



50001 Ready
U.S. DEPARTMENT OF ENERGY

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



50001 Ready Utility Network Series

September 2018

U.S. Department of Energy
Technical Partnerships
Advanced Manufacturing Office

Welcome + Logistics

Welcome to the DOE 50001 Ready Utility Network Series meeting!

- Today's presenters
 - Peter Therkelsen, Lawrence Berkeley National Laboratory
 - Sandy Glatt, US Department of Energy
 - Sergio Dias, Sergio Dias Consulting
- Logistics
 - You are on mute by default; use the chatbox to ask questions at any time
 - We will take breaks to solicit questions submitted through the chat box
 - Session is being recorded
 - Slides, recording, and transcription will be available through energy.gov/50001Ready
 - Double click screen or press escape to exit full screen view
 - Zoom webinar control bar is at the bottom or top of your screen

Today's Agenda

- 50001 Ready Training Strategy
 - Update on training materials being developed
 - Program Administrator and implementer slide deck
- Feedback
 - Feedback on slide deck
 - Feedback on other potential materials

Questions?

- Purpose of this call
- Logistics

Training Materials Under Development

- **Advocacy Promotion** – The focus of this webinar
- **50001 Ready Comprehensive Task Training and Workbook** – Set of resources/curriculum modeled from the Navigator tool that will step the student(s) through each of the 25 tasks in the Navigator. Curriculum will include completed samples of templates and completed samples of the additional tool resources for a variety of customer types (industrial, commercial, federal etc). Workbook will be very customizable for the instructors.
 - *Key curriculum for the development of one-on-one or cohort training able to be delivered over varying timeframes to varying audiences*
- **Jump Start 50001 Ready** – 2/3 day in class training modeled off the Workbook
 - *Being designed for the DOE Better Plants partners but will be transferrable*
- **CP EnMS Training (Classroom and online)** – Train the trainers
 - *Build instructor capacity*

Advocacy Promotion

- **Advocacy Promotion** – provides content and context for the value of ISO 50001 / 50001 Ready as a resource to be promoted to the advocates key stakeholder or customer base.
 - *Intended to grow the population of those who can gain a business advantage or opportunity through 50001*
- *Advocates include:*
 - *Utility Program Administrators*
 - *Implementers*
 - *Trade associations*
 - *REEOs*
 - *Service providers*
 - *Advocacy groups*
 - *Etc.*

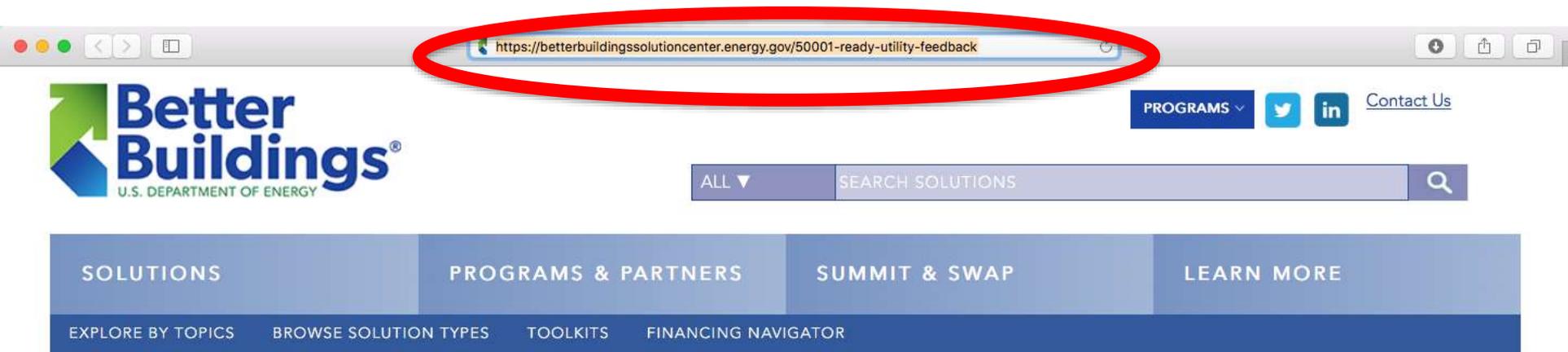
Program Administrator and Implementer Training

Focused on helping PA's and Implementers. Purpose is to make it easy for program administrators and implementers to use 50001 Ready by providing:

- ✓ Draft: An introduction to what the 50001 Ready Program is and how utilities and implementers can use it
- TBD: Other materials, including:
 - Materials that can be used in “selling” the 50001 Ready Program *internally*
 - TBD: Materials that can be used in “selling” the 50001 Ready Program *to customers*

How to find the draft training materials

<https://betterbuildingsolutioncenter.energy.gov/50001-ready-utility-feedback>



The screenshot shows a web browser window with the URL <https://betterbuildingsolutioncenter.energy.gov/50001-ready-utility-feedback> in the address bar, which is circled in red. The website header includes the Better Buildings logo (U.S. DEPARTMENT OF ENERGY), a search bar with the text "SEARCH SOLUTIONS", and navigation links for "PROGRAMS", "Contact Us", and social media icons for Twitter and LinkedIn. Below the header is a main navigation bar with four categories: "SOLUTIONS", "PROGRAMS & PARTNERS", "SUMMIT & SWAP", and "LEARN MORE". A secondary navigation bar below that lists "EXPLORE BY TOPICS", "BROWSE SOLUTION TYPES", "TOOLKITS", and "FINANCING NAVIGATOR".

50001 READY UTILITY FEEDBACK

Thank you for participating in the 50001 Ready Utility Network Series. We want to make sure we create materials that are helpful to program administrators and implementers and would appreciate your feedback.

To provide feedback, please review this [presentation](#) and then respond to the questions in this [short questionnaire](#).

Below is an overview of the presentation:

- 50001 Ready Program Goal: Increase utility program engagement with 50001 Ready and ultimately increase customer engagement with 50001 Ready
- Presentation purpose: Introduce utility and implementer staff to the 50001 Ready program, allow them to use the slides to introduce the program to others.

50001 Ready Utility and Implementer Training

An introduction to what the 50001 Ready Program is and how program administrators and implementers can use it.

- Target Audience:
 - Program administrators and implementers that are not familiar with the 50001 Ready program or resources
- Three sections + appendix
 - Section 1: What is an “energy management system”
 - Section 2 : What is the 50001 Ready program
 - Section 3 and appendix: 50001 Ready resources for program administrators and implementers

Section 1- What is an EnMS

- Overview of an EnMS and why it is important to a company
- Brief comparison of ISO 50001 and SEM

EnMS – What is it?

- An **Energy Management System (EnMS)** integrates active energy systems and

- Enables or achieves optimal energy efficiency
- Active management and implementation

- An **EnMS** is a performance improvement

- A commitment
- Technical, tracked, managed
- Includes energy consumption
- Resetting of

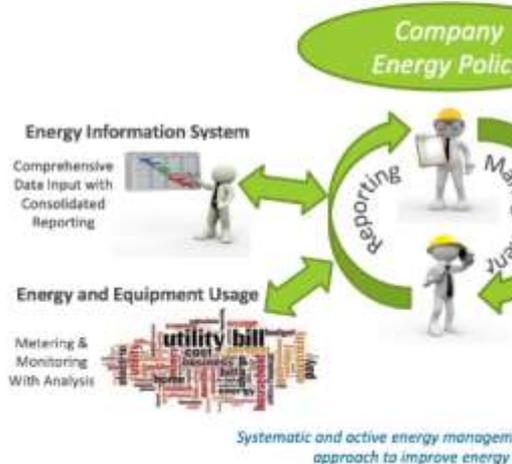
An ISO 50001

4

Energy Policy – How is it executed in a corporation?

Sr. Management mandates an internal policy for

- Procedures & practices for systematic planning, tracking, & reporting
- Engages & tracks all aspects of energy usage including equipment
- The continuous process is resourced, financed, and reviewed



7

ISO 50001 and SEM/CEI

- ISO 50001 and SEM/CEI minimum elements are complementary documents
 - CEE's SEM definition looks at the minimum (like building codes)
 - 50001 considers a holistic or comprehensive system
- Because 50001 looks at a holistic system, it requires additional "elements" that are not required by CEE:

• Legal Requirements	• Documentation
• Operational Controls	• Procurement
• Corrective Actions	• Internal audit
• Design	• Management Review
- Those "elements" that are required by both documents are complementary

Implementers and Utility programs are moving towards ensuring their programs are ISO 50001-compatible, whether or not they require all of the "elements"

10

Section 2- The 50001 Ready PProgram

- 50001 Ready Program goals and approach
- 50001 Ready Program process and tools

50001 Ready Program for utilities and implementers

The DOE Objective

The Objective

- Create readily adoptable, easy-to-use tools for utilities and implementers that provide customers a continuous energy performance improvement program. Provide self-attestation and recognition to utilities and implementers.

50001 Ready is

1. Open source software tools and resources that can be enhanced by implementers
2. Suite of resources to support utilities and implementers who want to work with customers to improve commercial and industrial facilities
3. Available to support 'enterprise-wide' energy performance adoption
4. Recognition for self-attesting to ISO 50001. There are no certification requirements for third parties

13

50001 Ready Process

Three Steps to Becoming 50001 Ready

**STEP 1
Self-declared Implementation**

50001 Navigator

- ✓ The Navigator walks a user through the process of developing an EnMS consistent with an ISO 50001
- ✓ Each step is checked off and validated

**STEP 2
Validation of energy and emissions**

DOE EnPI (Energy Performance Indicator)

- ✓ Run a regression-based calculator for energy savings. DOE makes the tool available to utilities and implementers.
- ✓ The User can utilize the DOE EnPI tool, a third party tool, or their own tools to validate energy savings.

**STEP 3
Submission of results to DOE**

Recognition Program

- ✓ Complete Navigator with > 0 results
- ✓ Complete EnPI with YES to all questions
- ✓ Submit to DOE signed attestation of completion of EnPI results

15

50001 Ready Summary of Tools

Build a System

The 50001 Ready Navigator
Free online step-by-step guide to help develop a robust EnMS consistent with ISO 50001.
The core tool of 50001 Ready for EnMS development, benchmarking, and assessment.

Additional Supporting Tools

- Plan Energy Footprint Tool**
Track energy consumption and determine significant energy end-uses
- Act & Check Automated Register of Implemented Actions**
Organize & track actions to implement an EnMS. Bottom up check
- M&V EnPI Lite**
Top down regression. Establishes baseline, energy performance indicators, tracks progress & savings
- M&V EnPI**
Added functionality for accounting for variables and more robust regression analysis

16

Section 3 + Appendix- PA and Implementer materials

- Overview of how utilities can use materials
- Details for materials developed to-date

50001 Ready Program for Utilities and Implementers

- The 50001 Ready program is designed to be used by program administrators and implementers in whatever way fits their goals

A Wide Spectrum of U

DIY
Offer 50001 Ready tools to customers as a program they can implement on their own

Train
Offer training customers on how to use 50001 Ready tools

23

Additional Tools for Program Administrators and Implementers

- To help utilities and implementers easily develop custom materials
- To give give utilities and implementers
- To help utilities and implementers make decisions when designing programs

25

Sample Design: Supplement with 50001 Ready

Utility Resources | SAMPLE DESIGN
For an existing Custom Program with 50001 Ready

Program administrators and implementers. For this tool, the design is intended to assist customers implement your existing Custom program.

Benefits:

- Assess potential of energy efficiency offerings with a Program based on 50001 Ready.
- Generate 50001 Ready materials resources to create custom for customers with 50001 Ready program opportunities and implementation tools.
- Provide individual and large commercial customers with tailored insights from 50001 Ready.

This sample design is based on 50001 Ready's award-winning 50001 Ready Designing an online guide to assist in creating an energy audit and is supported by a variety of free and low-cost 50001 Ready tools (50001 Ready).

In this design, customers are guided through 4 worksheets over a year. The worksheets:

- Track customer's use of 50001 Ready Designing.
- Provide Program's tool and data, and
- Assess the tools for each customer and work available to complete the tool.

In addition, offers are provided custom program resources to support the identification of energy efficiency projects.

Sample Design:

Worksheet	Timeline
1. Planning	1-3
2. Energy Review	3-12
3. Evaluation	12-18
4. Implementation	18-25

Use this as the right approach for your Custom Ready Start or ready go/ready drive goal.

100% Green Energy | 50001 Ready | Version 2.0

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

35

Feedback

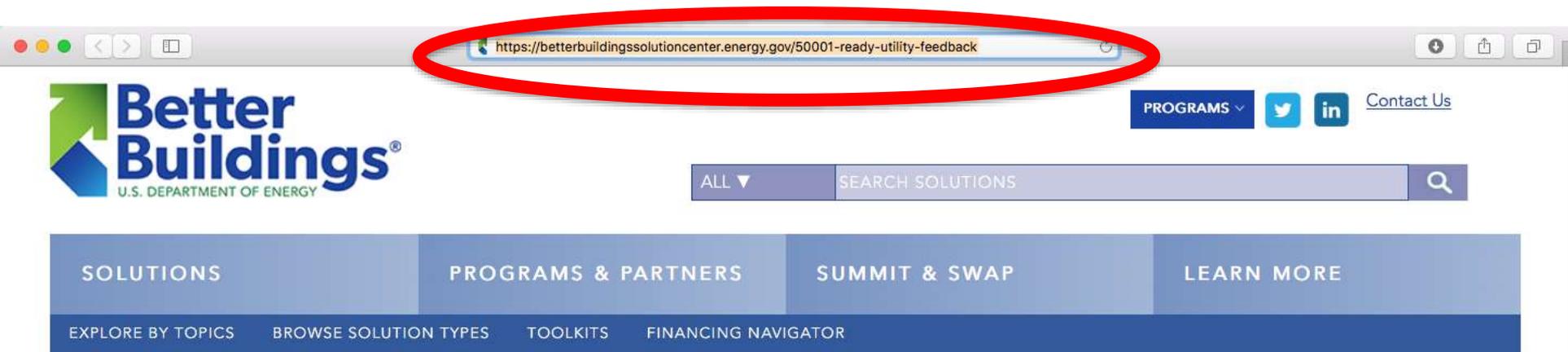
Questionnaire to gather feedback on:

- On the presentation
- On the value of a slide deck to help “sell” a program internally
- On additional resources that may be useful
- On the value of a slide deck to help “recruit” customers

- **THANK YOU to those who have already provided input! (12 to date)**
 - Feedback includes negatives, this is good!

Feedback form

https://betterbuildingsolutioncenter.energy.gov/50001-ready-utility-feedback



The screenshot shows a web browser window with the URL <https://betterbuildingsolutioncenter.energy.gov/50001-ready-utility-feedback> in the address bar, which is circled in red. The website header includes the Better Buildings logo (U.S. DEPARTMENT OF ENERGY), a search bar with the text "SEARCH SOLUTIONS", and navigation links for "PROGRAMS", "Contact Us", and social media icons for Twitter and LinkedIn. Below the header is a main navigation bar with four categories: "SOLUTIONS", "PROGRAMS & PARTNERS", "SUMMIT & SWAP", and "LEARN MORE". Under "SOLUTIONS", there are sub-links for "EXPLORE BY TOPICS", "BROWSE SOLUTION TYPES", "TOOLKITS", and "FINANCING NAVIGATOR".

50001 READY UTILITY FEEDBACK

Thank you for participating in the 50001 Ready Utility Network Series. We want to make sure we create materials that are helpful to program administrators and implementers and would appreciate your feedback.

To provide feedback, please review this [presentation](#) and then respond to the questions in this [short questionnaire](#).

Below is an overview of the presentation:

- 50001 Ready Program Goal: Increase utility program engagement with 50001 Ready and ultimately increase customer engagement with 50001 Ready
- Presentation purpose: Introduce utility and implementer staff to the 50001 Ready program, allow them to use the slides to introduce the program to others.

Questions?

- 50001 Ready Training
 - Feedback

Questions + What's Coming Up

Provide Feedback

- Review materials and provide feedback through the links at:
<https://betterbuildingssolutioncenter.energy.gov/50001-ready-utility-feedback>

Visit the 50001 Ready website at energy.gov/50001Ready

- Download sample utility partner profiles and program implementation guides
- Find links to the Navigator and EnPI Lite

Stay informed

- Contact sandy.glatt@ee.doe.gov to add others to this utility network distribution list
- Sign up at energy.gov/50001Ready for email updates about ISO 50001 and related DOE programs

Questions?