



Certifying Increased Energy Productivity under ISO 50001

The Superior Energy Performance[®] (SEP[™]) program, administered by the U.S. Department of Energy (DOE), certifies facilities that implement an ISO 50001 compliant energy management system standard and achieve improved energy performance¹. In addition DOE's SEP program adds a verification component that ensures energy savings.

SEP builds on ISO 50001 and creates a roadmap that can guide facilities in the right approach for analyzing energy consumption, prioritizing improvements, and tracking progress with energy performance metrics.

By participating in SEP, facilities discover how to maintain ongoing energy improvements and new opportunities to achieve and validate energy performance. Organizations can use SEP to boost their competitiveness, even if they are not yet ready to pursue SEP or ISO 50001 certification.

A Proven Return on Investment

Ten manufacturing facilities implemented ISO 50001 and SEP to improve their energy performance by an average of 12% within the first 15 months—and achieved an average payback of less than two years.

¹ SEP is accredited by the American National Standards Institute (ANSI) and the ANSI-American Society of Quality (ANSI-ASQ) National Accreditation Board (ANAB).



Superior Energy Performance[®] encourages facilities of varied sizes and levels of experience to continually improve energy performance.

Photos from: NREL/17611, Dow Chemical/781, iStock/1764508

Initial SEP Facility Results and Benefits²

- Facilities that earned SEP certification achieved energy performance improvements ranging from 5.2% to 30.6% over three years.
- Ten SEP facilities saved \$36,000 to \$938,000 per year through no-cost or low-cost operational measures.
- SEP reinforces energy efficiency investments on all energy sources used at a facility and maintains those energy savings over time.
- Organizations with annual total energy costs of more than \$2 million were typically able to recoup costs for adopting the SEP framework in less than 1.5 years.
- Better Plants Partners are working to implement SEP as a pathway to achieve their corporate-wide energy reduction goals.³

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 energy.gov/eere/amo/superior-energy-performance to learn more and begin the certification process.

² *Development of an Enhanced Payback Function for the Superior Energy Performance Program*, 2015 ACEEE Summer Study on Energy Efficiency in Industry, Buffalo, NY: energy.gov/eere/amo/downloads/sep-2015-cost-benefit-analysis-paper

³ Find more information on the Better Buildings, Better Plants Program at: energy.gov/eere/amo/better-plants

Support for Facilities

DOE has resources to support facilities in pursuing SEP, including:

- **DOE eGuide:** This toolkit provides facilities with a step-by-step method to implement an energy management program at any level of experience. The eGuide progresses from foundational energy management approaches, to an ISO 50001 energy management system, and ultimately advances to improved energy performance with SEP. 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 a facility establish a baseline of its energy consumption and identify key variables that affect energy performance over time.
- **Certified Practitioners:** Trained and qualified professionals 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:

energy.gov/eere/amo/superior-energy-performance

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Platinum

- 3M Canada Company Brockville, Ontario, Canada
- Cummins, Inc. Columbus, IN
- Detroit Diesel Corporation Detroit, MI
- HARBECC Inc. Ontario, NY
- JW Marriott Hotel Washington, DC
- Mack Trucks Macungie, PA
- Nissan North America Smyrna, TN
- Rexroth Bosch Bethlehem, PA
- Schneider Electric Clovis, CA
- Schneider Electric Costa Mesa, CA
- Schneider Electric Saanichton, British Columbia, Canada
- Schneider Electric Seneca, SC
- Schneider Electric Smyrna, TN
- Schneider Electric West Kingston, RI
- Volvo Group Trucks Hagerstown, MD
- Volvo Trucks North America Dublin, VA
- Washington Hilton Washington, DC

Gold

- 3M Company Aberdeen, SD
- 3M Company Hutchinson, MN
- Coca-Cola Refreshments USA, Inc. Dunedin, FL
- Cummins, Inc. Whitakers, NC
- Schneider Electric Apodaca, Mexico
- Schneider Electric Columbia, MO
- Schneider Electric Hopkins, SC
- Schneider Electric Peru, IN
- Schneider Electric Tijuana, Mexico

Silver

- 3M Company Cordova, IL
- 3M Company Cynthiana, KY
- 3M Company Decatur, AL
- 3M Company Prairie du Chien, WI
- Bridgestone Wilson, NC
- Curtiss-Wright Cheswick, PA
- Hilton San Francisco Union Square San Francisco, CA
- Hilton Hawaiian Village Waikiki Beach Resort Honolulu, HI
- Land O' Lakes, Inc. Carlisle, PA
- MedImmune Gaithersburg, MD
- Schneider Electric Apodaca, Mexico
- Schneider Electric Cedar Rapids, IA
- Schneider Electric Lexington, KY
- Schneider Electric Lincoln, NE
- Schneider Electric Rojo Gomez, Mexico

SEP Accelerator

DOE initiated the SEP Accelerator—designed to streamline and reduce the cost of implementing SEP and to engage new partners to promote SEP. DOE is pursuing three engagement opportunities:

Ratepayer-funded Program Partners are utilities and program administrators that agree to work towards deployment of SEP to manufacturers and water & wastewater municipalities across their service territories.

Enterprise-wide Partners are companies that are testing strategies to implement SEP across a multiple plants to achieve greater energy cost savings.

Water & Wastewater Partners are municipalities that are testing SEP in this sector.

Partnership with Industry

SEPTM is sponsored by the DOE in partnership with the American National Standards Institute (ANSI), ANSI-ASQ National Accreditation Board (ANAB), and the U.S. Council for Energy-Efficient Manufacturing (U.S. CEEM). DOE partnered with U.S. CEEM in 2008 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.