

# STRATEGIC ENERGY MANAGEMENT

**(SEM)**

Emerging opportunity for EE Programs to achieve savings in the Commercial and Industrial Sector



SEM is the holistic approach to managing energy use in industrial facilities in order to continuously improve energy performance and achieve energy, cost and carbon savings over the long term <sup>1</sup>

SEM focuses on business practice change from senior management through shop floor staff, improving organizational culture to reduce energy waste and improve energy productivity <sup>2</sup>

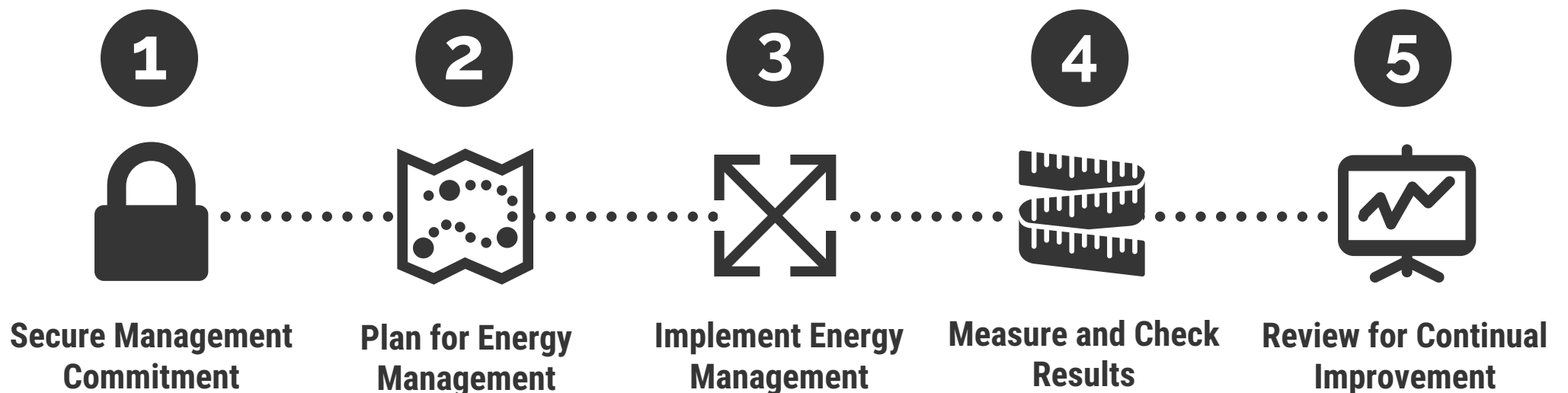


*“SEM fundamentally shifts the dynamic of energy efficiency initiatives—from energy efficiency programs promoting measures to companies actively seeking further savings opportunities.”*

*—2015 ACEEE paper; When does Energy Management become Strategic?*

## SEM CORE ELEMENTS

Strategic Energy Management generally follows the Plan-Do-Check-Act model. Businesses’ level of SEM Implementation falls on a continuum, with customers ranging in both their breadth and depth of implementing core elements of SEM. Core elements include:



1 -CEE Strategic Energy Management Minimum Elements; [https://library.cee1.org/sites/default/files/library/11283/SEM\\_Minimum\\_Elements.pdf](https://library.cee1.org/sites/default/files/library/11283/SEM_Minimum_Elements.pdf)

2 - DOE’s EGuide Training Session; “The Business Case for Strategic Energy Management - Systems and Resources To Help You Get There” NEEP Workshop, November 12, 2015 Ralene Molina-Kreiser, CPEnMS, ISO 50001 Auditor

# BENEFITS

## TO CUSTOMERS

- Improved profits
- Reduced energy costs
- Improved processes
- Reduced emissions
- Reduced risk to energy price fluctuations
- Pursue certification designating leadership in SEM

## TO EE PROGRAMS

- Pathway to achieve energy savings via Operations and maintenance (O&M)
- Increase capital projects
- Enhanced verification of savings
- Foster strong/enduring customer relationships
- SEM creates predictable pipeline of projects

Efficiency Vermont, Bonneville Power Authority, Energy Trust of Oregon, New York State Energy and Development Authority (NYSERDA) are just a few of the energy efficiency programs offering SEM programs today.

## IMPLEMENTATION APPROACHES



TREASURE HUNTS



COHORTS



ENERGY MANAGERS



TECHNICAL ASSISTANCE

## SEM



Energy Trust of Oregon achieved over 51 MWh and 980,000 therms of savings over 2013-15



Bonneville Power Authority saw participating customers reduce energy around 2% the first year and 5.5% by the fourth year



Annual costs associated with implementing Energy Trust of Oregon's SEM programs to C&I customers have ranged from \$.03/kWh to \$.23/kWh depending on program maturity, but average \$.06/kWh over five years



Efficiency Vermont Continuous Energy Improvement (CEI) pilot achieved first year reduction in electricity consumption of 3%

## MORE INFORMATION

DOE Online tools now available to help customers and programs adopt SEM and pursue certifications demonstrating excellence.

Checklist: [https://ecenter.ee.doe.gov/em/spm/pages/SEM\\_checklist.aspx](https://ecenter.ee.doe.gov/em/spm/pages/SEM_checklist.aspx)

ISO 50001 Ready Navigator: <https://navigator.industrialenergytools.com>

Superior Energy Performance (SEP) Certification:

<https://energy.gov/eeere/amo/superior-energy-performance>