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Berkeley Lab

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50001 Ready:

Year-on-year savings with holistic energy management



50001 Ready: Agenda

Agenda

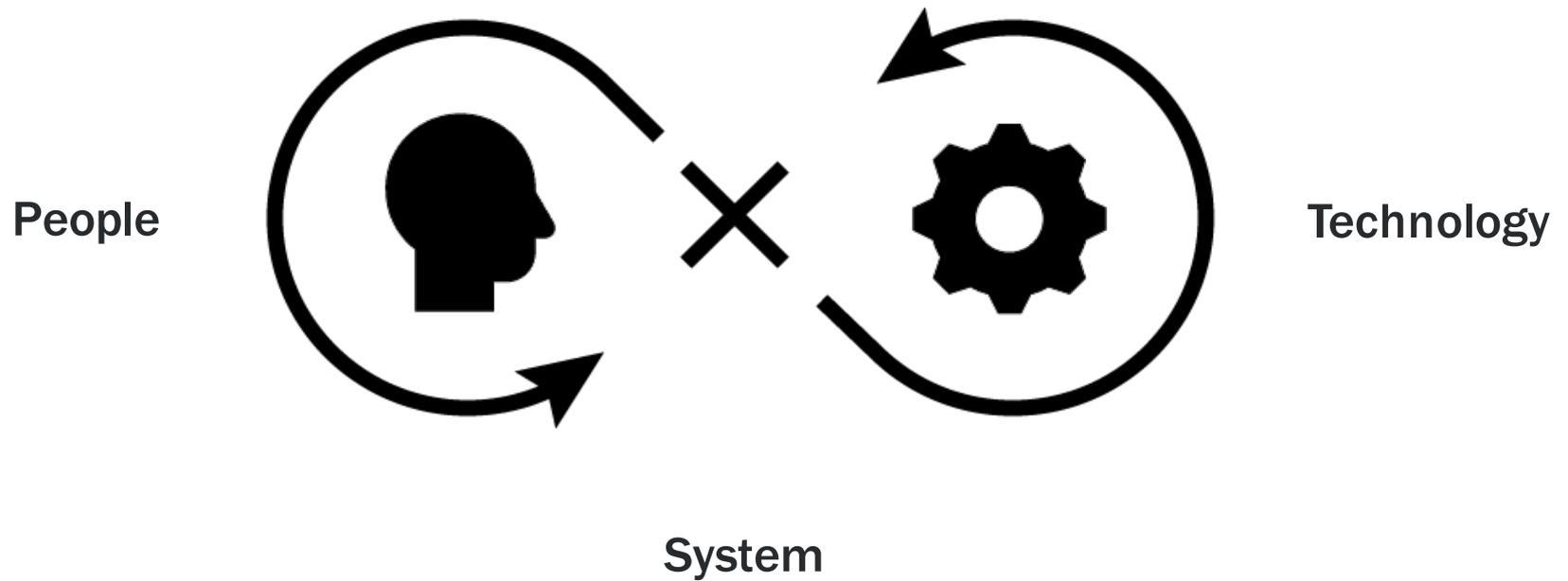
- ✓ What is an Energy Management Systems?
- ✓ What does it mean to do 50001 Ready?
- ✓ What is out there to help?



“ISO 50001 helped us focus on the greatest opportunities for savings.

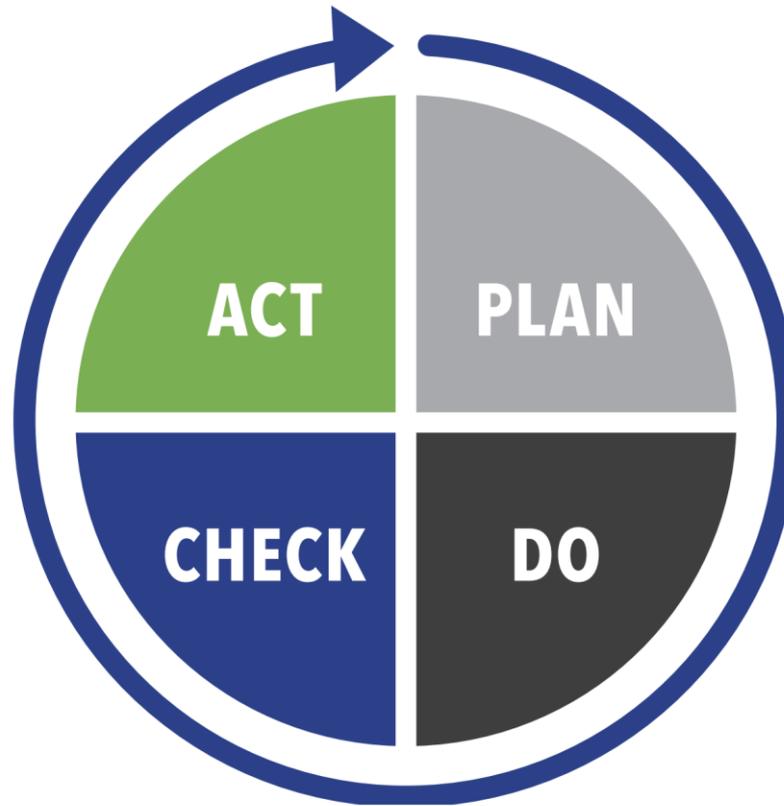
Energy Specialist

What is this?



Energy Management through Continuous Improvement

Fix it, if it
did not



Say what
you will do

Check that
it worked

Do what
you said

Don't go at it alone, join



50001 Ready

U.S. DEPARTMENT OF ENERGY

- Extensive free guidance
- Project management capacity with the 50001 Ready Navigator
- Annual Dept. of Energy recognition for self-attested conformance

The screenshot shows the 'Navigator' interface for the Federal Energy Management Program (FEMP). The user is logged in as Jerrilyn Goldberg. The dashboard displays 'OVERALL PROGRESS: 0% Completed' and seven progress indicators for different sections: Context of the Organization, Leadership, Planning, Support, Operation, Performance Evaluation, and Improvement. Below this, the 'Task Assignments' section is active, showing a table of tasks assigned to the user.

Task	Assigned To	Approver	Status	Status Date
1 An EMS and Your Organization	not assigned	Jerrilyn Goldberg	Not Started	
2 People and Legal Requirements Affecting the EnMS	Jerrilyn Goldberg	Jerrilyn Goldberg	Not Started	
3 Scope and Boundaries	Jerrilyn Goldberg	Jerrilyn Goldberg	Not Started	04/20/2020

navigator.bl.gov

Testimonial

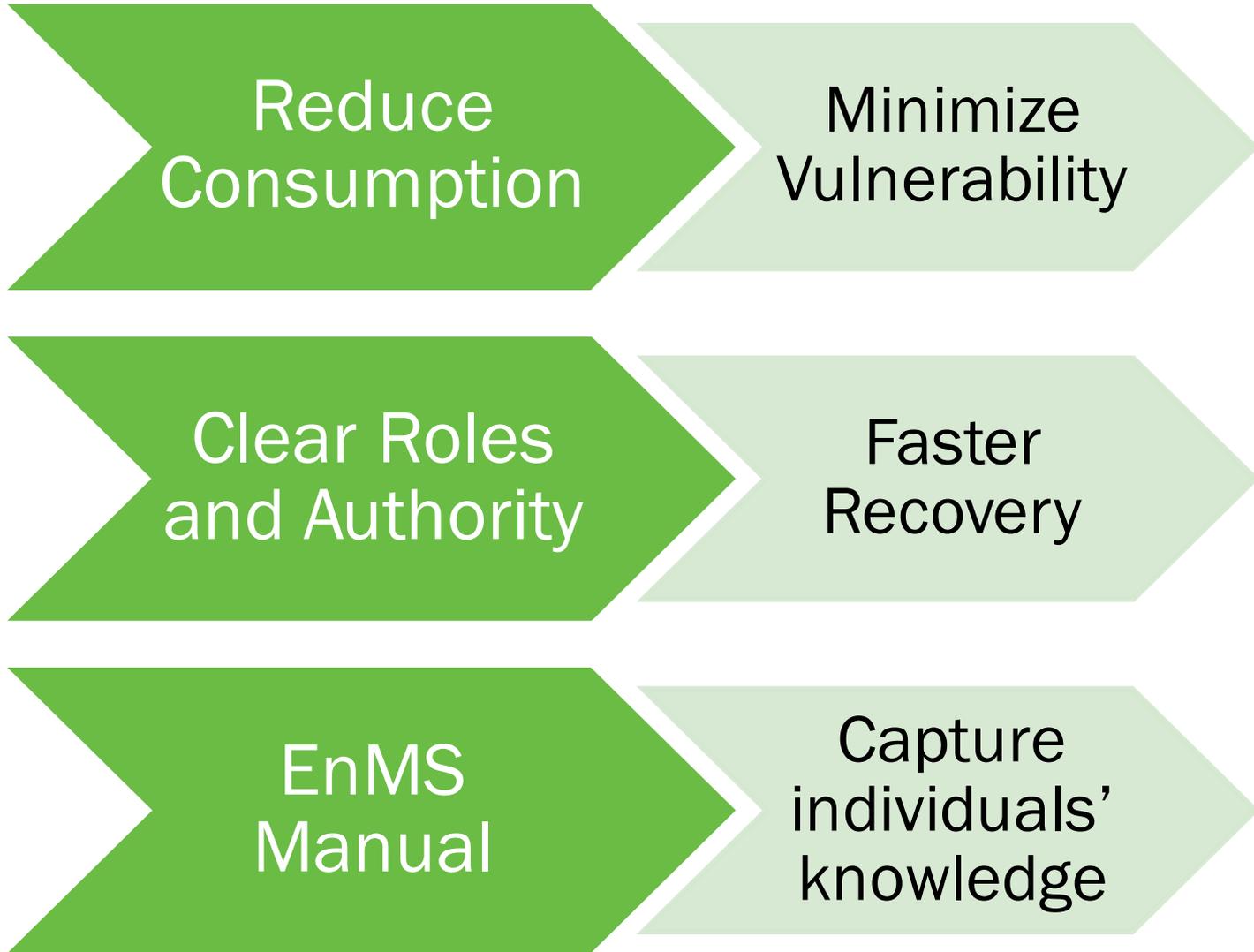
“The resources provided by the 50001 Ready Navigator helped us to initiate a systemic and organized approach to document the ORNL energy efficiency program. Best practices, policies, procedures, federal guidance, and quality energy data are now cataloged, organized, and accessible in a logical structure that is well-designed to advance our efforts in efficient and sustainable facility operations.”



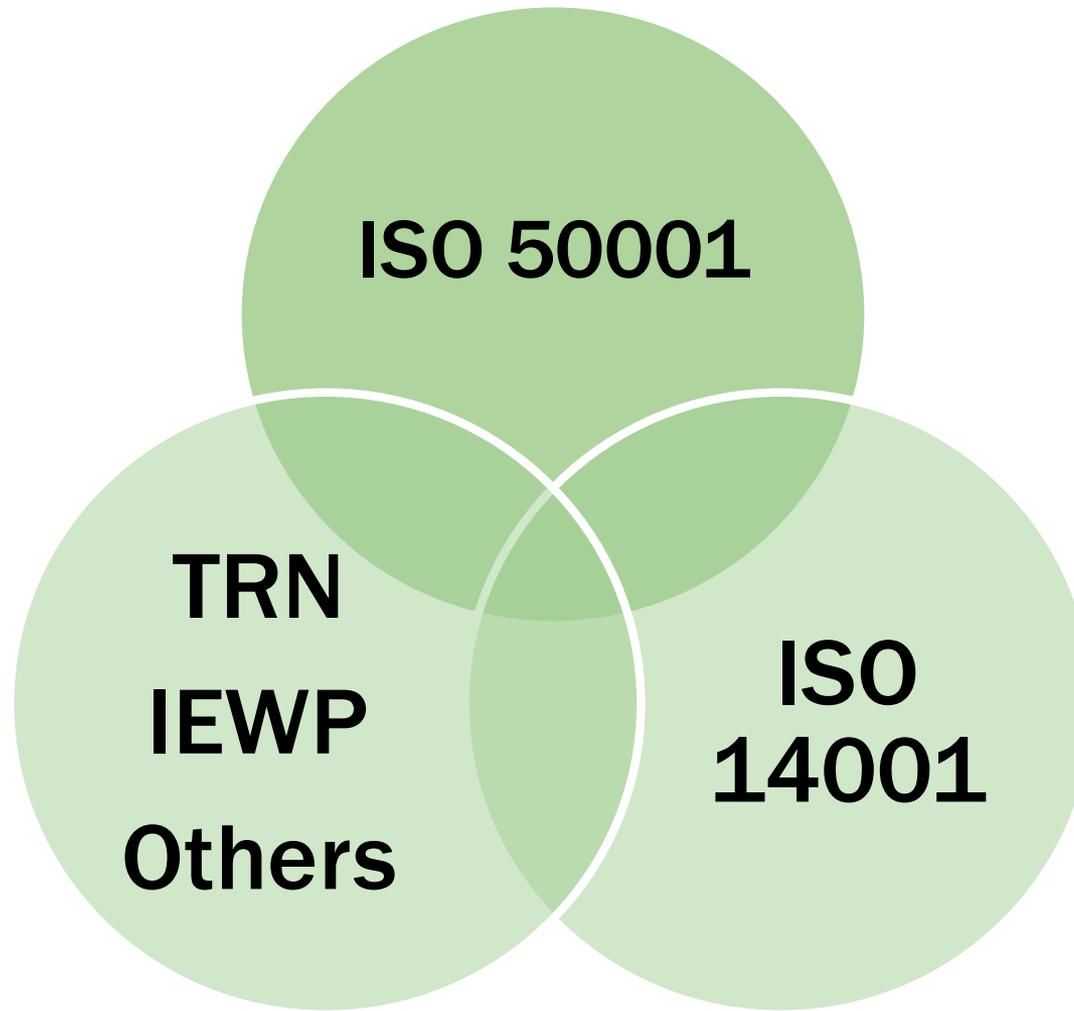
*Ann Weaver, Director ORNL
Facilities Management Division*

- 1. Driver for long-term achievements—energy savings and beyond**
- 2. Adaptable structure for improvement in other performance areas**
- 3. Support Mission & Resiliency**

50001 & Competitiveness: Increased Resiliency



Significant Overlap with Existing Efforts



Field Validation of ISO 50001 Savings

- Business-as-Usual ~1% per year
- 50001 facilities ~4% per year
- Enterprise-Wide Approach ~5% per year



1500+ projects & 20 utility partners



What does this look like in practice?



Context of the Organization	Leadership	Planning	Support	Operation	Performance Evaluation	Improvement
<p>1. An EnMS and your Organization</p> <p>2. People and Legal Requirements</p> <p>3. Scope and Boundaries</p>	<p>4. Management Commitment</p> <p>5. Energy Policy</p> <p>6. Energy Team and Resources</p>	<p>7. Risks to EnMS Success</p> <p>8. Energy Data Collection and Analysis</p> <p>9. Significant Energy Uses</p> <p>10. Improvement Opportunities</p> <p>11. Energy Performance Indicators (EnPIs) and Baselines (EnBs)</p> <p>12. Objectives and Targets</p> <p>13. Action Plans for Continual Improvement</p>	<p>14. Competence and Training</p> <p>15. Awareness and Communication</p> <p>16. Documenting the EnMS</p>	<p>17. Operational Controls</p> <p>18. Energy Considerations in Design</p> <p>19. Energy Considerations in Procurement</p>	<p>20. Monitoring and Measurement of the EnMS</p> <p>21. Monitoring and Measurement of Energy Performance Improvement</p> <p>22. Internal Audit</p> <p>23. Management Review</p>	<p>24. Corrective Action</p> <p>25. Continual Improvement</p>

The 7 Areas of 50001 Ready



Context for the EnMS



Leadership



Planning



Support



Operation

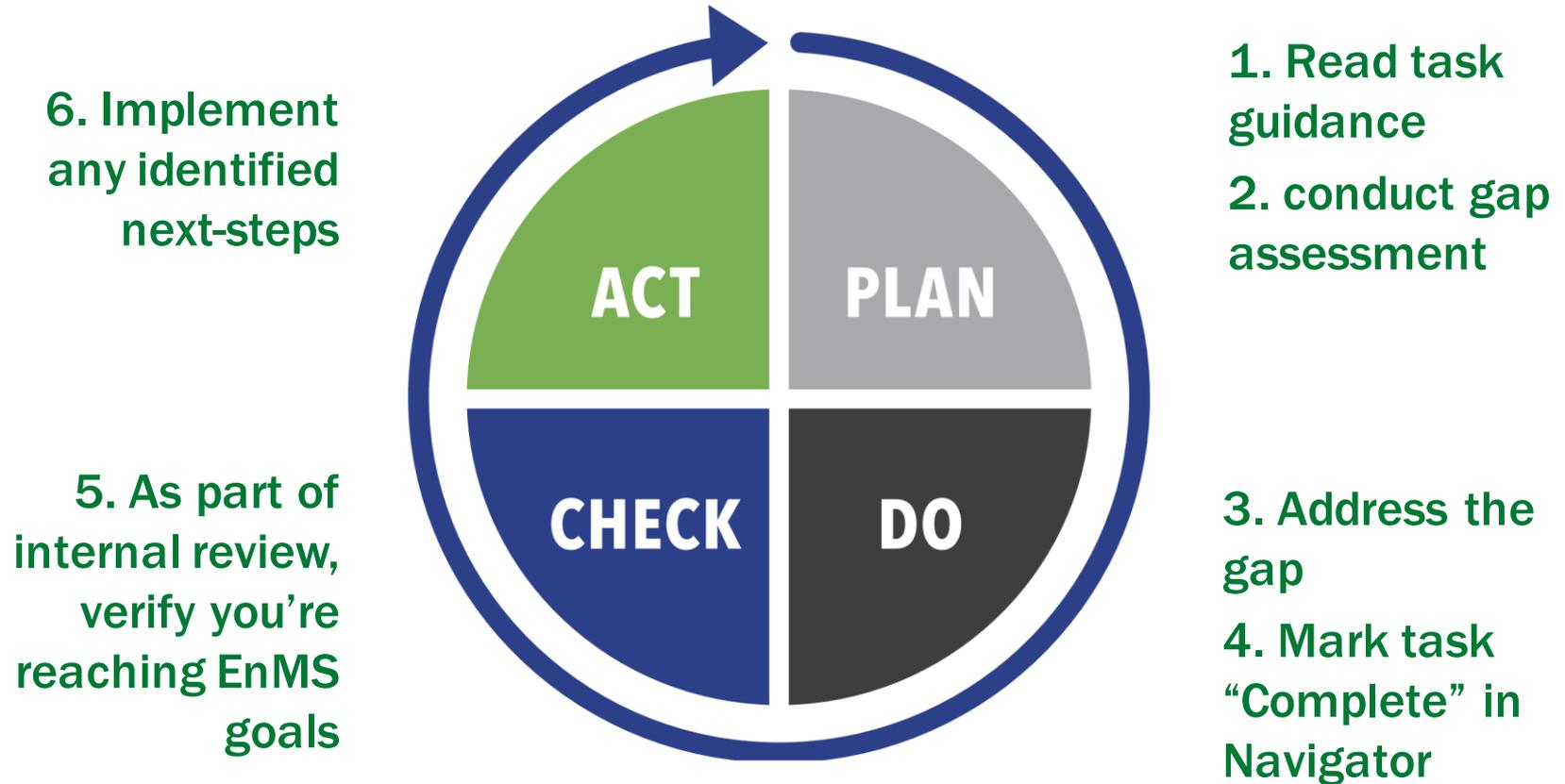


Performance Evaluation



Improvement

How to go about implementing an EnMS



Bring questions to the 50001 Ready helpdesk for **free guidance**, through the Navigator or by email: 50001Ready@lbl.gov

Building a 50001 Ready Energy Manual

Locally stored guide to your EnMS:

- Data management and analysis process
- Tracks goals and responsibilities

50001 Ready Playbooks:

- ✓ Living Documents saved on local drive

 **50001 Ready**
U.S. DEPARTMENT OF ENERGY

50001 Ready Navigator Playbook
Planning 2

Task(s): 2-5. Energy Policy, Management Commitment, Energy Team, and Legal Requirements

Date last modified/updated:
Who last modified/updated:

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

1. Created and Approved and Energy Policy
2. Secured Management Commitment
3. Established and Empowered the Energy Team
4. Addressed Legal Requirements

Energy Policy

Our Energy Policy is:

Top Management Approval

Date approved:
 Who approved:

Communicated Across Organization

Date communicated:
 Who communicated:

Hint: the Energy Policy should:

- Be established with help from top management
- Reflect the full nature and extent of the energy use
- Contain a commitment to achieving continual improvement in energy performance
- Commit to providing the resources and information needed to achieve improvement through the use of energy objectives and targets
- Commit to complying with applicable legal and other requirements related to energy use
- Support the purchase of energy efficient products and services
- Be documented and communicated to employees and others working on behalf of the organization (e.g. on-site contractors and suppliers)
- Be regularly reviewed and updated as needed

Management Commitment checklist:

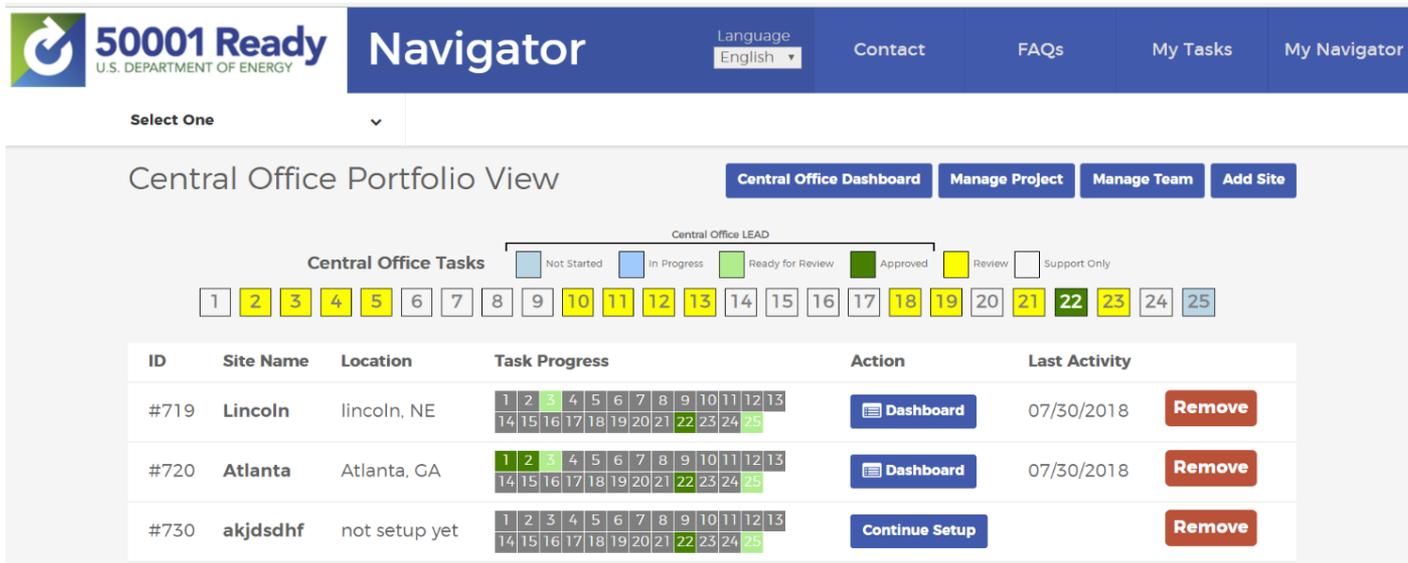
- I approve our Scope and Boundaries (as defined in Task 1)
- I commit to deploying our Energy Policy (as defined in Task 2) and updating is an needed
- I commit to consider Energy Performance as part of design (Task 18) and procurement (Task 22)
- I commit to empowering our Energy Team (Task 4)
- I commit to consider energy performance in strategic planning
- I commit to providing resources to set up, operate and improve the EnMS and energy performance as follows:

Contact me for Playbook examples for federal sites, Army and Navy (in development). jgoldberg@lbl.gov or 50001Ready@lbl.gov

Ways to Do Group Implementation

Multi-site

- ✓ Track and manage multiple facilities at once
- ✓ Allows for HQ group communications and review or completion of tasks for the whole group



The screenshot shows the '50001 Ready U.S. DEPARTMENT OF ENERGY Navigator' interface. It includes a top navigation bar with 'Language English', 'Contact', 'FAQs', 'My Tasks', and 'My Navigator'. Below this is a 'Select One' dropdown menu. The main content area is titled 'Central Office Portfolio View' and contains several buttons: 'Central Office Dashboard', 'Manage Project', 'Manage Team', and 'Add Site'. A 'Central Office LEAD' section shows a progress bar with 25 numbered boxes, each with a color-coded status: Not Started (light blue), In Progress (medium blue), Ready for Review (light green), Approved (dark green), Review (yellow), and Support Only (white). Below this is a table with columns for ID, Site Name, Location, Task Progress, Action, and Last Activity.

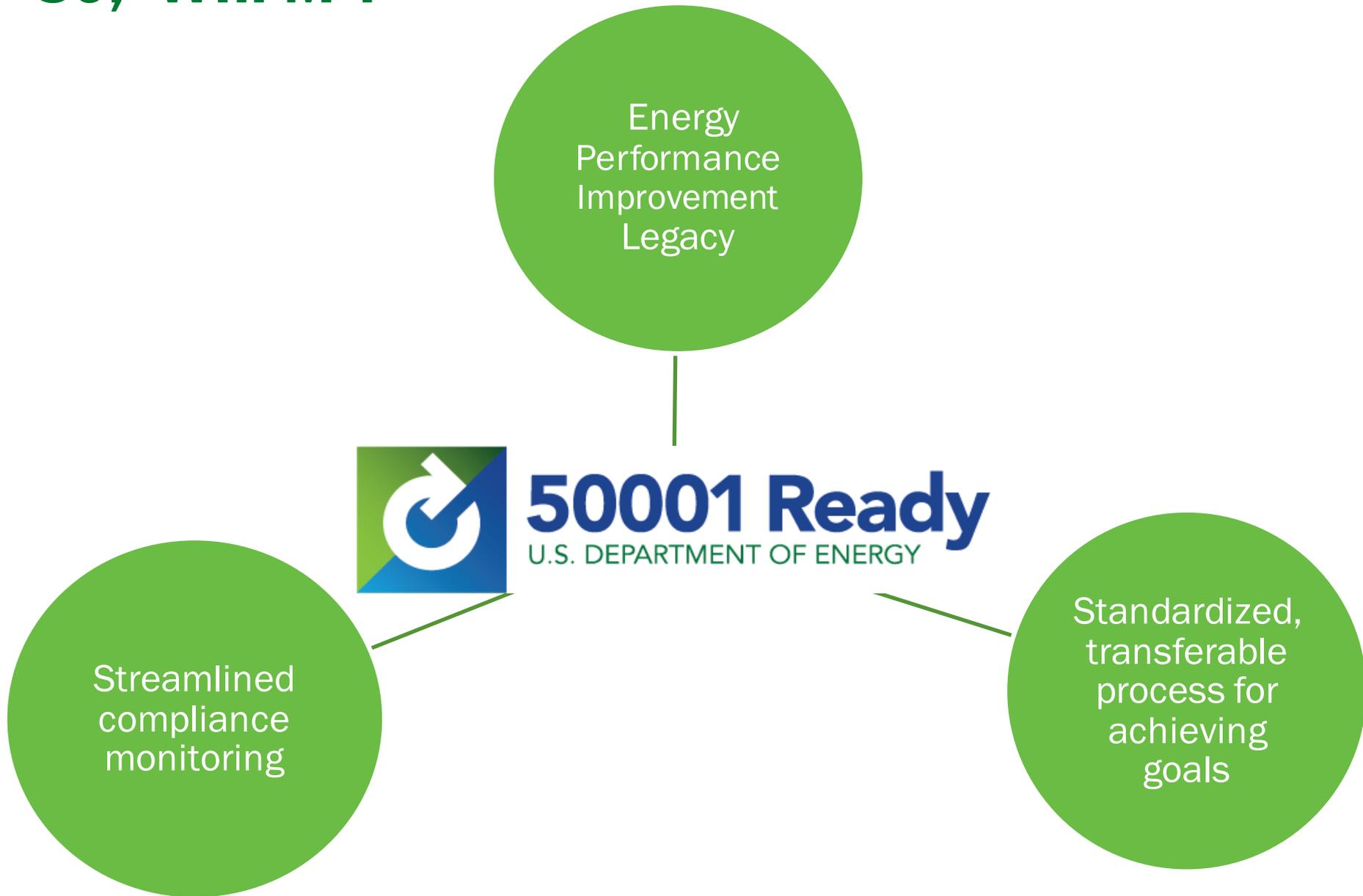
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50001 Ready Implementation Cohorts

- 14 interactive training hours with best-in-class instructors
- One-on-one guidance from technical support team throughout implementation



So, 'WIIFM'?



Testimonial: Tinker Air Base (USAF base)

“The strength of our [ISO 50001] Continuous Energy Improvement program is that we get the people who understand each operation to think about how to do things a little differently – to change their processes in some way to save energy.”

“Energy Improvement is precisely the kind of operational discipline we are good at. We’re just applying that skill in a new way.”

Joseph Cercle
OC-ALC Energy Manager



Visit energy.gov/50001Ready for more info or to get started

Questions?

Learn more:

[Energy.gov/50001ready](https://www.energy.gov/50001ready)

[Navigator.lbl.gov](https://www.navigator.lbl.gov)

50001Ready@lbl.gov

THANKS!



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