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# SCORE/CitySmart: Lessons from the Institutional Sector

September 22, 2015

ACEEE National Conference on Energy Efficiency as a Resource

We change the way people use energy™

- Why should institutional customers be targeted?
- What has worked in SCORE/CitySmart (and what hasn't)?
- What insights can historical program data provide?
- How might SCORE/CitySmart evolve?

# Objectives

# Targeting Public Sector Buildings

- Traditionally under-served by C&I programs

- Large building portfolio under single operator

- Predictable budgets for capital improvements

- Institutions are influential voices in the community

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# SCORE/CitySmart

- Financial analysis and cash incentives
- Technical assistance
- Communications



### General HVAC Recommendations

DESIGN GUIDELINES FOR ENERGY EFFICIENT HVAC SYSTEMS

Among the benefits of energy efficient heating, ventilation, and air conditioning (HVAC) equipment are lower operational costs and a positive environmental impact . Our trusted recommendations for energy-efficient HVAC equipment, intended for use in both retrofit and new construction applications, are based on reliable information provided by Consortium for Energy Efficiency's (CEE) and New Building Institute's (NBI) Core Performance Guides.

Through your electric utility's energy efficiency programs, CLEAResult helps building owners, architects and engineers evaluate the benefits of energy efficiency. Building owners are encouraged to assess and address their energy use through a variety of program-related services, ranging from energy performance benchmarking and energy master planning, to technical assistance and public relations support . The third-party recommendations in this document are provided at no cost through your electric utility, and are not intended to substitute for the services of paid professionals.

# SCORE/CitySmart Evolution

- Customization: SCORE Lite / Small SCORE
- New technologies and practices / more M&V
- Program outreach and marketing
  - Trade allies
  - Cohort meetings

# 2012-2014 Texas SCORE/CitySmart Program Savings (kWh) by Measure



Legend:
- Other
- Premium Efficiency Motors
- ES Roof
- Photovoltaic (PV) System
- VFD on AHU
- HVAC Controls
- HVAC - DX
- Hot Water - Aerator
- Heat Pump Ground Source
- Heat Pump Air Source
- Chiller Water Cooled
- Chiller Air Cooled
- AC Tune Up
- Lighting Controls
- LED
- Lighting
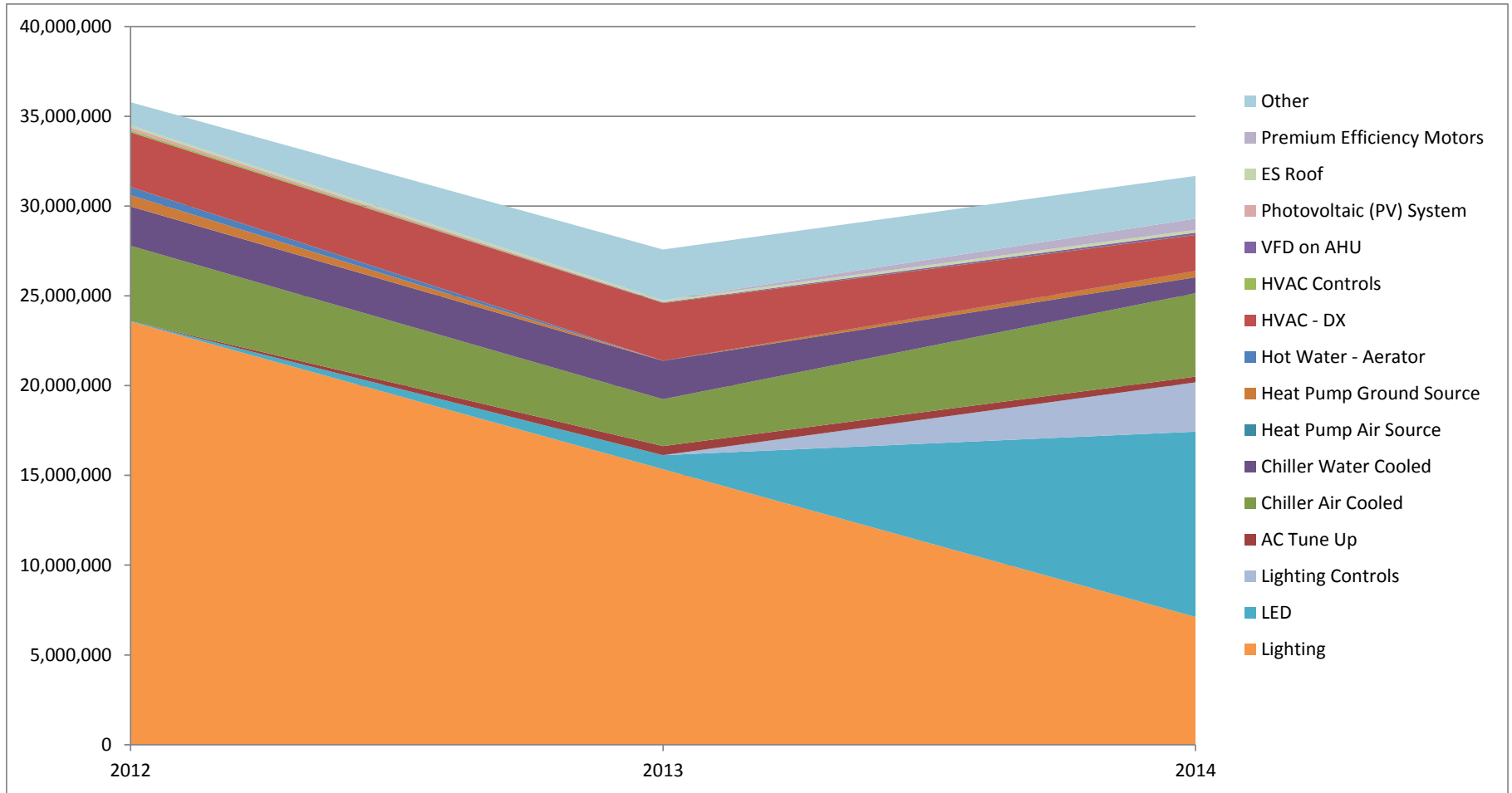
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# Benchmarking & Energy Master Planning

# Benchmarking Report

Easy and efficient way to review the results of our facility & portfolio analysis

# Energy Master Planning Workshop

- Planning & decision-making
- Evaluation, assessment & monitoring
- Funding resource efficiency
- Facility operations
- Occupant awareness

# Workshop Scorecards

## PLANNING & DECISION MAKING

**4**
- Energy Efficiency & reducing costs are a high priority in our organization
- Our Senior Management view energy costs as a manageable expense
  We have a written energy policy & action plan that's reviewed regularly
- We have management support to identify & install energy efficiency improvements
- We have a prioritized list of energy efficiency projects that are reviewed often
- We have a identified the individual (s) who are responsible for energy management within our organization

**3**
- Energy efficiency & reducing costs are a high priority in our organization
- Our Senior Management view energy costs as a manageable expense
- We have a written energy policy
- We have a prioritized list of potential energy efficiency projects

**2**
- Reducing costs are a high priority in our organization
- We have management support to identify energy efficiency projects

**1**
- Reducing costs are a high priority in our organization

**0**
- Energy efficiency is never discussed within our organization

## Scorecard informs the plan
- Promotes participation/engagement
- Easily identifies strengths & weaknesses
- Mechanism for ongoing evaluation
- Provides visual summary of gaps



Current Level
Desired Level
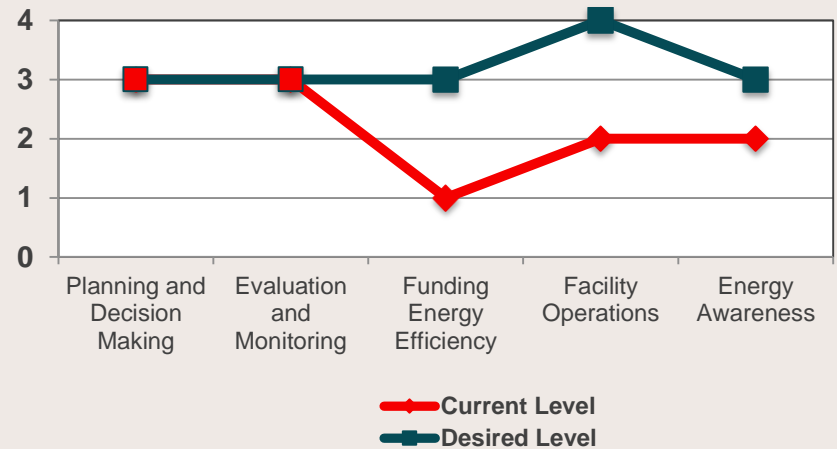
# Energy Master Plan Example

## The Plan is a starting point for consensus and uniform action

# Benchmarking & Master Planning Influencing Activity Stats

## Program Participation



- No Benchmarking or EMP Workshop — 52%
- Benchmarking Only — 12%
- Both Benchmarking & EMP Workshop — 36%
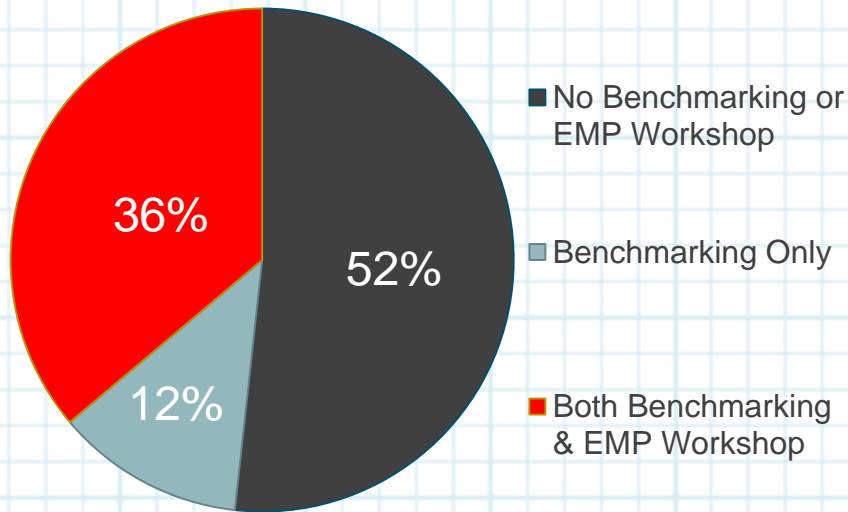
## Incentives Paid to Participants w/ BM/EMP



- No Benchmarking or EMP Workshop — 25%
- Benchmarking Only — 10%
- Both Benchmarking & EMP Workshop — 65%

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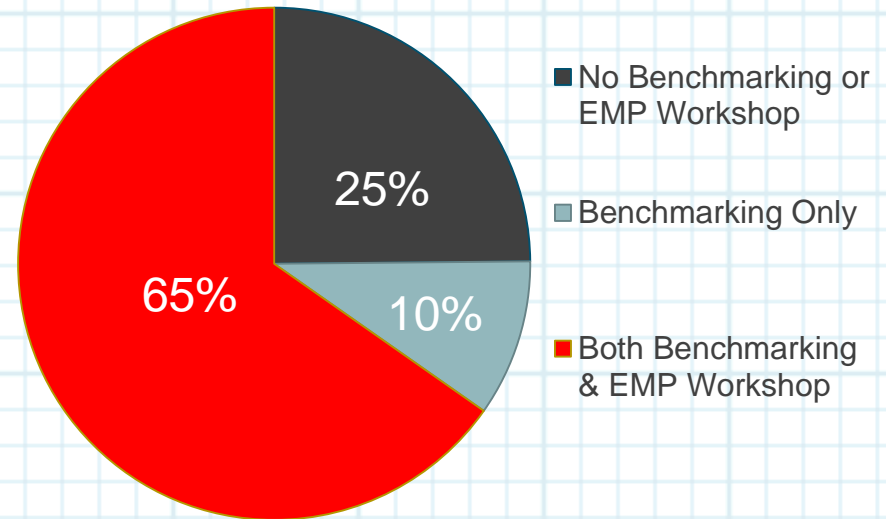
# Resource Management

# What is Resource Management Services (RMS)?

- Energy reduction across an organization by leveraging:
  - Technical Expertise
  - Behavior Science
  - Technology
- Focus on energy waste but can also include water and other waste
  - Resource Management vs. Energy Management

# Results, to date

| | School 1<br>57 kBTU/sqft | School 2<br>71 kBTU/sqft | School 3<br>55 kBTU/sqft |
|---|---|---|---|
| Resource Mgmt Team? | yes | yes | yes |
| Spring Shutdown plan impact | no | yes | no |
| Summer shutdown plan impacted? | yes | yes | yes |
| Walkthroughs conducted? | yes | yes | yes |
| Recommendations for deeper O&M? | delivered | delivered | delivered |
| Staff engagement? | underway | underway | underway |
| Student engagement? | planning for Fall | planning for Fall – working to get superintended engaged | underway |
| YTD change in usage*<br>*(March through July) | -6.3% | -5.8% | -4.7% |

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