U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

50001 Ready
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50001 Ready:

Disciplined Approach with Data-driven Decisions

50001 Ready: Agenda

Agenda

- ✓ Overview of 50001 systems
- ✓ Implementing best practices with 50001 Ready Navigator

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

Energy Specialist

ISO 50001: What is It?

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1. *Voluntary* structure for institutionalizing energy performance improvement

2. Driver for Sustained Energy Savings

3. Support Mission & Resiliency of Operations

Continuous Improvement: Reduce Costs and Support Mission

Value

- ✓ Identify and implement high impact energy projects that save money
- ✓ Structure allows for prioritization of resiliency, water, cyber and other energy-related interests

ISO 50001
Management Commitment, Procurement, and more
ISO 9001
ISO 14001

50001: Increased Energy Performance

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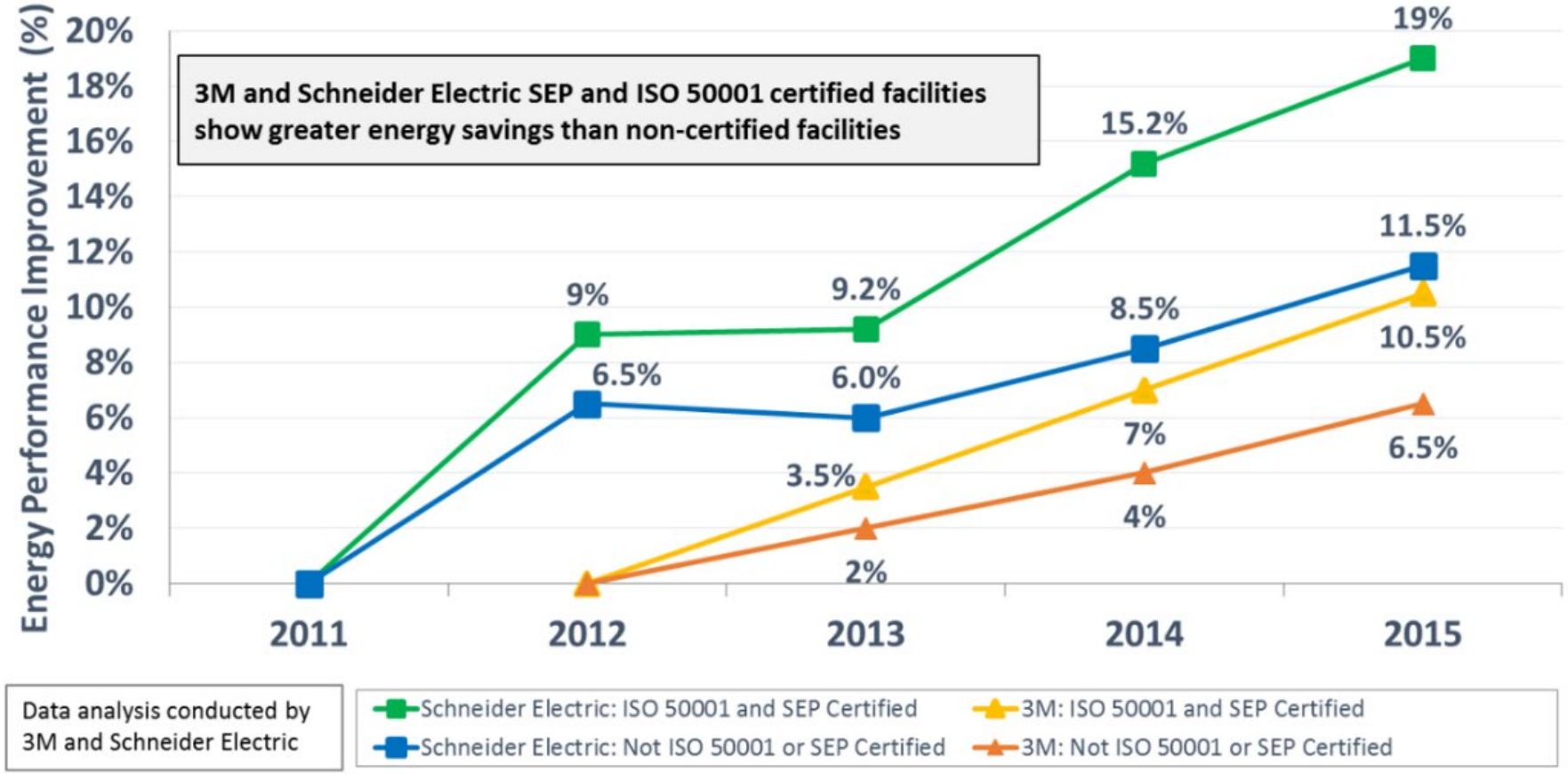
Comparison of sites at 3M & Schneider-Electric showing a DOUBLING of energy performance improvement with 50001 vs sites without



Field Validation of ISO 50001 Savings

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

U.S. AIR FORCE

NREL NATIONAL RENEWABLE ENERGY LABORATORY

OAK RIDGE National Laboratory

BOISE SCHOOLS

OREGON DEPARTMENT OF CORRECTIONS 1859

NAMPA SCHOOL DISTRICT

COMAU

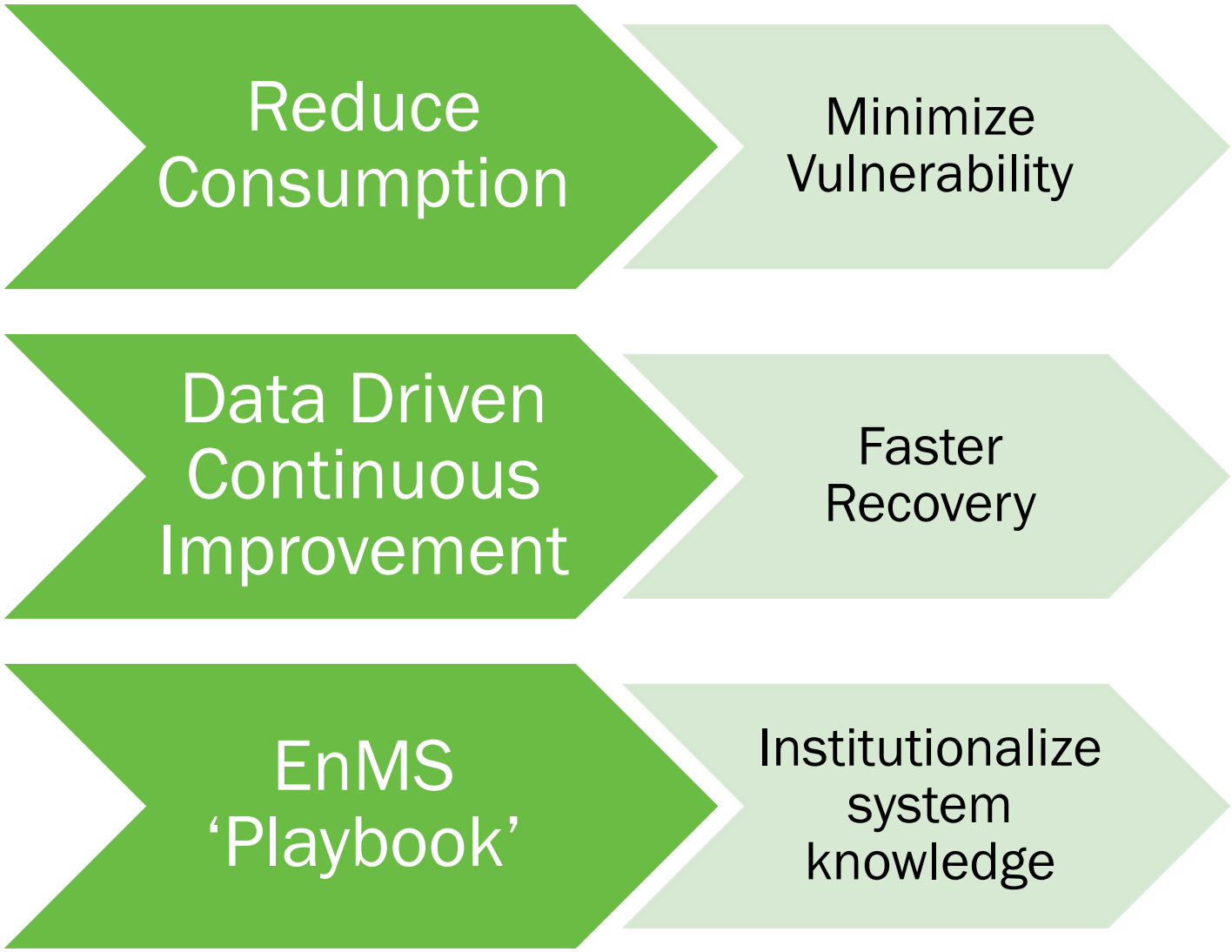
GM

Jerome School District

1000+ projects & 500+ accounts

20 utility partners

50001 & Competitiveness: Increased Resiliency



50001 Ready Navigator

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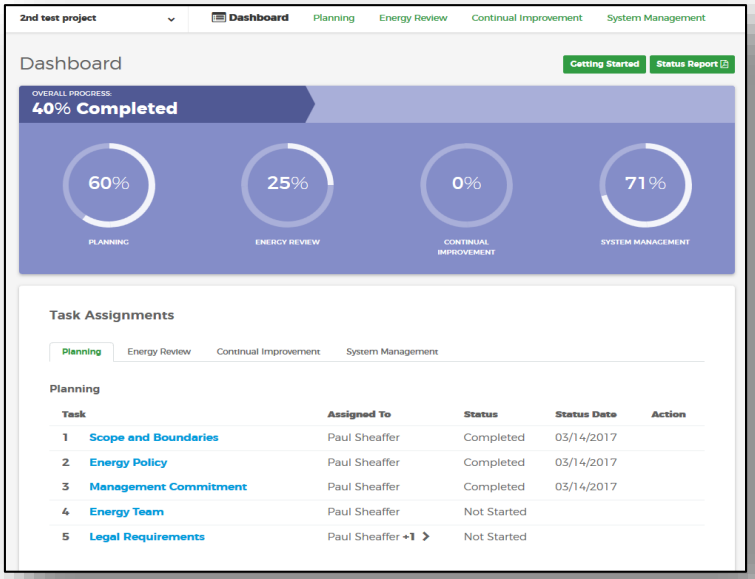
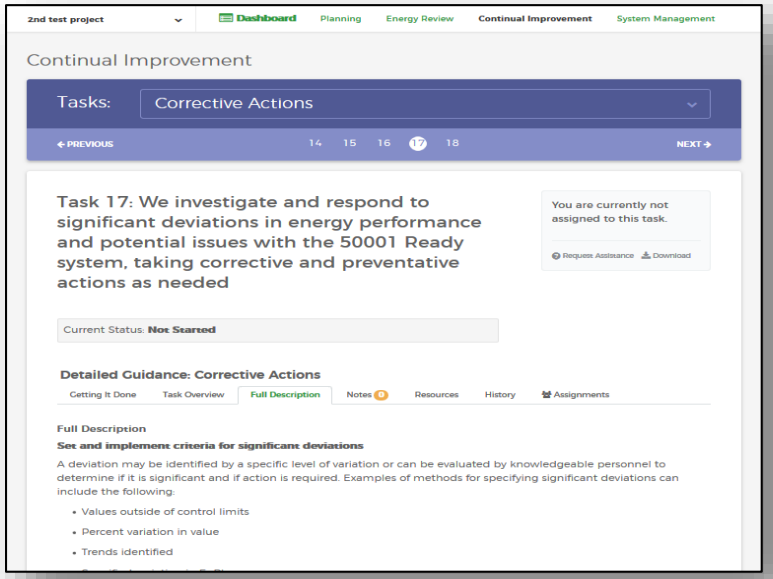
✓Step-by-step, audit-free approach to ISO 50001

https://navigator.lbl.gov





50001 Ready Recognition

STEP 1
Complete 25 Tasks of 50001 Ready Navigator to Develop Energy Plan

STEP 2
Submit Energy Performance Improvement Data

STEP 3
Self-attestation by Team Leader and Executive

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50001 Ready Navigator Steps

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Planning

1. Scope and Boundaries
2. Energy Policy
3. Management Commitment
4. Energy Team
5. Legal Requirements

Energy Review

6. Data Collection
7. Data Analysis
8. Performance Indicators (EnPIs)
9. Significant Energy Uses (SEUs)
10. Relevant Variables
11. Baselines, Objectives and Targets
12. Improvement Opportunities
13. Improvement Projects

Continual Improvement

14. Monitoring
15. Measurement
16. Operational Controls
17. Corrective Actions
18. Energy Consideration in Design

System Management

19. Documentation and Records
20. Communications
21. Training
22. Procurement
23. Internal Audit
24. Calculate Energy Savings
25. Management Review

Strongly prepared Partially prepared

Implementing Tasks in 50001 Ready

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STEP 1
Assess gap between current activities and 50001 Ready best practice.

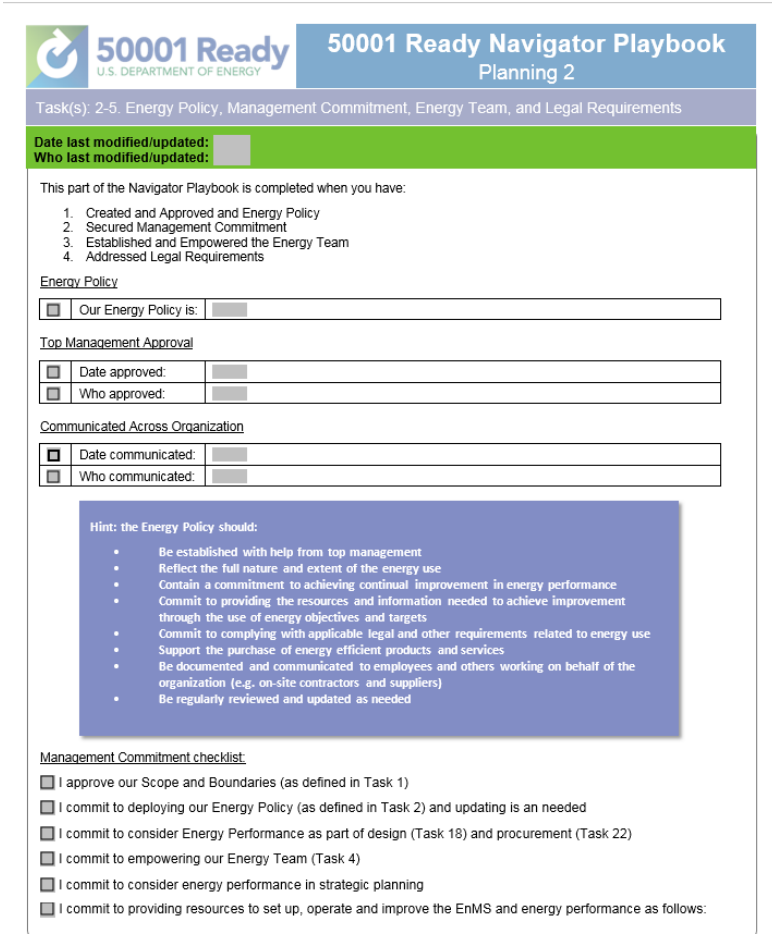
STEP 2
Discuss roles and assign responsibilities for addressing identified gaps.

STEP 3
Document discussions, implemented actions, and plans for verifying success.

The Energy Plan: Documentation in 50001 Ready

Locally stored guide to your EnMS:

- Data management and analysis process
- Procurement and training process documented
- Responsibilities and goals tracked



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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:

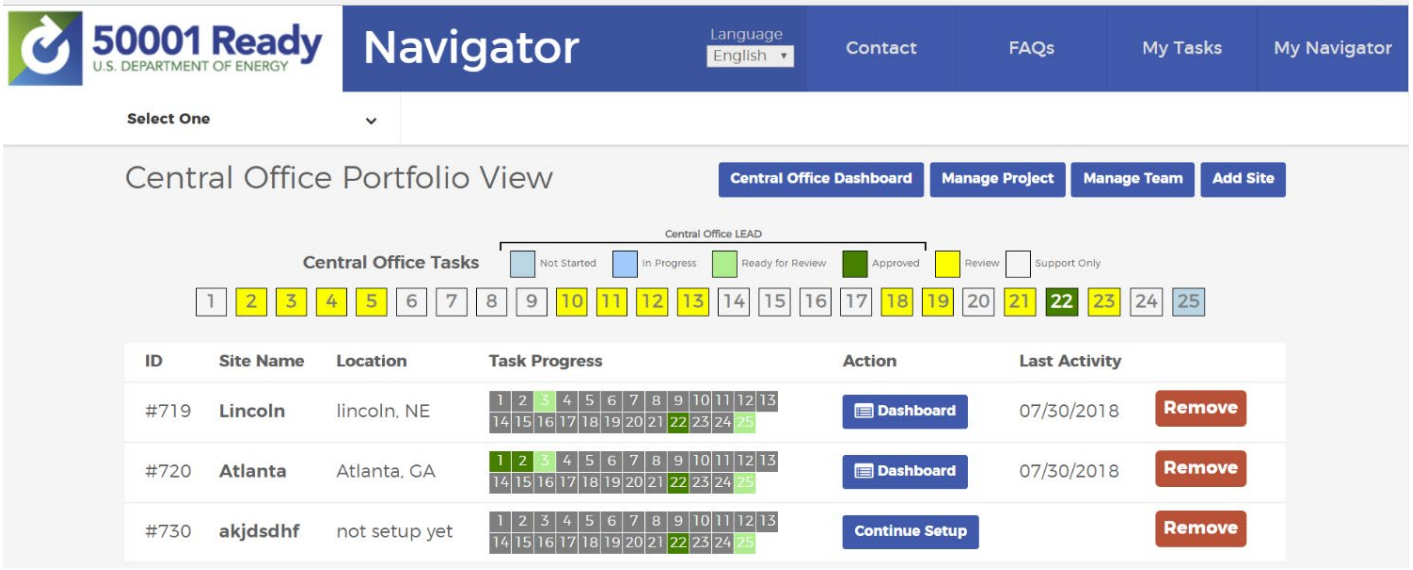
50001 Ready Playbook: Energy Plan template

✓Living Document saved on local drive

New Resources: Navigator Multisite and Partner Platform

Multi-site

- ✓ Reduce time & cost of *50001 Ready* across multiple facilities
- ✓ Enter and manage multiple sites in one portal
- ✓ Allows for 'central office' review, communications or completion of tasks



Integrated Energy Culture
Streamlined compliance
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Data-driven project prioritization and verification
Standardized process

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

Credit: U.S. Air Force photo/Greg L. Davis

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

QUESTIONS?