

24<sup>th</sup> ANNUAL OHIO  
ENERGY  
MANAGEMENT  
CONFERENCE

Tuesday, Feb 18, 2020

# Energy Efficiency and Energy Finance Programs

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Energy Section, Office of Community Assistance

# Energy Efficiency and Energy Finance Programs

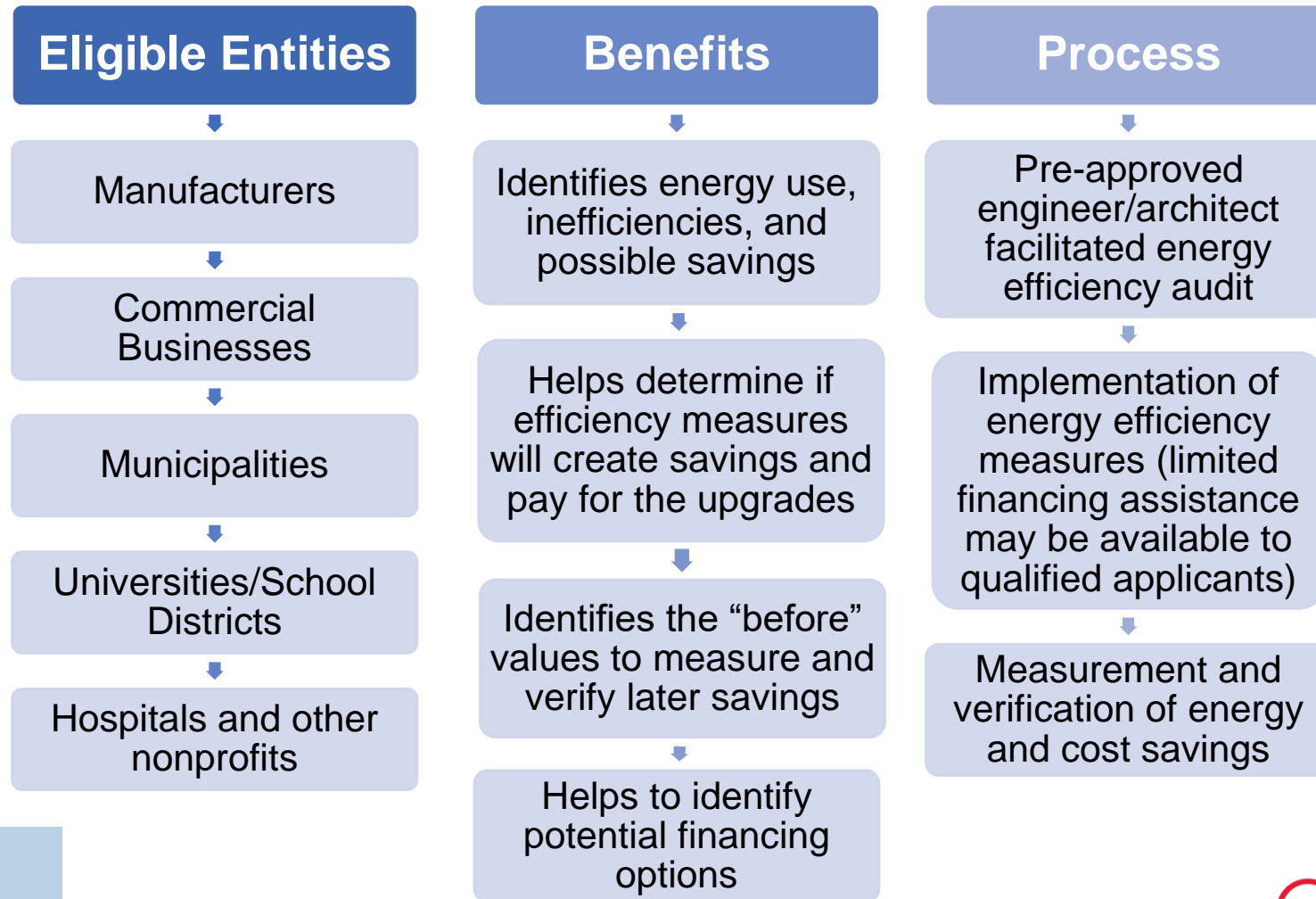
## Ohio Development Services Agency (Development)

- Energy Efficiency Program (EEP)
- Energy Financing Programs (Energy Loan Fund & Loan Loss Reserve Programs)
- Energy Efficiency Training Opportunities

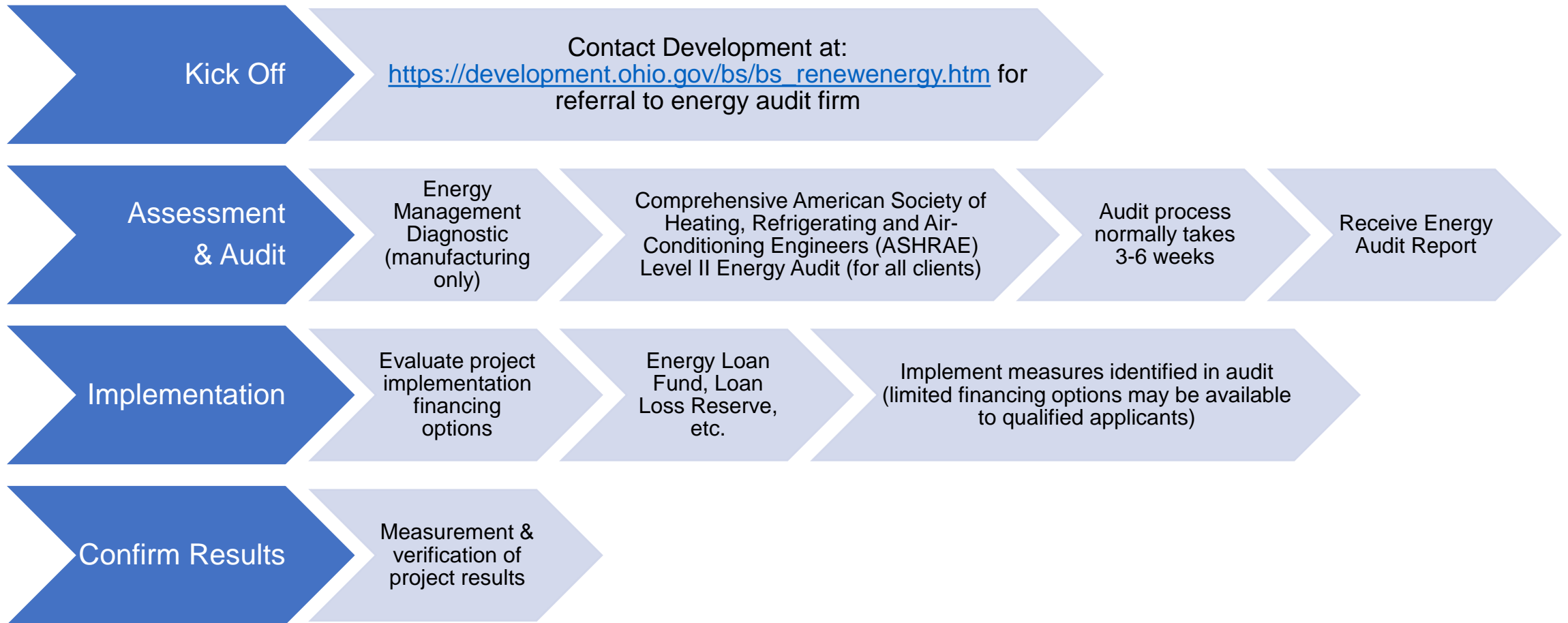
# Development's EEP

Development's EEP is a comprehensive energy efficiency program aimed at helping businesses, manufacturers, nonprofits, schools, hospitals, colleges/universities, and local governments to reduce energy use and improve energy efficiency, which will result in lower energy and operations costs.

# EEP Eligible Entities/Benefits/Process



# EEP Process



# EEP Process Detail

## Energy Management Diagnostic

- 1 to 2-hour meeting for manufacturing sites, with facilitator
- NO charge

## ASHRAE Level II Audit

- For manufacturing AND non-manufacturing sites

## Final Audit Report

- Existing facility conditions analysis
- Energy use patterns and utilities analysis
- Energy efficiency measures analysis & recommendations
- Potential funding strategies and resources (Energy Loan Fund, Loan Loss Reserve, etc.)
- Measurement & Verification strategies

# EEP Energy Audit Grants

	Manufacturers	Non-Manufacturers
Qualifications	All Ohio manufacturers	Facility > 10,000 sq. ft.
Development grant funding	75% of total audit cost, up to \$22,500	50% of total audit cost, up to \$15,000
Customer share	Remaining 25%, plus any amount >\$30,000	Remaining 50%, plus any amount >\$30,000
Development and client pay engineer/auditor directly		

# EEP Contractors/Energy Auditors

## Manufacturing Sectors:

**Energility LLC**, Columbus, OH  
Justin Kale  
(614) 746-9276  
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**Go Sustainable Energy LLC**, Columbus, OH  
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**Graphet Data Mining**, Cincinnati, OH  
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**JCC Energy Controls**, Akron, OH  
Jack Ceisa  
(330) 285-5491  
[jack@jccenergysolutions.com](mailto:jack@jccenergysolutions.com)

## Non-Manufacturing Sectors:

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**JCC Energy Controls**, Akron, OH  
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**University of Dayton – School of Engineering**  
Andrew Chiasson, Ph.D.  
(937) 229-2835  
[achiasson1@udayton.edu](mailto:achiasson1@udayton.edu)

## Ohio K-12 Public Schools:

**Plug Smart**  
Jarret Kelley  
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**University of Dayton – School of Engineering**  
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[achiasson1@udayton.edu](mailto:achiasson1@udayton.edu)



# Development's Energy Efficiency Finance Programs

Energy Loan Fund & Loan Loss Reserve Fund

# Energy Loan Fund

## Low-interest loans

- For improvements to existing structures
- Energy efficiency
- Renewable energy

## Expected results

- Energy use reduction > 15%
- Payback < 15 years
- Economic impacts: job creation/retention, community improvements
- Improvement in environmental quality

## Loan details

- \$250,000 - \$2,500,000
- 1% - 3% interest for most applicants

# Energy Loan Fund

- Eligibility
  - Manufacturers
  - Commercial Businesses
  - Public Entities (including local governments)
  - Nonprofits
  - Hospitals
  - Colleges/Universities
  - Ohio K-12 School Districts

# Energy Loan Fund

- \$9.5 million available in both FY 20 and FY 21
  - \$5.5 million in increments of \$250,000 – to \$2.5 million for most applicants and interest at 1 – 3%
  - \$4 million in increments of \$250,000 – to \$1 million for Ohio public K-12 school districts and interest as low as 0.25%
- More information or to apply
  - [https://www.development.ohio.gov/bs/bs\\_energyloanfund.htm](https://www.development.ohio.gov/bs/bs_energyloanfund.htm)

# Loan Loss Reserve Fund

Offers credit/collateral enhancement of up to 50% of a qualified energy efficiency project on an existing structure

Administered in partnership with eligible Ohio Port Authorities as they originate loans for energy projects. A minimum of 15% energy savings and a simple payback period of 15 years or less is required

\$18 million originally available for this program. \$5.1 million remaining

# Loan Loss Reserve Fund



- Participating Ports

- Cincinnati
- Cleveland-Cuyahoga County
- Columbus-Franklin County
- Dayton-Montgomery County
- Lake County
- Lorain County
- Summit County
- Toledo-Lucas County

<https://www.ohioportauthorities.com/>

# EEP Customer Case Studies

# Case Study

## Cincinnati Art Museum (Nonprofit)

### Cincinnati, OH

Baseline Energy Cost	\$583,488/year
Projected Energy Savings	\$296,724 (51%)
Estimated Project Costs	\$1,715,790
Rebate Potential	\$76,836
Simple Payback	5.06 years
Chilled Water Savings	\$133,288 (23%)
HVAC Savings	\$132,655 (23%)
Utilities Savings	\$30,841 (5%)

Customer contact: Mark Crousore, Building & Grounds Facilitator



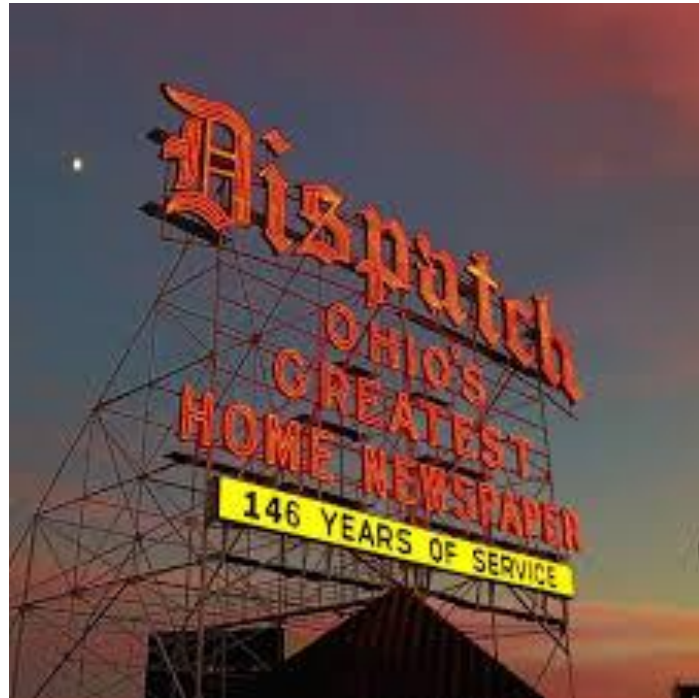


# Case Study

## Columbus Dispatch (Printing Industry)

### Columbus, OH

Customer contact: Kelly Cline



Baseline Energy Cost	\$1,238,839/year
Projected Energy Savings	\$407,134 (33%)
Estimated Project Costs	\$843,349
Rebate Potential	\$99,452
Simple Payback	2.1 years
Chilled Water Savings	\$46,505 (3.8%)
Compressed Air Savings	\$16,767 (1.4%)
HVAC Savings	\$202,238 (16%)
Steam Savings	\$23,206 (1.9%)
Lighting Savings	\$141,534 (11.4%)

# Case Study

## Replex Plastics, Inc.

### Mt. Vernon, OH

Baseline Energy Cost	\$181,147/yr.
Projected Energy Savings	\$32,325 (18%)
Project Costs	\$29,199
Rebate Potential	\$5,370
Simple Payback	11 months
Lighting Savings	\$11,071 (34%)
HVAC Savings	\$21,254 (66%)
Total	\$32,325

Customer contact: Mark Schuetz,  
President



# Energy Efficiency & Finance Programs Contacts

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[https://development.ohio.gov/bs/bs\\_renewenergy.htm](https://development.ohio.gov/bs/bs_renewenergy.htm)

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[https://www.development.ohio.gov/cs/cs\\_llr.htm](https://www.development.ohio.gov/cs/cs_llr.htm)



Development  
Services Agency

# Energy Efficiency Training Opportunities

## Ohio Center for Industrial Energy Efficiency (OCIEE)

Nikhila Rao

OCIEE Program Coordinator

431 Ohio Pike Suite 203-N

Cincinnati, OH 45255

O: (513) 474-4870 ext. 202

[nikhila\(at\)graphet.com](mailto:nikhila(at)graphet.com)

# Ohio Programs Provide Required Elements for Energy Efficiency Results

## Incentives & Financing

- Energy Loan Fund
- Grant funded audits and implementation

## Subject Matter Expertise

- Facilitators provide Ohio Energy Efficiency Program outcomes

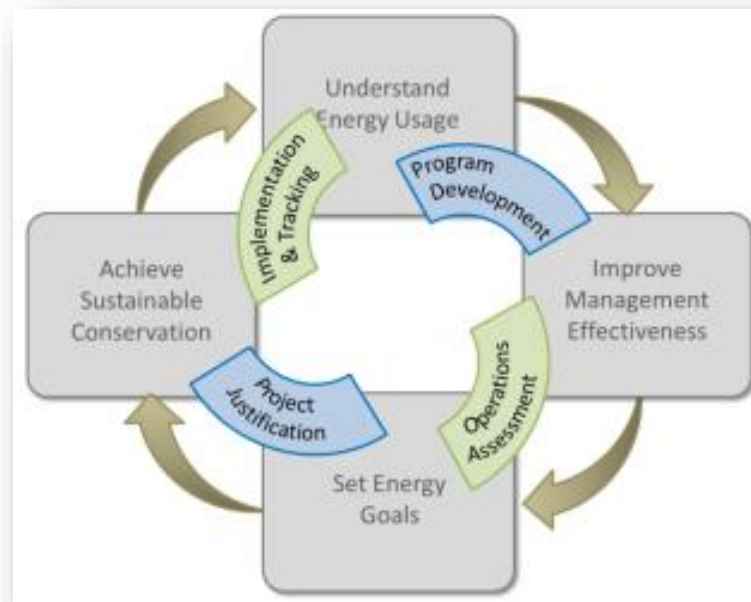
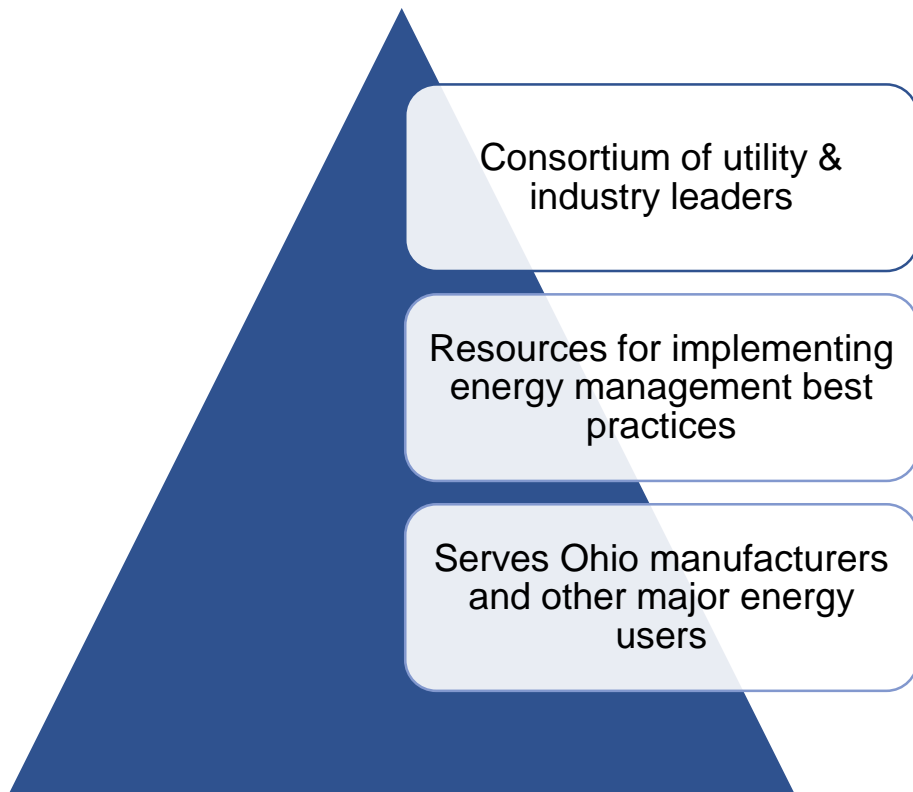
## Information & Education

- Best Practices Training coordinated by Ohio Center for Energy Efficiency (OCIEE)

# OCIEE for Training & Outreach

- OCIEE's mission is to assist with energy efficiency education and best practices training
- OCIEE improves the competitiveness of Ohio industry through:
  - increased energy efficiency
  - reduced operating costs
  - improved environmental performance

# OCIEE Serves Ohio's Energy Champions

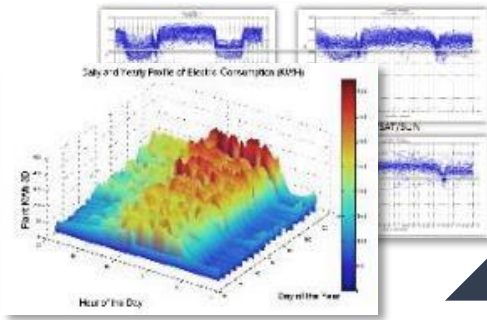


MASTER Best Practices for Energy Intensive Systems and Applications

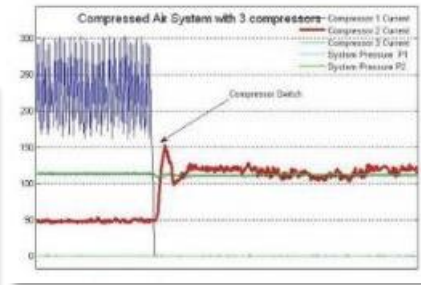
# Framework for Energy Management Best Practices



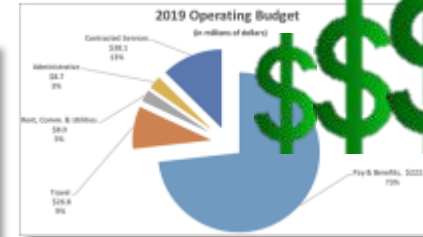
Analyze Existing Facility Conditions



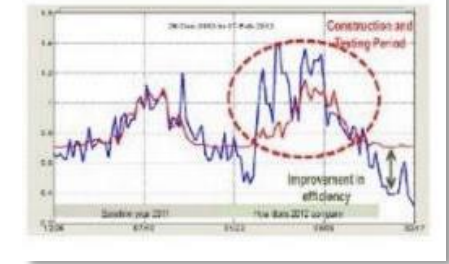
Evaluate Energy Usage Patterns



Identify Opportunities and Analyze Feasibility



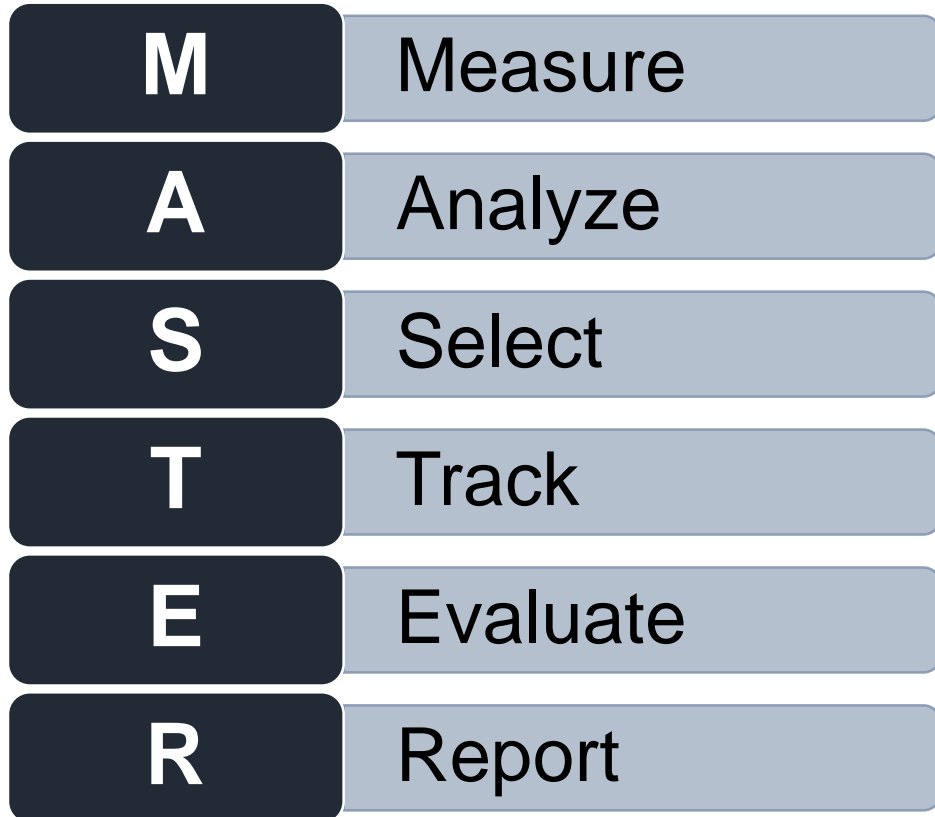
Funding Strategies



Measurement & Verification Strategies



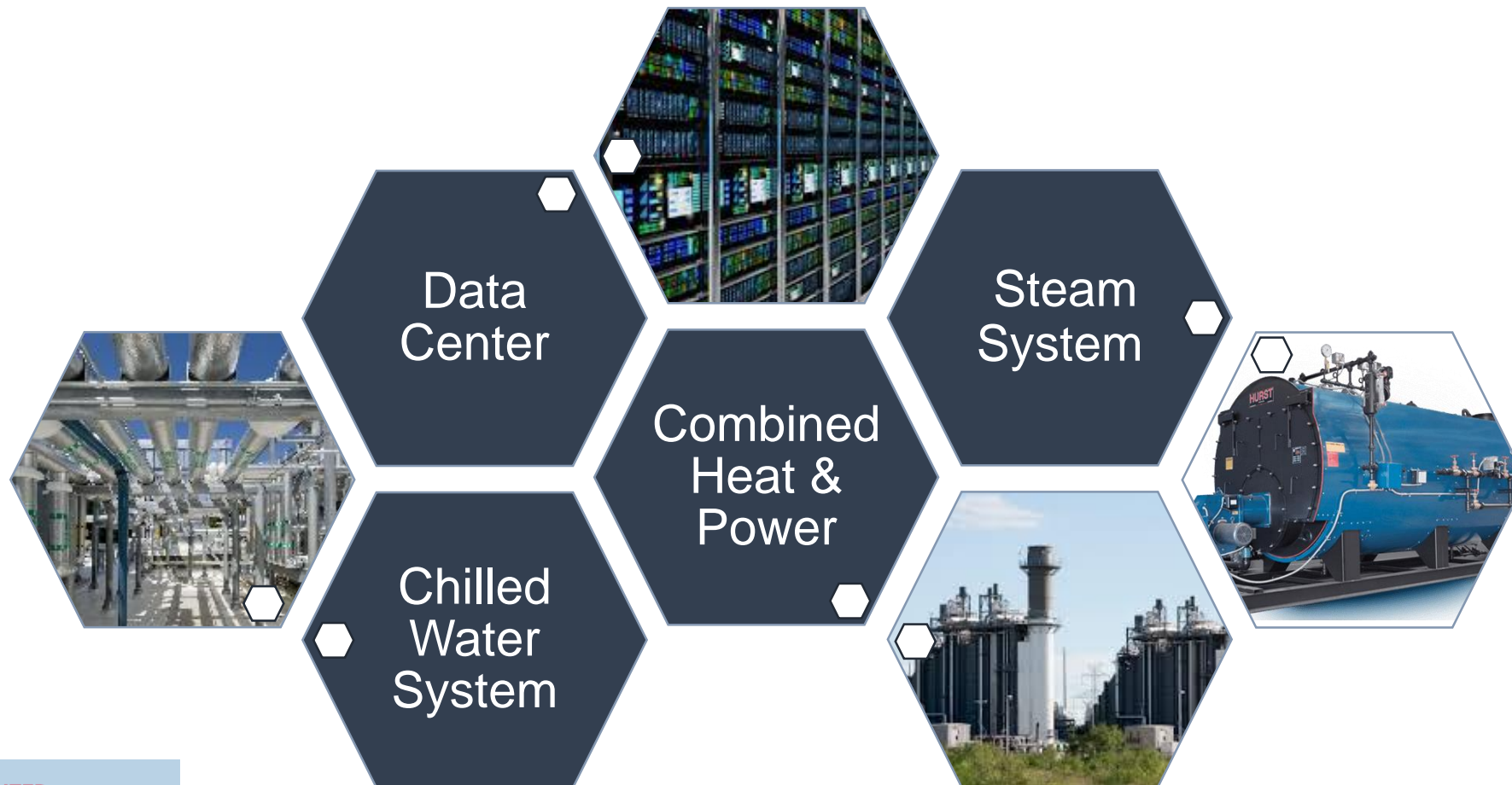
# Energy Champions MASTER Best Practices for Energy Efficiency



Training sessions help energy champions to:

- achieve their ideas
- ease energy decision making
- prioritize top energy management actions to implement
- set targets and track metrics
- report progress and accomplish business goals

# Training for Energy Intensive Systems



# 2019 OCIEE Program Highlights

Training Topic	Location	Attendees	Date
Energy Efficiency Financing Programs, Best Practices, Training, & Energy Audits	Columbus, OH	22	February, 2019
Networked Lighting	Columbus, OH	44	May, 2019
Data Center Strategy: New Technologies	Columbus, OH	65	July, 2019
Combined Heat & Power	Circleville, OH	23	September, 2019
Data Center Strategy: Server Rooms	Dayton, OH	20	September, 2019

Workshop/Conference	Location	Attendees	Date
Manufacturers Education Council	Columbus, OH	445	February, 2019
Dayton Green Expo	Dayton, OH	200	September, 2019
Energy Storage Building Efficiency	Warren, OH	125	September, 2019



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# OCIEE Contact

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