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

# Unveiling the Implementation Guide

October 11, 2011

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# Implementation Guide Overview

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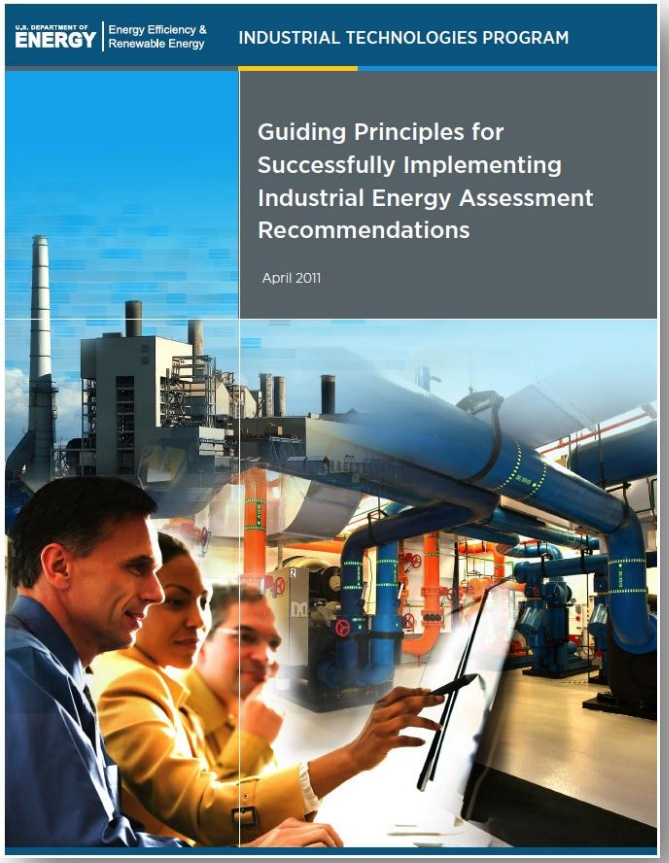
## *Guiding Principles for Successfully Implementing Industrial Energy Assessment Recommendations*

- New resource for industry
- Identifies key principles and actions that lead to successful implementation of energy assessment recommendations
- Connects readers with a variety of trusted resources
- Simple tools for supporting energy management programs and continuous energy performance improvement efforts
- Available in hard copy and on the web



# Guide Development



LEARNING FROM SUCCESS:
ASSESSMENT-TO-IMPLEMENTATION
BEST PRACTICES WORKSHOP

The *Guide's* 11 principles are a result of discussions at the *Learning from Success: Assessment-to-Implementation Best Practices Workshop*

- Held in Washington, DC on July 16, 2010
- Co-sponsored by ORNL and the American Public Power Association
- Representatives from 20 organizations with significant assessment and implementation experience, including:
  - Manufacturers from DOE's *Save Energy Now* LEADER Initiative
  - Assessors
  - Utilities
  - Program administrators

# Guidebook Contributors

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# DOE's Better Buildings/Better Plants

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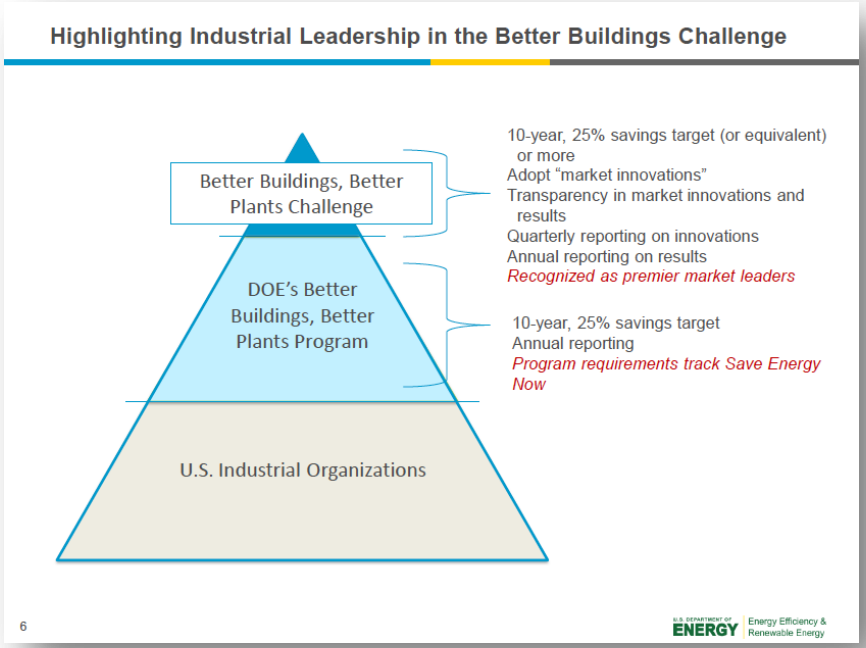
DOE's *Save Energy Now LEADERS* industrial partnership initiative has recently transitioned to ***Better Buildings/Better Plants***

- Improved integration across commercial buildings and industrial sectors
- Improved DOE recognition for participants meeting goals
- Over 100 companies are making the transition and new companies are joining
- Voluntary commitments similar to *Save Energy Now* LEADER initiative
  - 25% in 10 years
  - Annual reporting
  - Corporate commitment
- Challenge level
  - Corporate commitment
  - Market innovators
  - Share results to impact sector
  - Showcase projects



# Utilizing the Guidebook



## Value-Added Content:

- Clear, simple, and concise description of the key principles
- Not a how-to guidebook
- Based on actions that have achieved satisfactory implementation results in real applications
- Identifies actions for each stage of the assessment process

## Benefits:

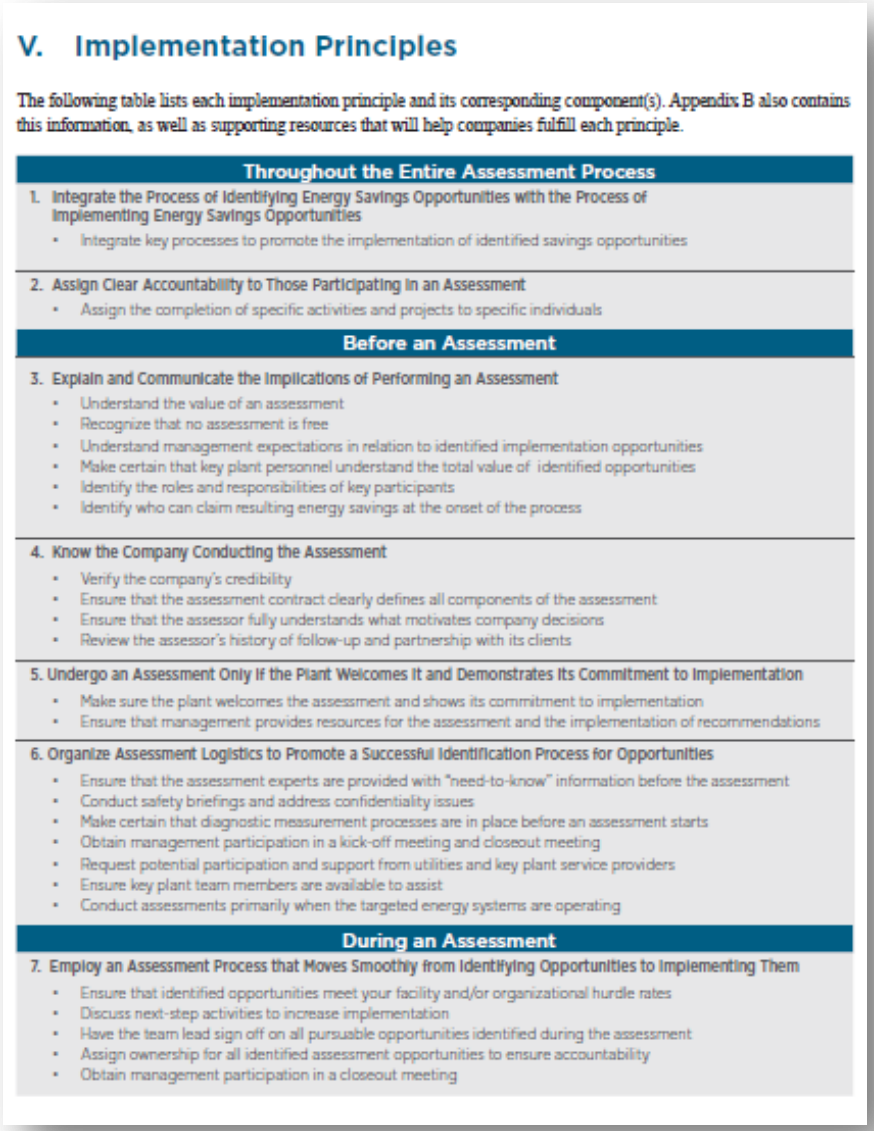
- Save energy and money
- Increase the bottom line
- Promote culture change to make energy efficiency a lasting priority in the plant

# Guidebook Contents

# Utilizing the Guidebook



- The Guidebook offers a quick, at-a-glance list of all principles at the start of the document
- Principles are listed based on when they occur during the assessment process:
  - Throughout the Entire Assessment Process (2)
  - Before an Assessment (4)
  - During an Assessment (1)
  - After an Assessment (4)



## V. Implementation Principles

The following table lists each implementation principle and its corresponding component(s). Appendix B also contains this information, as well as supporting resources that will help companies fulfill each principle.

**Throughout the Entire Assessment Process**

1. Integrate the Process of Identifying Energy Savings Opportunities with the Process of Implementing Energy Savings Opportunities
   - Integrate key processes to promote the implementation of identified savings opportunities
2. Assign Clear Accountability to Those Participating in an Assessment
   - Assign the completion of specific activities and projects to specific individuals

**Before an Assessment**

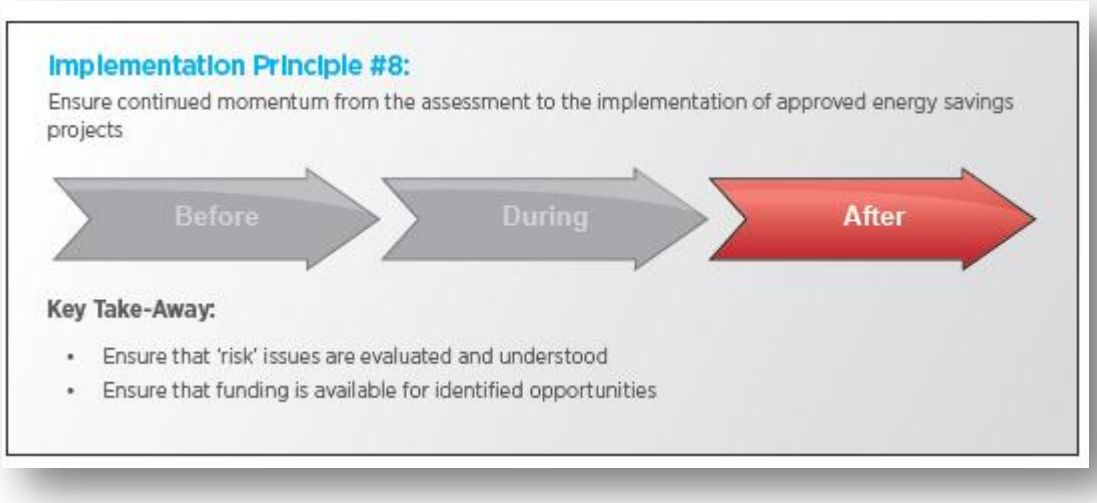
3. Explain and Communicate the Implications of Performing an Assessment
   - Understand the value of an assessment
   - Recognize that no assessment is free
   - Understand management expectations in relation to identified implementation opportunities
   - Make certain that key plant personnel understand the total value of identified opportunities
   - Identify the roles and responsibilities of key participants
   - Identify who can claim resulting energy savings at the onset of the process
4. Know the Company Conducting the Assessment
   - Verify the company's credibility
   - Ensure that the assessment contract clearly defines all components of the assessment
   - Ensure that the assessor fully understands what motivates company decisions
   - Review the assessor's history of follow-up and partnership with its clients
5. Undergo an Assessment Only If the Plant Welcomes It and Demonstrates Its Commitment to Implementation
   - Make sure the plant welcomes the assessment and shows its commitment to implementation
   - Ensure that management provides resources for the assessment and the implementation of recommendations
6. Organize Assessment Logistics to Promote a Successful Identification Process for Opportunities
   - Ensure that the assessment experts are provided with "need-to-know" information before the assessment
   - Conduct safety briefings and address confidentiality issues
   - Make certain that diagnostic measurement processes are in place before an assessment starts
   - Obtain management participation in a kick-off meeting and closeout meeting
   - Request potential participation and support from utilities and key plant service providers
   - Ensure key plant team members are available to assist
   - Conduct assessments primarily when the targeted energy systems are operating

**During an Assessment**

7. Employ an Assessment Process that Moves Smoothly from Identifying Opportunities to Implementing Them
   - Ensure that identified opportunities meet your facility and/or organizational hurdle rates
   - Discuss next-step activities to increase implementation
   - Have the team lead sign off on all pursuable opportunities identified during the assessment
   - Assign ownership for all identified assessment opportunities to ensure accountability
   - Obtain management participation in a closeout meeting

# Utilizing the Guidebook






- Section VI includes the following for each of the 11 principles:
  - A detailed description
  - A graphic indicating which phase of the assessment process the principle is applied
  - Key “take-aways”
  - Company highlights and quotes

# Principles: Throughout and Before an Assessment

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| | |
|---|---|
| *Throughout the Assessment Process* | 1. Integrate the process of identifying energy savings opportunities with the process of implementing energy savings opportunities |
| | 2. Assign clear accountability to those participating in an assessment |
| *Before an Assessment* | 3. Explain and communicate the implications of performing an assessment |
| | 4. Know the company conducting the assessment |
| | 5. Undergo an assessment only if the plant welcomes it and demonstrates its commitment to implementation |
| | 6. Organize assessment logistics to promote a successful identification process for opportunities |

# Principles: During and After an Assessment

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| | |
|---|---|
| *During an Assessment* | 7. Employ an assessment process that moves smoothly from identifying opportunities to implementing them |
| *After an Assessment* | 8. Ensure continued momentum from the assessment to the implementation of approved energy savings projects |
| | 9. Quantify energy savings benefits |
| | 10. Publicize successful implementation results and recognize employee contributions |
| | 11. Identify “lessons learned” to ensure future success |

# Guidebook: Additional Resources

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## VII. Appendix A: Plant Implementation Checklist

Name: _____

Position: _____

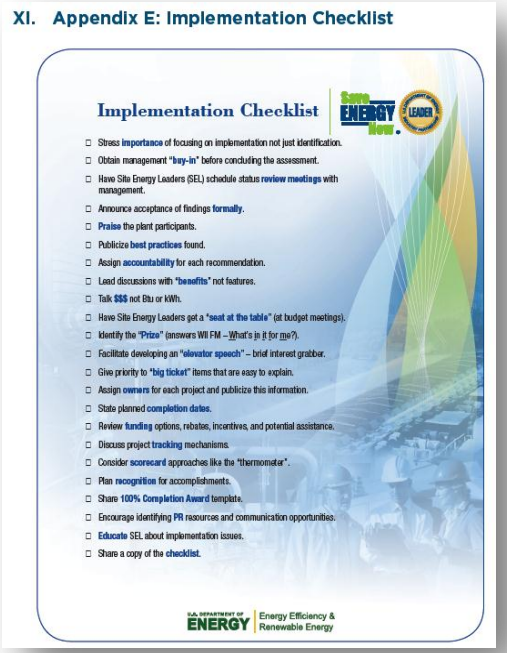
Location: _____

**Status Category:**
0 = No Evidence
1 = In Progress
2 = Fully Aligned
B = Best Practice
NA = Not Applicable

| | Implementation Principle | Person Responsible | Status |
|---|---|---|---|
| 1. | **Integrate the process of identifying energy savings opportunities with the process of implementing energy savings opportunities** | | |
| 2. | **Assign clear accountability to those participating in an assessment** | | |
| 3. | **Explain and communicate the implications of performing an assessment** | | |
| | 3.1 Understand the value of an assessment | | |
| | 3.2 Recognize that no assessment is free | | |
| | 3.3 Understand management expectations in relation to identified implementation opportunities | | |
| | 3.4 Make certain that key plant personnel understand the total value of identified opportunities | | |
| | 3.5 Identify the roles and responsibilities of key participants | | |
| | 3.6 Identify who can claim resulting energy savings at the onset of the process | | |
| 4. | **Know the company conducting the assessment** | | |
| | 4.1 Verify the company's credibility | | |
| | 4.2 Ensure that the assessment contract clearly defines all components of the assessment | | |
| | 4.3 Ensure that the assessor fully understands what motivates company decisions | | |
| | 4.4 Review the assessor's history of follow-up and partnership with its clients | | |
| 5. | **Undergo an assessment only if the plant welcomes it and demonstrates its commitment to implementation** | | |
| | 5.1 Make sure the plant welcomes the assessment and shows its commitment to implementation | | |
| | 5.2 Ensure that management provides resources for the assessment and the implementation of recommendations | | |
| 6. | **Organize assessment logistics to promote a successful identification process for opportunities** | | |
| | 6.1 Ensure that the assessment experts are provided with "need-to-know" information before the assessment | | |

## Implementation Checklists

- 11 Implementation Principles and Supporting Action Items
- Responsible Person
- Action Item Status



# Guidebook: Additional Resources



## IX. Appendix C: Plant Personnel Roles and Expectations

### Overview of Assessment Process Logistics

#### Standard Roles and Expectations

Implementation is a team effort—no one person at a plant should take on implementation by himself or herself. As such, following are typical roles and responsibilities for each team member throughout the implementation process.

**Senior Management:** A company's senior management must be involved at all stages of implementation. This demonstrates a top-down approach to energy management, sending the message to plant employees that management supports implementation. Senior management must demonstrate the following:

- Agree to allow the plant to participate in the assessment
- Dedicate staff to the assessment process
- Set aside budget and allocate resources for implementation—set hurdle rates for the project
- Share expectations regarding post-assessment activities, such as achieving measurable results
- Participate in the assessment kick-off meeting to learn about the assessment's purpose, goals, and process
- Participate in the closeout meeting to hear first-hand about the assessment results and key lessons learned from the process
- Receive ongoing updates from either the plant energy manager or project lead to gauge progress of projects
- Recognize both individual and group achievements relating to implementation progress and attained results.

**Project Lead/Energy Manager:** This individual will lead implementation efforts. As such, the lead is ultimately responsible for assigning accountability to the implementation team, in addition to ensuring that the implementation process runs smoothly from start to finish. This includes activities, such as the following:

- Make sure all principles listed in this guidebook are applied throughout the assessment process
- Achieve corporate buy-in
- Ensure all parties involved understand their roles and carry out their responsibilities
- Coordinate staff involvement with supervisors
- Participate in kick-off and closeout meetings
- Ensure the team understands and works to fulfill senior management's expectations related to implementation
- Verify the credibility of the assessment company prior to participating in the assessment
- Work with the assessor to ensure that there are no surprises during the assessment
- Share "need-to-know" information with the assessor
- Assign staff to implementation projects or activities
- Ensure measurement and verification efforts are performed throughout the assessment and implementation process
- Sign off on all pursuable opportunities
- Track project status and keep management informed of progress.

## Personnel Roles and Expectations

- Senior Management
- Project Lead/Energy Manager
- Communications
- Financial Staff
- Procurement Staff
- Operators and Engineers

# Guidebook: Additional Resources

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## XIII. Appendix G: Project Scorecard

**ASSESSMENT PROJECT IMPLEMENTATION SCORECARD**

GRACE PERIOD (DAYS): 10

| Project Description | Subtask | Project Manager | STATUS | | | |
|---|---|---|---|---|---|---|
| | | | Initial Assesment Due/Completed | Project Submitted Due/Completed | Project Implemented Due/Completed | Project Follow-Up and Verification Due/Completed |
| Steam System Repair | | John Smith | 9/1/2009 | 10/1/2009 | 12/31/2009 | 1/31/2009 |
| | | | 9/12/2009 | 10/3/2009 | 10/4/2009 | 10/5/2009 |
| | | | 10/5/2009 | 10/3/2009 | 10/4/2009 | 10/5/2009 |
| | | | 10/10/2009 | 10/14/2009 | 10/12/2009 | 10/13/2009 |
| | | | 10/10/2009 | | | |
| | | | 10/10/2009 | 10/11/2009 | 10/12/2009 | 10/13/2009 |
| | | | | | | |
| | | | 10/10/2009 | 10/11/2009 | 10/12/2009 | 10/13/2009 |

Save ENERGY Now LEADER

ON TIME
GRACE PERIOD
LATE

### Project Scorecard

- Project Description
- Project Manager/Lead
- Status/Dates
  - Initial Assessment
  - Project Submitted
  - Implementation
  - Follow-Up/M&V

# Guidebook: Additional Resources

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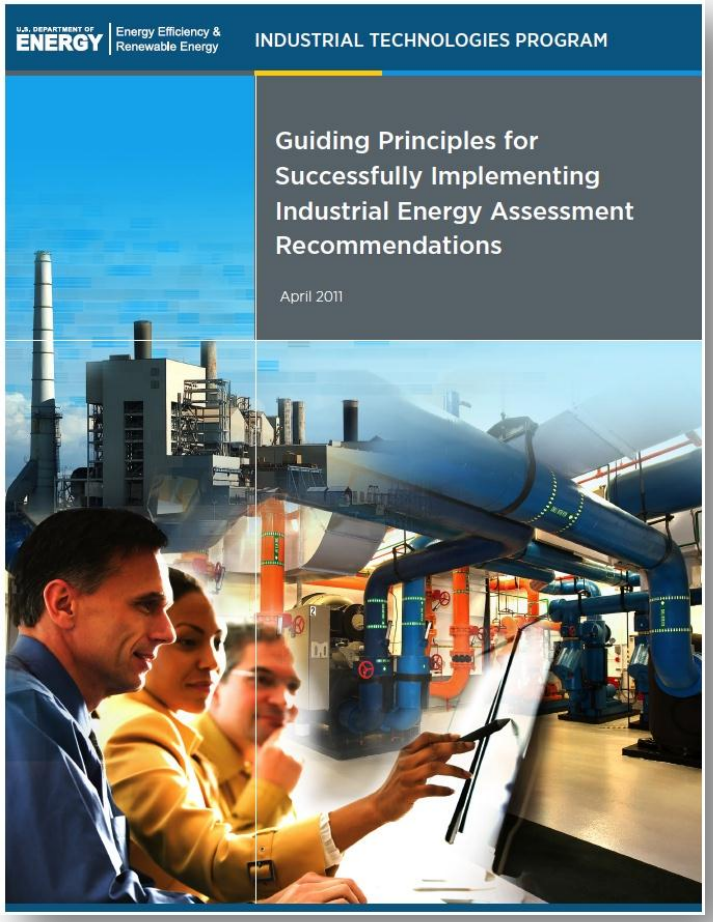
## XVI. Appendix J: Prize Tool

| The "PRIZE" | | |
|---|---|---|
| To get senior management's attention, you should identify the "PRIZE." | | |
| • This will answer the question "What's in it for Me?" (WII-FM: management's favorite radio station) | | |
| • The following describes a method to identify the "PRIZE." Use the space in the appropriate box to plug-in the values for your company and calculate your "PRIZE." | | |
| **STEPS** | **EXAMPLE** | **WORK SPACE** |
| 1. Determine the company's **annual energy expense** | Assume energy expenses total $100,000,000 per year | $ |
| 2. Set a long-term energy expense reduction goal | 3% per year usage reduction for 5 years means usage will be 15% lower in Year 5 than if there was no program | % |
| 3. Multiply the annual expense by the cumulative goal to get the **$ savings** in the last year | $100,000,000 * 15% = $15,000,000 | $ |
| 4. Determine the company's **annual revenue** or sales $ | Assume $5,000,000,000 | $ |
| 5. Determine the company's **net profit** | Assume $250,000,000 | $ |
| 6. Determine the company's **margin** on sales $ by dividing the profit (Step 5) by the revenue (Step 4) | $250,000,000 / $5,000,000,000 = 5% | $ |
| 7. Divide the savings (Step 3) by the margin (Step 6) to identify **equivalent sales $** required to provide the same impact on the "bottom line" | $15,000,000 / 5% = $300,000,000 | $ |
| **OPTIONAL (Equivalent Units of Sale)** | | |
| 8. Determine price per unit | Assume price is $50,000 | $ |
| 9. Divide equivalent sales $ (Step 7) by unit price (Step 8) to identify **equivalent unit sales** | $300,000,000 / $50,000 = $6,000 | $ |

## Prize Tool

- Answers WII-FM?
- Translation tool for management
- Estimates revenue- or unit sales equivalent of cost savings from energy projects

# Accessing the Guide




- The guide is available for download from ITP's Publication and Product Library at:

  http://www.eere.energy.gov/industry/pdfs/implementation_guidebook.pdf

Raytheon

*Customer Success Is Our Mission*

# Implementing Energy Assessments

Steve Fugarazzo
Director Enterprise Energy Team

October 11, 2011

Raytheon Sustainability

# Presentation Overview

- Raytheon: Who we are
- Tips for implementing energy assessments
  - Be in Demand
  - Getting Leadership involved
  - Contract for Support & Completion
  - Where to implement energy assessments
  - Implementing assessment findings
    - HOLDING PEOPLE ACCOUNTABLE
    - MAKE IT ‘THEIR’ IDEA

Holding People Accountable

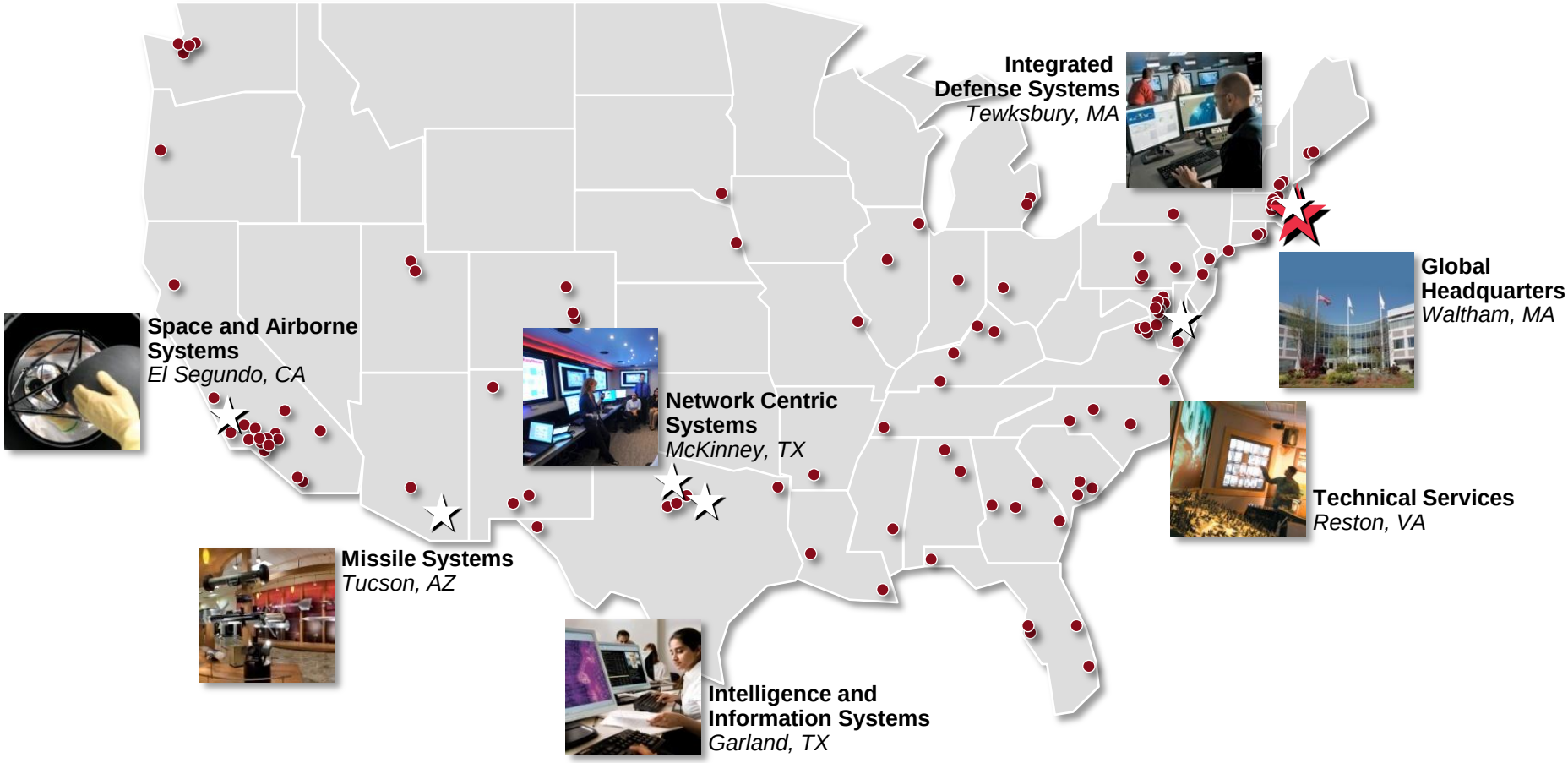
# Raytheon: Who We Are and What We Do

***Raytheon is a global technology company that provides innovative solutions to customers in 80 nations.***

Through strategic vision, disciplined management and world-class talent, Raytheon is delivering operational advantages for customers every day while helping them prepare for the missions of tomorrow.

**Raytheon supports approximately 14,000 contracts**

# Raytheon Business Headquarters




**72,000 employees worldwide, $25 billion revenue in 2010**

# Be in Demand

- Assessments at the pull of internal ‘customers’
  - Need to advertise strength of Team
  - What’s in it for the recipient
- Enterprise Energy Team of ME, EE and Energy Engineers
- Deployable to any facility

# Leadership Involvement

- Engage the LeadershipTeam (LT)
  - Have them understand WIIFM
  - Have them committed to the process
- Partner with Facilities & Production Management
- Assign pre-assessment actions to individuals

Commit to the Process

# Contract for Support

- Initiate a ‘Contract for Support’ prior to arriving on site
- Conduct energy assessments

  -Teaching the participants what to look for
- Assign action items to an individual and a manager
- Conduct a close out meeting with all involved
- Follow-up and serve as advisors during implementation

Commit to Closing ALL items

# In Summary

- Digest the DOE ITP ‘Guiding Principles for Successfully Implementing Industrial Energy Assessment Recommendations”
- Leadership involved & Commitment
- Contract for Support & Completion
- Implementing assessment findings
  - HOLDING PEOPLE ACCOUNTABLE
  - MAKE IT ‘THEIR’ IDEA

Holding People Accountable

# THANK YOU
# Any Questions????

# Contract For Change

CONTRACT FOR CHANGE: ENERGY ASSESSMENT

I, (name), shall work and complete all of the issues assigned to me per the energy assessment dated _____ specifically items numbered _____ .
I will submit a progress report to my manager and a monthly summary to the Assessment Team.
I will immediately notify my manager and the Assessment Team if there are any setbacks to hold this commitment.

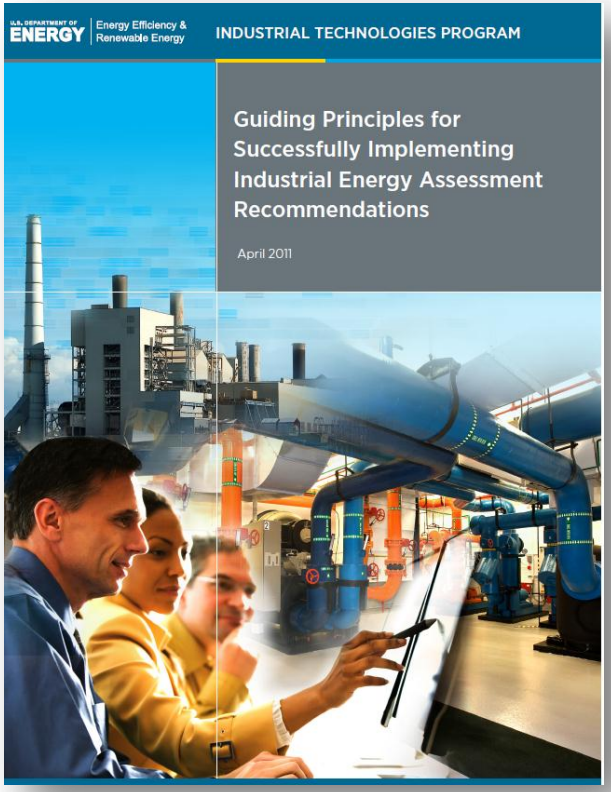
_____ _____

Date Signature

_____ _____

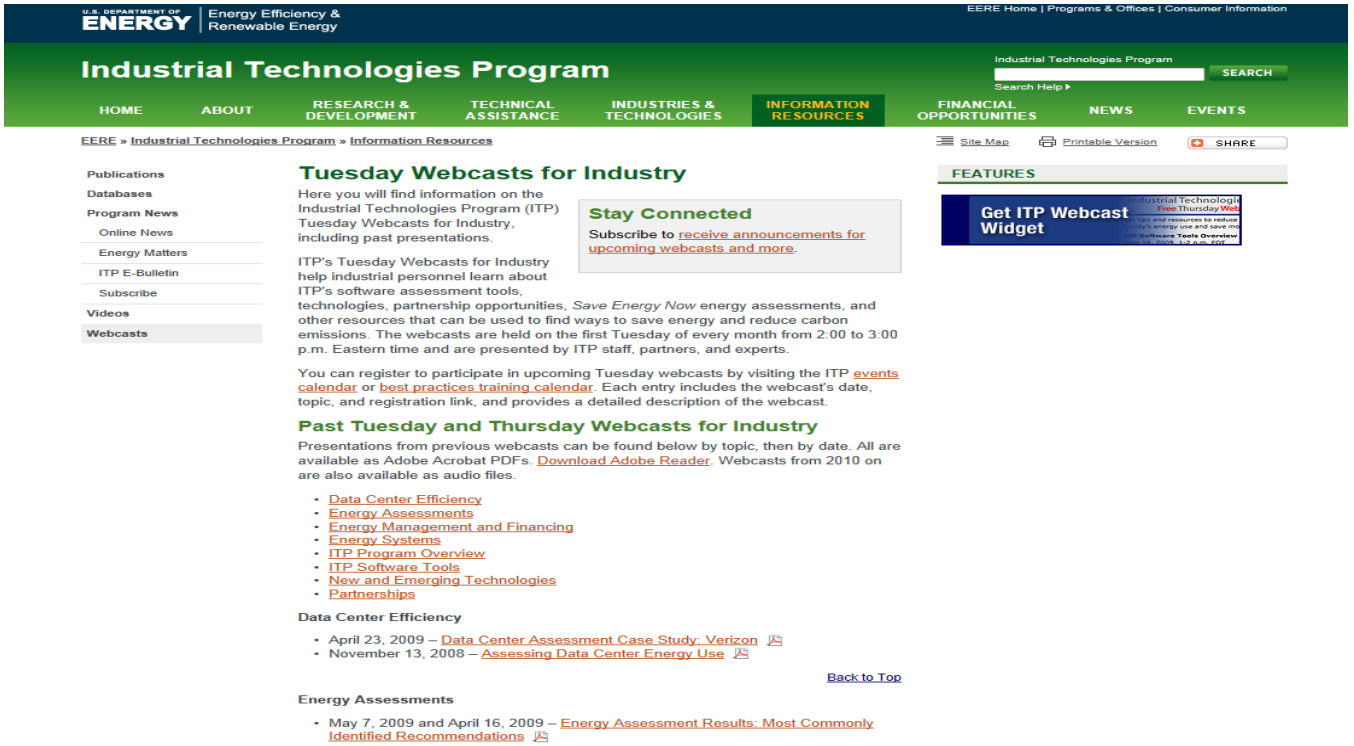
Date Manager's Signature

# Download the Implementation Guide




To access a copy of *Guiding Principles for Successfully Implementing Industrial Energy Assessment Recommendations* **TODAY**, go to:
http://www1.eere.energy.gov/industry/pdfs/implementation_guidebook.pdf

# Slides from Previous Webcasts




To access the slides from this and previous Webcasts, please visit:
http://www1.eere.energy.gov/industry/resources/tuesday_webcasts.html

# Next Month's Webcast

**Please join us for our next Webcast.**

**Topic:** Making Energy Efficiency a Part of Corporate Culture

**Presenters:** Mike Clemmer and Ken Roden of Nissan North America

**Date and Time:** Tuesday, November 8 at 11:00 a.m. PDT/2:00 p.m. EDT

**To Register**:

https://www1.gotomeeting.com/register/393745809