

# COMMERCIAL STRATEGIC ENERGY MANAGEMENT PROGRAMS

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**BEST PRACTICES AND APPROACHES**

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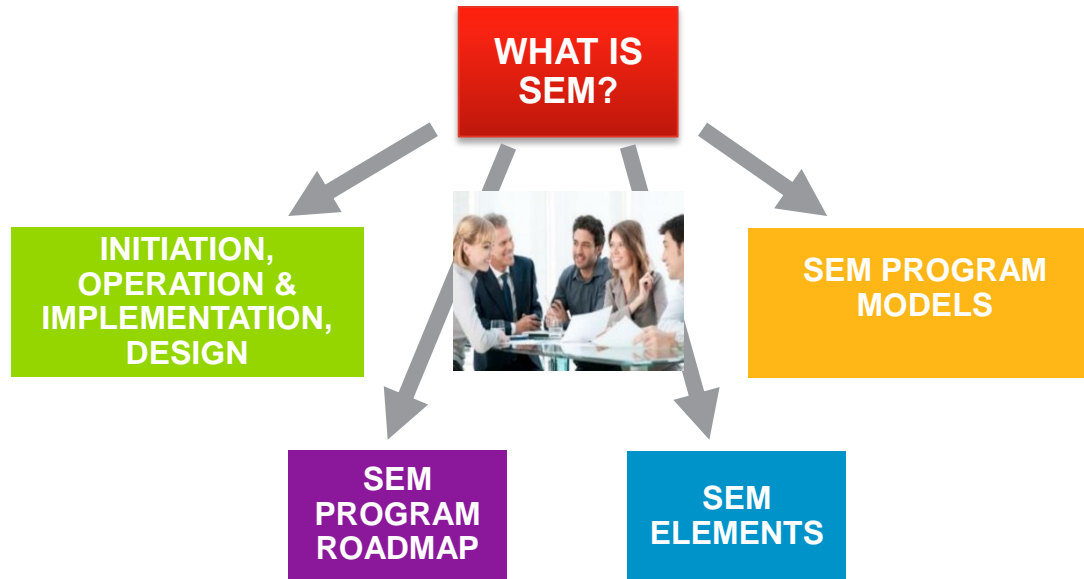
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# BEST PRACTICES IN SEM

**Purpose:** To present findings from a national study on best practice strategies and design of commercial strategic energy management (SEM) programs for DTE Energy.



# COMMERCIAL SEM PROGRAMS AND BEST PRACTICES

**SEM IS A  
HANDSHAKE  
TO SAVE ENERGY OVER A  
LONG-TERM CYCLE**

**BETWEEN A PROGRAM  
ADMINISTRATOR AND A  
BUSINESS or  
ORGANIZATION'S  
OWNER/  
OPERATOR**



**“We’ll focus on  
O&M and any  
capital  
improvements we  
can identify!”**

## **Process/O&M improvement project**

- Turning equipment off when not needed
- Fixing compressed air leaks
- Compressed air system optimization
- Production scheduling optimization
- Formalizing equipment shutdown procedures
- Improving process yield and associated
- Capital Improvements




# STUDY APPROACH

Navigant focused on SEM best practices of successful commercial SEM programs nationwide.



# CUSTOMER PROFILE

## SEM Program Interviews

Customer Type								
Conv. Center			X					
Government								X
Grocery	X							
Hospitals	X	X	X	X		X	X	
Labs	X							
Offices			X		X			X
Restaurant			X					
Retail					X		X	
Schools		X					X	X
University	X						X	

Source: Navigant

# THREE SEM PROGRAM MODELS

## Cohort

SEM multi-customers attend group workshops, or cohorts, over a 4-18 month period; customers share insights and results



## Flagship

Build SEM Program starting with one site and expand to others after that



## Top-Down

Recruit customer executives who then mandate SEM initiatives across their constituent sites



# THREE SEM PROGRAM MODELS

Market research informs the choice of program model.

## Cohort

Ideal for a market made up of many, equally strong customers or similar non-competitors

- Mid-sized Commercial Real Estate/Offices
- Schools
- Colleges/Universities

## Flagship

Ideal for a market with fewer customers but whose customers have multiple facilities

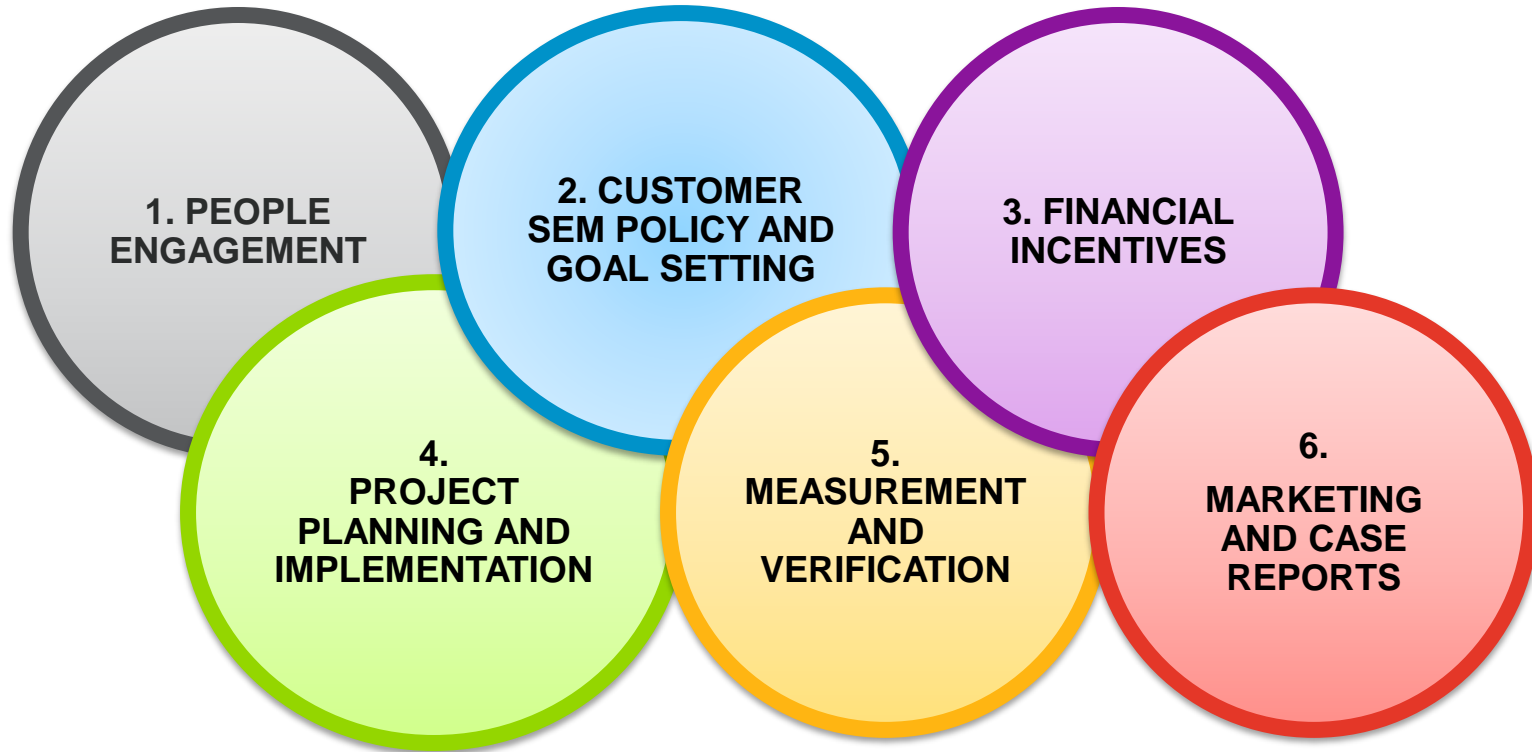
- Hotels
- Grocery chains
- Convenience Stores
- Large-Sized Real Estate Companies/Offices

## Top-Down

Ideal for a market with few customers who are highly centralized

- Hospitals
- Tech Companies
- Government Buildings

# BEST PRACTICE SEM ELEMENTS





# BEST PRACTICES IN PEOPLE ENGAGEMENT, CUSTOMER POLICY, AND GOALS AND FINANCIAL INCENTIVES

## People Engagement

- **A *handshake*** with **Organization Management, Champions, Internal Energy Teams** is critical
- ***Maintain ongoing contact*** and encourage energy teams to include employees at all levels

## Energy Policy and Goals

- ***Set Energy Goals as Targets*** for **Executive Oversight** and **Energy Team Focus** = more \$ savings
- ***Support Goals and Policies*** development for later **Program Administrator Progress Tracking**

## Financial Incentives

(Three Types)

- ***Energy Savings Incentives*** at  $\pm$  \$ 0.02/kwh and \$0.20/therm
- ***Measure-Based Incentives*** use DEEM incentives for specifically defined SEM projects
- ***Lump-Sum Incentives*** provides large monetary amount to meet SEM/ISO50001 standards

# BEST PRACTICES IN PEOPLE ENGAGEMENT, CUSTOMER POLICY, AND GOALS AND FINANCIAL INCENTIVES

## Project Planning and Implementation

- **Establish a system** for customers to identify and implement savings opportunities
- **System planning** needs to be ongoing not just focused on low-hanging fruit

## Measurement and Verification

- **Establish long-term data collection** to determine savings persistence
- **Estimate savings** based on at least **12 months of savings** to capture seasonal effects
- **Account for changes** in economics, etc.

## Marketing and Case Reports

- **Publish case studies** to use to advertise the value of SEM for recruitment
- **Use past contacts** and **direct approaches**, which are also used effectively by some programs

# SEM PROGRAM ROADMAP

## Ideation and Initiation



## Operations and Implementation



## Market Transition



# BEST PRACTICE INSIGHTS: INITIATION AND RECRUITMENT

## SEM Initiation

### RELATIONSHIP BUILDING

Leverage existing networks or establish new ones

If lacking in-house resources/experts, recruit experienced Third-Party Implementer

### MARKET RECONNAISSANCE

Research the market, identify customer needs

Understand customer's organizational structure (e.g., command-and-control vs. collaborative)



## Recruitment

### ACCESSING CUSTOMERS

- Utilize Account Managers
- Leverage Channel Partners or Professional Associations
- Engage Customer Executives (If Top-Down SEM model)

### SELECTING CUSTOMERS

- Identify the low-hanging fruit
- Be Selective
- Customer Eligibility Criteria Are Flexible

# BEST PRACTICE INSIGHTS: OPERATIONS AND IMPLEMENTATION



# BEST PRACTICE SEM PROGRAM DESIGN

## Identify Internal and Market **Barriers**

### Internal

- Lack of SEM policies and goals
- Lack of resources for SEM planning and implementation
- Challenges conducting EM&V
- Limited qualified contractors with SEM knowledge and expertise

### Market

- Lack of Awareness of benefits
- High upfront project costs
- Lack of customer motivation
- Uncertainty of savings realization

## Select **Strategies** to Overcome Barriers

### Strategies

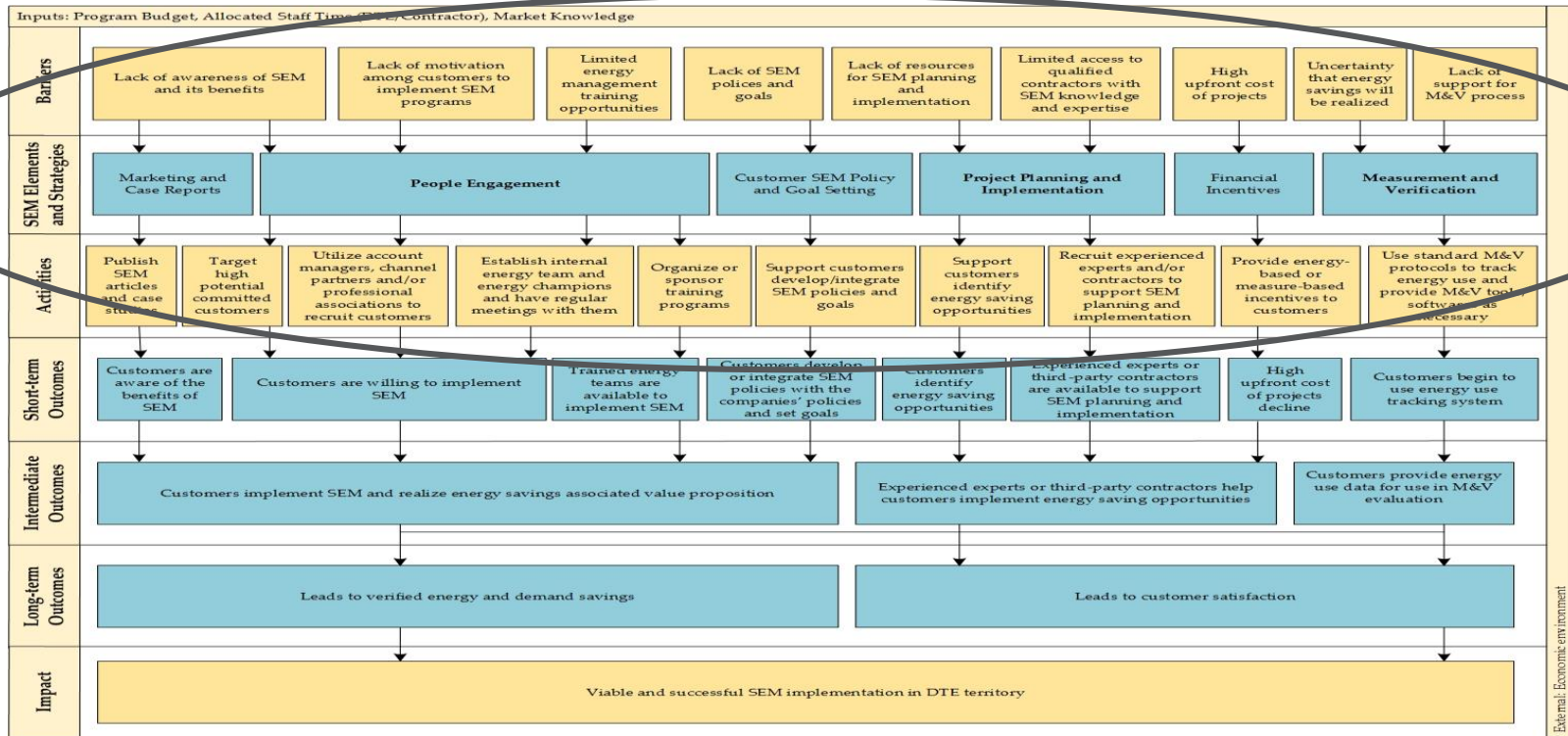
1. Marketing and case reports
2. People engagement
3. Customer SEM Policy and goal setting
4. Financial incentives
5. Project planning and implementation
6. Measurement and verification

## Choose **Activities** to Implement Strategies

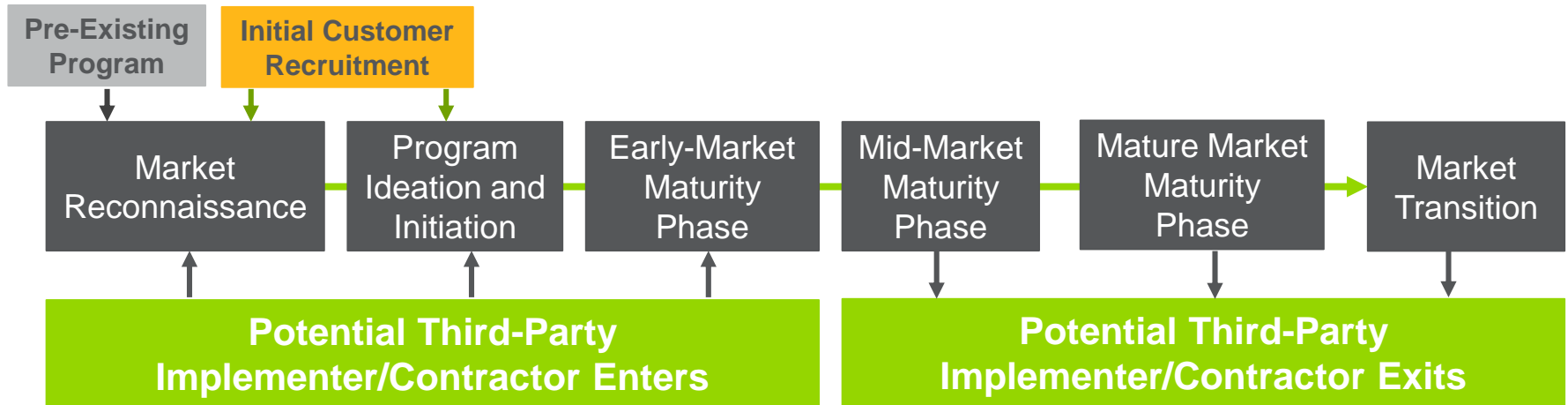
### Activities

- Publish SEM articles and case studies
- Target high-potential committed customers
- Utilize account managers and trades association to recruit SEM
- Establish energy teams and internal champions and meet regularly
- Organize or sponsor trainings
- Support customers developing policies and goals and savings opportunities
- Provide energy based or performance based incentives
- Use standard M&V protocols, provide tools and software as needed

# BEST PRACTICES PROGRAM DESIGN: THEORY OF CHANGE/LOGIC MODEL



# OPERATION LIFECYCLE OF SEM PROGRAMS







QUESTIONS?

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