

Energy Treasure Hunts



April 8, 2025

SPONSORED BY



Wisconsin Public Service

Housekeeping

- All attendees should be admitted with microphones muted
- Please ask questions in the Q & A
- Please complete the evaluation at the end of the session
- This webinar will be recorded



Thank you to our sponsors



Wisconsin Public Service



ENERGY TREASURE HUNTS

Jerry Eaton

Richard Feustel

WHAT IS AN ENERGY TREASURE HUNT?

- An effective tool (process) for finding no and low-cost energy savings opportunities throughout your organization.
 - Typically, a one-to-three-day event utilizing company employees.
 - Hunting and identifying energy reduction opportunities takes place during both business and non-business hours.
- Hundreds of organizations have used Energy Treasure Hunts to reduce their facilities' energy use by up to 15 percent.
- Are you and your crew ready to find the treasure buried within your facilities?



Employees implement the Treasure Hunt process!

ANOTHER ENERGY AUDIT... *NOPE*

- An Energy Treasure Hunt differs from an energy audit and an energy assessment, both common practices in energy management.
 - **Energy Audits** take an in-depth look at an entire facility, focusing on major equipment modifications that usually requires capital dollars for implementation.
 - **Energy Assessments** focuses on a specific energy-using system (new chiller plant) in the facility requiring capital dollars for improvements.
 - **Treasure Hunt** focuses on improvements that often can be made immediately and with little to no cost utilizing teams of employees to identify these energy reduction opportunities.

COMPELLING BENEFITS

- Employee involvement and improving team skills
- Develops employees' energy knowledge
- Motivates employees to pursue energy innovations.
- Creates focus on low-cost operational improvements
- Establishes “energy culture” of continuous improvements
- Reduces overall energy use and cost
- Sparks employee ownership

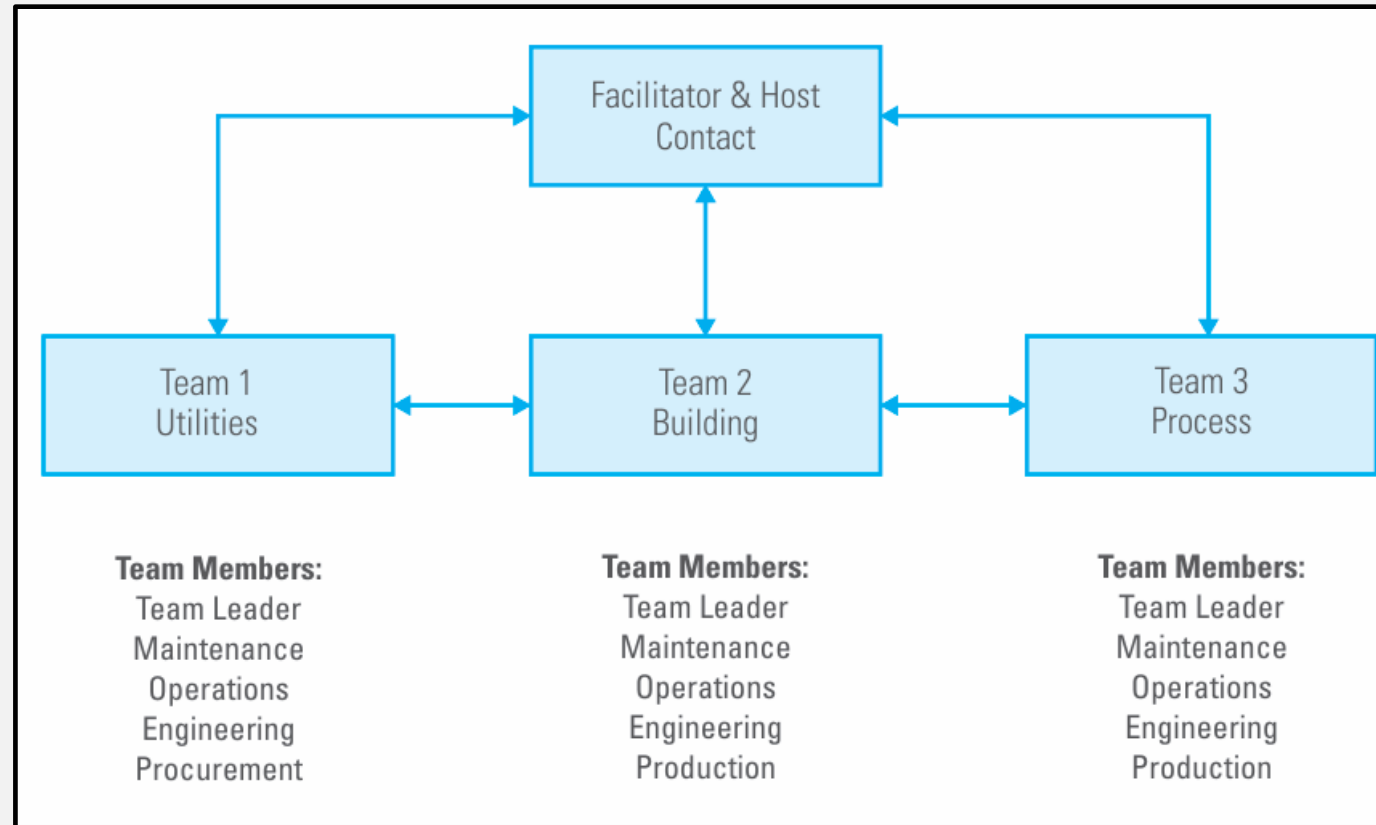


ENERGY TREASURE HUNT

4-PHASE APPROACH

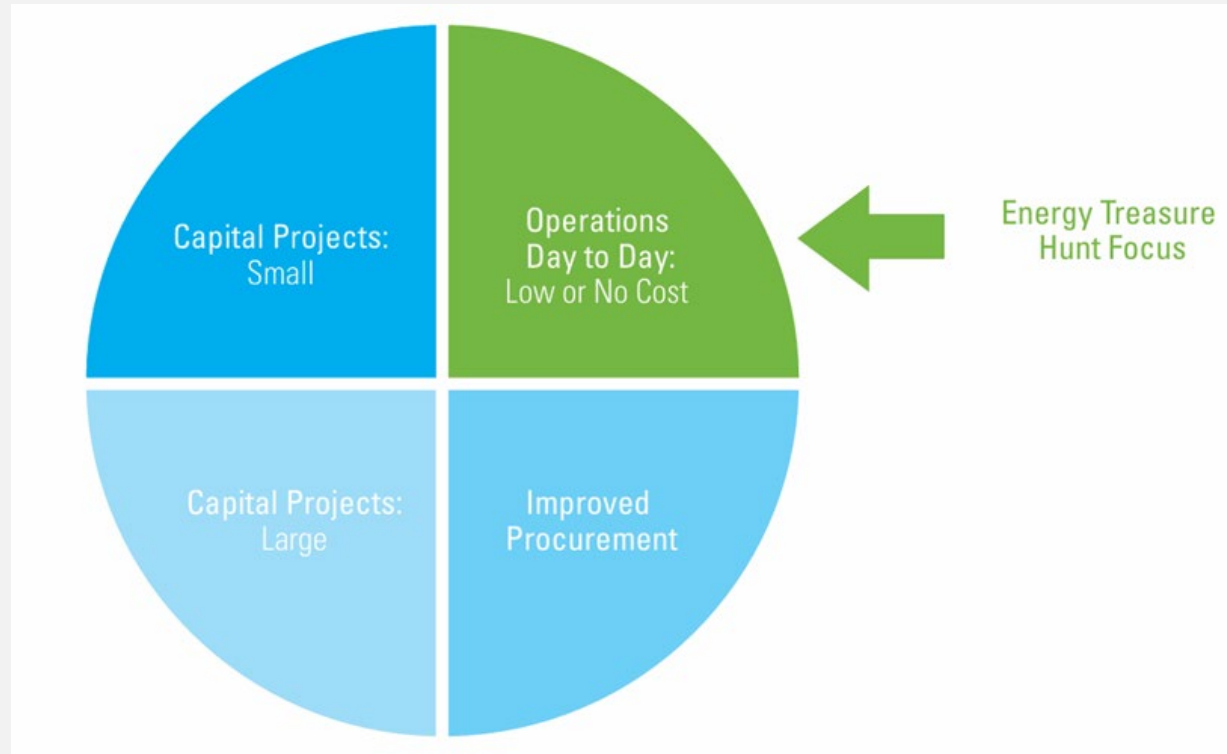
1. **Preparation:** Schedule discussions with your organizations or facility's leadership to obtain their support. Gather data on current energy usage and costs, equipment specifications, and operating parameters. Begin this phase at least six weeks before the planned onsite event. Identify team members and if outside experts are needed (vendors, utility reps, incentive program personnel, etc.)
2. **Pre-Training:** Meet with facility team leaders to confirm roles and responsibilities and Energy Treasure Hunt agenda. Pre-training should begin at least one week before the onsite event.
3. **Three-day Onsite Event:** Teams identify and quantify energy-saving opportunities at an onsite three-day event. Summarize and present the results for management review.
4. **Follow-up:** Develop a schedule for pursuing the energy reduction opportunities identified during the Energy Treasure Hunt. This should be completed one to four weeks after the onsite event

EXAMPLE OF TH TEAMS



Assemble your teams
(includes training)

TREASURE HUNT - FOCUS



Optimization and Reduction: Improving the operation and efficiency of existing equipment before considering equipment replacement. This is not only cost effective but also prompts employees to consistently think of the most efficient management practices.

TREASURE HUNT PROCESS



TREASURE HUNTS

- Executing small but powerful changes to reduce cost and transform employee culture to enable continuous improvements in energy efficiency.
- Cross-functional employee teams scout for energy saving opportunities within their facilities.
- The initiative can save the company thousands in energy related operational costs.
- More importantly it teaches employees how to look at their processes differently and start asking questions about energy.
- It can spark the cultural change needed to sustain energy efficiency initiatives. (safety program)

TREASURE HUNT - SAVES ENERGY & MONEY

- GE's treasure hunt team went on a 3-day search for wasted energy at a healthcare plant and identified \$3 million in savings.
- Toyota – Millions (*The inventor/1st initiator of Treasure Hunts and Kaizens*)
- Briggs & Stratton's first-ever one-day Kaizen Hunt identified \$62,000 in savings.
- Intertape Polymer Group – \$450,000
- Oshkosh Corporation's first-ever one-day Treasure Hunt – \$40,600 in savings

LENGTH OF TREASURE HUNT

- While a 3-day treasure hunt is ideal, 2-day is good and 1-day works, the INTERACTION with the employees is the key.
- Ideally, Utilize a Non-Operational Day
 - While this does not offer much interaction, it provides a unique perspective of the company's "operations."
 - If unable to do this, collect this non-operational day data, pictures, data logging, personal experiences that can attest to "non-operational day opportunities."
- Utilize an Operational Day
 - Require interaction with attendees and "working" people
 - While you may only have 20 attending, this interaction will multiply your training efforts.

THE PARTICIPANTS

Invite employees (participates) from a variety of work areas. This will provide the interaction needed during the hunt and the sustaining support after the hunt.

This cross-functional team may include:

- Building management
- Facilities engineering
- Energy management
- Maintenance
- Operations
- Process owners (*those who know what work is done – how each space is really used*)
- Administrative assistants/office secretaries
- Plant personnel from a variety of production departments



EMPLOYEE INTERACTION

Both attending employees and observing employees...

This interaction should be through:

- Educating attendees of the saving opportunities (classroom)
 - What to look for? How much to be saved? How will changes occur?
- Attendees meets with plant management, so attendees understand there is senior level support / buy-in for their treasure hunts efforts both at kickoff and for the “out-brief”
- Getting attendees out of their normal element (when possible)
 - Office employees should be in the groups on the plant floor
 - Plant floor employees hunting in a different area of the plant
 - Involve outsiders: Other plants, companies, similar business-type companies, utility reps, etc.

TESTIMONIAL

“I think the more intrinsic benefit of a Treasure Hunt is...

We had the opportunity to go out in the shop with people. We had to teach people who were unfamiliar with their business. We got to learn about how to ask questions about energy and that starts a culture change. That's a powerful thing.”

- Quote from a **GE employee** participating in a Treasure Hunt

HOW HUNTERS INTERACT

- Educating Attendees:
 - This should be what the Treasure Hunt leaders provide
- Educating Observers:
 - This should be what the attendees provide. Encourage attendees to ask “workers” questions as well as inform workers/observers what they are doing and why. Include detail when possible; such as how much they can save at the observer’s workstation.
- Demonstrated buy-in for participation and the Energy Treasure Hunt process – sets the stage for the positive results that will emerge from the event.

INTERACTION OUT OF YOUR ELEMENT

- Do not be afraid to ask: WHY?
- You do not work in that area and are not expected to know. So ask! Your curiosity may be the beginning of a huge savings opportunity.
- People from the same company - different plant, provide loyalty with experience... How things are done at their site. (*Same management*)
- People from similar business-types provide a different way of tackling the same task. (*Management is different.*)
- Visitors provide a specialized curiosity.

On average, a 4-year-old child asks 437 questions a day.



SAMPLE 3-DAY AGENDA

Sunday			Leader	Support
Time	Agenda Items	Comments / Expected Benefits		
2:00 PM to 4:00 PM	Team Performs Treasure Hunting	Find opportunity ideas during non operation	Host	FAC
Monday			Leader	Support
Time	Agenda Items	Comments / Expected Benefits		
7:00 AM	Meet in Conference Room and Welcome Statements		Host/FAC	ALL
7:05 AM	Personal Introductions and Meeting Schedule		Facilitator	ALL
7:30 AM	Treasure Hunt Presentation	Background and purpose	Facilitator	ALL
8:15 AM	Identify teams, Hand outs, Discuss Detail Sheets, Websites, Memory Stick Review, Past Kaizen Examples	Background and purpose	Facilitator	ALL
9:15 AM	Review current Energy Opportunities and Brainstorm	Provide opportunity ideas	Host/Fac	ALL
9:30 AM	Split into Teams for Go and See	Identify good ideas in each area	Team Leader	ALL
12:00 PM	LUNCH (Cafeteria)		Host	ALL
12:45 PM	Split into Teams for Go and See	Combine ideas into a list of potential opportunities	Team Leader	ALL
4:00 PM	Teams Summarize Questions & Opportunities, Group Review	Select Items for further investigation and develop detail sheets	Facilitator/TL	ALL
4:30 PM	ADJOURN			
Tuesday				
Time	Agenda Items	Comments / Expected Benefits		
7:00 AM	Meet in Conference Room		ALL	ALL
7:10 AM	Host Management Comments		Host	ALL
7:30 AM	Team Performs Treasure Hunting During Production/Lunch/Breaks	Find opportunity ideas during operation	Team Leader	ALL
12:00 PM	LUNCH (Cafeteria)		Host	ALL
12:45 PM	Teams Re-visit Assigned Areas and Work on Detail Sheets	Develop opportunity list and possible savings	Team Leader	ALL
3:30 PM	Reconvene in Conference Room Summarize all Findings	Generate list of potential opportunities, select items for further investigation and develop detail sheets, identify top 3	Team Leader	ALL
4:00 PM	Teams Present Opportunity Summary with Top 3, Group Review	Improve understanding-Provide top 3 picture and detail sheet	Facilitator/TL	ALL
4:30 PM	ADJOURN			
Wednesday				
Time	Agenda Items	Comments / Expected Benefits		
7:00 AM	Meet in Conference Room		ALL	ALL
7:10 AM	Summarize Findings for Entire Trip	Generate list of opportunities to be presented	Team Leader	ALL
11:00 AM	Teams Present Opportunity Summary with Top 3, Group Review	Improve understanding-Provide top 3 picture and detail sheet	Facilitator/TL	ALL
12:00 PM	LUNCH (Cafeteria)		Host	ALL
12:45 AM	Summarize Findings for Entire Trip	Final document for presentations	Team Leader	ALL
1:15 AM	Provide to Facilitator all Completed Detail Sheets	Final document for presentations	Team Leader	ALL
3:00 PM	Teams Present summary to Mgrs and Upper Management	Provide a List of energy opportunities to Evaluate	Facilitator/TL	ALL
4:00 PM	Closing Feedback Discussion	Comments and opportunities to improve	Facilitator	ALL
4:30 PM	ADJOURN			

TEAM 2 – TASKS FOR TODAY

Team Member	Work Area
Mike	Get oven data
Sue	Discuss oven operation with supervisor/operator
Tracy	Count number of fluorescent light fixtures
Hao	Get picture of machine nameplates

Example



FINISHING THE HUNT



LAST DAY – PUTTING IT ALL TOGETHER

- Last Minute Analysis & Calculations
- Finalize Opportunities List – highlighting the top 3
- Finalize Top 3
- Practice Presentations
- Present to Management/Groups
- Wrap-up



POST TREASURE HUNT

- **Act / Prioritize**

- Which ones can be implemented right away (completed/scheduled)
- Determine which projects need a second look, additional research, and/or capital dollars for implementation.

- **Communicate Results**

- Continue momentum and interest by sharing the results from project implementations.

- **Repeat**

- The Treasure Hunt should not be a one-off endeavor! (Continuous Improvement)
- Are there areas/processes that weren't covered or looked at.?
- Are there other employees that we can involve/engage?

TREASURE FOUND - MIST COLLECTION

- Treasure Hunt Team found a mist collection system running on Sunday. Why, there was NO Production?
- **Action:** New shutdown procedures were implemented to ensure mist collection system only operated during production hours.
 - Energy Savings: 337,445 kWh/yr
 - Cost Savings: \$30,370/yr
 - Payback: Immediate



TREASURE HUNTS AS A BEST PRACTICE



Treasure Hunts strike a positive, optimistic tone, by focusing on bringing new perspectives to a facility and identifying quick fixes with a short payback period.

***ITS TIME TO GO ON YOUR
ENERGY TREASURE HUNT?***



A VIABLE TOOL FOR YOUR BUSINESS?

JERRY EATON
JERRYEATON1@OUTLOOK.COM

RICHARD FEUSTEL
RICHARDFEUSTEL@GMAIL.COM

Question & Answer Time





**Complete the
evaluation!**



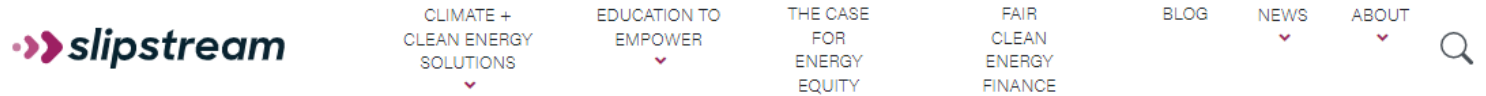
You can scan this code,
otherwise the evaluation will
launch in your browser when
the webinar closes.

Improve your building's performance

Check out Maximize Your Facility for videos on fine-tuning your systems.

Browse courses:

<https://slipstreaminc.org/maximize-your-facility>



Maximize Your Facility

Looking to improve your building's performance?

Our videos are designed to help you learn proactive solutions to get the most out of your equipment and fine-tune your systems. If you are a building owner, operator, facility manager, maintenance professional, or just want to learn more about energy efficiency and reduce energy expenditures, you've come to the right place. We're glad you're here!

Do you want to:

- identify hands-on preventive maintenance strategies for your facility?
- discover how to reduce energy consumption by running your systems at peak efficiency?
- save energy and improve equipment life, as well as improve occupant comfort?
- save money and lower utility costs?

If you are nodding your head, then check out our videos for a variety of short tutorials and case studies of best practices in action.

Featured Case Study: Meister Cheese

How has sustainability become a key part of Meister's business model? Learn how they achieve their goals through processes like generating electricity from their wastewater.





Learn More

slipstreaminc.org/education