



Strategic Energy Management (SEM) with ISO 50001 and 50001 Ready

ORNL 50001 Ready Training
Webinar Series, Session 5
April 25, 2024
10:00 a.m. to 12:30 p.m.

Agenda – Session FIVE

- Welcome, Safety, and Housekeeping
- Review Previous Sessions
- Today's Content – **Engaging Other Functions**

SUPPORT, Section 4:

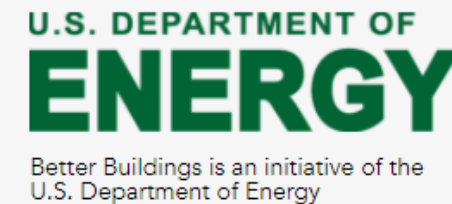
- Task 14 - Competence and Training
- Task 15 - Awareness and Communication
- Task 16 - Documenting the EnMS

OPERATION, Section 5:

- Task 17 - Operational Controls
- Task 18 - Energy Considerations in Design
- Task 19 - Energy Considerations in Procurement

- Webinar Training Schedule & Preparations
- Kahoot Quiz Game
- Q&A

In Participants list:
First Name,
Last Name,
Company



Welcome

- Welcome to the Virtual INPLT 50001 Ready webinar training series
- Eight, 2-1/2 hour webinars, focused on Strategic Energy Management (SEM), in general, and the ISO 50001 standard and 50001 Ready Navigator, in particular
- The webinars will help you understand the why and how of SEM and the 50001 Ready Navigator tool
- Thank you for your interest!



Safety and Housekeeping

- Please make sure that your surroundings are safe:
 - If you are driving, please use hands free mode
 - If you are in a building, be sure you know the exit paths
 - If you are at home, be sure there are no distractions
- You are welcome to ask questions at any time during the webinar
- When you are not asking a question, please MUTE your mic and this will provide the best sound quality for all participants
- We will be recording all these webinars and by staying on-line and attending the meeting you are giving your consent to be recorded
 - A link to the recorded webinars will be provided, afterwards



Our 50001 Ready Training Group



ESTÉE LAUDER



Water and Sewer Department



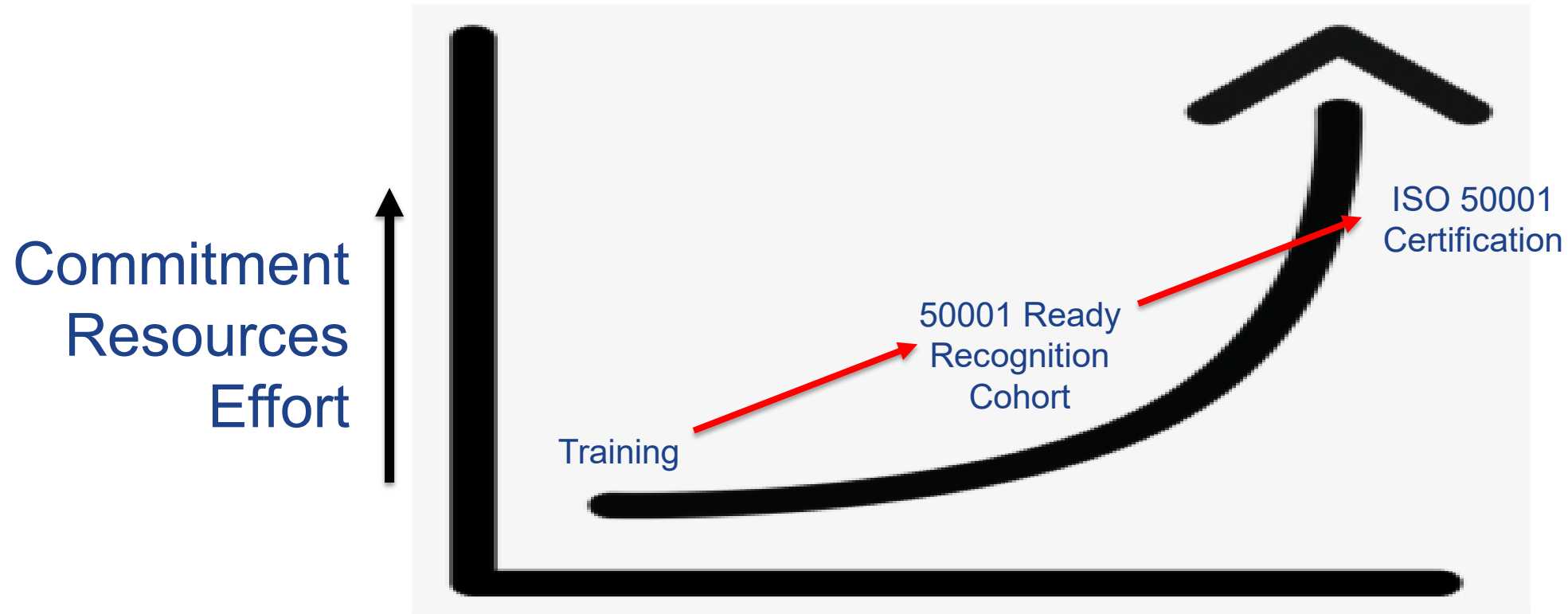
- REVIEW

Review of Previous Sessions

Quick List of Acronyms

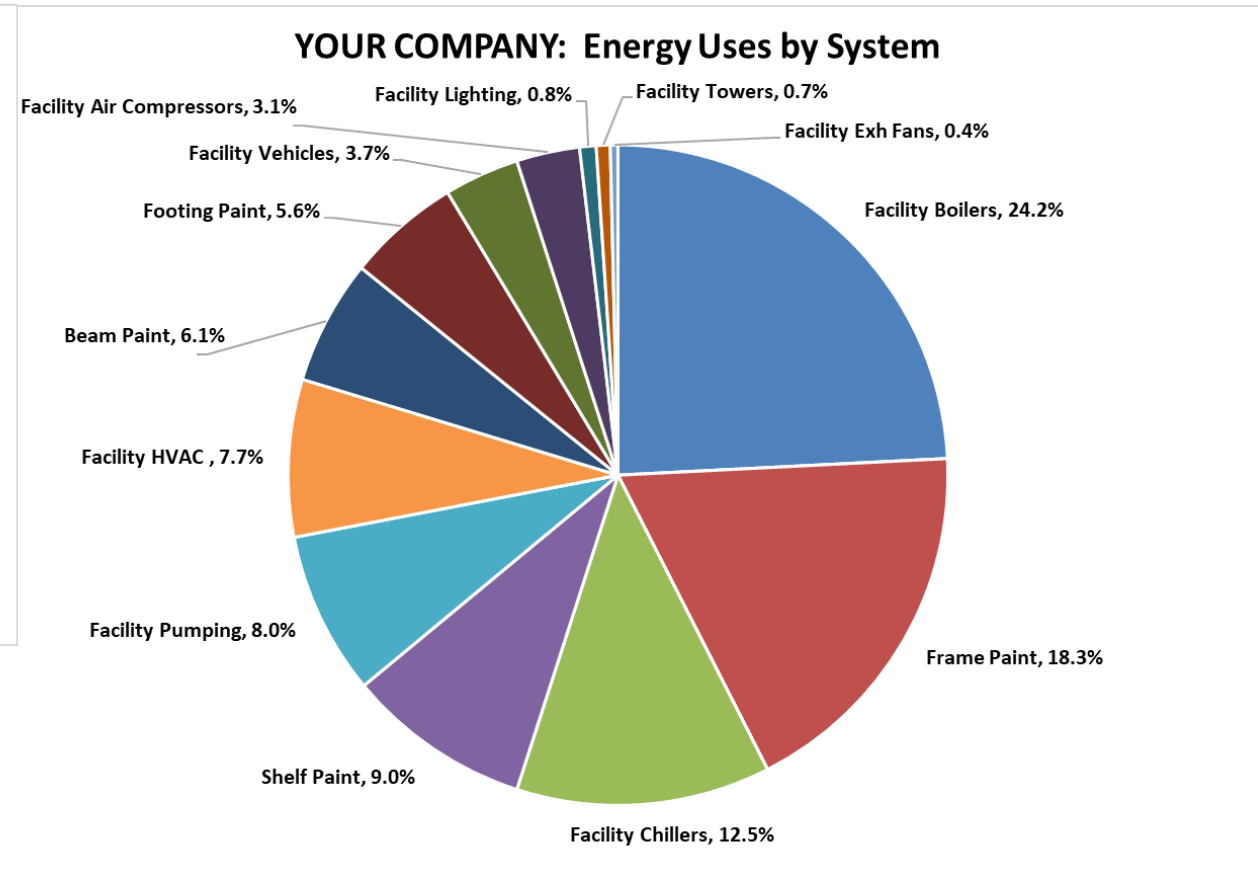
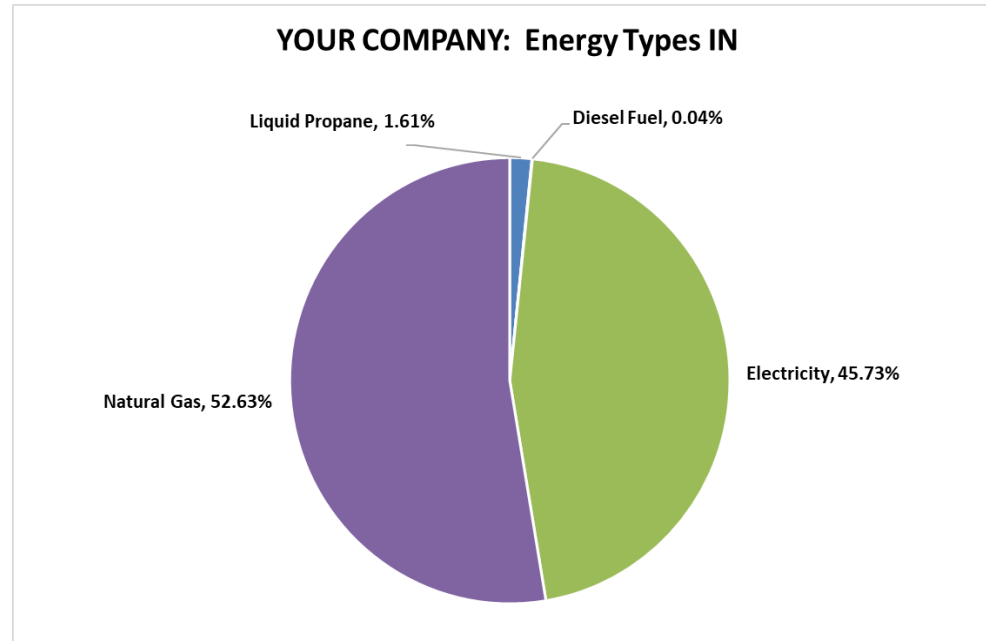
- SEM = Strategic Energy Management
- EnMS = Energy Management System
- SEU = Significant Energy Use
- EnPI = Energy Performance Indicator
- EnB= Energy Baseline
- PDCA = Plan, Do, Check, Act

Consider your Pathway for 50001 Energy Management



Planning Section (Tasks 8-13) – Two Key Pies

Understanding your energy performance



What energy comes into my site? (Task 8)

Where does all this energy go? [SEUs] (Task 9)

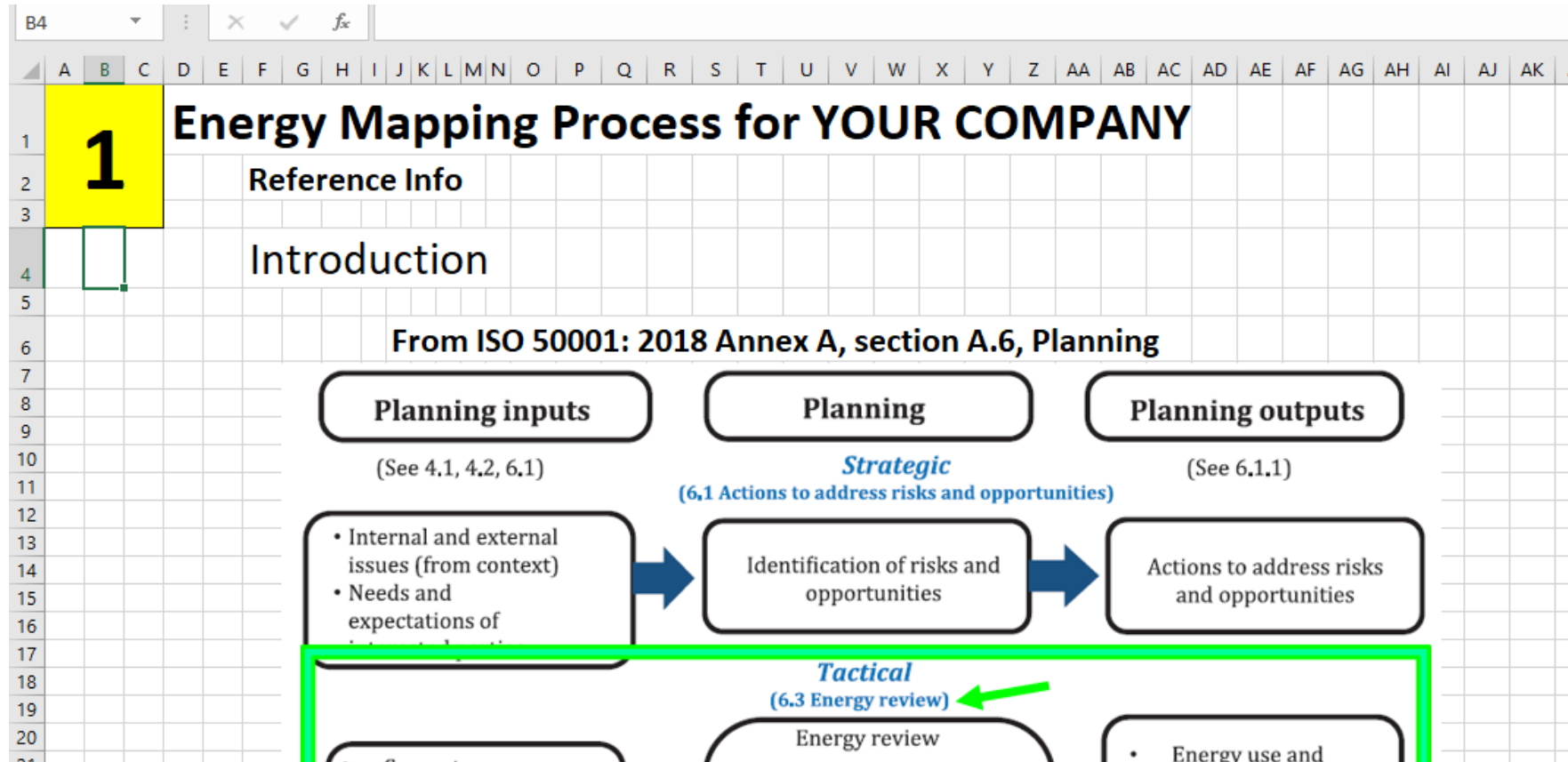
What are my improvement opportunities? (Tasks 10)

What are my EnPIs and EnBs? (Tasks 11)

What are my objectives, energy targets & action plans? (Tasks 12 & 13)

Task 9: Energy Mapping Template

- Questions on the Energy Mapping Template Tool



50001 Ready 8-Month Cohort Schedule - Example



- = (1) Pre-training orientation and data collection
- = (8) 2-hr Group Training Sessions – Every four weeks
- = (8) 1-on-1 Coaching Calls – Scheduled two weeks after training
- = (1) Post-Training follow up assessment and data collection
- = Homework and Site Implementation between sessions

Month 1							Month 2							Month 3							Month 4						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2		1	2	3	4	5	6		1	2	3	4	5	6					1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	14	15	16	17	18	19	20	11	12	13	14	15	16	17
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31																											
Month 5							Month 6							Month 7							Month 8						
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9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31	29	30	31				
30	31																										

Polling Question 1

Polling Question

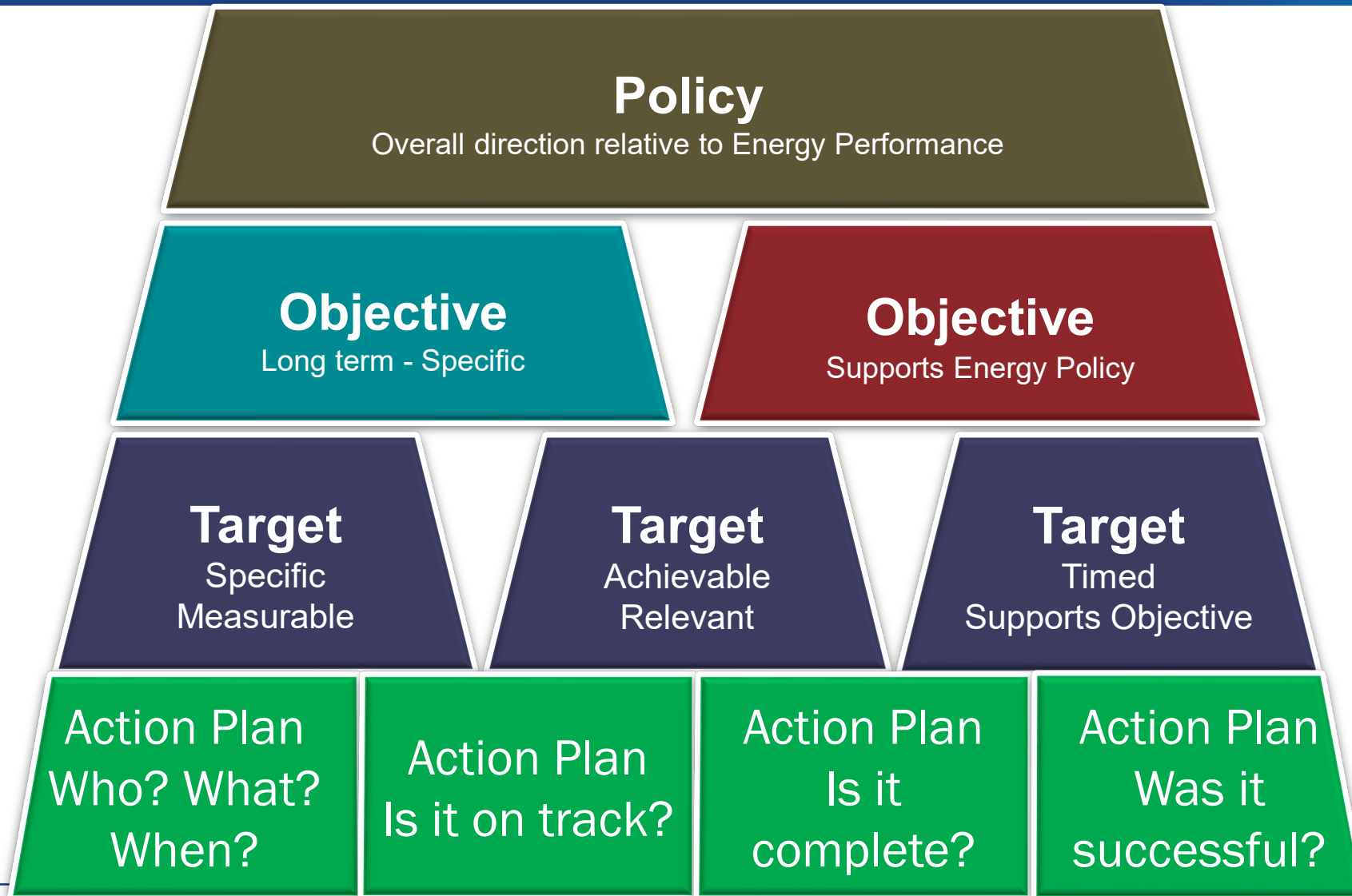
- 1) Based on your organizations goals for the implementation of an energy management system, what level of interest do you think you would have in participating in a follow-on 50001 Ready cohort with a deeper and longer-term commitment?
 - A. We are interested in this and would like to participate.
 - B. We are interested but need to know more.
 - C. We would not be interested at this time, but maybe later.
 - D. We do not intend to pursue 50001 Ready.

Polling Question 2

Polling Question

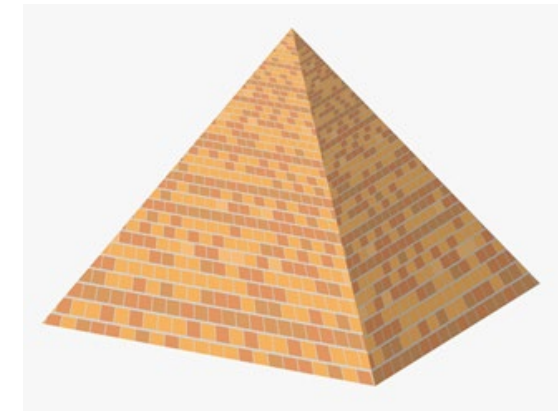
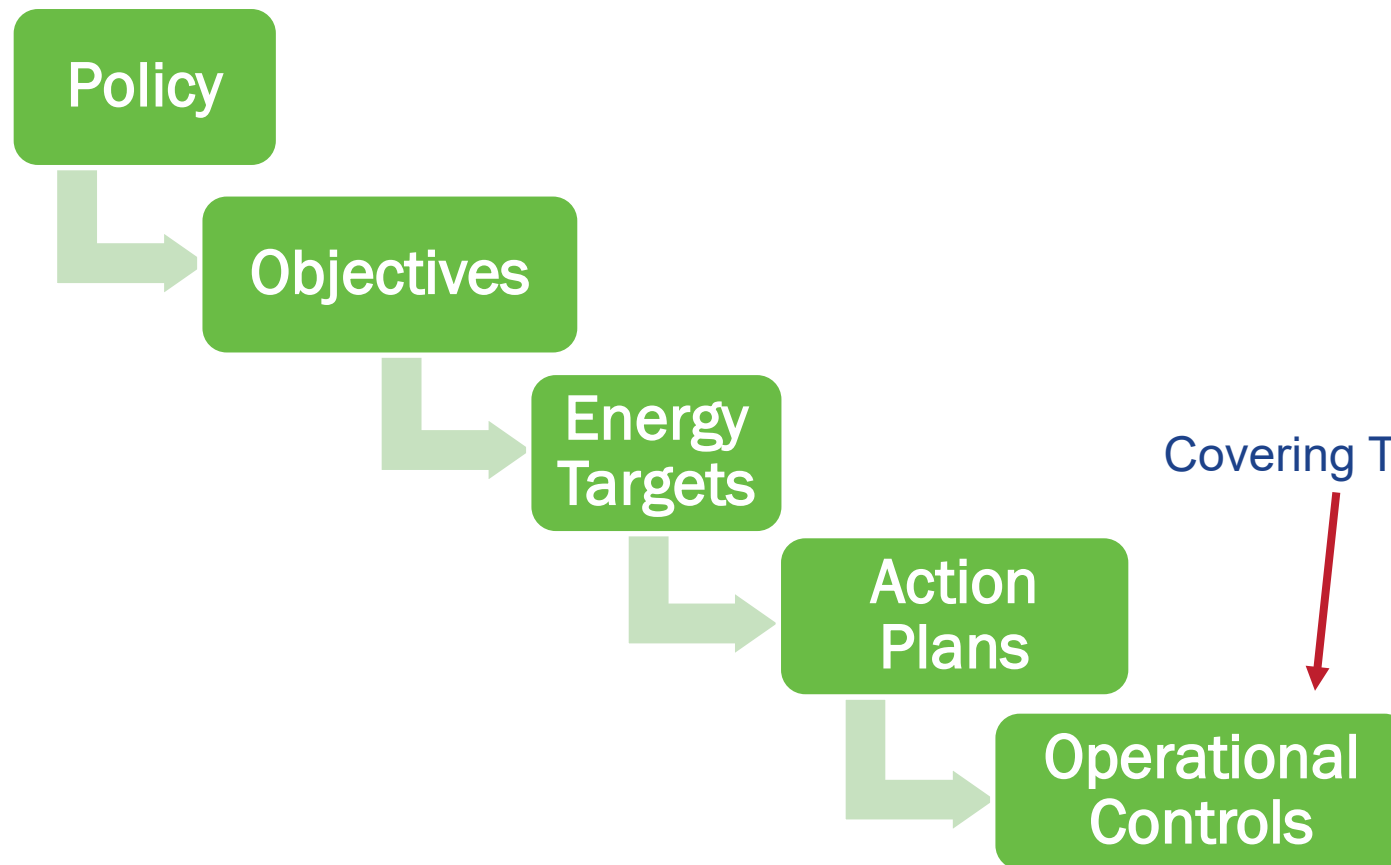
- 2) What would prevent you from participating in a follow-on 50001 Ready cohort after this 50001 Ready Virtual training?
- A. Resources (people and time commitment).
 - B. Cannot get the data needed to implement 50001 Ready.
 - C. No support from top management.
 - D. I have learned everything I need from this training and no more help is needed from the cohort.
 - E. Nothing. I plan to participate in the follow-on cohort.

Task 13: Relationships



Tasks 8-13: The Big Picture

- Building the energy success pyramid starts with a wide base of small actions that build to the completion of energy policy



Covering Today



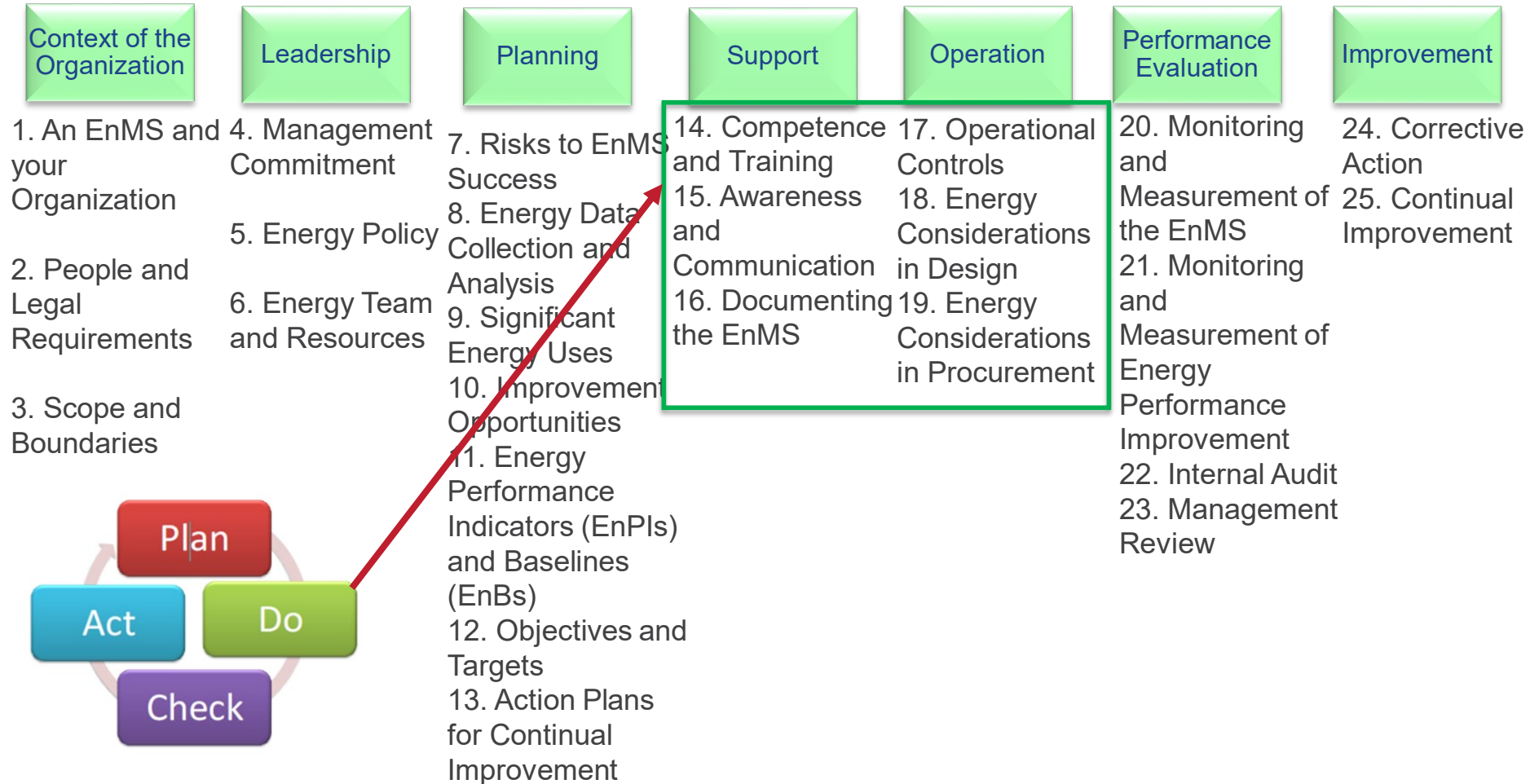
50001 Ready: Review Previous Tasks



- Today's Content

Tasks 14 - 19

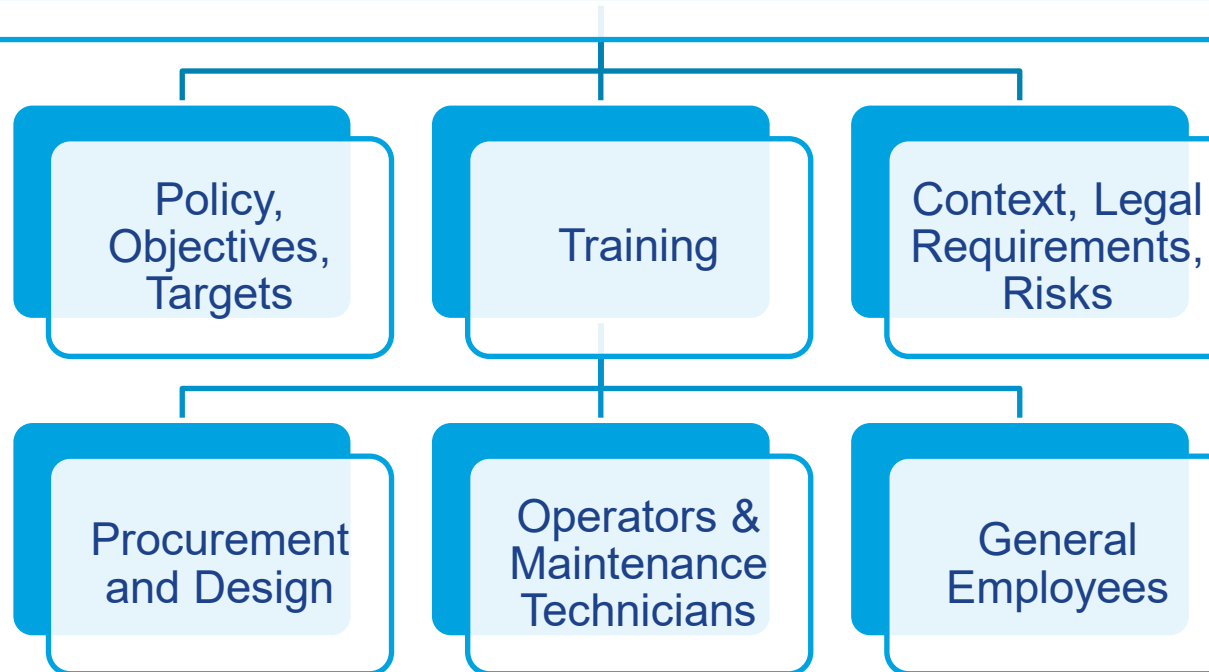
50001 Ready Navigator: Today's Tasks



Engaging Other Functions

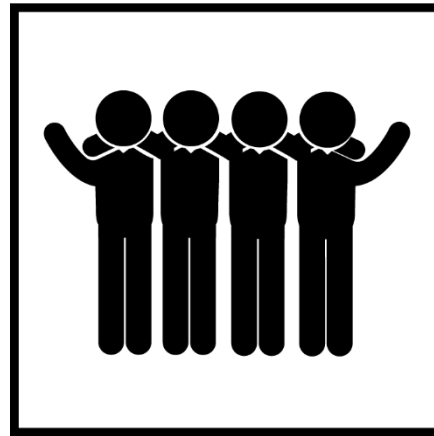


Integrate energy as a priority across your site



Support (3)

Ensure all team members who impact energy performance understand their role



Who impacts energy performance and our EnMS?

Are they aware, competent, trained, documented?

Is our training for them effective?

Do we maintain good documentation and records of our EnMS?

Task 14: Competence and Training

Task 14: We ensure the competence of personnel whose work affects our energy performance and EnMS.

We evaluate for effectiveness of actions taken to acquire competencies.

We retain appropriate records of competencies and training.



Task 14: Competence Defined

What does competence in a role mean?

Who requires competence?

What are specific tasks this function performs?

What is automated and what depends on the individual?

How is performance assessed in this role?



3.4.12

competence

ability to apply knowledge and skills to achieve intended results

Task 14: Who Needs Competence

- Boiler Technicians
- HVAC Technicians
- Process Operators
- Energy team members
- Data collectors
- Others



Functions who impact energy performance and the EnMS, including those who work directly with SEUs, EnPIs, O&M, data collection, etc.

Task 14: Ensuring Competence

How can we establish competence?

Through:

- *Education – a certain degree requirement*
- *Training – must attend and pass specific classes*
- *Skills – must obtain a maintain a specific certification, e.g. boiler or wastewater operator, etc.*
- *Experience –number of years working in a particular area*



Task 14: Actions for Competence

How can we ensure competence is maintained?

Can performance be linked to employee evaluations?

Can trainings be held for all relevant employees regularly (annually or on other relevant interval)?

Tracking system for certifications, classes, etc.?



Task 14: Playbook

Activity

- Look at Task 14 in 50001 Ready
- Look at the Task 14 Playbook

The screenshot shows the '50001 Ready Navigator Playbook' for 'Task 14: Competence and Training'. It includes a header with the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo and the title '50001 Ready Navigator Playbook'. Below the title is the task name 'Task 14: Competence and Training'. A green bar contains four fields for tracking updates: 'Date last modified/updated', 'Internal audit', 'Who last modified/updated', and 'Management review', each with a 'Click here to enter...' link. A dark blue box contains the text 'This part of the Navigator Playbook is completed when you have:' followed by a numbered list of four requirements.

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50001 Ready Navigator Playbook

Task 14: Competence and Training

Date last modified/updated: [Click here to enter a date.](#) **Internal audit:** [Click here to enter a date.](#)
Who last modified/updated: [Click here to enter text.](#) **Management review:** [Click here to enter a date.](#)

This part of the Navigator Playbook is completed when you have:

1. Determined necessary competencies for personnel and evaluated their current competencies.
2. Identified any gaps in the competencies of personnel whose work affects energy performance and the EnMS, and training needs to address competency gaps.
3. Evaluated the effectiveness of the actions taken.
4. Retained records of competence and related actions.

Task 15: Awareness and Communications

Task 15: Our personnel and on-site contractors are aware of our energy policy and their energy-related roles and responsibilities.

We have processes in place for internal and any applicable external EnMS communications.



Task 15: Communications Start at the Top

- Leadership
 - Communicating the importance of effective energy management and of conforming to the EnMS requirements
- The initial message
 - Who, what, when, where, why and how of the EnMS
 - Broadest possible communication
- Deeper message to key affected personnel
 - The bigger the potential impact the more they need to know



Task 15: Communications Are Ongoing

Ongoing Communication Topics:

- Energy policy
- Importance of energy management
- Energy management responsibilities and authorities
- Energy objectives
- Energy performance successes



GET INPUT:

Have a method or system to get input on the EnMS from employees and contractors. This is a requirement of ISO 50001



Task 15: Playbook

Activity

- Look at Task 15 in 50001 Ready
- Look at the Task 15 Playbook

The screenshot shows the '50001 Ready Navigator Playbook' page for 'Task 15: Awareness and Communication'. The page header includes the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo and the title '50001 Ready Navigator Playbook'. Below the header, the task title 'Task 15: Awareness and Communication' is displayed. A green bar contains two fields: 'Date last modified/updated: Click here to enter a date.' and 'Internal audit: Click here to enter a date.'. Below this, another green bar contains 'Who last modified/updated: Click here to enter text.' and 'Management review: Click here to enter a date.'. The main content area, which is dark blue, states 'This part of the Navigator Playbook is completed when you have:' followed by a numbered list of six items: 1. Developed and delivered an initial EnMS communication from top management that included the importance of energy management and the organization's energy policy. 2. Developed the details for EnMS awareness training for specific personnel or departments. 3. Planned and implemented awareness training. 4. Conducted awareness training and retained records. 5. Planned and implemented internal communication processes of the EnMS, including a suggestion system. 6. Planned and implemented external EnMS communication processes.

Polling Question 3

Polling Question

- 3) Thinking about tasks 14 and 15, for competence, training, awareness, and communications, where do you feel that your organization is with regards to establishing these systems?
- A. We already have robust systems in place and these tasks are essentially complete.
 - B. This all makes sense, and we are close, just need a little tweaking.
 - C. We have some of this in place, but we do not have a consistent process.
 - D. It would take a significant effort to get this set up and implemented.
 - E. I do not know where our organization is with respect to competency, training, etc.

Task 16: Documentation

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

Think Missouri...
The “Show Me” state



Task 16: Key Terms

Document:

Information that guides action or communicates expectations

Record:

Captures activities performed as evidence of the activity

3.3.5

documented information

information required to be controlled and maintained by an organization (3.1.1) and the medium on which it is contained

Task 16: Documentation

- ISO 50001 tells you what needs to be documented
- The new term is:
 - **DOCUMENTED INFORMATION**

This appears 18 times in the ISO 50001 standard:

...shall retain documented information (see [7.5](#))...

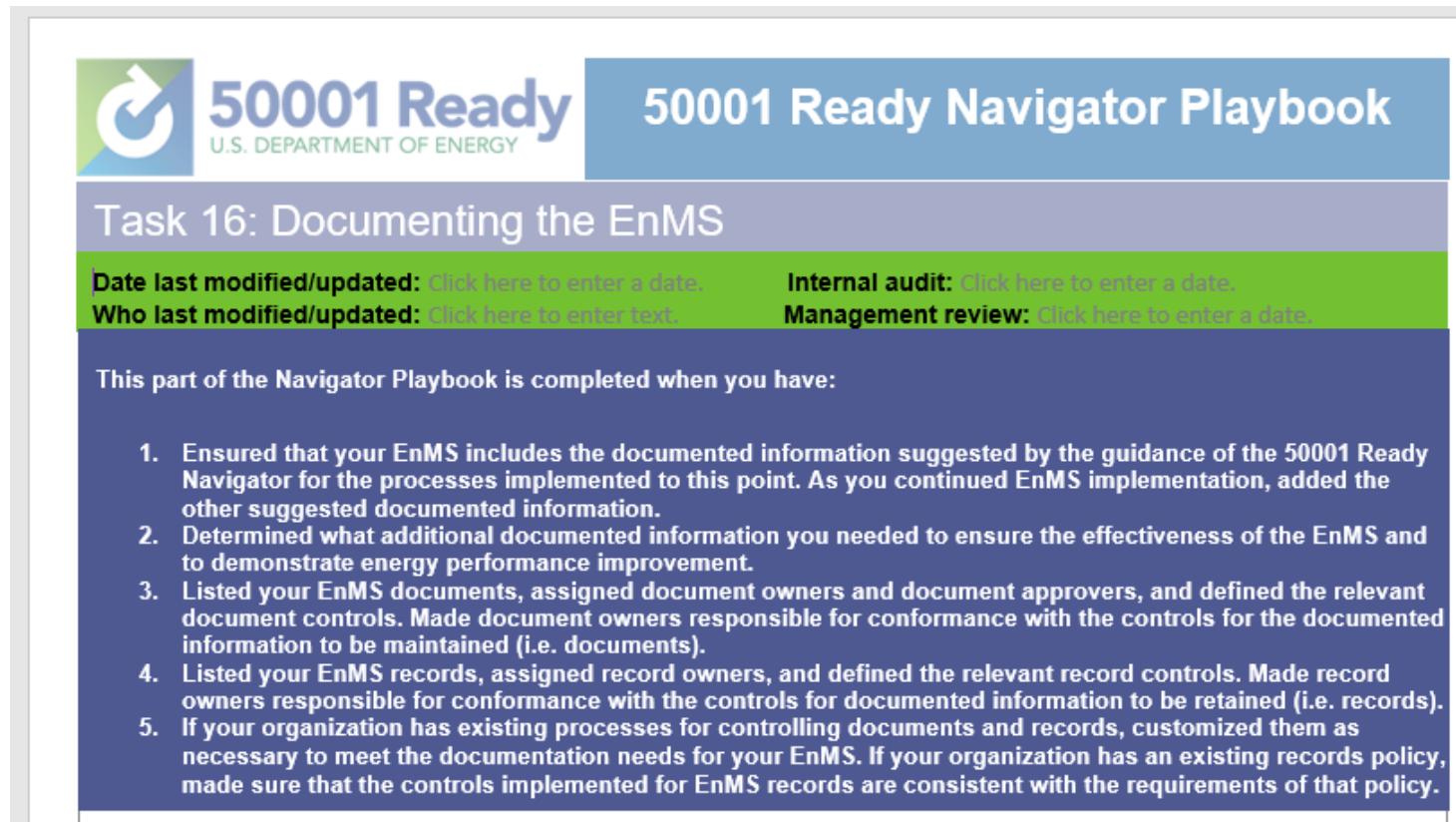
What do you think some of these item might be?



Task 16: Playbook

Activity

- Look at Task 16 in 50001 Ready
- Look at the Task 16 Playbook



The screenshot shows the '50001 Ready Navigator Playbook' interface. At the top left is the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo. The main title is '50001 Ready Navigator Playbook'. Below this is a section for 'Task 16: Documenting the EnMS'. A green bar contains two fields: 'Date last modified/updated: Click here to enter a date.' and 'Internal audit: Click here to enter a date.'. Below that, another green bar contains 'Who last modified/updated: Click here to enter text.' and 'Management review: Click here to enter a date.'. The main content area is dark blue and contains the text: 'This part of the Navigator Playbook is completed when you have:' followed by a numbered list of five items.

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50001 Ready Navigator Playbook

Task 16: Documenting the EnMS

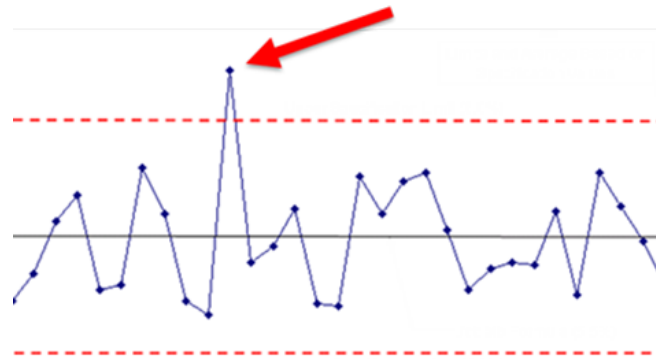
Date last modified/updated: [Click here to enter a date.](#) **Internal audit:** [Click here to enter a date.](#)
Who last modified/updated: [Click here to enter text.](#) **Management review:** [Click here to enter a date.](#)

This part of the Navigator Playbook is completed when you have:

1. Ensured that your EnMS includes the documented information suggested by the guidance of the 50001 Ready Navigator for the processes implemented to this point. As you continued EnMS implementation, added the other suggested documented information.
2. Determined what additional documented information you needed to ensure the effectiveness of the EnMS and to demonstrate energy performance improvement.
3. Listed your EnMS documents, assigned document owners and document approvers, and defined the relevant document controls. Made document owners responsible for conformance with the controls for the documented information to be maintained (i.e. documents).
4. Listed your EnMS records, assigned record owners, and defined the relevant record controls. Made 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, customized them as necessary to meet the documentation needs for your EnMS. If your organization has an existing records policy, made sure that the controls implemented for EnMS records are consistent with the requirements of that policy.

Operation (3)

Operate, maintain, design and procure to optimize energy performance




Do I have good operational and maintenance controls for my SEUs and action plans?

Do my operators know what to do when energy expectations are not met?

Are design and procurement teams are engaged?

Task 17: Operational Controls



Task 17: We plan and control the processes related to our **SEUs** and **action plans** and set operation and maintenance criteria where there are risks of significant deviations in energy performance.

We operate the **SEU** and **action-plan** related processes in accordance with the criteria and communicate the criteria to relevant personnel.

We control planned changes, along with outsourced processes related to SEUs.

Task 17: Operational Control, Definitions

Operational Controls are all the procedures, tools and guidelines that promote the efficient and uninterrupted functioning of critical equipment.

Examples include:

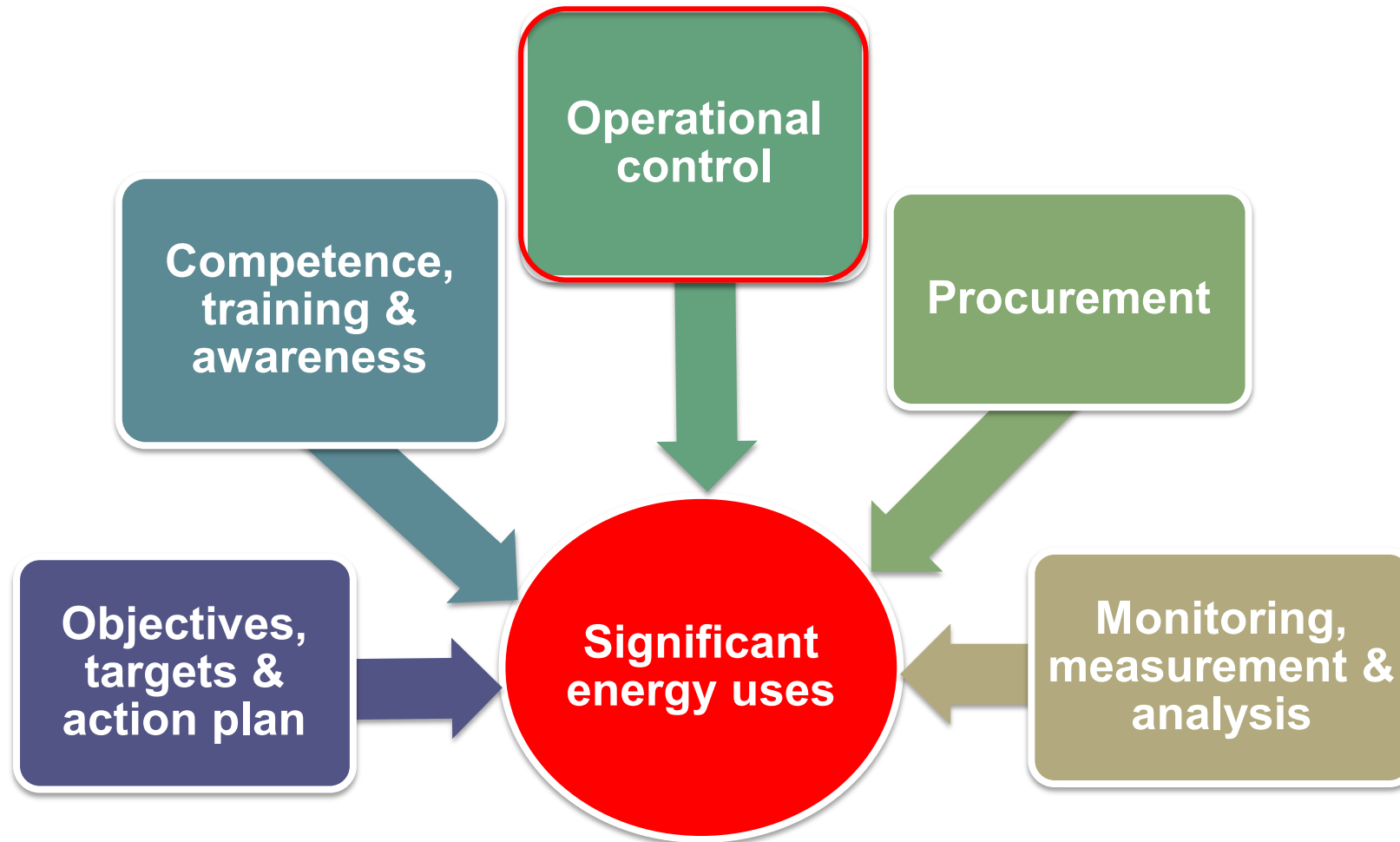
Criteria - parameters

- * Operational
 - * Temperature
 - * Pressure
 - * Amperage
- * Maintenance
 - * Filter replacement
 - * Lubrication
 - * Vibration checks

Procedural- instructions

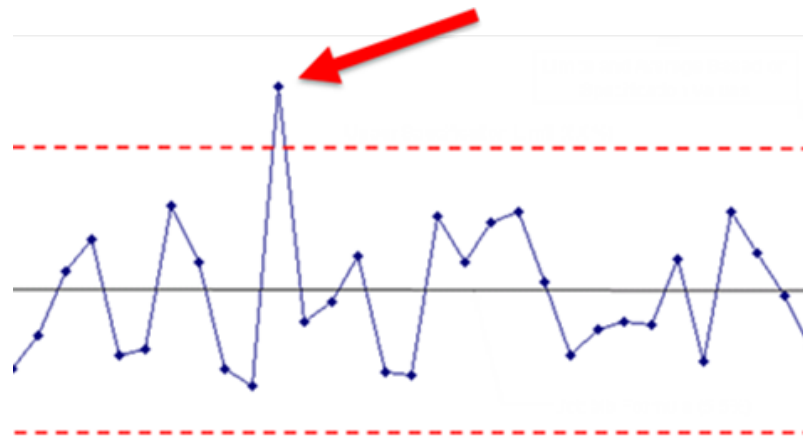
- * Operational
 - * Oven start up/shutdown
 - * Paint booth down draft
 - * Peak shaving
- * Maintenance
 - * Leak repair
 - * Cleaning
 - * Equipment tuning/calibration
 - * PM Schedule

Task 17: Connection to SEUs



Task 17: Determining Appropriate Controls

- 1.Document all current official operating practices for each SEU.
- 2.Map processes that use SEUs or have related action plans for improvement.
- 3.Identify opportunities for streamlining SEU controls.
- 4.Operational and maintenance controls PREVENT significant deviations in energy performance in SEUs



Task 17: Developing Criteria

Sources of Criteria:

- Manufacturer's recommendations
- System personnel or operational manuals, including automated controls
- Minimum process or system requirements
- Service personnel suggested operating/maintenance practices
- Statistical process control
- Benchmarking performance of similar equipment
- Guidance from energy system experts (can be in energy assessments)
- Internal expert's suggestions
- Past issues or problems



Task 17: Operational Criteria

Operating criteria:

- ✓ Occupancy time
- ✓ Temperature
- ✓ Pressure
- ✓ Humidity
- ✓ Control schemes
- ✓ Set points
- ✓ Others



Task 17: Maintenance-Definitions

- The primary purpose of maintenance has traditionally been to maintain reliability & availability.
- However, effective equipment maintenance also enhances energy efficiency.
- Reactive maintenance will undoubtedly waste energy
- The cost of the energy will often be more than the cost of the maintenance (also a different budget!)
- All significant energy users need to be maintained correctly
- Applies equally to external service contracts



Task 17: Maintenance Criteria & Factors

Maintenance criteria:

- Filters
- Lubrication
- Tune-ups, adjustments

Maintenance factors:

- Operating schedules
- Inspection methods & intervals
- Start up & shut down frequency
- Severity of service



Task 17: Document Criteria, Example

SEU	Parameter	Eng Units	Upper Limit	Lower Limit	Measuring Instrument	Routine Calibration	Note
Boilers	Total Dissolved Solids	ppm	3800	3400	TDS001	Y	
Boilers	Boiler Pressure	bar	10	9	PT123	Y	
Boilers	Exhaust Oxygen	% O2	3.5	2	Portable 123	Y	
Boilers	Stack Temperature	Deg C	300	N.A.	TT124	Y	Varies with firing rate

Tasks 17: Communication of Controls



Identify SEU affected personnel, then....

- On-the-job training
- Work instructions or operating procedures
- Classroom training
- Posted list of specified settings
- Logbooks
- Email in corporate intranets



Task 17: Operational Control Implementation

Procedure Based:

- Procedures or work instructions
- Equipment logbooks
- PM Schedule
- Equipment operating procedures
- Checklists
- Bulletin board postings

Technology Based:

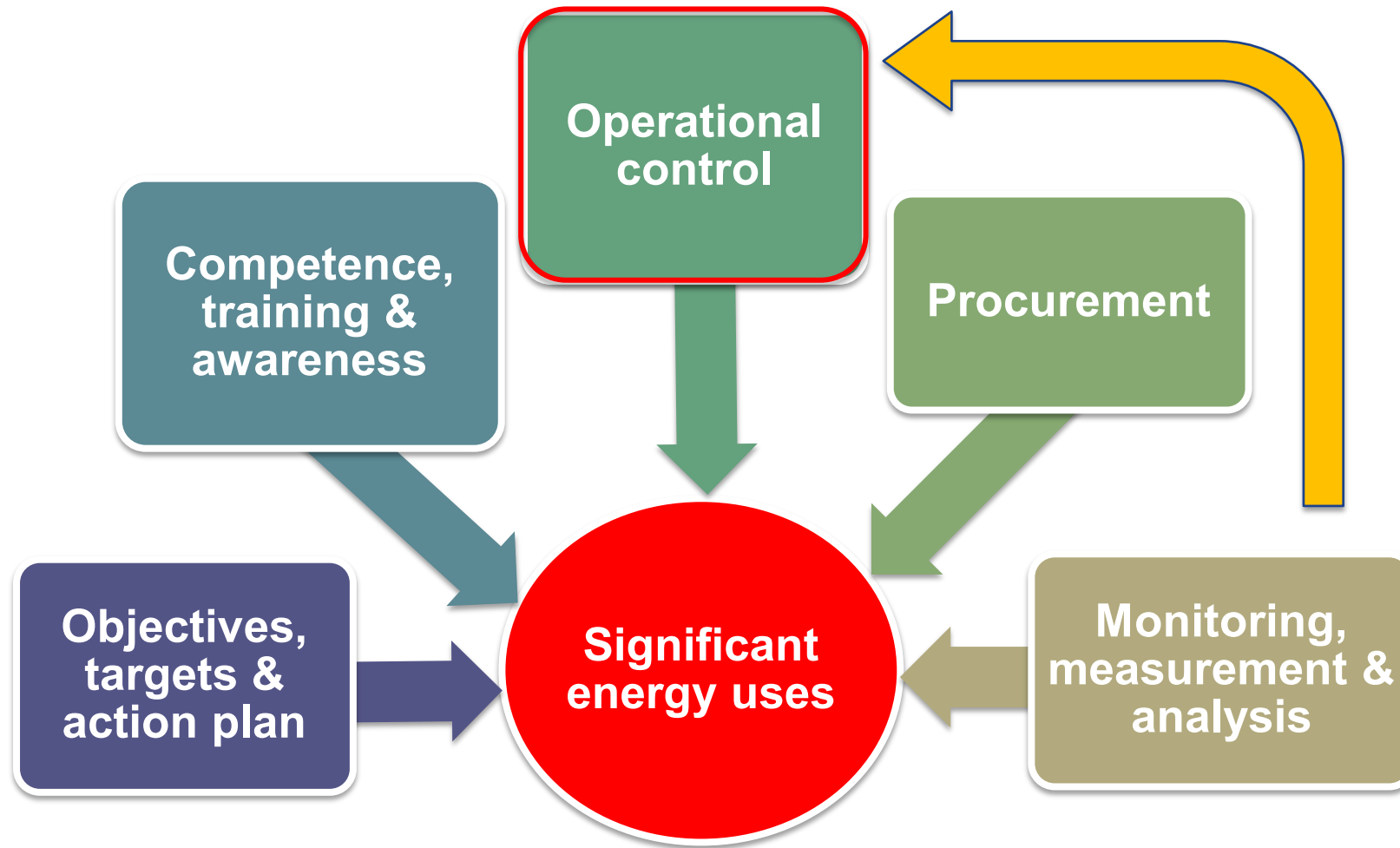
- Control systems/HMIs
- Alarm/alert systems
- Computer automated activities
- Preventive maintenance system

Training Based:

- Maintenance training
- Operations training
- Contractor training
- Better Plants INPLTs

**You may already have many operational controls in place
– if so, leverage them for energy management!**

Task 17: Connections to MM&A

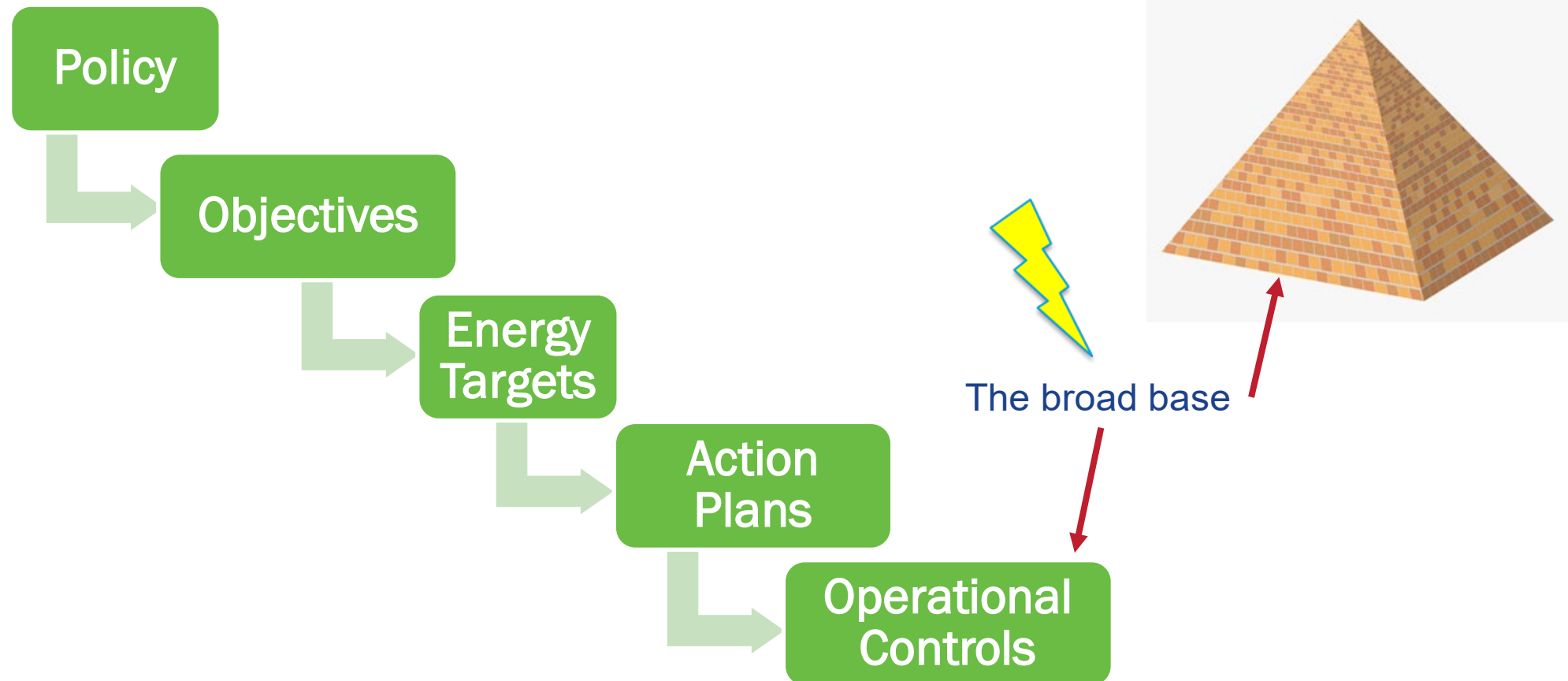


Task 17: Barriers to Effective Operational Controls

- Implementing controls that are not easy to use, understand or communicate (controls not user-friendly)
- Forgetting to include maintenance criteria in addition to operating criteria
- Infrequent communication of operational controls – need to tell employees and contractors
- Not checking control effectiveness regularly
- Failing to improve ineffective controls
- Cultural – getting staff accustomed to doing something new

Tasks 8-13 +17: The Big Picture

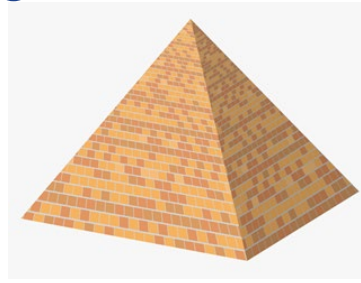
- Building the energy success pyramid starts with a wide base of small actions that build to the completion of energy policy



Polling Question 4

Polling Question

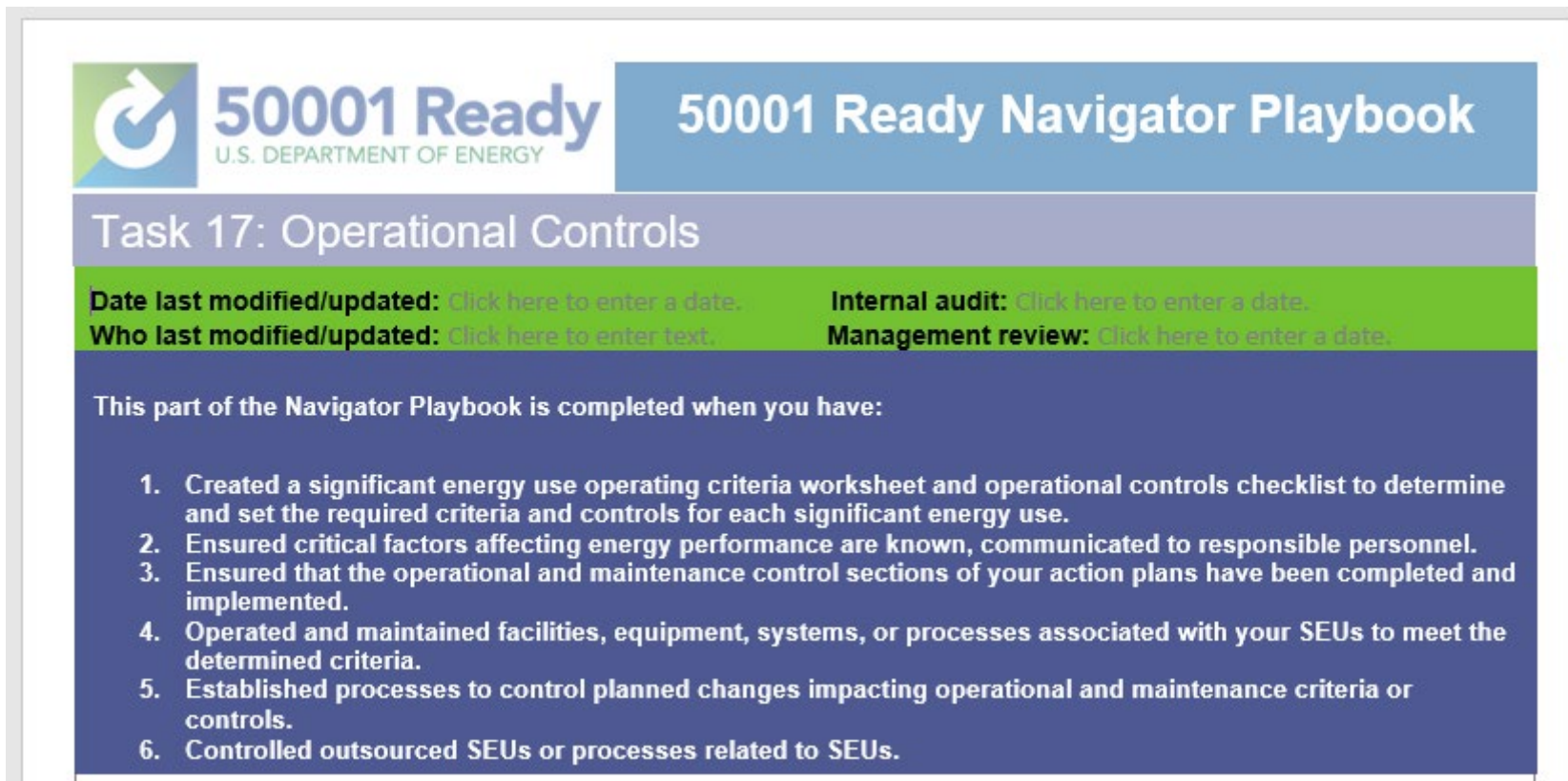
- 4) Thinking about the energy success pyramid on the previous slide, how would you rate the strength of your organization's pyramid?
- A. On solid rock and nearly complete
 - B. On solid rock and a work in progress
 - C. We have found solid rock and are working on the foundation
 - D. Still digging the foundation and looking for that solid rock to start on
 - E. It looks like a pyramid, but a strong wind could take it out
 - F. I do not know where our organization is with respect to our energy success pyramid.



Task 17: Playbook

Activity

- Look at Task 17 in 50001 Ready
- Look at the Task 17 Playbook



The screenshot shows the '50001 Ready Navigator Playbook' for 'Task 17: Operational Controls'. It includes a header with the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo and the title '50001 Ready Navigator Playbook'. Below the title is a section for 'Task 17: Operational Controls' with fields for 'Date last modified/updated', 'Internal audit', 'Who last modified/updated', and 'Management review'. A list of six criteria follows, detailing the requirements for completing this part of the playbook.

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50001 Ready Navigator Playbook

Task 17: Operational Controls

Date last modified/updated: [Click here to enter a date.](#) **Internal audit:** [Click here to enter a date.](#)
Who last modified/updated: [Click here to enter text.](#) **Management review:** [Click here to enter a date.](#)

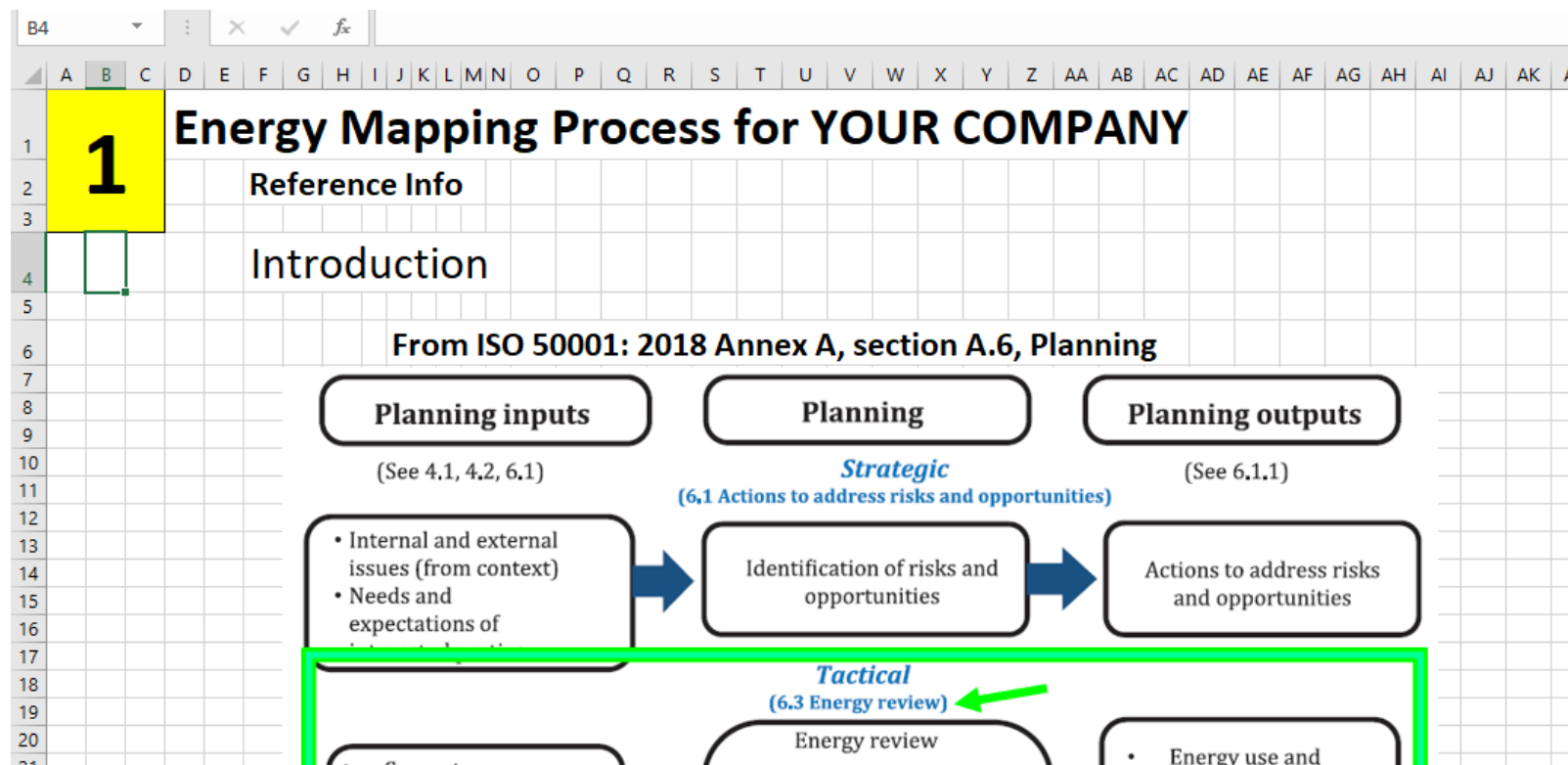
This part of the Navigator Playbook is completed when you have:

1. Created a significant energy use operating criteria worksheet and operational controls checklist to determine and set the required criteria and controls for each significant energy use.
2. Ensured critical factors affecting energy performance are known, communicated to responsible personnel.
3. Ensured that the operational and maintenance control sections of your action plans have been completed and implemented.
4. Operated and maintained facilities, equipment, systems, or processes associated with your SEUs to meet the determined criteria.
5. Established processes to control planned changes impacting operational and maintenance criteria or controls.
6. Controlled outsourced SEUs or processes related to SEUs.

Task 17: Operational Controls Worksheet



- Review the tabs of the Energy Mapping Template Tool



Task 18: Energy Considerations in Design

Task 18: We consider energy performance improvement opportunities and operational controls when designing new, modified, or renovated facilities, equipment, systems and processes.



Task 18: Consideration in Design

- Consider energy performance improvement and operations in the design of new, modified and renovated facilities over the lifetime
- Design the facility to be efficient right from the start and ongoing
- Include these items in the design specifications that are sent out for quote



Task 18: Playbook

Activity

- Look at Task 18 in 50001 Ready
- Look at the Task 18 Playbook

The screenshot shows the '50001 Ready Navigator Playbook' interface. At the top left is the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo. To its right is a blue header bar with the text '50001 Ready Navigator Playbook'. Below this is a purple bar with the title 'Task 18: Energy Considerations in Design'. A green bar contains four metadata fields: 'Date last modified/updated: Click here to enter a date.', 'Internal audit: Click here to enter a date.', 'Who last modified/updated: Click here to enter text.', and 'Management review: Click here to enter a date.'. Below the green bar is a dark blue box with the text 'This part of the Navigator Playbook is completed when you have:' followed by a numbered list of four requirements.

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50001 Ready Navigator Playbook

Task 18: Energy Considerations in Design

Date last modified/updated: [Click here to enter a date.](#) **Internal audit:** [Click here to enter a date.](#)
Who last modified/updated: [Click here to enter text.](#) **Management review:** [Click here to enter a date.](#)

This part of the Navigator Playbook is completed when you have:

1. Identified the facilities, equipment, systems, and processes that can have significant impact on energy performance.
2. Incorporated consideration of energy opportunities and operational controls in design projects.
3. Included results of energy performance considerations in specification, design, and procurement activities, where applicable.
4. Retained records of the results of design activities related to energy performance.

Task 19: Energy Considerations in Procurement

Task 19: We establish energy performance criteria spanning the operating life for purchases affecting energy performance, inform suppliers that this is a factor in procurement, and define and use specifications for energy supply purchases.



Task 19: Specific Actions



- Inform suppliers of energy performance as an evaluation factor for SEU-related purchases
- Establish operating lifetime energy performance criteria for purchases that can significantly affect energy performance
- Develop documented specifications for:
 - the purchase of energy supply
 - ensuring the energy performance of procured equipment and services



Task 19: Playbook

Activity

- Look at Task 19 in 50001 Ready
- Look at the Task 19 Playbook



The screenshot shows the '50001 Ready Navigator Playbook' page for 'Task 19: Energy Considerations in Procurement'. The page header includes the '50001 Ready U.S. DEPARTMENT OF ENERGY' logo and the title '50001 Ready Navigator Playbook'. Below the header, the task title 'Task 19: Energy Considerations in Procurement' is displayed. A green bar contains metadata fields: 'Date last modified/updated: Click here to enter a date.', 'Internal audit: Click here to enter a date.', 'Who last modified/updated: Click here to enter text.', and 'Management review: Click here to enter a date.'. The main content area, on a dark blue background, states 'This part of the Navigator Playbook is completed when you have:' followed by a numbered list of six requirements.

50001 Ready
U.S. DEPARTMENT OF ENERGY

50001 Ready Navigator Playbook

Task 19: Energy Considerations in Procurement

Date last modified/updated: [Click here to enter a date.](#) **Internal audit:** [Click here to enter a date.](#)
Who last modified/updated: [Click here to enter text.](#) **Management review:** [Click here to enter a date.](#)

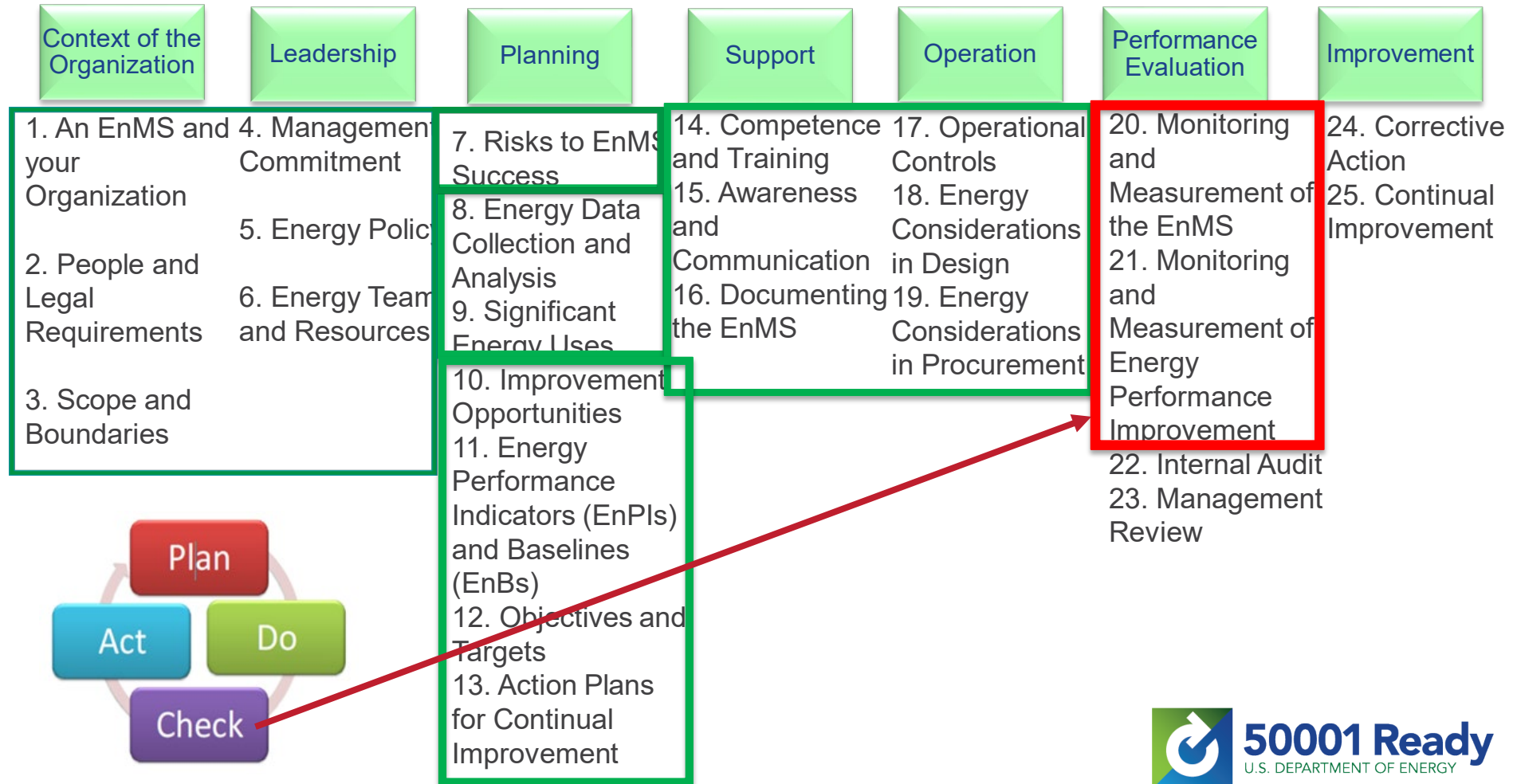
This part of the Navigator Playbook is completed when you have:

1. For purchases related to SEUs, clearly identified any energy performance-related requirements. Communicated these requirements to suppliers and/or service providers, and informed them that energy performance is part of the evaluation criteria.
2. Evaluated your organization's current procurement processes for items that can significantly impact energy performance.
3. Determined and taken any needed actions to adjust existing procurement processes to meet **EnMS** requirements.
4. Developed life-cycle criteria for specific types of procurement activities if you do not have them already.
5. Developed and communicated specifications for the purchase of energy supply and ensuring the energy performance of procured equipment and services.
6. Determined if any specifications for the purchase of energy supplies are applicable to ensure the energy performance of equipment and services purchased.

- Review and Wrap Up

Webinar Training Schedule & Preparations
Kahoot Quiz Game
Q&A

50001 Ready Navigator Tasks: Next Session in **RED**



Training Schedule: By Session

1. An Overview – March 28 - **DONE**
2. Laying the Foundation of 50001 – April 4 - **DONE**
3. Where does all the Energy Go? – April 11 - **DONE**
4. Sorting out the Energy Data – April 18 - **DONE**
5. Engaging Other Functions – **TODAY - April 25**
6. Evaluating Performance – **NEXT - May 2**
7. Ensuring Continual Performance – May 9
8. Wrap Up and Next Steps – May 16

**ALL on
Thursdays**

All sessions: 10:00 a.m. to 12:30 p.m.

Preparation for Session SIX

- If desired, purchase the ISO 50001: 2018 standard
- Set up and use your 50001 Ready account, if not done yet
- Prepare for Session SIX:
 - Review the “Getting it Done” tab for tasks 20 & 21 in 50001 Ready
 - Do you currently evaluate your energy performance, year over year? How? (20, 21)
 - Are significant deviations from your planned energy performance investigated (20, 21)?
 - Is monitoring and measuring to evaluate your EnMS and energy performance well defined (20,21)?



Between each session we will send out a quick homework survey. Please complete and return these.

50001 Ready - Resources

- 50001 Ready Program
 - <https://www.energy.gov/eere/amo/50001-ready-program>
- 50001 Ready Navigator
 - <https://navigator.lbl.gov/>
- Energy Footprint Tool
 - <https://www.energy.gov/eere/amo/downloads/energy-footprint-tool>
- EnPI Lite Tool
 - <https://enpilite.lbl.gov/>
- 50001 Ready at Better Building
 - <https://betterbuildingsolutioncenter.energy.gov/better-plants/software-tools>

Polling Question 5

Polling Question

- 5) Thinking about the homework email, the session prep email, the 50001 Ready navigator, the example playbooks, and other resources, how do you feel these have helped you prepare and get the most out of these training sessions?
- A. Excellent help and I am using them all.
 - B. Very good and I use most of these.
 - C. Good resources, but I have not had time to use them all.
 - D. I have not had the time to use these resources.

Polling Question 6

Polling Question

- 6) After listening to today's webinar session FIVE, and now having covered tasks 1-19, how do you feel about 50001 Ready as a resource to help you with your energy management plans:
- A. Still overwhelmed.
 - B. Cautiously optimistic.
 - C. Very encouraged.
 - D. Confident - Ready to get Ready.

And now, our Kahoot Quiz Review Game



Question and Answer Time



Please Contact Us With Any Questions



Jess Allen

(919) 857-9045 {desk}

(919) 452-2470 {cell}

jallen@advancedenergy.org

www.advancedenergy.org



Michael Stowe

(919) 857-9043 {desk}

(919) 904-0279 {cell}

mstowe@advancedenergy.org

www.advancedenergy.org