

ENERGY STAR Commercial Food Service Webinar Series

Discovering Energy and Cost Savings with ENERGY STAR Treasure Hunts



Tuesday, March 23, 2021

Introduction to Monthly CFS Webinar Series

Webinars are an opportunity for Partners/Stakeholders:

- To hear news on the latest CFS events, activities, and initiatives at ENERGY STAR
- To learn about program engagement resources and tips
- To engage with ENERGY STAR and each other on industry topics and energy-savings
- To provide feedback on any information gaps and inform the development of new resources





Near-Term ENERGY STAR CFS Activities

- Earth Day – April 22, 2021
- Spring newsletter – April 2021
- CFS equipment calculator updates – coming soon!
- CFS utility midstream program resources – coming soon!
- Active specification revisions:
 - Commercial Refrigerators and Freezers v5.0
 - Commercial Ovens v3.0
 - Commercial Electric Cooktops v1.0
- Webinar Series
 - Next webinar Tuesday, April 13 at 1 PM EST

Stakeholder Breakdown

- Registrations for today's webinar include:
 - 26 EEPS/Utilities
 - 21 Product Brand Owners
 - 14 Implementers
 - 13 Other
 - 2 Dealers/Distributors
 - 2 Associations





Polling Question #1

- Has your organization ever conducted an Energy Treasure Hunt?
 - Yes
 - No



Polling Question #2

- Are you familiar with the ENERGY STAR Commercial & Industrial program?
 - Yes
 - No



Energy Treasure Hunt Resources from ENERGY STAR

Walt Tunnessen, ENERGY STAR Industrial
Jerry Lawson, ENERGY STAR Small Business





Agenda

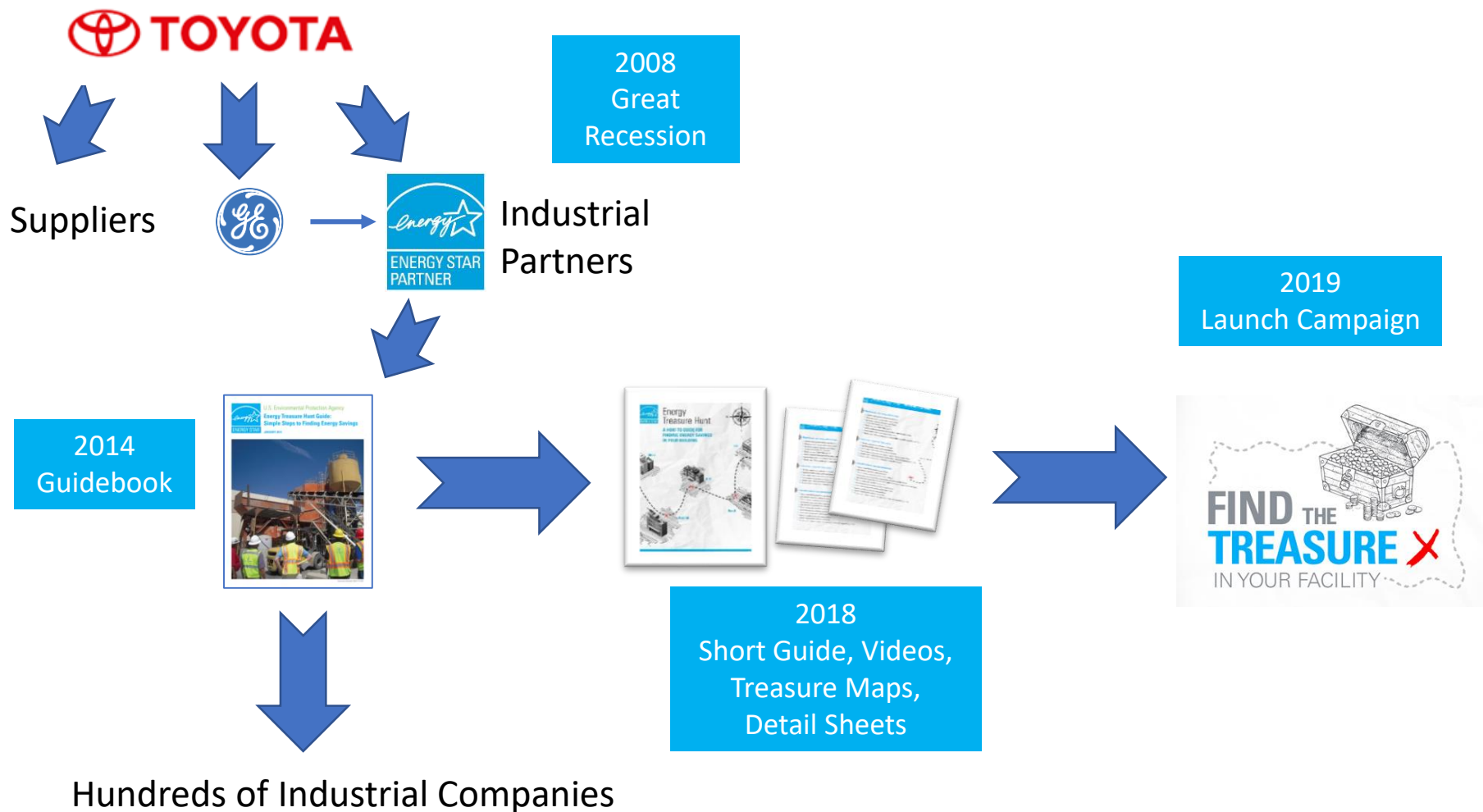
- ▶ Background on Energy Treasure Hunts
- ▶ Treasure Hunt Resources from ENERGY STAR
- ▶ Treasure Hunt Tips for Small Businesses
- ▶ Find the Treasure Campaign
- ▶ Questions / Discussion

What's an Energy Treasure Hunt?

- Process for finding no and low-cost energy savings opportunities at facilities
- Involves facility staff who work with energy team & outside experts
- Engages senior management / financial decision makers to authorize action on projects
- Establishes an action plan for implementation

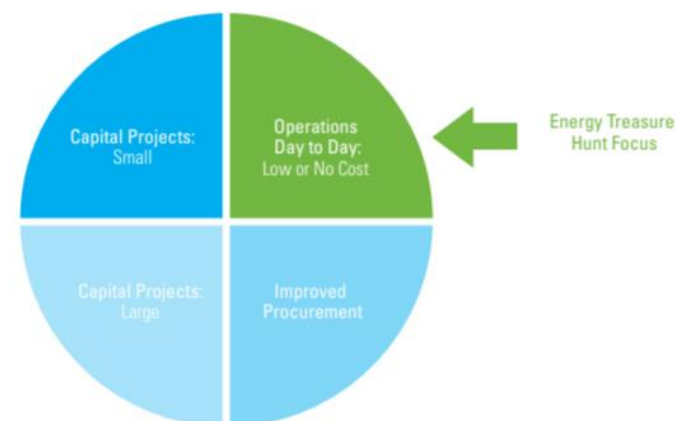


Background on Energy Treasure Hunts



Treasure Hunts vs Audits

- TH are less threatening to employees than audits or assessments
 - Focus on “opportunities,” not problems
 - Engage employees responsible for implementation
 - Help build energy teams
- TH generally look for operational & behavioral opportunities
 - Pick the low hanging fruit
 - Identify opportunities for further study (capital projects)
- TH get management approval to implement findings at the end of the event



TH can be expanded to address water, safety, and other issues.

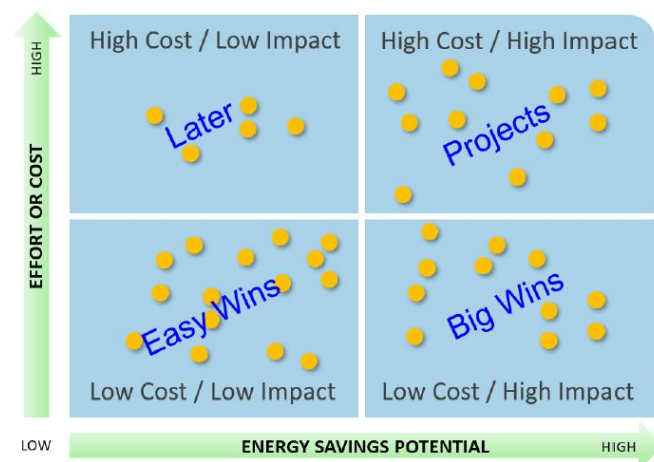
Energy Treasure Hunt Benefits

- ▶ Develops employees' energy knowledge
- ▶ Motivates employees to pursue energy innovation
- ▶ Creates focus on low-cost operational improvements where results can be seen quickly
- ▶ Establishes culture of continuous improvement and cross-functional collaboration
- ▶ Reduces energy use, cost, and GHG emissions
- ▶ Sparks employee ownership of energy-saving strategies
- ▶ Helps to identify areas where more in-depth study may be needed



Hunting for Treasure

- ▶ The “Treasure Hunt” is usually a 1 to 3-day event depending on the facility size & complexity.
- ▶ Starts during a *non-operating period* (weekends, morning, between shifts, etc.) and continues through an *operating period*.
- ▶ Involves teams walking the site, making observations, and asking questions such as:
 - Can it be shut off?
 - Can it be tuned up?
 - Can it be done more efficiently?
 - Can it be upgraded?
- ▶ Requires time to estimate savings (Btu/\$) and prepare findings & recommendations for management



Treasure Hunt Planning

► Phase 1: Preparation

- Select site
- Schedule event
- Identify team members
- Collect energy data and information on the site
- Gather resources & tools

► Phase 2: Pretraining

- Train team members on the process and tools

► Phase 3: Onsite Event

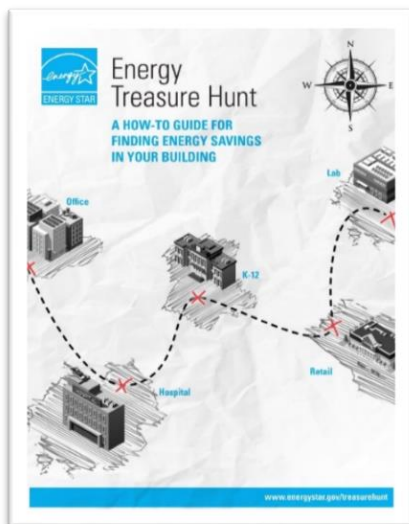
- Visit site and hunt for treasure
- Quantify and prioritize energy savings
- Present findings to management

► Phase 4: Follow-up

- Check with on-site team on implementation strategy
- Prioritize actions
- Monitor process and energy performance

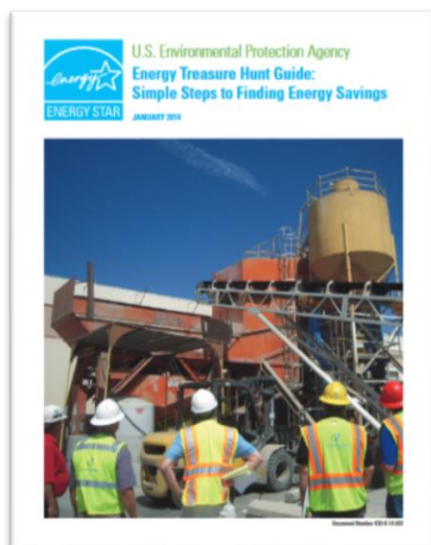


How to Guides



How to Guide For Commercial Buildings

- Short overview of the Treasure Hunt process
- 4 pages long
- Good to share with employees and managers who want more information but not a long read!



How to Guide For Industrial Plants

- Detailed discussion of the Treasure Hunt process
- 34 pages long
- Applicable to any type of facility.
- Share with those who need to know more about how treasure hunts are planned and implemented.

Small Business Action Workbooks



ENERGY STAR® Action Workbook for Small Business

Updated November 2019



ENERGY STAR® is a U.S. Environmental Protection Agency program helping organizations and individuals fight climate change through superior energy efficiency. Learn more at energystar.gov/buildings.



ENERGY STAR® Action Workbook for Convenience Stores

March 2020



NACS
Advancing Convenience & Fuel Retailing



ENERGY STAR® is a U.S. Environmental Protection Agency program helping organizations and individuals fight climate change through superior energy efficiency. Learn more at energystar.gov/buildings.

General **Small Business** Workbook

- “How to” for general small business energy efficiency savings
- 98 pages long
- Available in Spanish, formatted for printing, PDF is compliant with Americans with Disabilities Act

Trade Association “Co-branded” Workbooks and Treasure Maps

- Custom cover image(s)
- Inside open to open to association program information
- Full page letter on letterhead from CEO facing inside cover

Details Sheets


Energy Treasure Hunt Opportunity Summary			
Enter Name			
Enter Name			
Treasure Hunt Date:		Enter Date	
Total Identified Plant Savings			
<i>Combined savings from all projects as a share of total plant utility data.</i>			
Savings as % of Plant Source	0.00 %	Annual Cost Savings as % of Plant Utility Spend	0.00 %
Annual Site Energy Savings as % of Plant Site Energy	0.00 %	Annual Energy Cost Savings as % of Plant Energy Spend	0.00 %
Annual CO ₂ e Savings as % of Plant CO ₂ e	0.00 %	Energy Use Intensity Change	*Not normalized for weather or other variable
Total Identified Project Savings			
<i>Combined savings from all projects, with weighted average savings across all project areas.</i>			
Annual Source Energy Savings	0.00 MMBtu	Annual Cost Savings	0.00 \$
Percent Source Energy Savings	0.00 %	Implementation Costs	0.00 \$
Annual Site Energy Savings	0.00 MMBtu	Simple Payback (aggregate)	Years
Percent Site Energy Savings	0.00 %	Annual Energy Cost Savings	0.00 \$
Annual CO ₂ e Savings	0.00 MT CO ₂ e		
Percent CO ₂ e Savings	0.00 %		
Individual Identified Project Savings			
<i>Projected savings, comparing utility data before and after opportunity implementation.</i>			
Project 1	Opportunity Short Title		
Insert text describing the project area within the plant.			
Annual Source Energy Savings	0.00 MMBtu	Annual Cost Savings	0.00 \$
Percent Source Energy Savings	0.00 %	Implementation Costs	0.00 \$
Annual Site Energy Savings	0.00 MMBtu	Simple Payback	0.00 Years
Percent Site Energy Savings	0.00 %	Percent Cost Savings	#DIV/0! %
Annual CO ₂ e Savings	0.00 MT CO ₂ e	Project Cost Savings	
Percent CO ₂ e Savings	0.00 %	as % of Plant Utility Spend	#DIV/0! %

Project Details			
Opportunity Short Title			
Area: Insert text describing the project area within the plant.		Date	Enter Date
Opportunity Type:	<input type="radio"/> Operational <input type="radio"/> Equipment Modification <input type="radio"/> Equipment Upgrade <input type="radio"/> Other	Originator(s):	
Background	Insert text describing the background.		
Opportunity	Insert text description of opportunity.		
Opportunity Description	Current Situation (before Opportunity)		Projected Situation (after Opportunity)
	Equipment Name:		Equipment Name:
	Running: Hours/Day	Non-Production Hours	Running: Hours/Day
	Days/Month		Days/Month
	Months		Months
Set point		Set point	
Other		Other	
Energy/Utility Use	Utility Use (Annual)		Utility Use (Annual)
	Electricity	KWh	Electricity
	Natural Gas	MMBtu	Natural Gas
	Propane	MMBtu	Propane
	Heating Oil	MMBtu	Heating Oil
	Coal (bituminous)	MMBtu	Coal (bituminous)
	Water	Kgal	Water
	Sewer	Kgal	Sewer
	Other 1	User defined	Other 1
	Other 2	User defined	Other 2
Other 3	User defined	Other 3	
Implementation Costs	Hours		\$
	Engineering Svcs	0.00	
	In-House Labor	0.00	
	Contract Labor	0.00	
	Other 1	0.00	
	Other 2	0.00	
	Other 3	0.00	
	Material Costs		
	Other Costs		
	Projected Annual Savings	Utility	
Electricity		0.00	0.00 KWh
Natural Gas		0.00	0.00 MMBtu
Propane		0.00	0.00 MMBtu
Heating Oil		0.00	0.00 MMBtu
Coal (bituminous)		0.00	0.00 MMBtu
Water		0.00	0.00 Kgal
Sewer		0.00	0.00 Kgal
Other 1		0.00	User defined
Other 2		0.00	User defined
Other 3	0.00	User defined	

- Organize savings from projects & energy savings opportunities
- Available for industrials & commercial buildings

Video Case Studies

[Owners and managers](#)
[Service providers](#)
[Program administrators](#)
[Tenants](#)
[Tools and Resources](#)
[Training](#)




During an Energy Treasure Hunt, teams walk around a facility looking for quick ways to save energy. Those quick fixes can add up to big savings. 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?


[Main](#)
[Resources](#)
[Submit](#)
[Eligibility](#)
[Video case studies](#)

Video case studies


VIEW HONDA'S 5-PART VIDEO SUCCESS STORY




VIDEO 1 OF 5




VIDEO 2 OF 5




VIDEO 3 OF 5



VIEW OSF HEALTHCARE'S VIDEO SUCCESS STORY



KEYS TO A SUCCESSFUL TREASURE HUNT




Short – YouTube-like videos on Treasure Hunts

Great for:

- Training teams
- Share with site management
- Learning more about treasure hunts


Treasure Maps

- ▶ Identify common energy savings opportunities
- ▶ Helpful for non-energy treasure hunt team members
- ▶ 14 buildings maps
- ▶ 3 industrial maps


Treasure Map FOR RESTAURANTS/COMMERCIAL KITCHENS

Grab a clipboard and take this map along on your treasure hunt. Focus on uncovering opportunities to save. When you find something, make notes about location; tools, materials, or expertise needed; or further research required. Feel free to add to or modify this list to suit your own needs.

Facility Name _____ Floor _____ Date _____ Team _____



Facility Management and Benchmarking

- Managing costs starts with knowing your baseline use, from which to track savings. Start by printing the Data Collection Worksheet for "Restaurant/Bar" found under "Food Sales & Services" on this menu. This Worksheet will list all you need to benchmark your property in the free, online Portfolio Manager® tool for tracking energy, water and recycling/materials management.
<https://rebuiltbuildings.webex.com/jmc3300/mywebex/default.do?siteurl-esbuildings>
 - Create your account at <https://portfoliomanager.energystar.gov/pm/signup>
- Learn more at <https://www.energystar.gov/benchmark> and find all Portfolio Manager training and tech support at <https://www.energystar.gov/buildings/training>.
 - Register for ENERGY STAR's live webinars and find recorded webinars on many sustainability topics.
- Portfolio Manager does not have a module to score restaurants or commercial kitchens on the 1-100 ENERGY STAR® scale yet. However, national median EUI (Energy Use Intensity is approximately energy use/sq ft.) for Quick Service Restaurants is 886.4 for Sources EUI (kBtu/ft²) and 402.7 Site EUI (kBtu/ft²). Median EUI is lower for other Restaurants/Cafeterias at 537.7 Sources EUI (kBtu/ft²) and 325.6 Site EUI (kBtu/ft²). You can do much better than the EUI.
- Use "start-up, shut-down" scheduling for house lights, kitchen equipment and heating/air-conditioning.
- Educate and encourage employees to report leaks, turn off lights not in use and to look for savings opportunities.
- Adopt a purchasing/procurement policy that specifies EPA's ENERGY STAR, WaterSense® and Safer Choice® labeled products when applicable. Customize ENERGY STAR's template procurement letter for your use.

NOTES:

TIP:

- Download the ENERGY STAR Action Workbook for Small Business (with restaurant appendices) for more strategies, action items, and ideas. See the 30-minute ENERGY STAR for Small Business recorded webinar. Start and support a Green Team of members and employees. Find resources to Build Your Own Competition for savings.
- Celebrate your success and recognize contributors. Help your customers and employees achieve savings at home and at guests' workplaces and Bring Your Green to Work.



www.energystar.gov/treasurehunt TREASURE MAP FOR RESTAURANTS/COMMERCIAL KITCHENS | PAGE 1 OF 8

Treasure Maps



Treasure Map FOR RESTAURANTS/COMMERCIAL KITCHENS

Grab a clipboard and take this map along on your treasure hunt. Focus on uncovering opportunities to save. When you find something, make notes about location; tools, materials, or expertise needed; or further research required. Feel free to add to or modify this list to suit your own needs.

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<https://esbuildings.webex.com/mw3300/mywebex/default.do?siteurl=esbuildings>

☐ Create your account at
<https://portfolio manager.energystar.gov/pm/signup>

- ☐ Learn more at <https://www.energystar.gov/benchmark> and find

NOTES:

TIP:

- Download the ENERGY STAR Action Workbook for Small Business (with restaurant appendices) for more strategies, action items, and ideas. See the 30-minute ENERGY STAR for Small Business recorded webinar. Start and support a Green Team of members and employees. Find resources to Build Your Own Competition for savings.
- Celebrate your success and recognize contributors. Help your customers and employees achieve savings

Treasure Maps



Treasure Map FOR SUPERMARKETS/GROCERY STORES

Grab a clipboard and take this map along on your treasure hunt. Focus on uncovering opportunities to save. When you find something, make notes about location; tools, materials, or expertise needed; or further research required. Feel free to add to or modify this list to suit your own needs.

Facility Name _____ Floor _____ Date _____ Team _____



1 Facility Management and Benchmarking

☐ Managing costs starts with knowing your baseline use, from which to track savings. Start by printing the Data Collection Worksheet for "Supermarket/Grocery" found under "Food Sales & Service" on the menu. This Worksheet will list all you need to benchmark your property in the free, online Portfolio Manager® tool for tracking energy, water and recycling/materials management.

- ☐ Create your account at <https://portfoliomanager.energystar.gov/pm/signup>
- ☐ Learn more at <https://www.energystar.gov/benchmark> and find

NOTES:

TIP:

- Download the ENERGY STAR Action Workbook for Small Business for more strategies, action items and ideas. Start and support an employee Green Team.
- Find resources to Build Your Own Competition for savings, celebrate your success and recognize contributors, and help your customers and employees achieve savings at home and at guests' workplaces and Bring Your Green to Work.

Treasure Maps



Treasure Map FOR CONVENIENCE STORES

Grab a clipboard and take this map along on your treasure hunt. Focus on uncovering opportunities to save. When you find something, make notes about location; tools, materials, or expertise needed; or further research required. Feel free to add to or modify this list to suit your own needs.

Facility Name _____ Floor _____ Date _____ Team _____



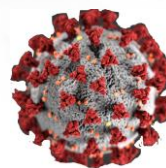
1 Facility Management and Benchmarking

- ☐ Managing costs starts with knowing the baseline from which to track savings. Print the [Data Collection Worksheet for "Convenience Store" found under "Food Sales and Service"](#). This Worksheet lists what you need to benchmark your property in the online Portfolio Manager® tool for tracking energy, water and recycling/materials management.
- ☐ Create your account, [learn more](#), and find [Portfolio Manager training and tech support](#).
- ☐ Portfolio Manager does not have a module to score Convenience Stores on the 1 -100 ENERGY STAR® scale but is working with NACS

NOTES:

TIP:


- Enter your Zip Code in the rebate finders for ENERGY STAR® and WaterSense® labeled products to check on utility or retail vendor product rebates. Utilities may have pre-purchase application requirements.
- Download the [ENERGY STAR Action Workbook for Convenience Stores](#) for more strategies, action items, and ideas. Start and support an employee Green Team. Find resources to Build Your Own Competition for savings.



Treasure Hunts During COVID Tips

- ▶ Tips from companies that conducted treasure hunts during COVID-19
- ▶ Virtualization strategies for planning and implementing treasure hunts
- ▶ Creating on-site & off-site teams
- ▶ Deeper data analysis (aka virtual treasure hunting)
- ▶ Targeting facilities and systems

www.energystar.gov/treasurehunt


Energy Treasure Hunts During COVID-19

The global COVID-19 pandemic creates new challenges and complications for energy programs planning energy treasure hunts. Safety precautions that limit access to facilities and social distancing requirements limit the teambuilding and group interactions that make treasure hunts unique. Non-normal operating and production schedules create new complications as well. Yet some organizations are finding ways to adapt their treasure hunts by:

- ☐ Utilizing virtual meeting platforms to conduct preparation activities, training, the opening presentation, team meetings, and the report out presentation;
- ☐ Using smaller teams to investigate target areas, equipment, or systems;
- ☐ Taking advantage of closed facilities to look more closely at specific systems;
- ☐ Conducting deeper remote analysis of facility energy use data, when possible; and
- ☐ Overall coordination of onsite event and report out meetings.

This tip sheet draws on insights from companies that have adapted their new methods of conducting energy treasure hunts. Every energy program will need to assess what is possible given their organization's new safety requirements. For more information and resources on energy treasure hunts, please visit www.energystar.gov/treasurehunt.

1 Determine Virtualization Strategy

Many of the phases and planning steps of the treasure hunt can be done remotely using virtual meeting platforms, as illustrated in the table below.

Phase	Step	Remotely	On-site
Preparation	Facility selection and scheduling	*	
	Identify and confirm team members	*	
	Data collection and analysis	*	
	Prepare detail sheets & calculators	*	
	Develop agenda and plan	*	
Pre-hunt training	Meet with team leaders	*	
	Train participants	*	
Treasure hunt event	Opening presentation	*	
	Go & see		*
	Team summaries / Detail sheet work	*	
Prioritize & follow-up	Create implementation plans	*	
	Check-ins / huddles	*	

Many organizations now have a preferred virtual meeting platform. It is important to understand the capabilities and limitations of the system. Additionally:

- ☐ Ensure all team members have access to, and are familiar with, your organization's virtual meeting platform
- ☐ Set up a file-sharing platform that can be accessed by all participants
- ☐ Use shorter but more frequent meetings to help keep members more engaged
- ☐ Make sure the treasure hunt facilitator has access or is invited to all team meetings and breakout sessions

www.energystar.gov/treasurehunt
ENERGY TREASURE HUNTS DURING COVID-19 | PAGE 1 OF 5

Energy Treasure Hunt Campaign



Find the Treasure Campaign

GOAL:

- Raise awareness of energy efficiency savings potential
- Increase adoption of the use of “treasure hunts” particularly in the commercial building markets
- Engage new audiences and organizations
- **Provide more ways for organizations to participate and earn recognition from ENERGY STAR**



Find the Treasure Campaign

1. Conduct an Energy Treasure Hunt

- Organize treasure hunts
- Identify potential savings

2. Add your energy savings to the Treasure Chest!

- Share your savings through an on-line form at:
www.energystar.gov/treasurehunt

3. Get EPA Recognition for participating

- Be featured on www.energystar.gov/treasurehunt
- Receive a printable certificate noting your contributions
- Receive EPA communications about the campaign



During an Energy Treasure Hunt, teams walk around a facility looking for quick ways to save energy. Those quick fixes can add up to big savings. 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?

Resources Find the Treasure Campaign What others have done Share your treasure

8,381,804.62

Potential energy savings found (MMBtu)

44.2

Potential cost savings (millions of dollars)

443,953.13

Potential emissions avoided (metric tons CO₂e)



Name: Amcor
Type: Pharmaceutical, food, and home-care products packaging supplier
Potential Savings: 2020: 5%
[More >](#)



Name: Colgate-Palmolive
Type: Consumer products
Potential Savings: 2020: 5%; 2019: 9.6%, 3.4%, 6.8%...
[More >](#)



Name: Sherwood Cass R-VIII School District
Type: High School
[More >](#)



Name: Allergan
Type: Pharmaceutical manufacturing company
Potential Savings: 21%, 50%
[More >](#)



Name: Columbia Association
Type: Property management organization
Total Treasure Hunts: 2020: 1; 2019: 1
[More >](#)



Name: The Boeing Company
Type: Aircraft, satellite, and telecommunications manufacturing
Potential Savings: 2020: 10%; 2019: 6.3%, 7.3%, 7.4%, 10.4%, 17.9%...
[More >](#)



Name: Kilroy Realty Corporation
Type: Real Estate Investment Trust
Potential Savings: \$20,300
[More >](#)



Name: Lockheed Martin
Type: Aerospace, defense, and advanced technologies
Potential Savings: 12%, 5%, 17%, 3%, 19%, 5%
[More >](#)



Name: Nissan North America
Type: Automotive manufacturing and production
Potential Savings: 2.9%
[More >](#)



Name: Marathon Petroleum Corporation
Type: Petroleum refining, marketing, and transportation
Potential Savings: 12%
[More >](#)



Name: General Motors
Type: Automotive manufacturing and production
Potential Savings: 2020: 4.0%, 5.0%, 7.0%, etc.; 2019: 10%, 9%, 18%, etc.
[More >](#)



Name: Raytheon Company
Type: Defense and cybersecurity
Potential Savings: 2.7%, 3%, 4.7%, 10%
[More >](#)

Profiles of facilities, companies, and organizations that shared their results!

Profiles of organizations and companies that promoted treasure hunts coming in 2021!

Challenge for Industry

Recognition opportunity for industrial plants:

- Plants pledge to reduce energy intensity by 10% within 5 years or less.
- Any type of manufacturing plant can participate
- Reduction calculated from baseline registered with ENERGY STAR
- Sets a goal for implementing savings opportunities found during Treasure Hunts



energystar.gov/industrychallenge

Summary

Energy treasure hunts offer:

- ▶ Process to find energy saving opportunities
- ▶ Training facility staff on basic energy management skills
- ▶ Engage customers with a value-added service
- ▶ Opportunity for recognition



Questions / Comments ?

- ▶ Walt Tunnessen: Tunnessen.Walt@epa.gov
- ▶ Jerry Lawson: Lawson.Jerry@epa.gov
- ▶ www.energystar.gov/treasurehunts

Save the Date for the Next Webinar!

Leveraging U.S. Environmental
Protection Agency's Green Power
Partnership Program

- Tuesday April 13, at 1 PM EST



More information will be sent
through a mass mailer! Email
cfs@energystar.gov to confirm
you are on the distribution list!