Better Plants
U.S. DEPARTMENT OF ENERGY

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

ORNL 50001 Ready Training Webinar Series, Session 8
April 6, 2026
10:00 a.m. to 12:30 p.m.

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Agenda – Session EIGHT

- Welcome, Safety, and Housekeeping
- Today's Content: *Wrap Up and Next Steps*
  - Review of all 25 task for 50001 Ready
  - Continue to use the 50001 Ready navigator
  - Where can we go from here?
- Webinar Wrap Up
- Kahoot Quiz Game
- Q&A

But first, a POLL!

Polling Question 1

Polling Question

1) On a scale of one to five, how would you rate the value of this Better Plants training on 50001 Ready based energy management?
   A. FIVE – Excellent and we will apply most this.
   B. FOUR – Very good and we plan to use some of this.
   C. THREE – Okay, and we may implement a few things.
   D. TWO – Not what I expected and of limited value.
   E. ONE – No value to my organization.

Welcome

- Welcome to the Virtual INPLT *50001 Ready* webinar training series
- Eight, 2.5-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!

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Safety and Housekeeping

- Please make sure 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
- When not asking a question, please mute your mic 
- We are recording these webinars, and by staying online, you are giving consent to be recorded
  - A link to the recorded webinars will be provided

Our 50001 Ready Training Group

Review of Tasks 1 - 25

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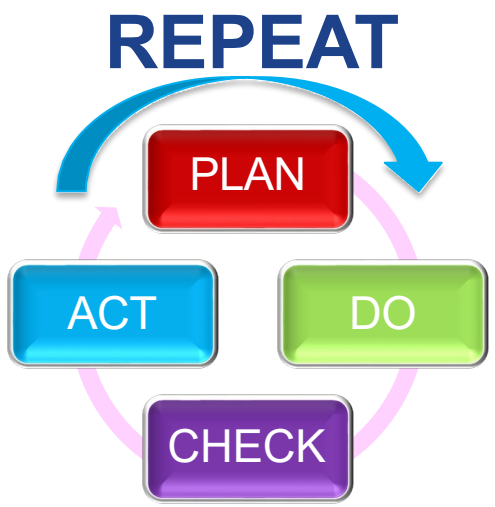
50001 Ready — The 25 Tasks

Context of the Organization

1. An EnMS and Your Organization

2. People and Legal Requirements

3. Scope and Boundaries



Leadership

4. Management Commitment

5. Energy Policy

6. Energy Team and Resources

Planning

7. Risks to EnMS Success

8. Energy Data Collection and Analysis

9. Significant Energy Uses

10. Improvement Opportunities

11. Energy Performance Indicators (EnPIs) and Baselines (EnBs)

12. Objectives and Targets

13. Action Plans for Continual Improvement

Support

14. Competence and Training

15. Awareness and Communication

16. Documenting the EnMS

Operation

17. Operational Controls

18. Energy Considerations in Design

19. Energy Considerations in Procurement

Performance Evaluation

20. Monitoring and Measurement of the EnMS

21. Monitoring and Measurement of Energy Performance Improvement

22. Internal Audit

23. Management Review

Improvement

24. Corrective Action

25. Continual Improvement

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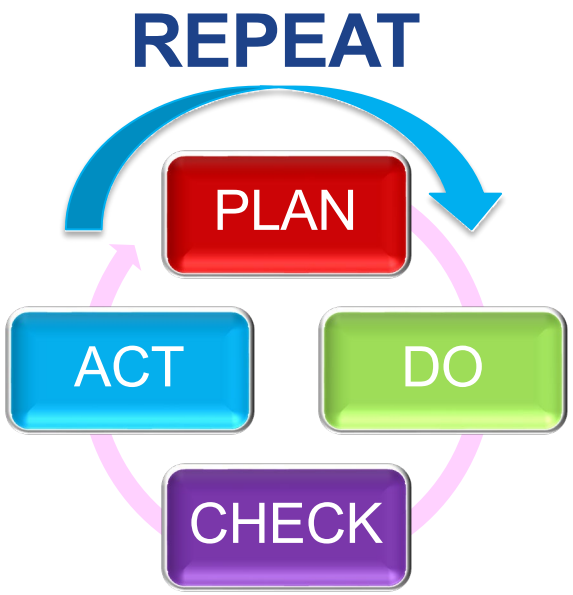
Quick List of Acronyms

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



Section 1: Context of the Organization (Tasks 1–3)

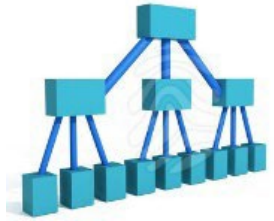
Building a foundation for your EnMS

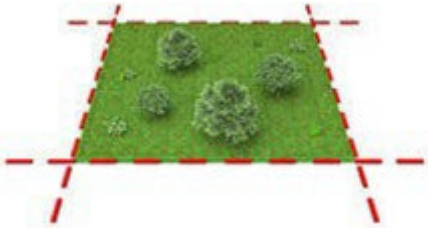
Regarding my EnMS, what are the:

- *Risks, opportunities and strategic issues?*
- *Legal and other requirements?*
- *Interested parties?*
- *Scope and boundaries?*

Section 1: Context of the Organization

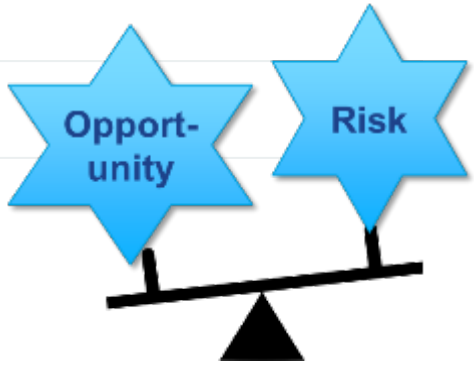
Task 1	**An EnMS and Your Organization**	We determine the strategic issues that affect our ability to improve energy performance and achieve the goals of our 50001 Ready energy management system.
Task 2	**People and Legal Requirements Affecting the EnMS**	We determine the interested parties and energy-related legal and other requirements relevant to our energy performance and the energy management system. At defined intervals, we review these requirements and evaluate our compliance with them.
Task 3	**Scope and Boundaries**	We have documented and approved the scope and boundaries of our 50001 Ready energy management system.





Section 3: Planning

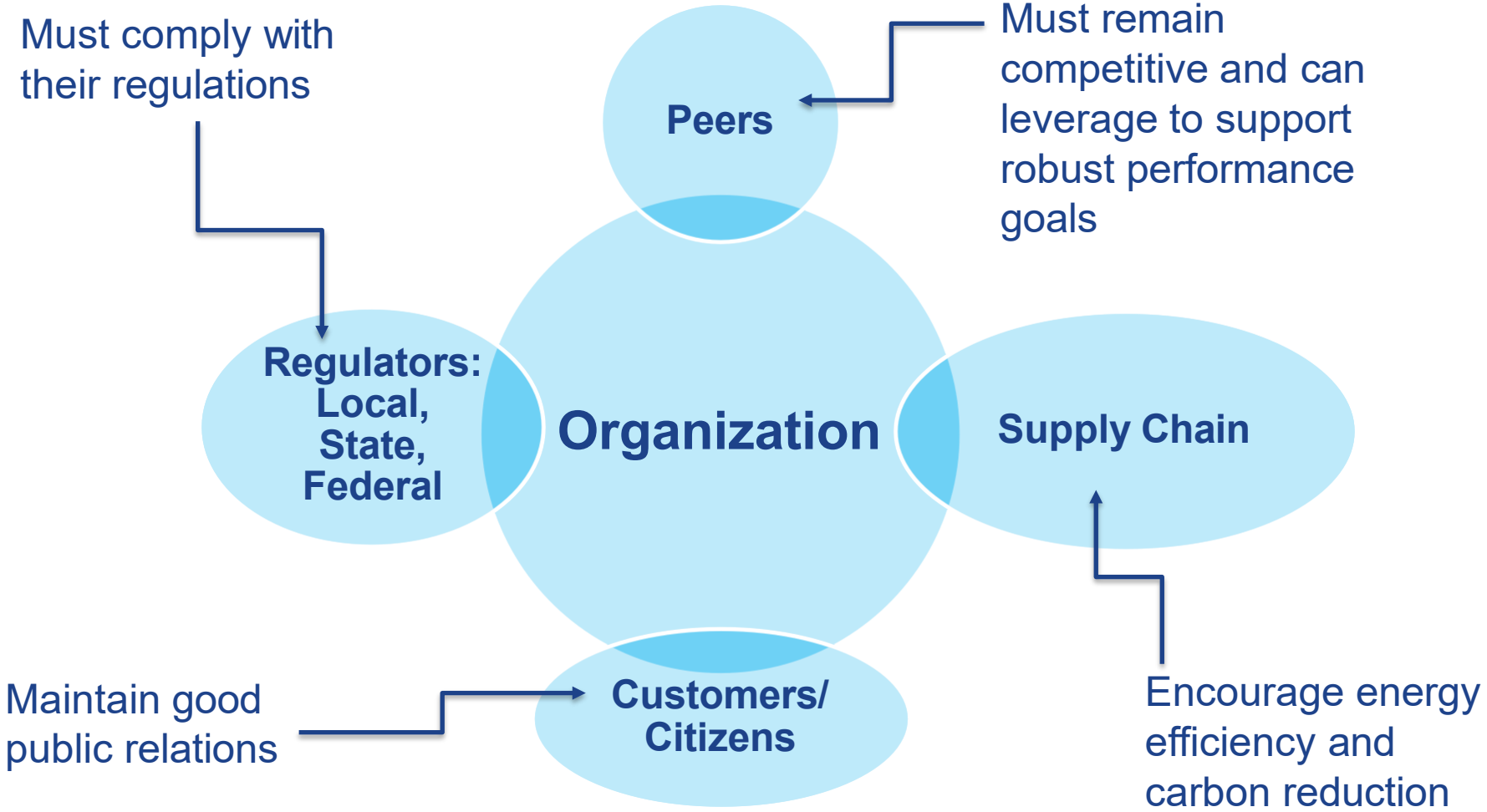
Task 7	**Risks to EnMS Success**	We determine strategic risks and opportunities to ensure that our organization can achieve the intended outcomes of our energy management system and energy performance improvement. We plan and implement actions to address these risks and opportunities and evaluate the effectiveness of the actions taken.



Task 1: Internal Issues

Task 1: External Issues

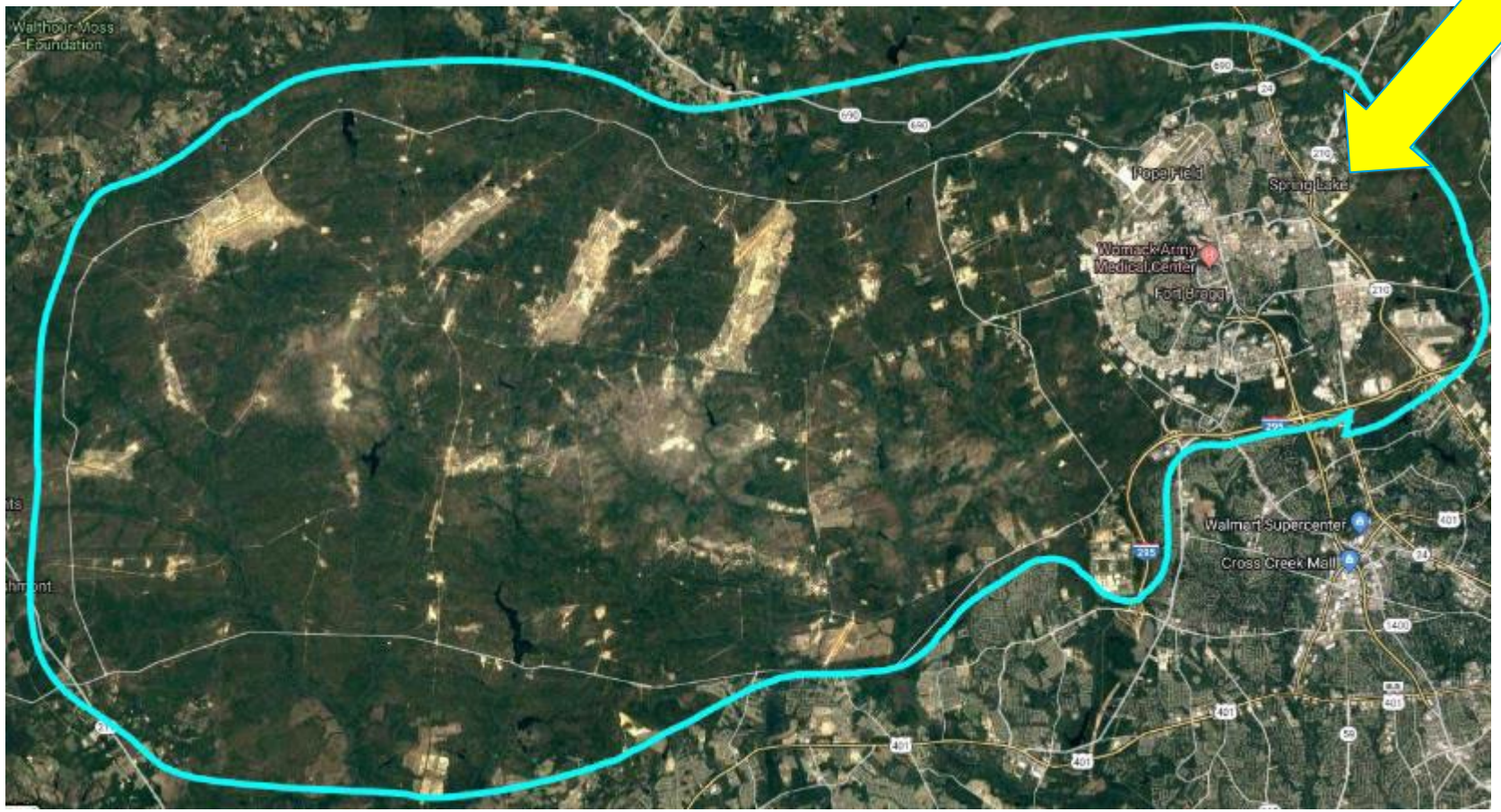
Task 2: Interested Parties, Plus Requirements



Task 3: A Big Scope and Boundary

Boundary is the "fence line" or "property line."

Scope is what you manage inside the boundary.



Section 2: Leadership (Tasks 4–6)

Commitment and guidance from the top

Is there strong top management commitment to the EnMS?
Is there a clear and well-communicated energy policy?
Are there adequate resources for the energy team to carry out the implementation of the EnMS?

Section 2: Leadership

Task 4 Management Commitment	Our top management demonstrates leadership and commitment to continual improvement of energy performance and the effectiveness of the 50001 Ready system.	
Task 5 Energy Policy	We have an energy policy statement, which has been approved by top management and communicated across the organization.	
Task 6 Energy Team and Resources	We have an energy team authorized by top management to oversee the energy management system. Responsibilities and authorities are assigned and communicated, and processes are in place to identify and provide resources.	

Task 4: Top Management — Questions to Ask

- Where does top management reside?
  - At individual sites?
  - At a central office?
  - At a level above the central office?
- Who sets the energy policy?
- Who will do the management review?
- Who will establish and confirm management commitment?
  - Use the 50001 Ready Navigator Task 4 playbook resource

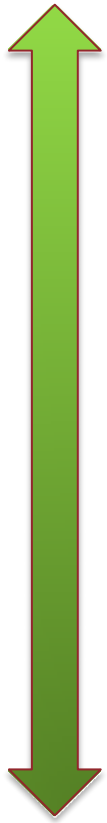
Task 4: Management Responsibility

- ✓ Ensure scope and boundaries are established
- ✓ Ensure energy policy and objectives and targets are established
- ✓ Ensure EnMS requirements are integrated into business process
- ✓ Ensure action plans are approved and implemented
- ✓ Ensure adequate resources are available
- ✓ Communicate importance of effective energy management and conforming to EnMS requirements
- ✓ Ensure EnMS achieves intended outcomes
- ✓ Promote continual improvement of energy performance and the EnMS
- ✓ Ensure formation of the energy team
- ✓ Direct and support persons to contribute to the effectiveness of the EnMS and energy performance improvement
- ✓ Support other management roles to demonstrate leadership
- ✓ Ensure EnPIs appropriately represent energy performance
- ✓ Ensure processes are established and implemented to identify and address changes affecting the EnMS and energy performance

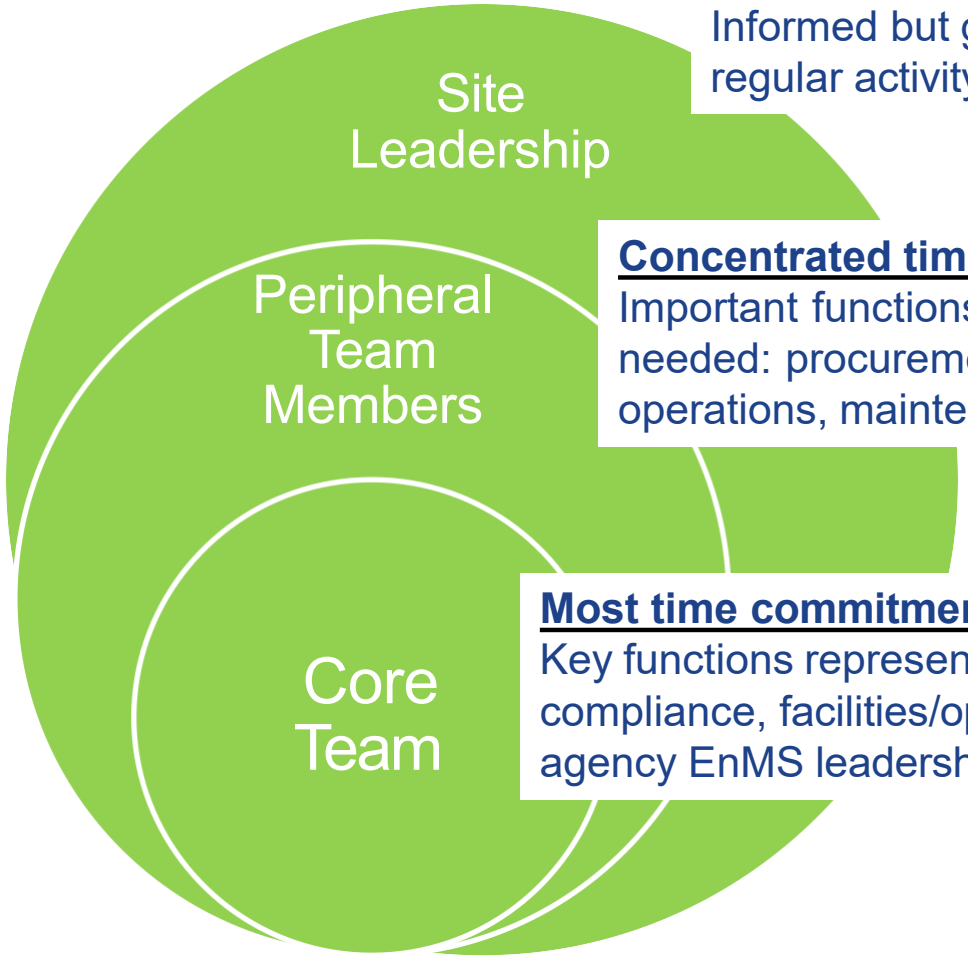
Task 5: Energy Policy Requirements

- Is appropriate to the purpose of the organization
- Provides a framework for setting and reviewing objectives and energy targets
- Includes a commitment to ensure the availability of information and necessary resources to achieve objectives and energy targets
- Includes a commitment to satisfy applicable legal requirements and other requirements
- Includes a commitment to continual improvement of energy performance and the EnMS
- Supports the procurement of energy-efficient products and services that impact energy performance
- Supports design activities that consider energy performance improvement

Task 6: Energy Team Roles and Time Commitment



Where does the central office fit in?

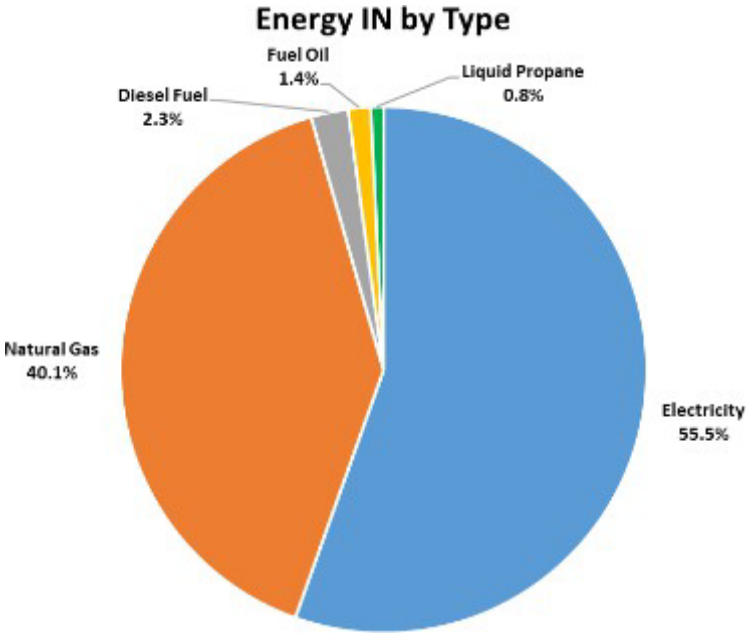


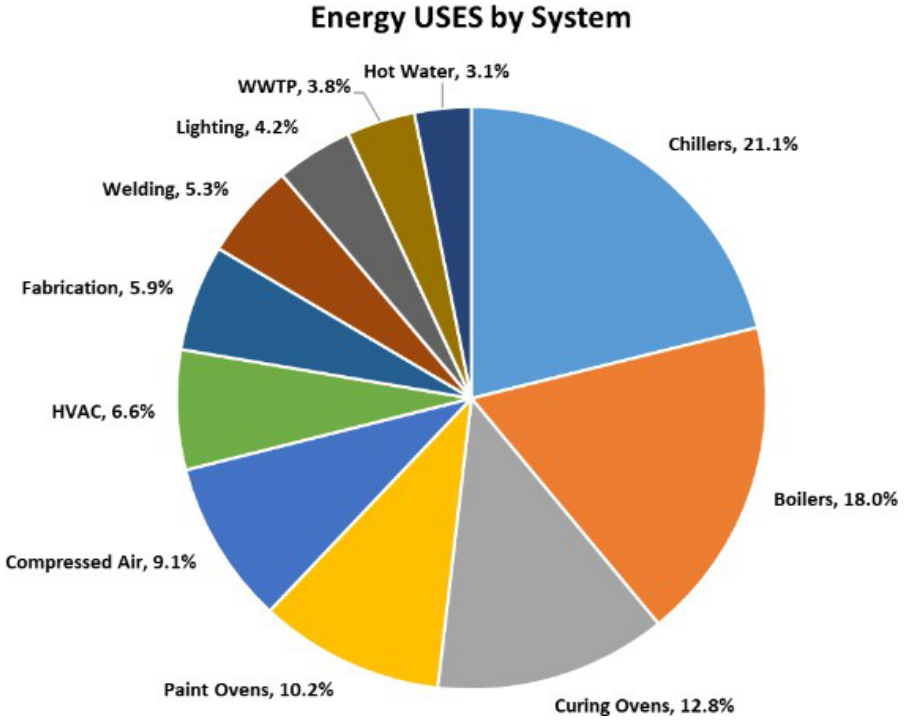
Least time commitment:
Informed but generally removed from regular activity

Concentrated time commitment:
Important functions participate from time to time as needed: procurement and design, communications, operations, maintenance, IT, etc.

Most time commitment:
Key functions represented: energy management, compliance, facilities/operations, maintenance, agency EnMS leadership

Planning (Tasks 8–13): Two Key Pie Charts





- *What energy comes into my site? (8)*
- *Where does all this energy go? [SEUs] (9)*
- *How do I track and prioritize my energy improvement projects? (10)*
- *What are my EnPIs and EnBs? (11)*
- *What are my objectives, energy targets and action plans? (12 & 13)*

Section 3: Planning (already did Task 7)

Task 8	**Energy Data Collection and Analysis**	We identify our energy sources and energy uses, have a data collection plan in place, and collect related energy and relevant variable data. We ensure the accuracy and repeatability of measurements. We analyze our energy use and consumption data.
Task 9	**Significant Energy Uses (SEUs)**	We determine our SEUs, identify and monitor their relevant variables and energy performance, and identify the persons that affect the SEUs. We have a process to review and update SEU data and related information, including our methods and criteria to determine that an energy use should be an SEU.

Section 3: Planning (continued)

Task 10	**Improvement Opportunities**	We identify and prioritize energy performance improvement opportunities and have processes in place to update them.
Task 11	**Energy Performance Indicators (EnPIs) and Baselines (EnBs)**	We identify energy performance indicators and energy baselines to measure and monitor our energy performance and to demonstrate energy performance improvement. We have a methodology for determining and updating them.
Task 12	**Objectives and Targets**	We establish objectives and energy performance targets.
Task 13	**Action Plans for Continual Improvement**	We develop action plans and implement improvement projects to achieve our objectives and energy targets.

Task 8: Key Terms

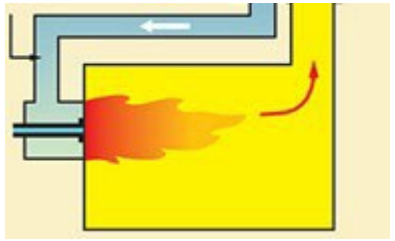
- Energy Source
  - Electricity, natural gas, fuel oil, diesel fuel, liquid propane, renewables, etc.




- Energy Use (or user)
  - Machinery, equipment, processes: Boiler, chiller, fan, pump, lighting, air compressor, paint booth, air handling unit, motor, etc.



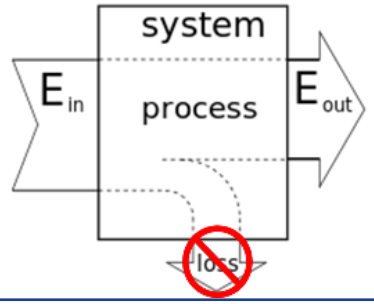




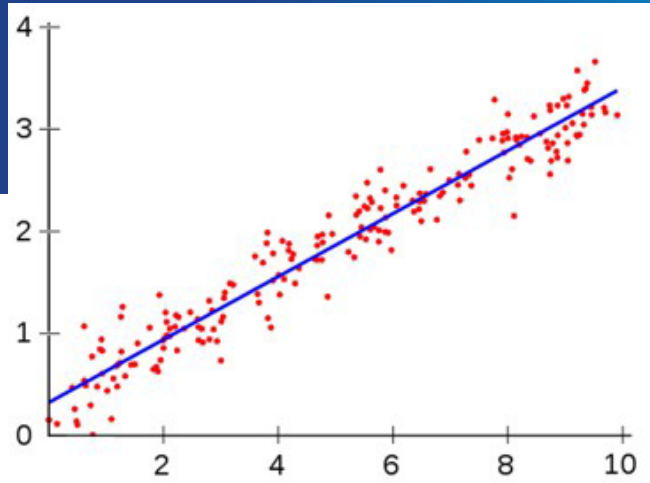
Task 8: Key Terms (continued)

- Energy Consumption
  - A quantity of energy: kilowatt-hours, dekatherms, gallons, MMBTU, etc.

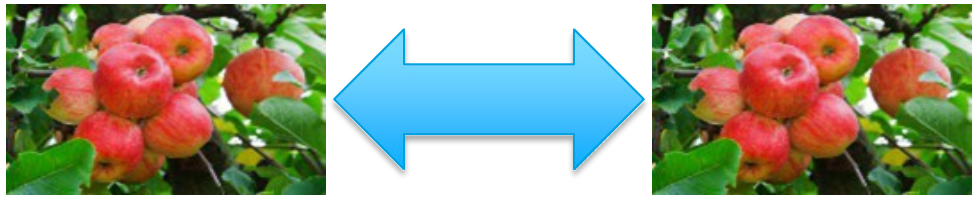
- Energy Efficiency
  - A ratio of energy output to energy input, typically expressed as a percentage



Task 8: More Key Terms

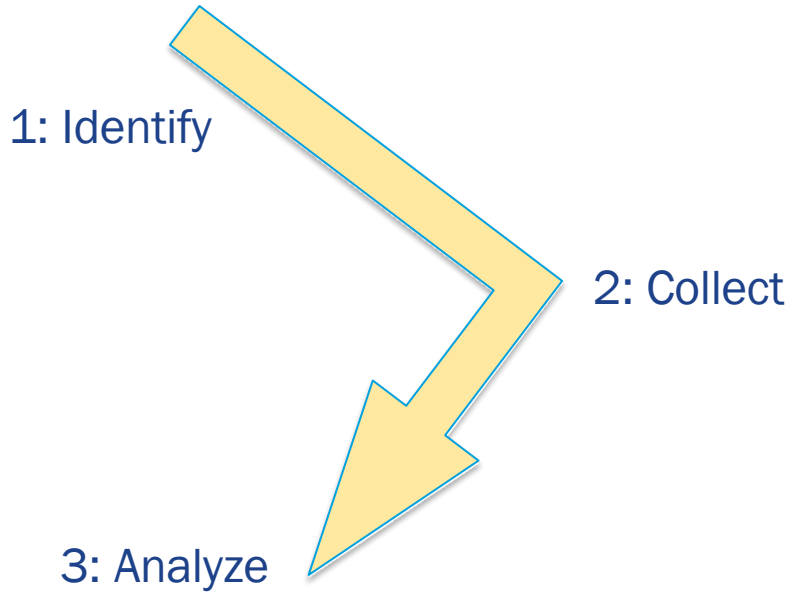


- Relevant Variables
  - Impact energy performance, i.e., relevant
  - Typically change, i.e., variable
  - Examples: weather conditions (heating degree days, cooling degree days, average outside temperature, humidity) working hours, occupancy, production output, etc.
- Normalization
  - Allows for comparison of apples to apples
  - Accounts for changes so that you can properly compare energy performance to energy baselines



Task 8: Delegating Roles

- Types of data needed
  - Total energy consumption for all sources
  - Energy consumption by users
  - Square footage & occupancy
  - Relevant variables
  - Product volumes

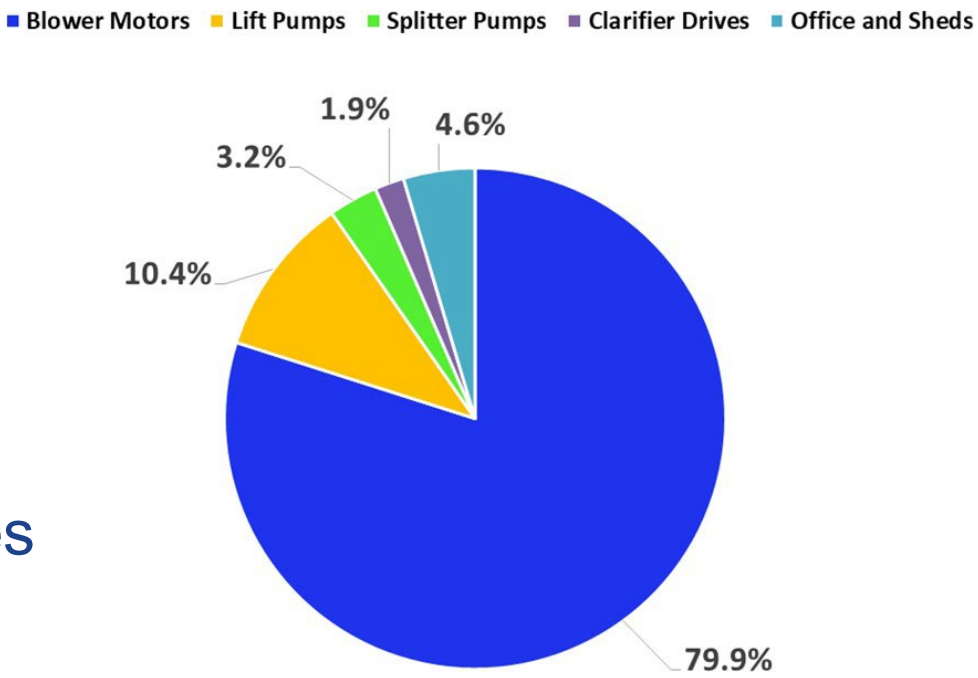


- Sources of data
  - Utility bills
  - Submetering
  - Site floor plans
  - Weather data
  - Process flow charts
  - Production data
  - End-user equipment specs

Who will be responsible for attaining this information?
Who will be responsible for cleaning/analyzing the data?
Where will we store the data?
What is our naming convention to avoid misunderstandings about most current information?

Task 9: Key Terms

- Significance is determined by your organization



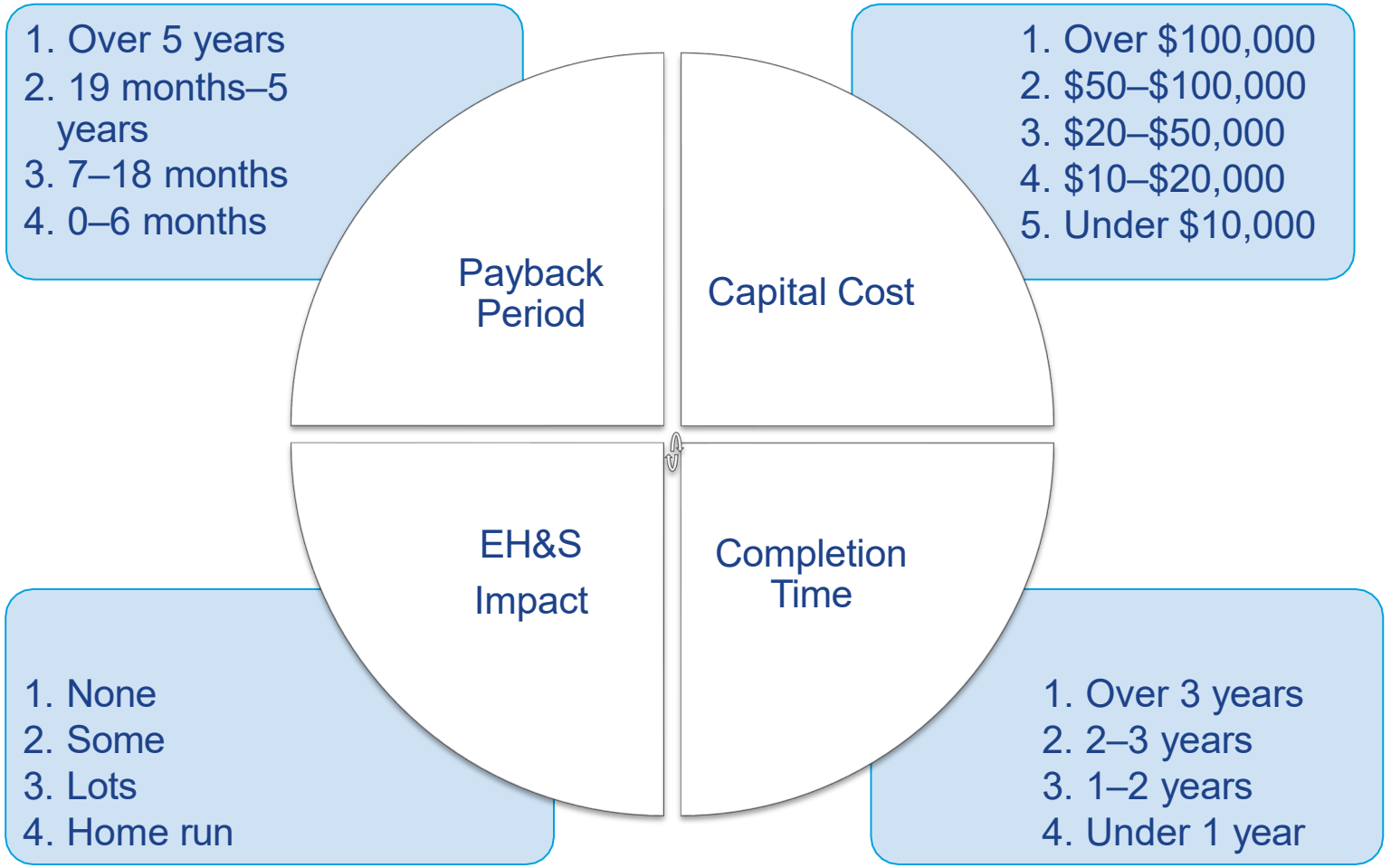
1) SEUs can be facilities, systems, processes or equipment
2) SEUs — consider consumption and opportunity for improvement

Task 9: SEUs Require Lots of Work

- Each selected SEU will require work in these areas:
  - Task 12, ISO section 6.2.2 Objectives and energy targets
  - Tasks 8 & 9, ISO section 6.3 Energy review (3x)
  - Task 8, ISO section 6.6 Planning for collection of energy data (3x)
  - Task 17, ISO section 8.1 Operational planning and control (2x)
    - Entire section is focused on SEUs
  - Task 19, ISO section 8.3 Procurement
  - Tasks 20 & 21, ISO section 9.1 Monitoring, measuring, analysis and evaluation of energy performance, General
    - Must include operation of SEUs

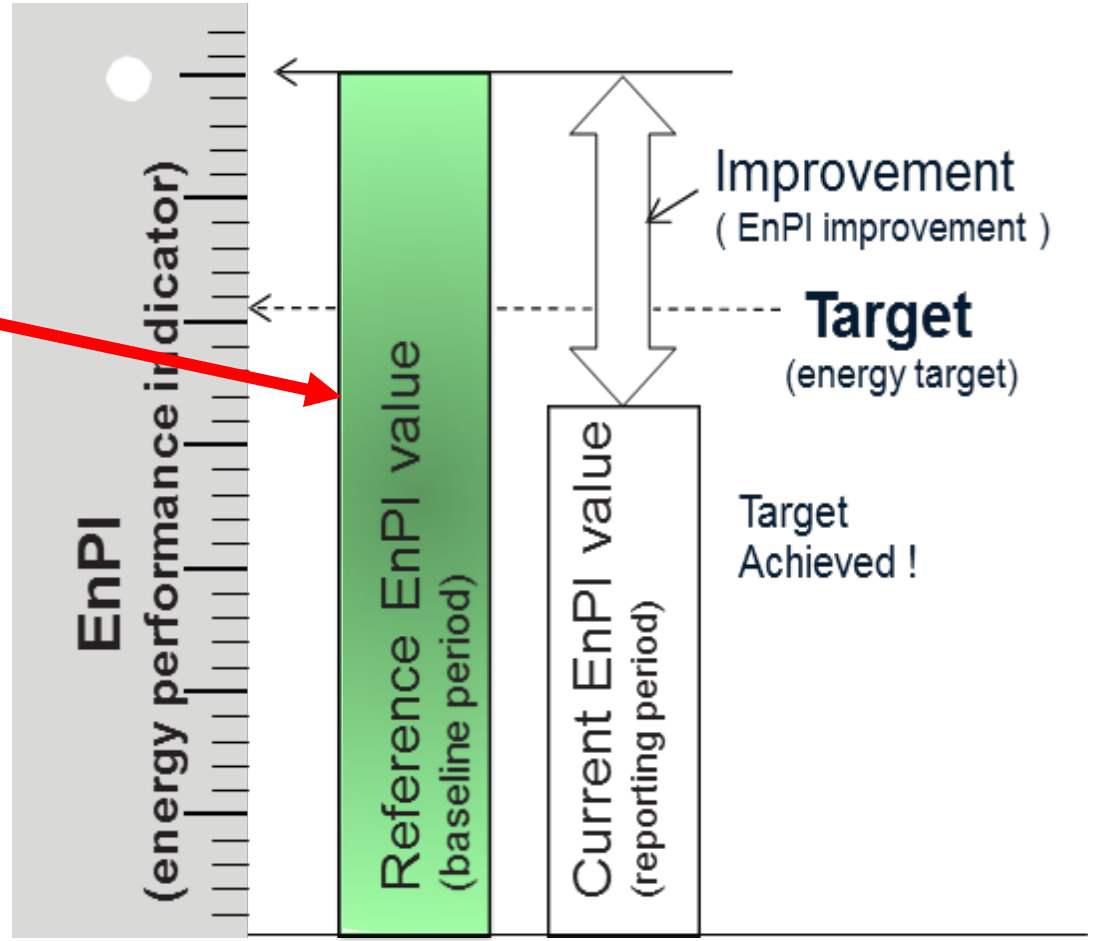
There are at least 11 things to do for each selected SEU!

Task 10: Example of Ranking Criteria



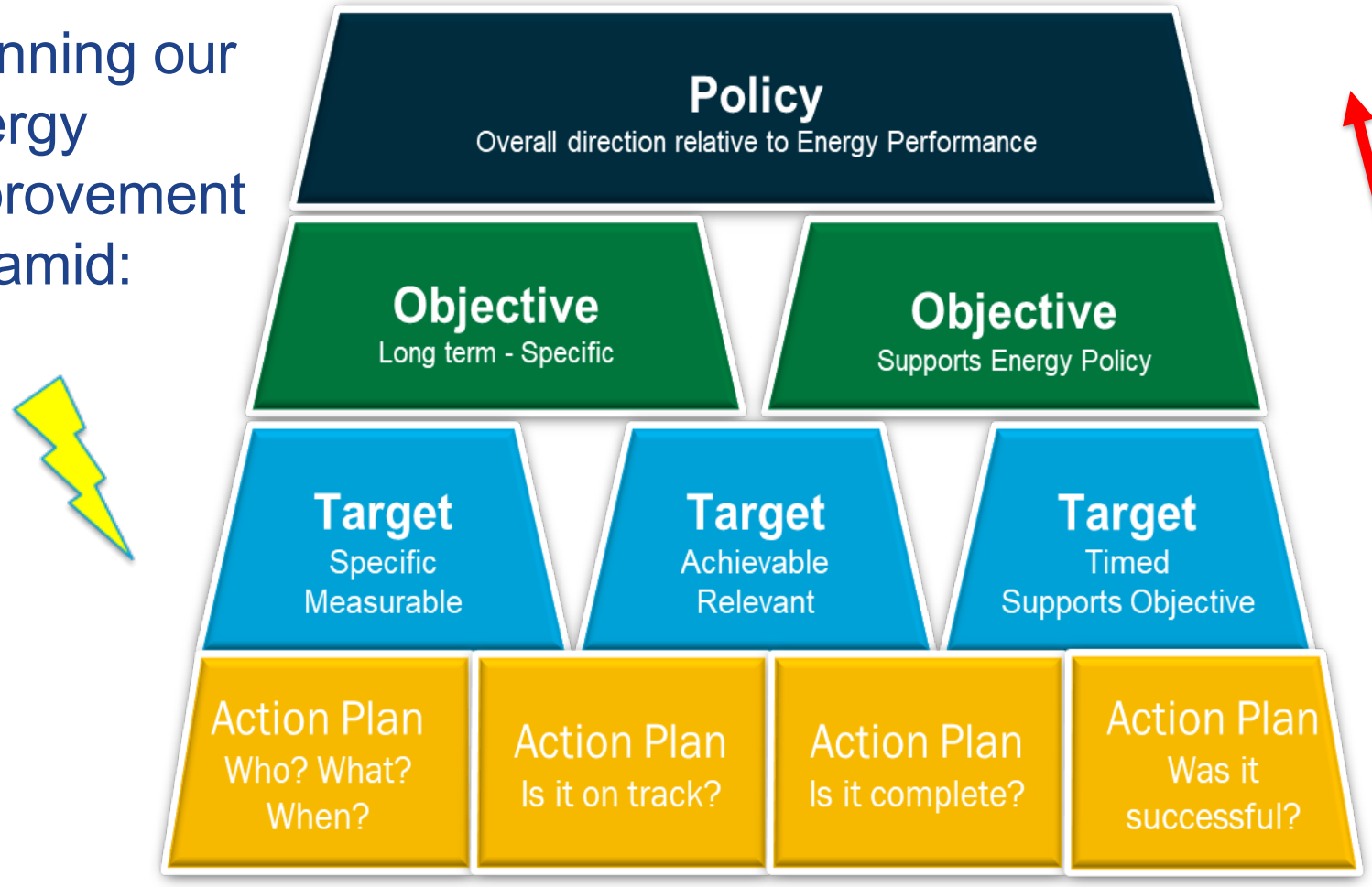
Task 11: EnPIs Relative to EnBs

EnB



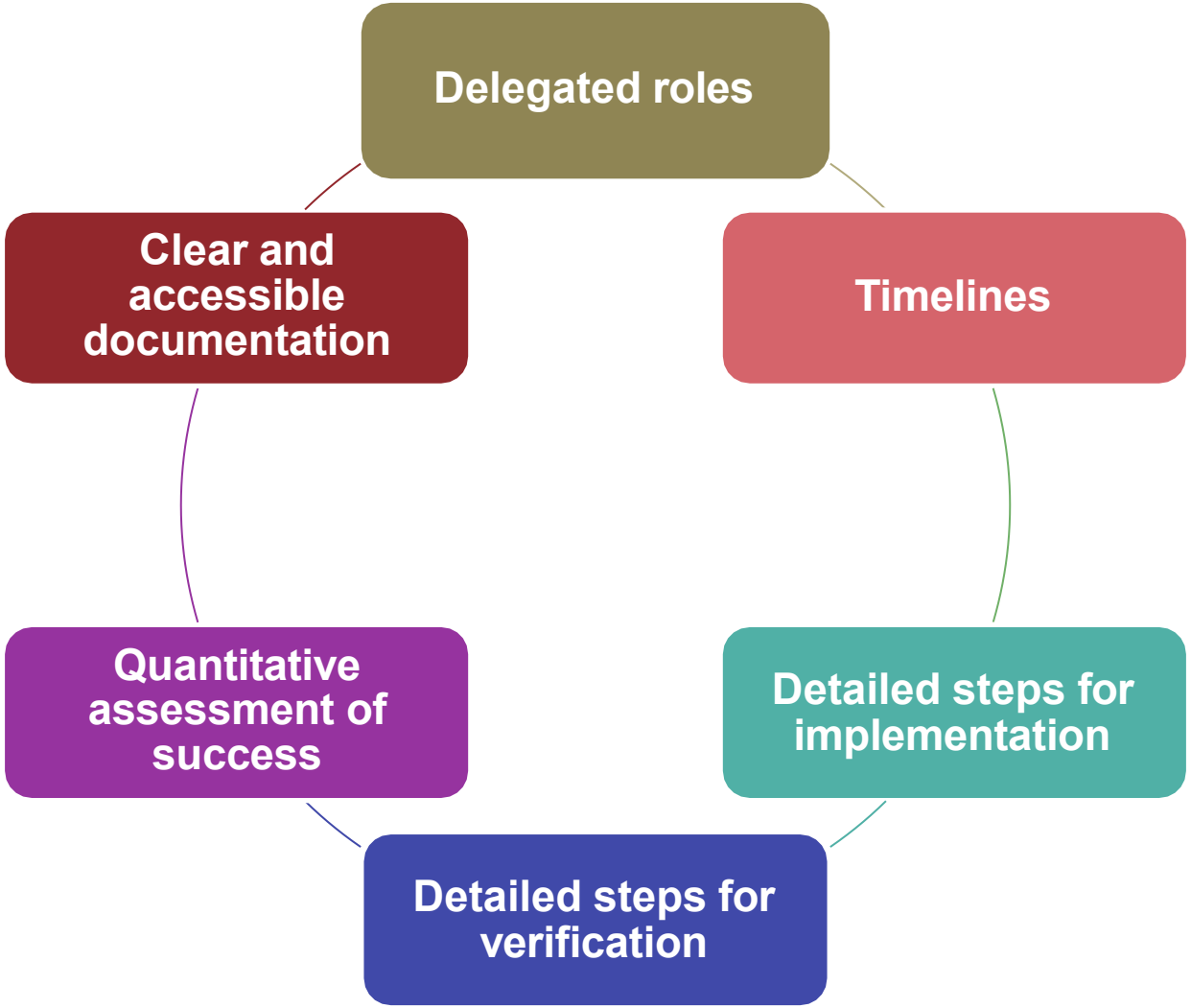
Tasks 12 & 13: Building the Pyramid

Planning our energy improvement pyramid:



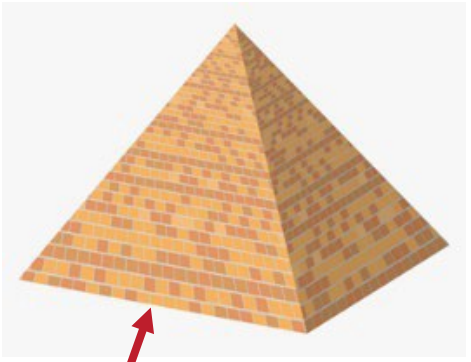
Are we on track with our goals and timelines?

Task 13: What makes a robust action plan?



Tasks 10–13: The Big Picture

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



Policy

Objectives

Energy Targets

Action Plans

Operational Controls

The broad base

Section 4: Support (Tasks 14–16)

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?

Section 4: Support

Task 14	**Competence and Training**	We ensure the competence of personnel whose work affects our energy performance and energy management system. We evaluate the effectiveness of actions taken to acquire competencies. We retain appropriate records of competencies and training.
Task 15	**Awareness and Communication**	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 energy management system communications.
Task 16	**Documenting the EnMS**	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.

Think Missouri… The "Show Me" State

Task 14: Who Needs Competence

- Boiler technicians
- HVAC technicians
- Process operators
- Energy team members
- Data collectors
- Others

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

Task 14: Ensuring Competence

- How can we establish competence?
  - Education: attaining a certain degree requirement
  - Training: attending and passing specific classes
  - Skills: obtaining or maintaining a specific certification, e.g., boiler or wastewater operator
  - Experience: working a particular number of years in an area

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

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

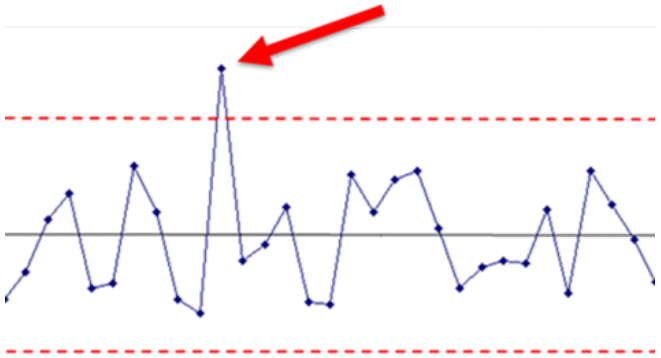
- ISO 50001 tells you what needs to be documented
- The new term is:
  - DOCUMENTED INFORMATION

Appears 18 times in the ISO 50001: 2018 standard:

...shall retain documented information (see 7.5)...

Operation (Tasks 17–19)

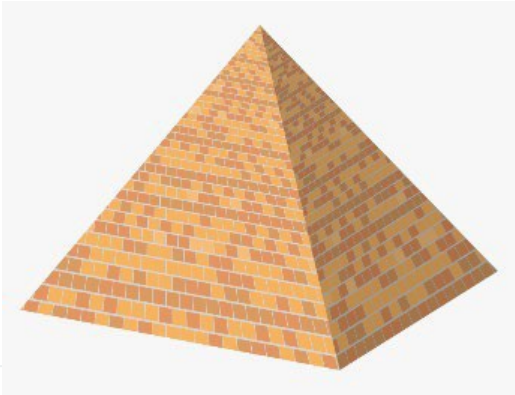
Operate, maintain, design and procure to optimize energy performance



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 engaged?

Section 5: Operation

Task 17 Operational Controls



The broad base

We plan and control the processes related to our significant energy uses (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.

Section 5: Operation (continued)

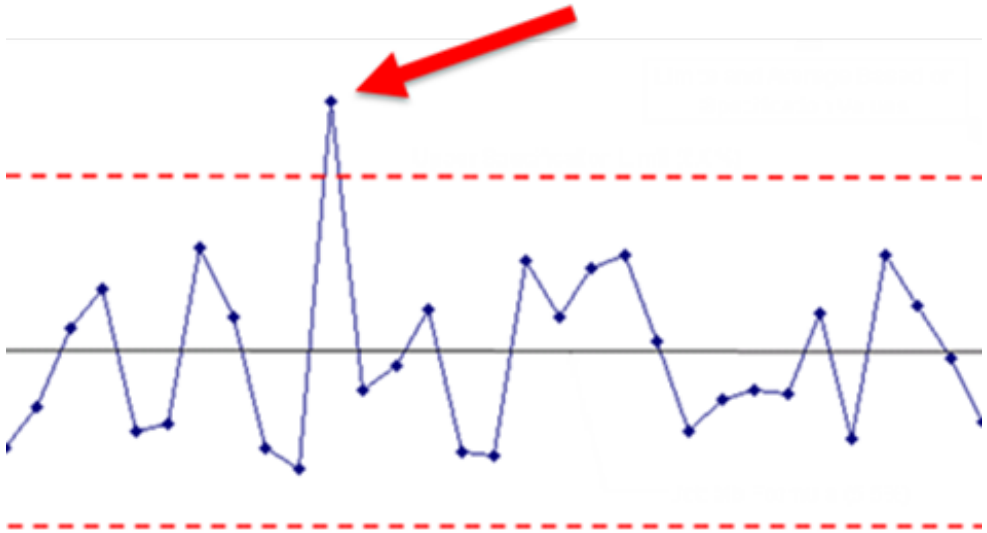
Task 18	**Energy Considerations in Design**	We consider energy performance improvement opportunities and operational controls when designing new, modified, or renovated sites, equipment, systems, and processes.
Task 19	**Energy Considerations in Procurement**	We establish energy performance criteria 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 17: Determining Appropriate Controls

1. Document all current operating practices for each SEU

2. Leverage what you have and update operating criteria needed for your EnMS

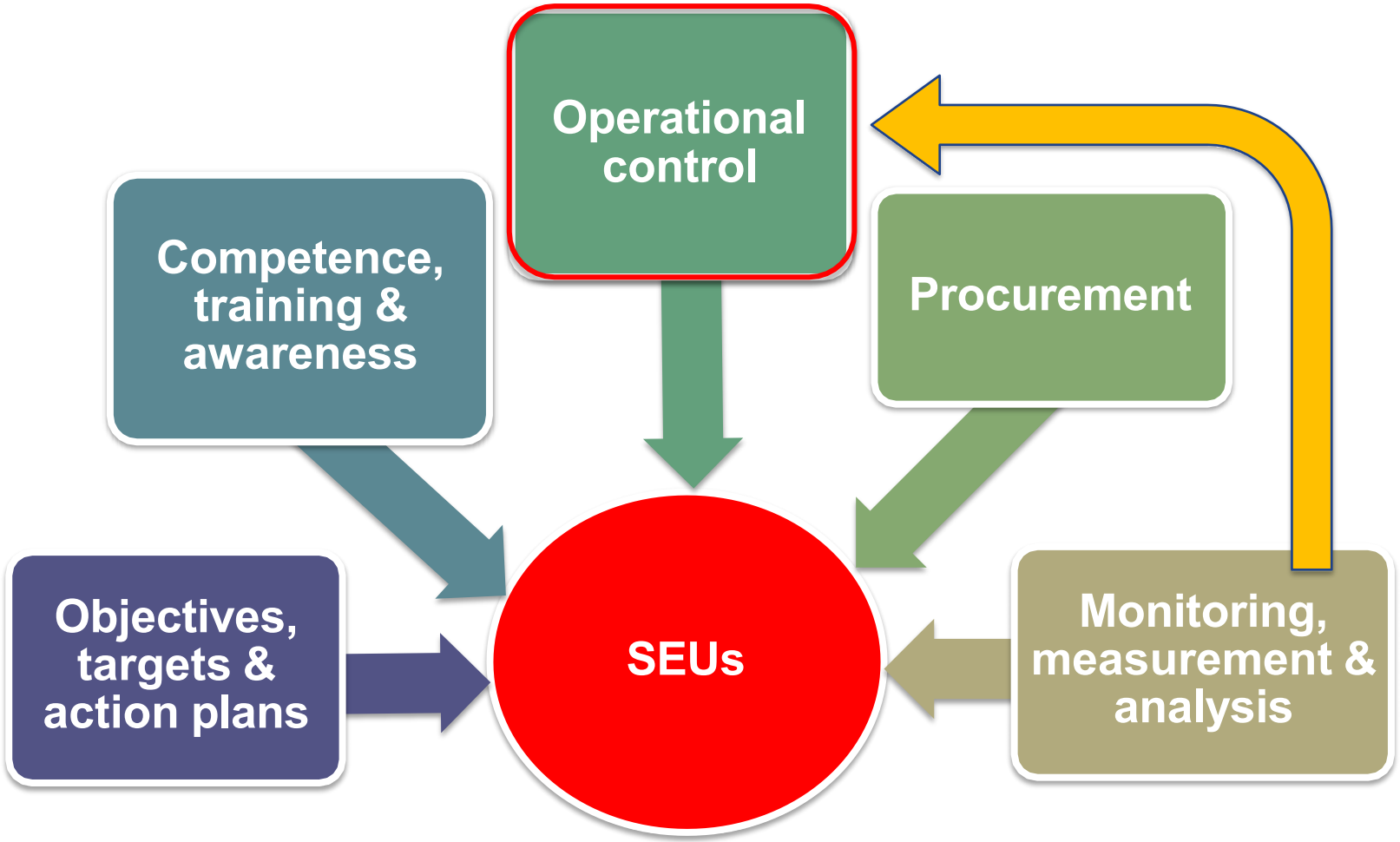
3. Identify opportunities for streamlining SEU operational controls



Task 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 intranet

Task 17: Connections to MM&A

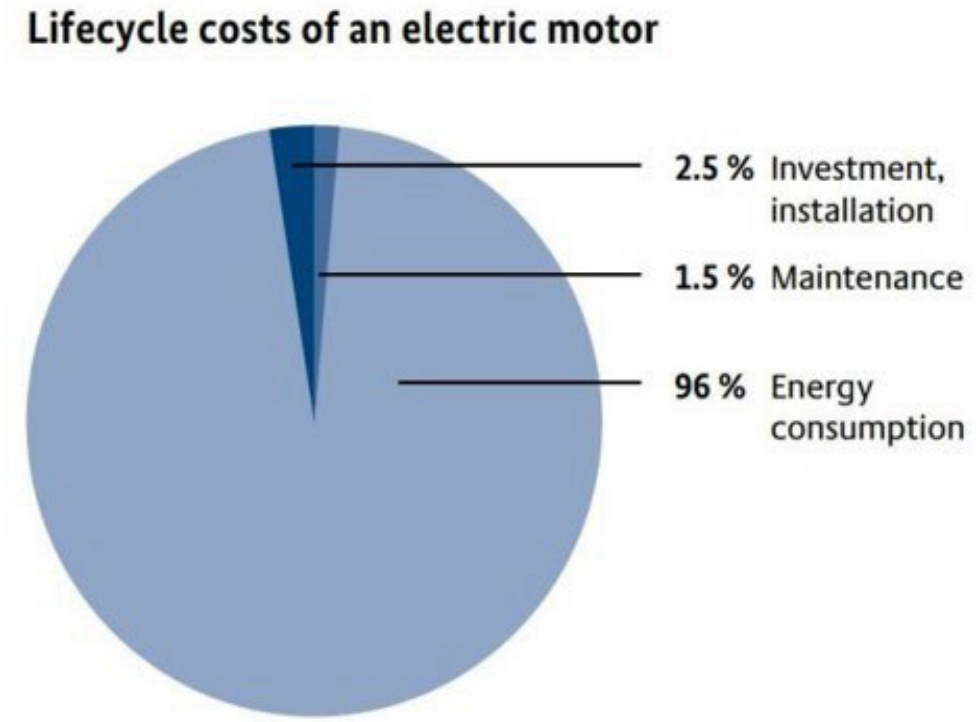


Task 18: Considerations in Design

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

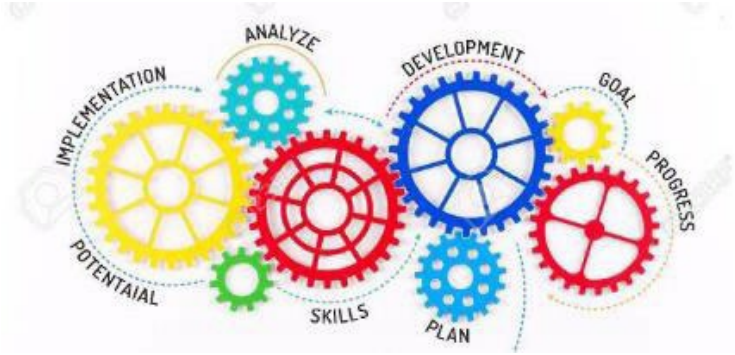
Task 19: Procurement-Specific Actions

- Inform suppliers that energy performance is 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 supplies, if needed
  - Ensuring the energy performance of procured equipment and services



Section 6: Performance Evaluation (Tasks 20–23)

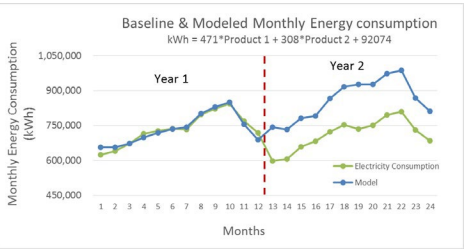
Check on how you are doing for both your EnMS and energy performance improvement



Are you effectively monitoring and measuring your EnMS and energy performance improvement?
How are your tracking systems working?
Are internal audits and management reviews all setup?

Section 6: Performance Evaluation

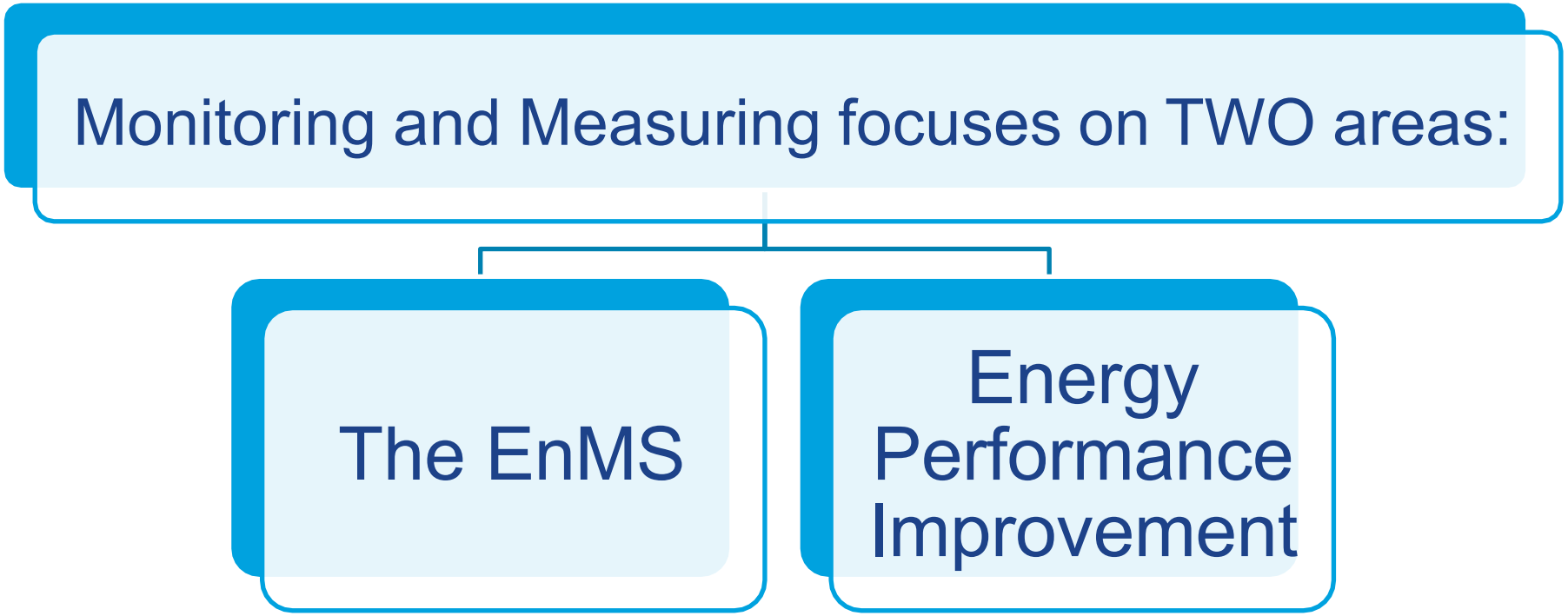
Task 20	**Monitoring and Measurement of the EnMS**	We monitor trends in energy management system (EnMS) performance and evaluate the effectiveness of the EnMS in achieving intended outcomes and planned results. The methods used, the frequency of the monitoring, and when the results are analyzed and evaluated are defined.
Task 21	**Monitoring and Measurement of Energy Performance Improvement**	We monitor and measure the key characteristics of processes that affect our energy performance. We define the methods used, the frequency of the monitoring and measurement, and when the results are analyzed and evaluated. We evaluate our energy performance improvement and investigate and respond to significant deviations in energy performance.



Section 6: Performance Evaluation (continued)

Task 22	**Internal Audit**	We conduct internal audits of the 50001 Ready energy management system at specified intervals and report the results to relevant management. We identify trends in internal audit results for consideration in management review.
Task 23	**Management Review**	Top management periodically reviews the 50001 Ready energy management system and our organization's energy performance to ensure its continuing suitability, adequacy, and effectiveness.

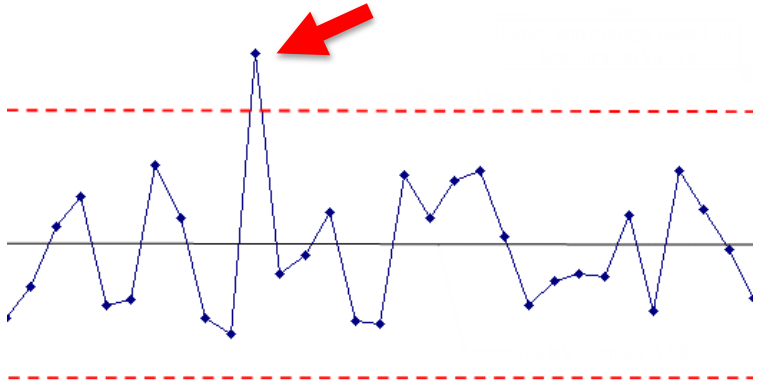
Performance Evaluation: The Big Picture



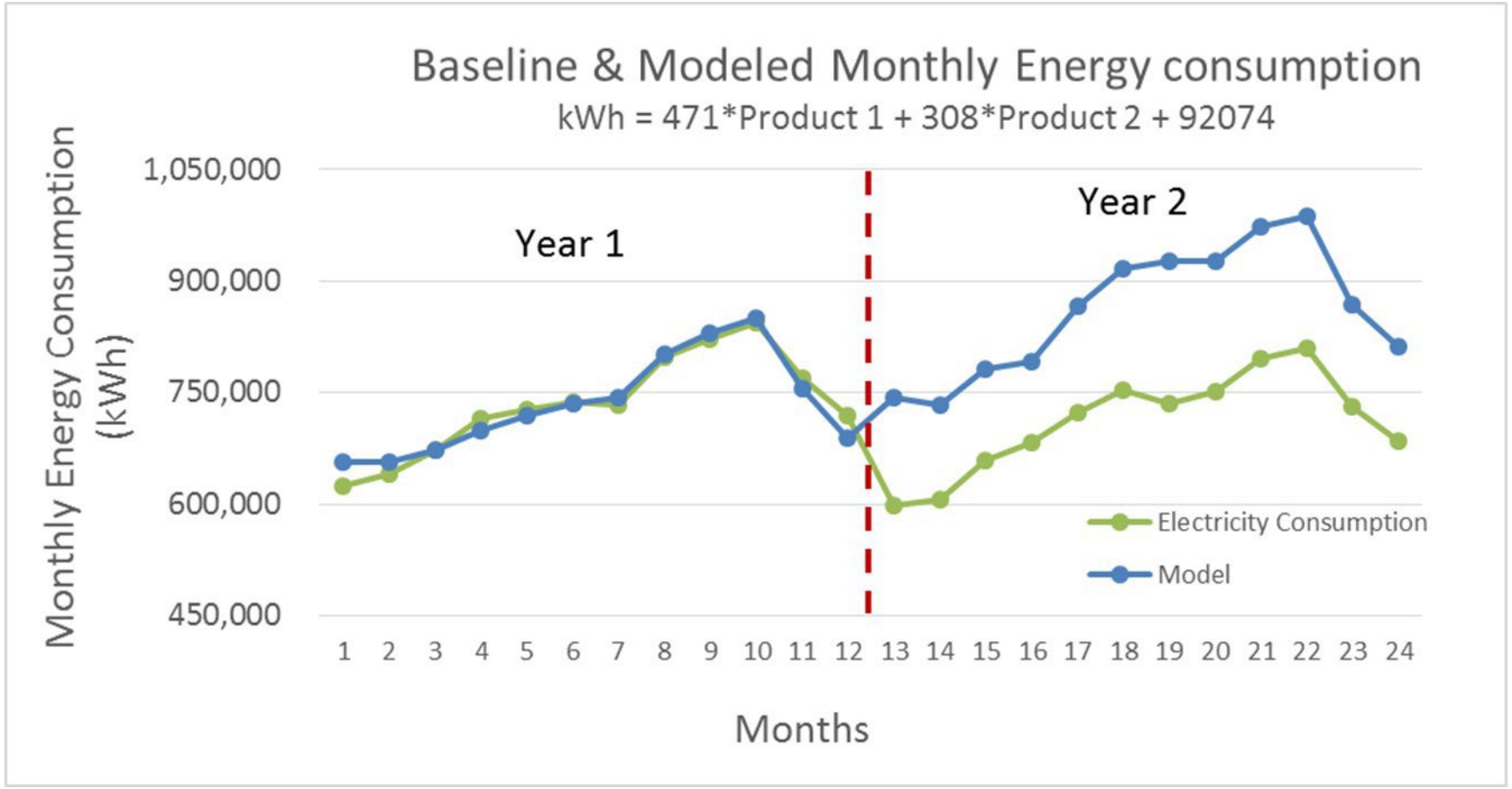
Task 21: Key Term

- Significant deviation:
  - "The organization shall investigate and respond to *significant deviations* in energy performance." (ISO 50001: 2018, 9.1.1)
  - When to respond and how to respond will be determined, and appropriate personnel will be trained
  - Maintain records of the results of the responses and investigations into significant deviations

Your energy team defines what amount of deviation becomes significant



Task 21: MMA&E Energy Performance



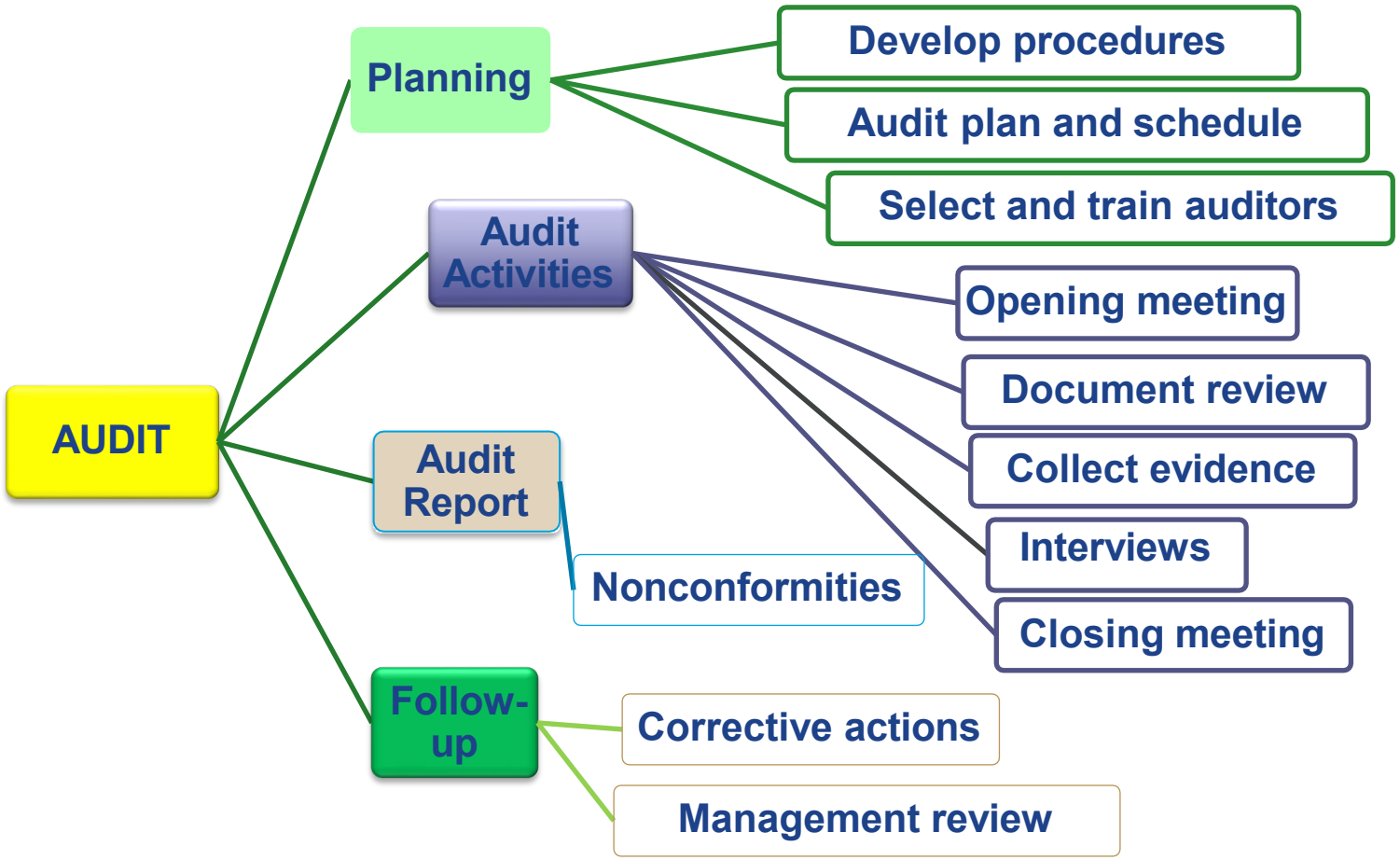
Polling Question 2

Polling Question

2) Based on your previous work and what you have now learned during his training, what method do you think you will use to determine your energy performance improvement year over year?

A. Month of the current year versus month of the previous year.
B. Total energy consumption per unit of production or square foot.
C. Total energy consumption per month versus budget.
D. Linear regression model with relevant variables.
E. Several of the above items (A. – D.)
F. Another method.
G. I do not know.

Task 22: The Internal Audit Process



Task 22: The Internal Audit Process

- Findings need to be based on facts, not opinion
- Findings should include:
  - Direct observations
  - Statement of facts, firsthand only, not hearsay
  - Documents, data and records
  - Evidence
- Firsthand, verifiable
- Touch it, see it, read it, hear it

Task 22: The Internal Audit Process

- REMEMBER THESE!
- Anything you invoke on yourself from your own EnMS requirements, processes or procedures is auditable under your internal audit program
- To ensure objectivity and the impartiality of the internal auditing process, personnel should not audit items they developed or worked on

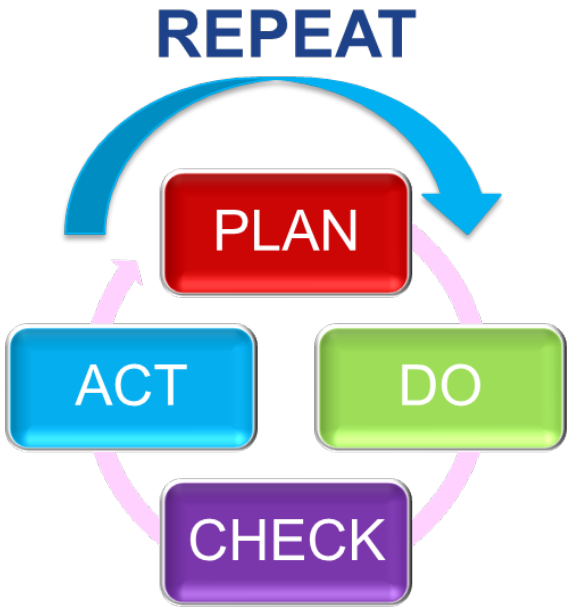
Task 23: Management Review

Management review is the engagement of top management in reviewing the EnMS and energy performance, as well as asking and answering these questions:

- How have we done?
- Where can we improve?
- What do we need to change?
- Do we have enough resources in the right places?

Section 7: Continual Improvement (Tasks 24–25)

When we check, if things are not okay, then we act to fix them, and we do this in an ongoing method

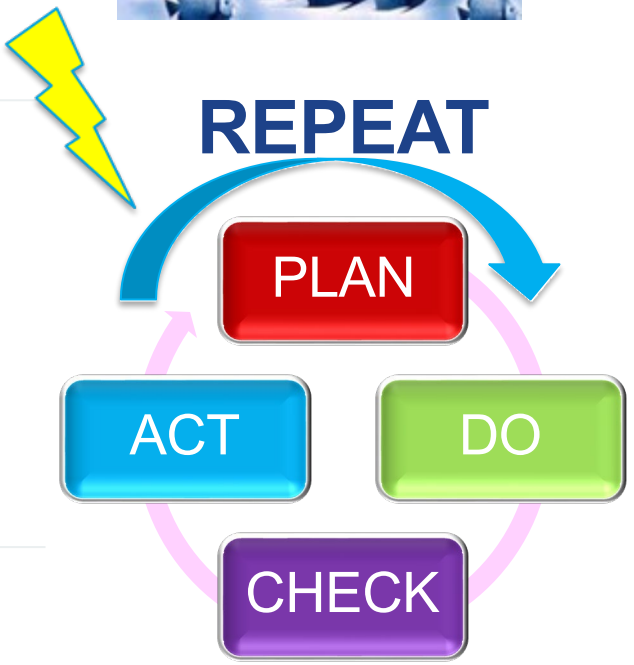


Do you have a strong corrective action program to fix and follow up on nonconformities to your EnMS?

Do you continually improve both your EnMS and your energy performance?

Section 7: Continual Improvement

Task 24	**Corrective Actions**	We identify nonconformities and other problems in the 50001 Ready energy management system and take appropriate corrective action.
Task 25	**Continual Improvement**	We have a 50001 Ready energy management system and continually improve its processes and interactions. We continually improve the suitability, adequacy and effectiveness of our energy management system. We achieve and demonstrate continual energy performance improvement.

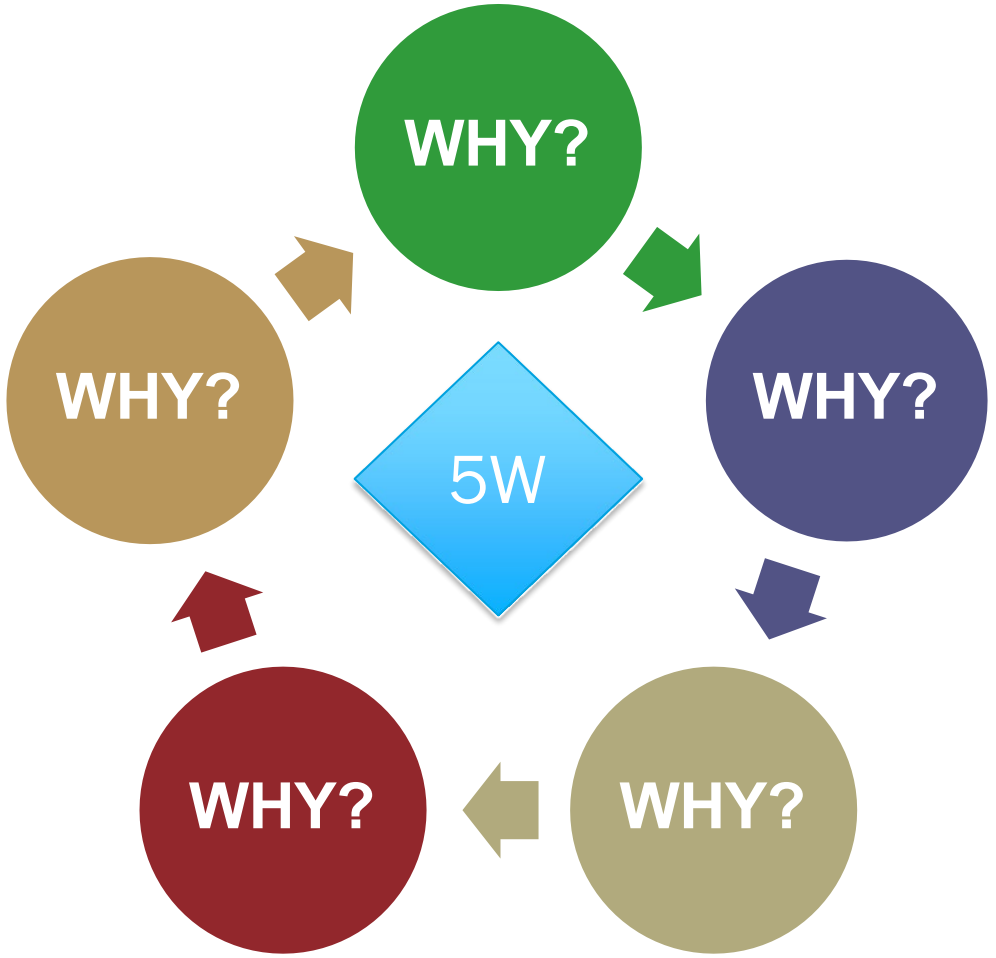


Task 24: Key Terms

- **3.3.3 nonconformity**
  - non-fulfilment of a *requirement* (3.3.1)
- **3.3.1 requirement**
  - need or expectation that is stated, generally implied or obligatory
- **3.3.4 corrective action**
  - action to eliminate the cause of a *nonconformity* (3.3.3) and to prevent recurrence

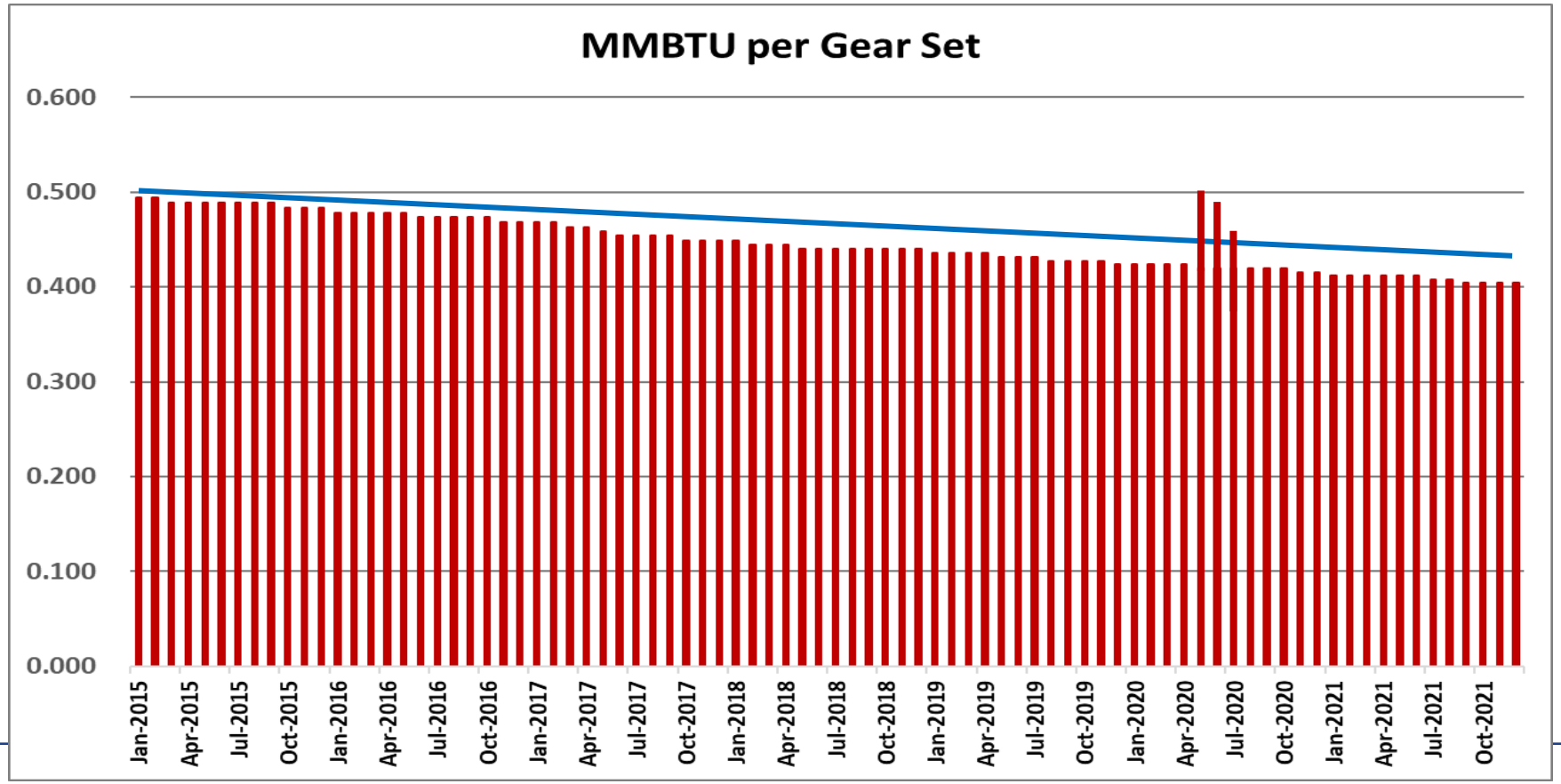
Task 24: Impact and Why?

- **What is the impact?**
- **What is the need for further action?**
  - Do similar nonconformities exist?
  - Can similar nonconformities occur?
- **Why did this happen?**
  - Five Why's Exercise
  - Get to the root cause
- **Eliminate the root cause**
  - Take corrective action



Task 25: Continual Improvement

- You SHALL demonstrate continual improvement of your EnMS
- You SHALL demonstrate continual improvement of your energy performance



50001 Ready — Review the 25 Tasks

Context of the Organization

1. An EnMS and Your Organization

2. People and Legal Requirements

3. Scope and Boundaries

Leadership

4. Management Commitment

5. Energy Policy

6. Energy Team and Resources

Planning

7. Risks to EnMS Success

8. Energy Data Collection and Analysis

9. Significant Energy Uses

10. Improvement Opportunities

11. Energy Performance Indicators (EnPIs) and Baselines (EnBs)

12. Objectives and Targets

13. Action Plans for Continual Improvement

Support

14. Competence and Training

15. Awareness and Communication

16. Documenting the EnMS

Operation

17. Operational Controls

18. Energy Considerations in Design

19. Energy Considerations in Procurement

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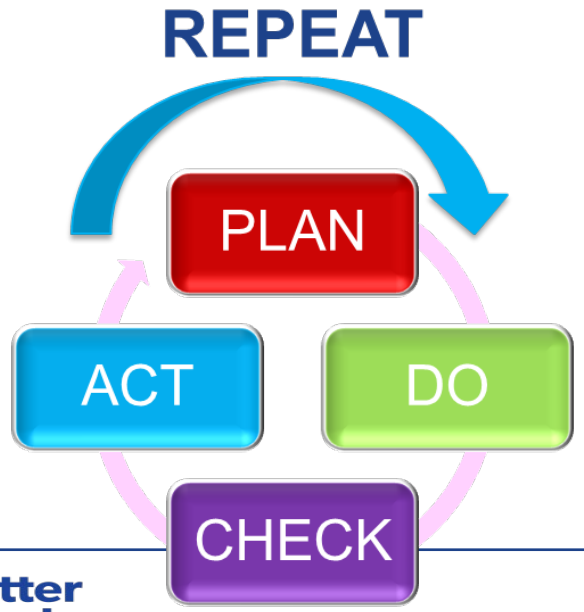
22. Internal Audit

23. Management Review

Improvement

24. Corrective Action

25. Continual Improvement



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Continue to Use the 50001 Ready Navigator

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Set up an Account & Use the Navigator

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Navigator

LANGUAGE English

Contact | FAQs | Explore

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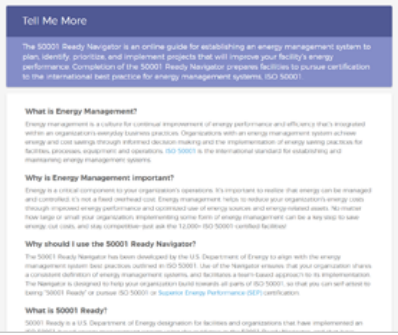
Welcome to the 50001 Ready Navigator!

The 50001 Ready Navigator is an online application that provides step-by-step guidance for implementing and maintaining an energy management system in conformance with the ISO 50001 Energy Management System Standard. Join the 23,000+ sites worldwide benefiting from an energy management system!

The 50001 Ready Navigator has been updated to reflect the changes made to the ISO 50001 standard in 2018.

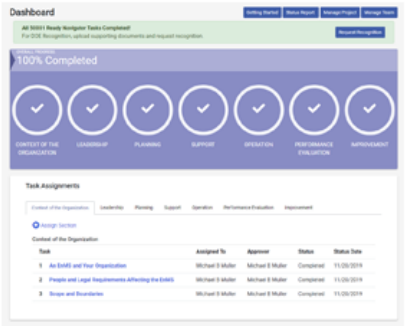
50001 Ready
Implementation Cohorts
Click HERE for information!

About the Navigator



- or -

Explore the Navigator



- or -

Create an Account *or*
Log-in to Get Started

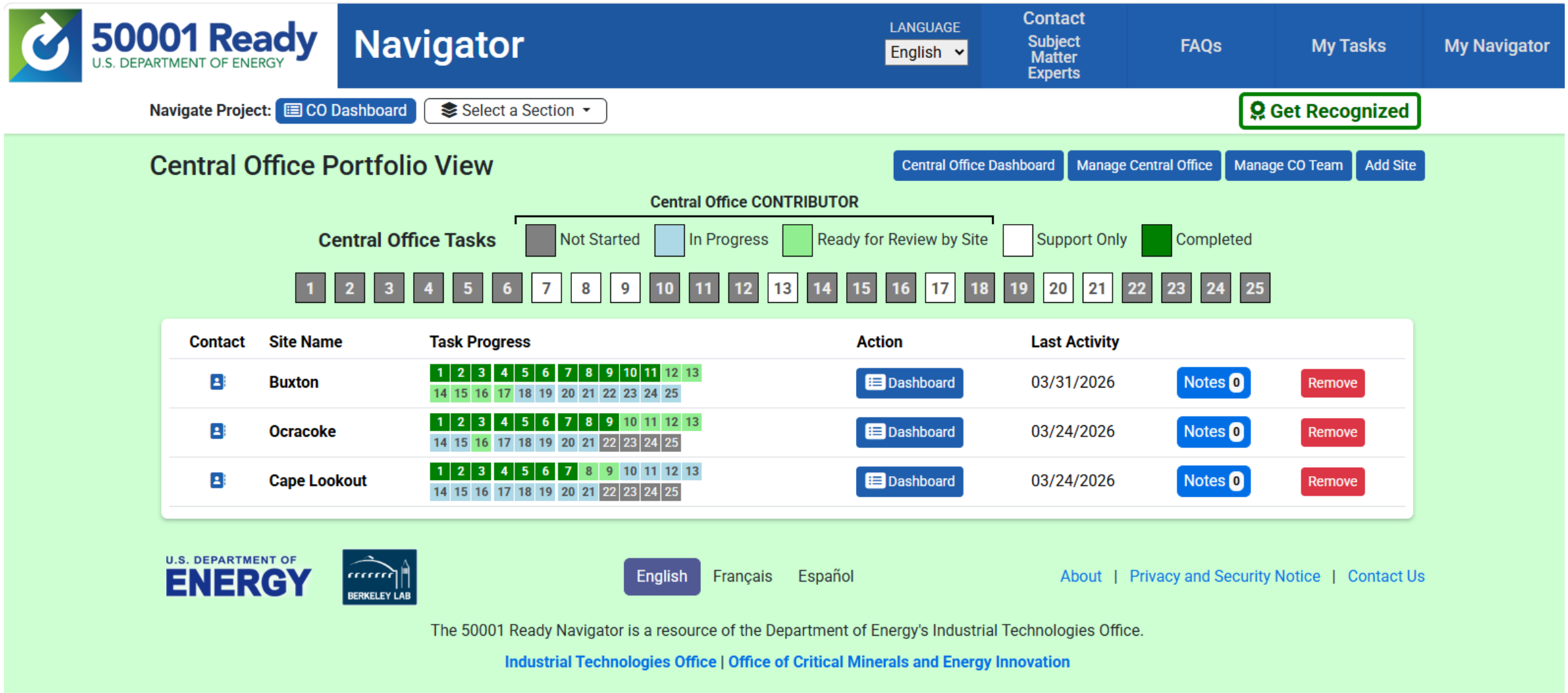
Email Address
michael@stoweandsons.com

Enter Password
••••••••••••••

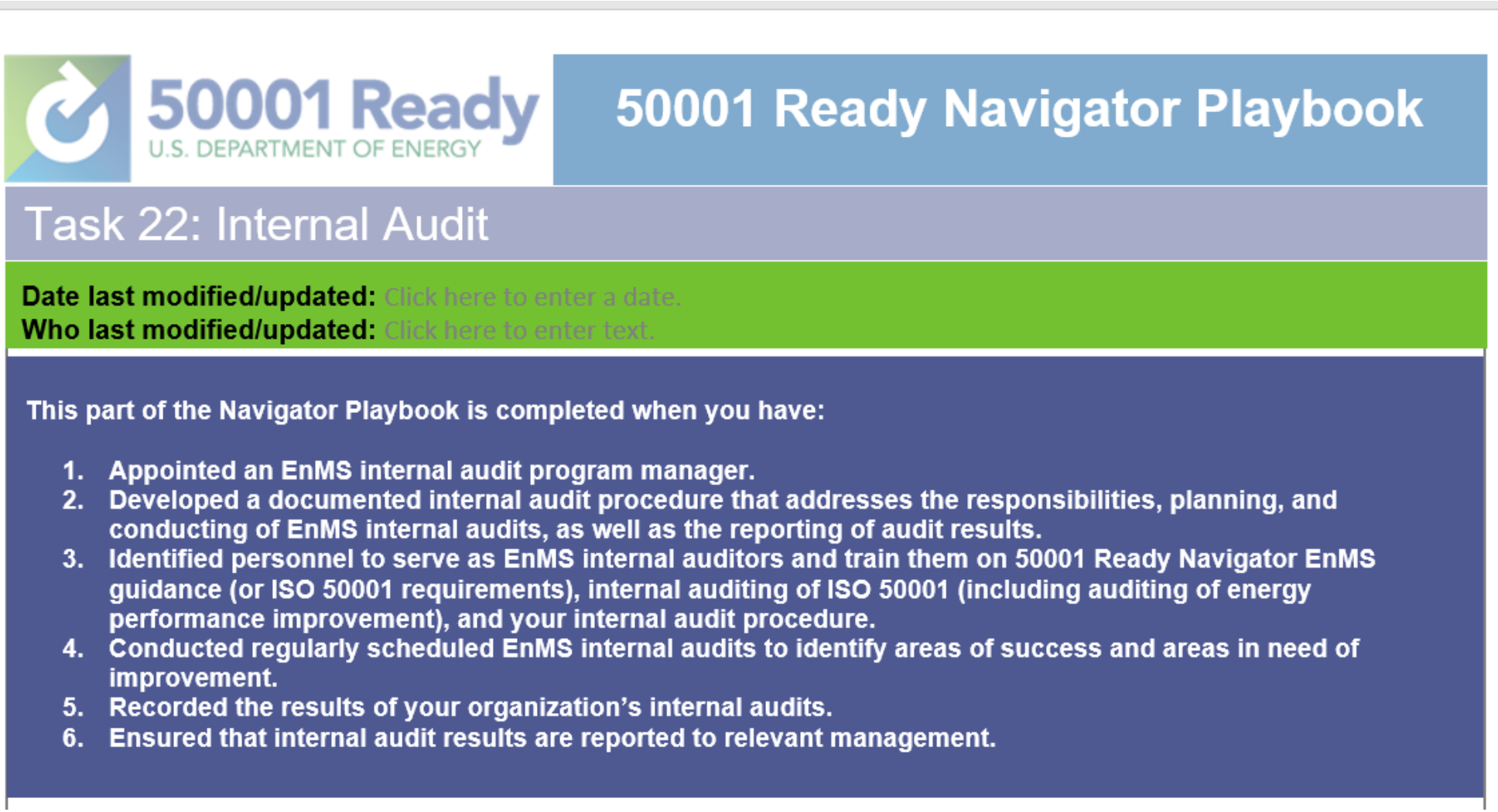
Log In

Forgot password?

The Multi-Site Option is Very Useful



Use the Playbooks



Polling Question 3

Polling Question

3) On a scale of one to five, how would you rate the value of the 50001 Ready Navigator online tool, including the informational tabs and the downloadable playbooks, for implementing your energy management program?

A. FIVE – Excellent. I used this during this training and will continue to do so.
B. FOUR – Very good. I was able use this some and want to use it more.
C. THREE – Okay. I did not get to fully use or evaluate this tool.
D. TWO – Not sure. I did not get to use this tool at all during this training.
E. ONE – No value to my organization.

Where can we go from here?

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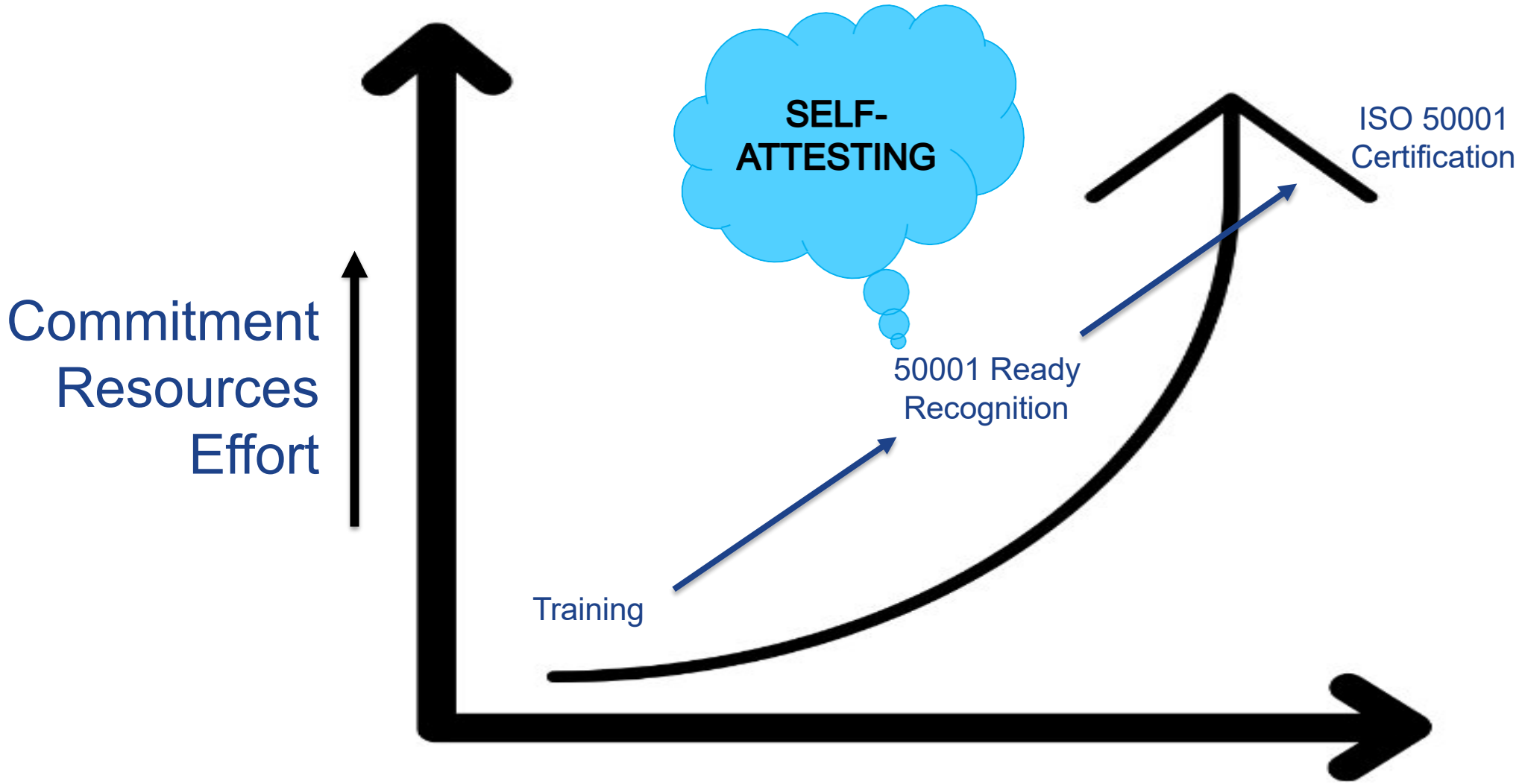
OPTIONS to Move Forward

- If not already done:
  - Purchase and download the ISO 50001: 2018 standard
  - Set up your 50001 Ready account
  - Download 50001 Ready playbooks for tasks 1-25 and began working on these
- Work through the 25 task playbooks:
  - Leverage ISO 9001, 14001 & 45001 systems, if already in place
  - Make the playbooks your own
  - Evaluate your energy performance improvement
- Join a cohort for further progress assistance (**more to follow**)
- Apply for *50001 Ready Recognition* (use the navigator to apply)
- Go for ISO 50001 third-party certification

Pathways for 50001 Energy Management



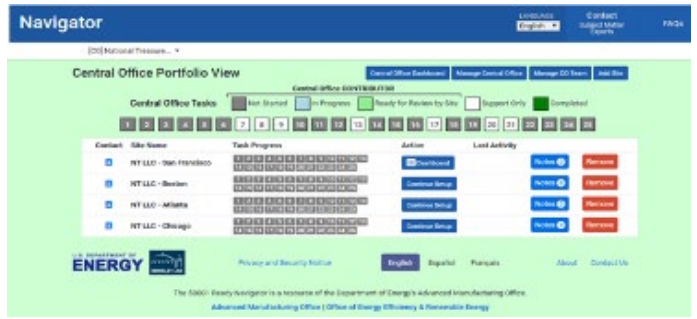
The DOE/LBNL 50001 Ready Program

- This program uses the cohort method
- This program requires specific commitment per a "Participation Agreement"
- This program is FREE

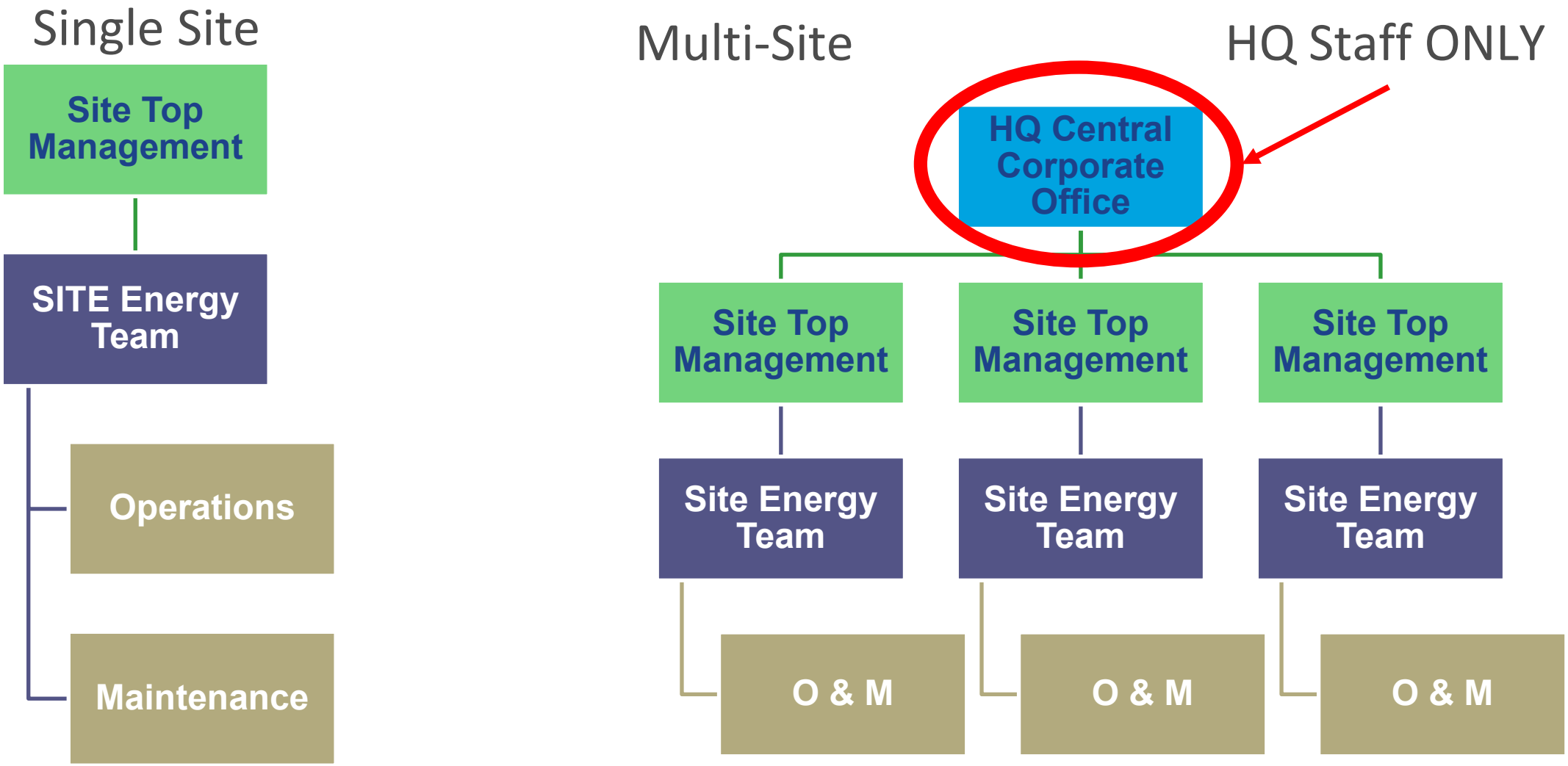
Lawrence Berkeley
National Laboratory

The DOE/LBNL Cohort Program

- The Cohort Method
  - Typically, six to ten organizations
  - Multi-site organizations are okay
  - Benefit from shared learning
  - Benefit from shared best practices
  - ~ 8 calendar months in length
  - ~ 10 to 15 hours per month time commitment



Organizational Participation Models



Typical Cohort Calendar

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= (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

The DOE/LBNL Cohort Program

- Participating organizations will ***commit to***:
  - Providing staff resources to complete the program
  - Providing requested data collection forms, pre and post cohort
  - Completing assigned preparation and homework items
  - Applying for *50001 Ready Recognition*

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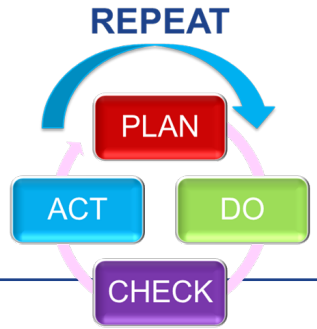
50001 Ready Technical Assistance Program
Site Level Participant Agreement

DOE 50001 Ready Recognition

The DOE/LBNL Cohort Program

- Participating organizations will ***receive***:
  - You have already received the basics in this 8-week training.
  - Guidance to complete the pre and post cohort data collection forms.
  - EIGHT 2-hour group sessions for playbook review.
  - EIGHT 1-on-1 session with each individual sites for check in on. progress and technical assistance
  - Assistance with applying for *50001 Ready Recognition*



The DOE/LBNL Cohort Program

- Desired Outcomes:
  - Gain an understanding of ISO 50001 and create your EnMS
  - Use the *50001 Ready* navigator tool to implement the 25 energy management tasks and create your playbooks
  - Improve your overall plant operations
  - Demonstrate ongoing energy performance improvement
  - Apply for and receive ***50001 Ready Recognition*** for self-attesting to completion

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Apply for 50001 Ready Recognition

1. Mark All Tasks Complete

- All tasks in 50001 Ready Navigator are marked as complete, i.e., dark green

2. Complete Performance Improvement Report

- Submit your EPIR — part of cohort data collection

Self-Attest to Completion of Tasks

- Sign-off by top management endorsing completion of 25 tasks of 50001 Ready

Polling Question 4

Polling Question

4) Based on your organization's goals for the implementation of an EnMS, what level of interest would you have in participating in a follow-on 50001 Ready 8-month cohort with deeper implementation and a longer time commitment?

A. We are interested in this and would likely participate.
B. We are interested but need to know more about the process.
C. We would not be interested at this time but perhaps later.
D. We feel that we can move forward and meet our goals without cohort participation.

Participation in the DOE/LBNL Cohort Program

If you are interested participating in a DOE/LBNL 50001 Ready energy management cohort as a follow up to this training and have not already let me know via polls or homework, then:

PLEASE ME KNOW:

- michael@stoweandsons.com
- (919) 904-0279

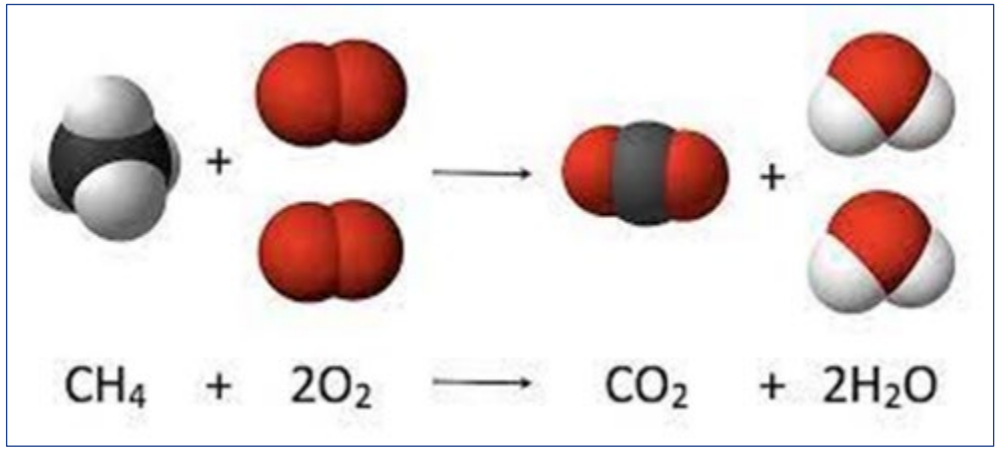
U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy
ADVANCED MANUFACTURING OFFICE

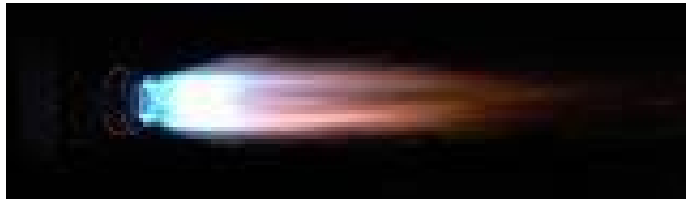
Training Schedule & Preparations
Kahoot Quiz Game
Q&A

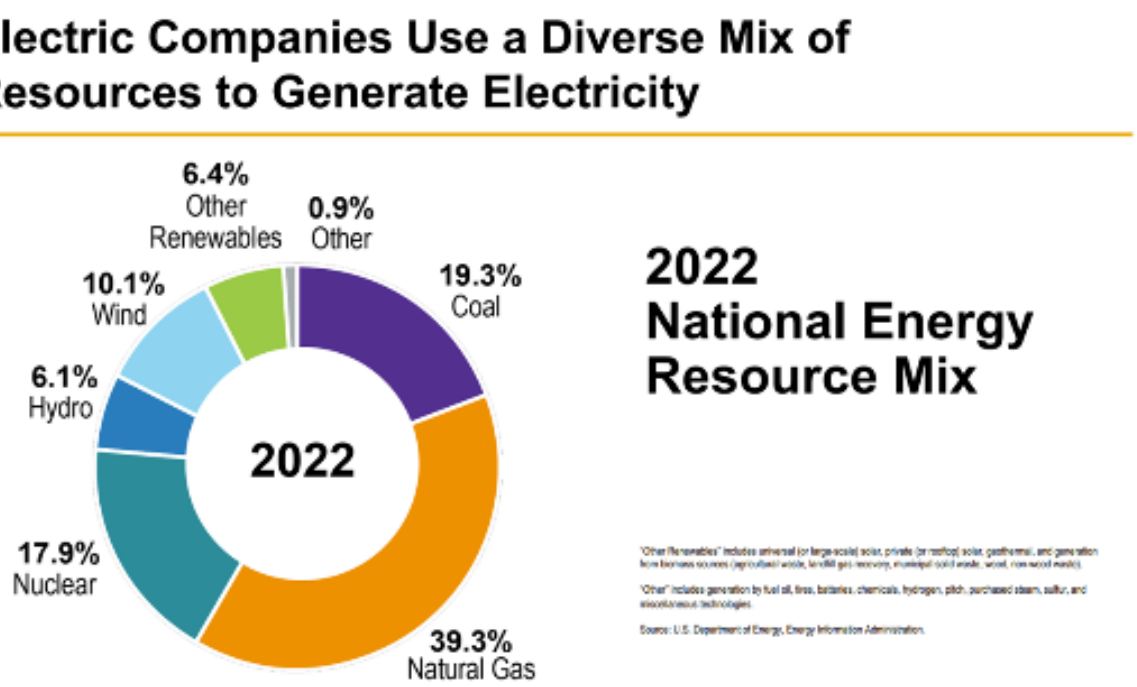
U.S. DEPARTMENT OF ENERGY

Remember: The Energy –Carbon Connection

- The best way to manage your carbon is to manage your energy.







Training Schedule: By Session

1. An Overview – February 17, Done
2. Laying the Foundation of 50001 – February 24, Done
3. Where does all the Energy Go? – March 3, Done
4. Sorting out the Energy Data – March 10, Done
5. Engaging Other Functions – March 17, Done 
6. Evaluating Performance – March 24, Done
7. Ensuring Continual Improvement – March 31, Done
8. Wrap Up and Next Steps – **Today-April 7**

NEXT: Join the follow up cohort?

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://betterbuildingssolutioncenter.energy.gov/better-plants/software-tools

Polling Question 5

Polling Question

5) After attending all eight virtual training sessions on *50001 Ready*, how do you feel about *50001 Ready* as a resource to help you with your energy management plans:
   A. Overwhelmed.
   B. Cautiously optimistic.
   C. Very encouraged.
   D. Confident - Ready to get Ready.
   E. Looking forward to the follow-on cohort.

1977

Please Complete the Training Survey

- https://www.surveymonkey.com/r/G7K2TD7

- Or you can use the QR code below:

And now, our Kahoot Quiz Review Game

50001 Ready – Any final questions?

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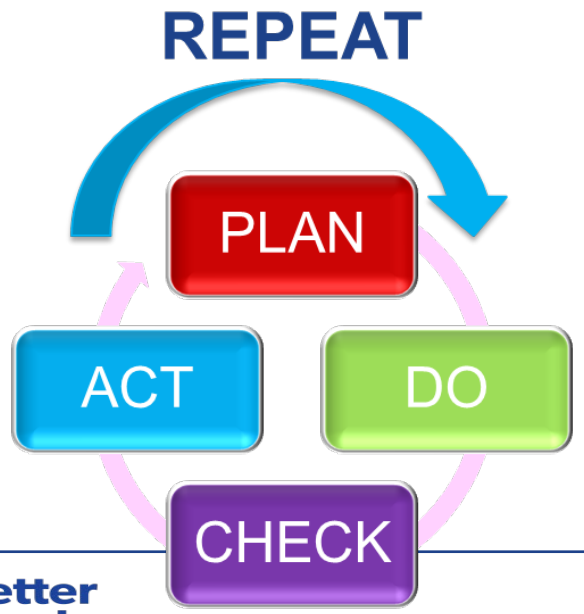

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Thank You!

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- ORNL Virtual INPLT 50001 Ready Trainer
- Owner/Principal Engineer
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- michael@stoweandsons.com
- (919) 904-0279