

# FEMP Program and Services Overview

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# FEMP Focuses on Federal Agency Support

FEMP works with **key stakeholders** to support **all stages of energy management** in federal agencies' **critical areas**

## Key Stakeholders

-  White House
-  Industry
-  Agencies
-  National Labs
-  Congress
-  MUSH Markets



### Policy & Planning

Analyzes energy management mandates and helps agencies plan to meet legislative goals.



### Results & Recognition

Guides data reporting and recognizes significant contributions to energy and water efficiency.



### Analysis & Strategy

Works alongside agencies to identify short- and long-term opportunities to cut costs, save energy, and meet goals.



### Optimization & Maintenance

Provides resources to ensure facilities and fleets are at their optimal state.



### Execution & Funding

Offers funding opportunities and performance contracting assistance.

## Technical Areas

Facilities 

Fleets 

Grid 

# Operation and Maintenance (O&M) Program Resources

Re-tuning: Retro-commissioning process that utilized the Building Automation System (BAS) to build control strategies optimizing facility energy consumption and operation

- 14 online Re-tuning training modules available through the WBDG site
  - <http://www.wbdg.org/continuing-education/femp-courses>
- Re-tuning Checklist: Helps identify & prioritize good candidate facilities
- Building Retuning Simulator (BRS). Users can input real and building specific data; tool will provide expected energy and cost savings per scenario selected.

Commissioning Decision Tree: User friendly format to assist sites in determining best EBCx approach: Re-Commissioning, Retro-Commissioning, Monitoring-based Commissioning, or Re-Tuning.

- [FEMP Existing Building Commissioning Decision Tool | Department of Energy](#)
- [Small Building O&M Checklist | PNNL](#)

Several best practices for equipment, HVAC, and others

- [Operations & Maintenance Best Practices Guide: Release 3.0 \(energy.gov\)](#)

Explore FEMP's O&M and Re-tuning websites for the above resources.

- [Re-tuning in Federal Buildings | Department of Energy](#)
- [Operations and Maintenance in Federal Facilities | Department of Energy](#)

# Audit Program Resources

Facility Audit Decision Tree: Assists in deciding the appropriate audit approach (on-site verses remote depending the needed outcome)

Facility Decision System (FEDS): Audit tools to help identify energy and water conservation measures.

Audit Definitions Standard: Automated Audit, Desk Audit, Opportunity Audit, Traditional Audit, Deep Dive Audit, Re-Evaluation

Audit Statement of Work Template: Template to build a project scope for procuring Audit Services

Working on “Audit in a Box” tool: help identify and provide all needed resources for remote audits (*being developed*)

Explore the FEMP Audit website for these resources and other beneficial information:

FEMP Audit Webpage: <https://www.energy.gov/eere/femp/energy-and-water-audits-federal-buildings>



# What does the FEMP Fleet Team do?

Web Resources

Direct Technical Assistance

Training  
(Webinars,  
Videos,  
Meetings)

Data Reporting

Guidance on  
Statutory and  
Executive  
Requirements

Stakeholder  
Groups (FEVAR  
and INTERFUEL)

Fleet  
Requirements

Fleet  
Management  
Support

U.S. DEPARTMENT OF  
**ENERGY**

Office of ENERGY EFFICIENCY  
& RENEWABLE ENERGY

**Federal Fleet Management**

*The latest fleet efficiency information,  
tools, and resources*



Integration with  
Other Programs  
and  
Stakeholders

Integration with  
DOE National  
Labs

# Electric Vehicles (EV) /ZEV Ready Center

EV Toolkit

EV Training

Acquiring Vehicles and EVSE

Fleet Electrification Success Stories






Workplace Charging

Managed Charging, Bidirectional Charging, and EVs for Mobile Storage

Tiger Team Technical Support

EV and EVSE Reporting

<https://www.energy.gov/femp/electric-vehicles-federal-fleets>

PLANNING PHASE		
GOALS	STEPS	ZEV READINESS
Create and Train Team	Step 1. Identify and coordinate team Step 2. Review training materials	 Team Ready
Overall Fleet Planning and Strategy	Step 3. Review requirements, goals, and data Step 4. Align headquarters strategy with site planning	 Commitment Ready
Identify ZEV and EVSE Opportunities	Step 5. Identify ZEV opportunities (5 years) Step 6. Identify EVSE opportunities (5 years)	 Vehicle Ready   Charging Ready
Financial Planning	Step 7. Coordinate site financial planning with headquarters	 Commitment Ready
DESIGN PHASE		

<https://www.energy.gov/femp/overview-zev-ready-federal-fleet-electrification-process>

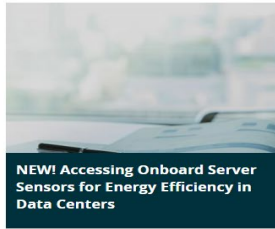
# Data Center Program

Rick Mears: [rick.mears@hq.doe.gov](mailto:rick.mears@hq.doe.gov)  
Kendall Kam: [kendall.kam@hq.doe.gov](mailto:kendall.kam@hq.doe.gov)

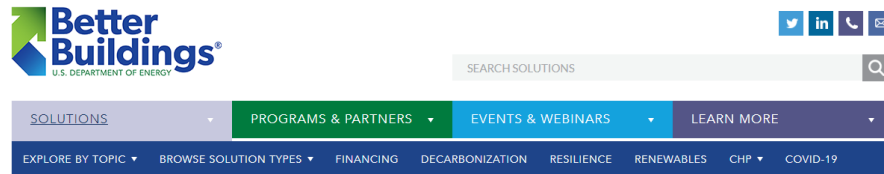


We offer tools, technologies and analysis to enhance energy performance in datacenters.

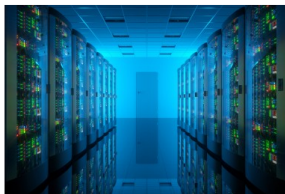
## Featured Work



[Home](#) | [Center of Expertise for Energy Efficiency in Data Centers \(lbl.gov\)](#)



## DATA CENTER ACCELERATOR TOOLKIT



The energy intensity of data centers means that energy efficiency improvements have the potential to deliver substantial energy and cost savings to an organization. There are dynamics unique to data centers that create a set of underlying drivers, stakeholders, and barriers to data center energy efficiency projects that are distinct from energy efficiency projects generally. The [Data Center Accelerator Toolkit](#) collects guidance, factsheets, best practices, and other resources to help navigate these dynamics, based on the work of DOE's [Better Buildings Data Center Accelerator](#).



SEARCH SOLUTIONS

SOLUTIONS | PROGRAMS & PARTNERS | EVENTS & WEBINARS | LEARN MORE

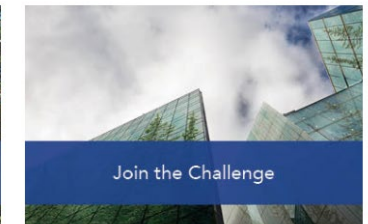
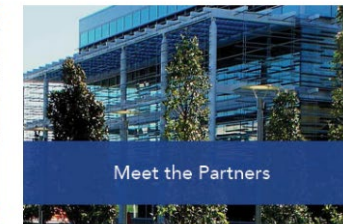
ABOUT | ABOUT PARTNERS | SECTORS | ANNUAL REPORTS | NEWSROOM | BLOG | JUST ADDED | SWAP | SUBSCRIBE

## BETTER BUILDINGS CHALLENGE

Leading businesses, manufacturers, cities, states, universities, and school districts commit to improving the energy efficiency of their portfolio of buildings by at least 20% over 10 years and share their strategies and results.



### PROGRAM RESOURCES



Visit Sectors

View Partner Solutions

[Data Center Accelerator Toolkit | Better Buildings Initiative \(energy.gov\)](#)

[Better Buildings Challenge | Better Buildings Initiative \(energy.gov\)](#)



# Smart Labs



INTRODUCTION

## Smart Labs Toolkit



PLAN

The Smart Labs Toolkit describes a systematic process that helps laboratory owners and operators plan and cost-effectively achieve safe, efficient, and sustainable laboratories. This Toolkit was developed by several contributors and includes results of best practices and lessons learned from the [Better Buildings Smart Labs Accelerator](#).



ASSESS



OPTIMIZE



MANAGE



NEW



### GET STARTED

- **Be a Champion**

All successful projects have a champion who identifies opportunities to make buildings safer and more efficient. The champion helps identify opportunities and coordinate the process to implement the changes, including how the project will be funded, how the changes will be made, who needs to be informed, and who needs to be involved. Once a project is completed, the champion verifies that everything is working as intended.

- **Start With One Building**

Based on many lessons learned, teams may have an easier time tackling one smaller lab building that is of newer vintage with a modern building control system and variable air volume systems.

Visit FEMP's [Smart Labs](#) page to learn more about ESPCs.

## Smart Labs



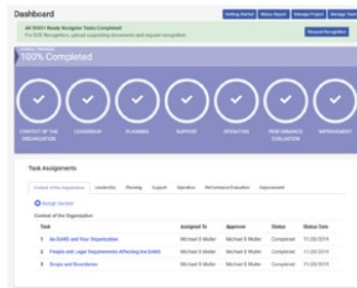
[Smart Labs | Department of Energy](#)



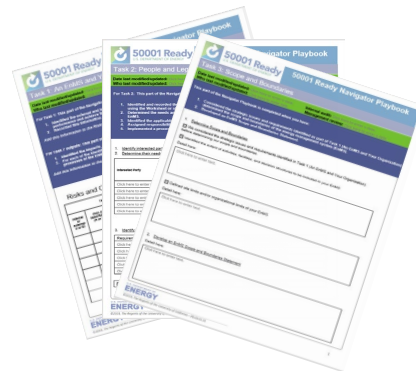
# What is 50001 Ready?

- A self-paced, step-by-step framework to implement a world class energy management system (EnMS).
- Offers recognition for self-attesting to completion of 50001 Ready tasks to establish an energy management system consistent with ISO 50001 standard . There is no third-party certification requirement.
- Includes a suite of resources to support continuous improvement in institutional, commercial, and industrial facilities including open-source software tools.
- Supports ‘enterprise’ or multi-facility EnMS adoption.

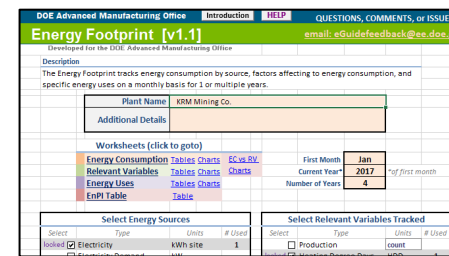
[50001 Ready Program](#)  
[| Department of Energy](#)



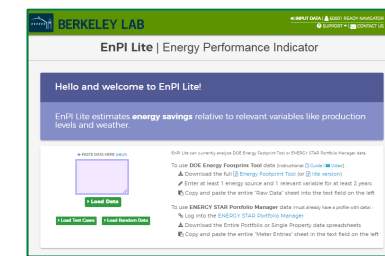
**50001 Ready  
Navigator**



**Navigator Task  
Worksheets**

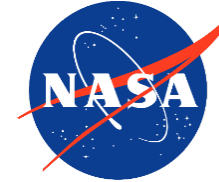


**Energy Footprint  
Tool**



**EnPI Lite Tool**

# 50001 Ready Federal Participants To Date



## Energy Policy Act of 2020, passed in January

Sec. 1002. Use of energy and water efficiency measures in Federal buildings.

Encourages federal energy managers to consider:

- use of systems approach to managing energy and water
- names ISO 50001 specifically as the standard to model efforts around.



Smithsonian



More Info: [energy.gov/50001Ready](https://energy.gov/50001Ready) [Kendall.Kam@hq.doe.gov](mailto:Kendall.Kam@hq.doe.gov)

# FEMP Support Moves Agencies Forward

Access off-the-shelf resources and request specialized support.



## Request Technical Assistance

FEMP's project facilitators and technical experts learn about your needs and provide customized support.



## Access Tools

Available tools help collect data, assess resilience, identify opportunities for carbon pollution-free electricity, and much more.



## Join a Community

Communities are available for federal employees & industry stakeholders to share lessons learned and drive decision-making.



## Apply for Funding & Access Support

\$250M in AFFECT funding is available as well as performance contracting support.



## Get Recognition

Nominate individuals, projects, and sites for a variety of available federal recognition programs.



## Take Training

On-site, in-person, and on-demand FEMP-delivered training supports an informed, capable workforce.

### FEMP Tools & Support

- Smart Facility Accelerator
- FEDS Spotlight
- REopt
- ESPC
- Technical Resilience Navigator
- Federal Utility Partnership Working Group
- Re-tuning Trainings
- EVI Locate
- UESC
- CDF Calculator
- Treasure Hunts
- Interagency Task Force
- Federal Energy & Water Management Awards
- Energy Exchange
- AFFECT Funding
- Electricity Procurement Analysis and much, much more...

ENERGY.GOV

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[Energy.gov Offices](#)

[National Labs](#)



FEDERAL ENERGY MANAGEMENT PROGRAM

ABOUT FEMP

SERVICES

REQUIREMENTS & REPORTING

PROCUREMENT

FACILITY & FLEET OPTIMIZATION

RECOGNITION



**\$250 Million AFFECT Funding Announced for Net-Zero Projects at Federal Sites**



**Laws and Requirements**



**Energy Exchange 2024 Dates Announced**



# FEMP Facility and Fleet Optimization Supports Agencies in Meeting Legislative and Agency Energy & Water Goals

*Please, reference the [FEMP Operations & Maintenance](#) page for detailed information.*



## Treasure Hunt

Free training program assisting agencies in strategically meeting their energy efficiency and operations and maintenance goals: energy and water reduction, **decarbonization**, and **electrification** milestones, through **low- to-no cost** measures. Focuses on **training-the-trainer** to exponentially amplify the impact of participation.



## Smart Metering

To help agencies meet their metering requirements, the [Federal Energy Management Program](#) (FEMP) provides **guidance**, **templates**, **best practices**, and more.



## Audit

Audits can be used to meet EISA 2007 requirements, be leveraged to comply with strategic programmatic goals and assist in planning efforts: informs **infrastructure resilience and security** objectives, energy and water management programs, and capital project plans.



## Federal Smart Building Accelerator

Design and implement specific approaches that would **accelerate the adoption of smart building and grid-responsive technologies**

### REopt

A techno-economic optimization platform that can be used to **evaluate distributed energy resources** (DERs) to support energy cost savings, resilience, and decarbonization goals.



## Re-tuning

Systematic building automation system-focused process aimed at minimizing building energy consumption by **identifying and correcting operational problems** that plague buildings at no-cost or low-cost.



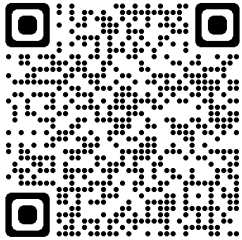
## Grid-Interactive Efficient Buildings

- Energy efficient equipment
- Tight building envelopes
- Renewable energy generation/ storage to **replace** carbon heavy energy sources and **enable** fleet decarbonization
- Grid connected smart technology/energy storage to help **integrate** variable grid renewable energy sources and further **replace** carbon heavy sources
- [Data Center Program](#)
- [Smart Labs](#)
- [50001 Ready](#)

# Other FEMP Technical Programs and Resources

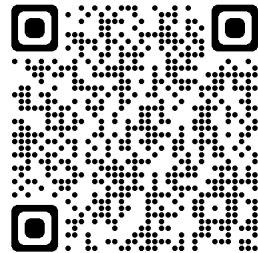
Visit FEMP's [Energy Savings Performance Contracts for Federal Agencies](#) page to learn more about ESPCs.

ESPCs



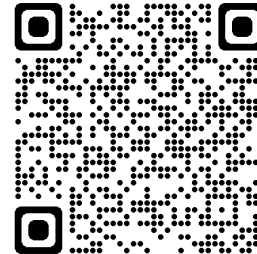
Visit FEMP's [Utility Program and Utility Energy Service Contracts for Federal Agencies](#) page to learn more about UESCs.

UESCs



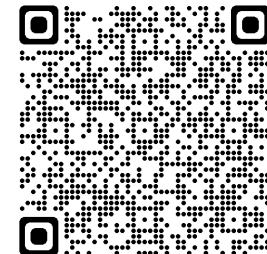
Explore FEMP's searchable [tools database](#) for software, calculators, data sets, and databases created by the U.S. Department of Energy and other federal organizations.

Tools Database



Visit FEMP's [Distributed Energy \(DE\) and Energy Procurement](#) page to explore a suite of resources to support your DE efforts.

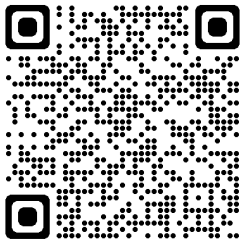
DE



# Stay in Touch

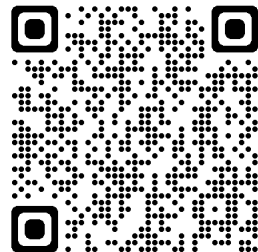
Visit FEMP's [Technical Assistance Portal](#) to ask questions ranging from general to project-specific.

Ask Questions



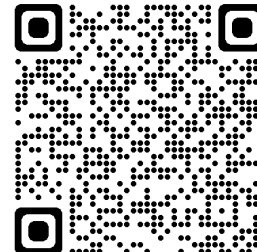
Search the [FEMP Training Catalog](#) to find upcoming live trainings, events, and on-demand courses.

Find More Trainings



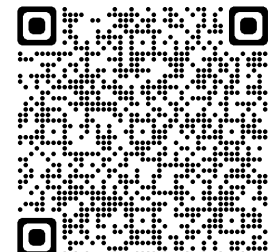
Receive periodic emails to [stay informed](#) of FEMP news, trainings, tools, resources, and more.

Sign up for Updates



• [Follow FEMP on LinkedIn](#) for event announcements, examples of agency success, and of-the-moment news.

Follow FEMP





March 26 - 28 2024  
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### At Energy Exchange 2024, you will:

- Hear federal leadership's key priorities and insightful solutions
- Attend agency-driven trainings to understand and address dynamic and growing challenges
- Collaborate with peers and agencies during dedicated networking opportunities
- Explore new and innovative technologies from industry experts at the Trade Show



**Registration opens soon!**

For more information, visit  
[Energy-Exchange.com](https://Energy-Exchange.com)