# Superior Energy Performance™

## Certifying Increased Energy Productivity under ISO 50001

Superior Energy Performance™ (SEP)—an energy management program managed by the U.S. Department of Energy (DOE) – extends beyond the global energy management standard, ISO 50001, by adding a verification component to ensure energy savings. SEP is a voluntary certification that industrial facilities earn by demonstrating continual improvement in energy efficiency. Organizations can use SEP as a roadmap to achieve ongoing energy improvements and to boost their competitiveness, even if they are not yet ready to pursue SEP or ISO 50001 certification.

SEP builds on the ISO 50001 used by industry to analyze and prioritize energy use and consumption by tracking progress with energy performance metrics. Through SEP, facilities discover new opportunities to achieve and validate energy performance improvements.

SEP is accredited by the American National Standards Institute (ANSI) and the ANSI-American Society of Quality (ANSI-ASQ) National Accreditation Board (ANAB).

### A Proven Return on Investment

Studies show that nine SEP certified manufacturing facilities improved energy performance by 10%, on average, in the first 18 months of implementing ISO 50001 and SEP, with an average payback of less than two years.[1]

Superior Energy Performance™ encourages facilities of varied sizes and levels of experience to continually improve energy performance.
*Photos from: Dow Chemical/781, iStock/1764508.*

## Initial SEP Results and Benefits[1]

- The first 16 industrial facilities to earn SEP certification improved their energy performance to more than 25% from 6% over three years.
- Nine SEP facilities saved, on average, more than $500,000 per year from operational improvements with little or no associated capital cost expenditures.
- SEP reinforces energy efficiency investments on all energy sources used at the facility and maintains those energy savings over time.
- Organizations with annual total energy costs of more than $3 million were typically able to recoup costs for adopting the SEP framework in less than one year.
- Better Plants Partners are working with DOE to implement SEP as a pathway to achieve their corporate-wide energy reduction goals.[2]

## Achieving SEP Certification

SEP certification requires independent verification of two requirements:

- ISO 50001 conformance
- Energy performance improvement levels corresponding to ANSI/MSE 50021 standard for SEP

Certified facilities can earn silver, gold, or platinum designation according to the level of energy performance improvement they achieve. SEP provides a robust protocol for measurement and third-party verification, and also generates reliable data for company management and external stakeholder use.

Visit *http://superiorenergyperformance.energy.gov/* to learn more and begin the certification process.

1 Assessing the Costs and Benefits of the Superior Energy Performance Program, 2013 ACEEE Summer Study on Energy Efficiency in Industry, Niagara Falls, NY: *http://industrial-energy.lbl.gov/files/industrial-energy/active/0/LBNL-6349E.pdf*

2 Find more information on the Better Buildings, Better Plants Program at: *http://www1.eere.energy.gov/manufacturing/tech_assistance/betterplants/*

## Support for Facilities

DOE has resources to support facilities in pursuing SEP including:

- **DOE eGuide for ISO 50001:** This toolkit provides industrial facilities a step-by-step method to implement an energy management system (EnMS) based on a framework for continual improvement and the Plan-Do-Check-Act process of ISO 50001. The eGuide also familiarizes users with other DOE and ENERGY STAR tools and resources for achieving targeted energy saving opportunities.
- **DOE Energy Performance Indicator (EnPI) tool:** This tool helps an industrial facility establish a baseline of its energy consumption and identify key variables that affect energy performance over time.
- **Certified Practitioners:** Trained and qualified professionals can help facilities assess their top energy efficiency opportunities, implement ISO 50001, and meet requirements to achieve certification.
- **DOE Energy Resources Center:** The eCenter has an array of energy efficiency analysis tools, scorecards, and webinars on energy management and specific energy systems.

**Find information and resources at:**
*www.superiorenergyperformance.energy.gov*

**Contact us at:**
*superiorenergyperformance@ee.doe.gov*

**or Paul Scheihing at:**
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& 202-586-7234

## Superior Energy Performance Certified Facilities – Nov. 2013

**Platinum (15% savings over 3 years):**
- 3M Canada Company
  Brockville, Ontario, Canada
- Dow Chemical Company
  Texas City, TX
- Harbec Plastics
  Ontario, NY
- Volvo Trucks North America
  Dublin, VA

**Gold (10% savings over 3 years):**
- Allsteel
  Muscatine, IA
- Cook Composites and Polymers Co.
  Houston, TX
- Cooper Tire
  Texarkana, TX
- General Dynamics
  Scranton, PA

**Silver (5% savings over 3 years):**
- 3M
  Cordova, IL
- Freescale Semiconductor Inc.
  Austin, TX
- Dow Chemical Company
  Texas City, TX
- Nissan North America
  Smyrna, TN
- Olam Spices
  Gilroy, CA
- Owens Corning Waxahachie
  Waxahachie, TX

**Platinum (41% savings over 10 years):**
- Mack Trucks *
  Macungie, PA

**Silver (15% savings over 10 years):**
- Bridgestone *
  Wilson, NC

** Mature Energy Pathway: Facilities that improve savings greater than 15% over 5-10 years and use the SEP best practices scorecard.*

## SEP Accelerator

DOE is initiating an Industrial SEP Accelerator– designed to streamline and reduce the cost of implementing SEP and to engage new partners to promote SEP. DOE is pursuing two engagement opportunities:

**Ratepayer-funded Program Partners** are utilities and energy efficiency program administrators that agree to work towards deployment of SEP to manufacturers across their service territories.

**Enterprise-wide Partners** are DOE Better Plants companies that are testing strategies to implement SEP across a corporation, business unit, or multiple plants to achieve their corporate pledge goal and greater energy cost savings.

## Partnership with Industry

The SEP program is sponsored by the DOE in partnership with the American National Standards Institute (ANSI), ANSI-ASQ National Accreditation Board (ANAB) and U.S. Council for Energy-Efficient Manufacturing (U.S. CEEM). DOE partnered with U.S. CEEM to develop Superior Energy Performance. This cooperative partnership between DOE and U.S. industry leveraged the respective strengths of the public and private sectors, complemented by a network of standards-making bodies, national laboratories, universities, and technical experts.

## Learn More

*manufacturing.energy.gov*

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Energy Efficiency & Renewable Energy

**For more information, visit:**
manufacturing.energy.gov

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