonconformities, Corrective Action and Preventive Action |  |  |  |  |
| Conduct Internal Audits and Take Appropriate Corrective Action |  |  |  |  |
| Conduct Management Review |  |  |  |  |
| Make Needed Changes to the EnMS (Energy Policy, Objectives, Targets, Energy Performance, EnPIs,) |  |  |  |  |

**Attachment 2**

**EnMS IMPLEMENTATION PLAN–EXAMPLE 2**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | |
| **What is the task?** | **What is the deliverable?** | **Who is responsible?**  (Position responsible for ensuring task is completed) | **When is it due?**  (Typically includes both a start and finish date.) |
|  |  |  |  |
| Establish Energy Policy | Approved Energy Policy | Management | Month 1 |
|  |  |  |  |
|  |  |  |  |
| Establish Energy Objectives | Approved Energy Objectives | Objectives Team | Month 3 |
|  |  |  |  |
| Conduct Internal Audits | Documented Audit Results | Internal Auditors | Month 10 |
|  |  |  |  |

**Attachment 3**

**Task Status Report**

|  |  |
| --- | --- |
| **Task Status Report** | |
| **Responsible Person** | **Task:** |
| **Responsible Person:** |
| **Deliverable due date:** |
| **Briefly describe status of deliverable?** |
| **Will deliverable be completed by due date? \_\_\_\_Yes \_\_\_\_ \*No**  **\*If no:**  **Expected deliverable complete date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Has there been a change in resources or priorities?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Cause of delay:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Additional resources needed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Other needs: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Proposed solutions: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **Management Representative** | **Is it possible to get back on track for due date?** |
| **Is the cause of delay valid?** |
| **Is the proposed solution acceptable?** |
| **Does project plan need to be updated?** |
| **Does this affect the overall timeframe of the implementation?** |
| **What other tasks might this impact or delay?** |
| **Actions taken:** |
|  | |
|  | |

**Attachment 4**

**EnMS Implementation Status Report**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EnMS Implementation Status Report** | | | | **Date Prepared:** |
|  | What tasks are not progressing as scheduled? | What action has been taken? | Additional action needed. | |
|  |  |  |  | |
|  |  |  |  | |
| 2. | What tasks need to be reassigned? | What action has been taken? | Additional action needed. | |
|  |  |  |  | |
|  |  |  |  | |
| 3. | What additional resources are needed? | What action has been taken? | Additional action needed. | |
|  |  |  |  | |
|  |  |  |  | |
| 4. | What additional communication is needed? | What action has been taken? | Additional action needed. | |
|  |  |  |  | |
|  |  |  |  | |
| 5. | What additional training is needed? | What action has been taken? | Additional action needed. | |
|  |  |  |  | |
|  |  |  |  | |