

Superior Energy Performance

Superior Energy Performance provides industrial facilities with a road map for achieving continual improvement in energy efficiency while maintaining competitiveness. To encourage broad participation by U.S. industry, Superior Energy Performance offers a tiered approach to demonstrating energy intensity improvement.

A central element of Superior Energy Performance is implementation of the ISO 50001 energy management standard, with additional requirements to achieve and document energy intensity improvements. The program provides a framework for fostering energy-efficiency at the plant level and a methodology for measuring and validating energy efficiency/intensity improvements.

It is anticipated that the first plant will be certified in June 2010 and the national, voluntary program will launch in June 2011. A non-governmental organization will provide ANSI-accredited certification to U.S. manufacturing facilities. Superior Energy Performance will transition from a federally-supported development period to a fee-based program administered by a non-governmental, not-for-profit organization.

Strategic Goals

1. **Foster an organizational culture of continuous improvement in energy efficiency;**
2. **Develop a transparent system to validate energy intensity improvements and management practices; and thus**
3. **Create a verified record of energy source fuel savings and carbon emission reductions with potential market value that could be widely recognized both nationally and internationally.**

Program Elements

In support of Superior Energy Performance, several program elements are under development to help industrial facilities identify energy efficiency opportunities, understand how to implement energy efficiency improvements, and apply a consistent organizational structure to effectively manage energy use.

- **Energy Management Standard:** Provide a framework for industrial plants or entire companies to manage energy, including all aspects of procurement and use. The initial plants certified under Superior Energy Performance will use the ANSI/MSE 2000:2008 energy management standard and the program will transition to ISO 50001 once the international energy management standard is launched.
- **System Assessment Standards:** Provide guidance on conducting an energy-efficiency assessment at a facility for a specific system type (initially pumps, compressed air systems, steam, and process heating).
- **Measurement and Verification Protocol:** Offer a best practice methodology to 1) verify the results and impact from energy-efficiency projects, 2) specify parameters required to quantify the energy efficiency of a facility, and 3) track how much energy efficiency/intensity changes over time for the overall plant or from a specific measure or project.
- **Certified Practitioners:** Provide assistance to applicants in assessing energy efficiency opportunities in various types of energy systems and conforming to the requirements of the ISO 50001 energy management system. Superior Energy Performance will also certify separate classes of experts who can maintain independence during the verification process. A two-part system is anticipated: 1) Individuals who are certified to validate performance for a plant seeking certification (SEP Validation Specialists), and 2) ANSI-accredited organization(s) who are legally qualified to issue a certification to the plant based on compliance with the requirements of Superior Energy Performance, including the energy management standard and a reported and validated improvement in energy intensity.

- **End-User Awareness Training:** Provide brief overviews of the program elements through end-user awareness training modules that can be given stand-alone, via the internet, or integrated with more comprehensive training.

Qualifying for Superior Energy Performance

Superior Energy Performance is designed to encourage participation among plants of all sizes and levels of experience in managing energy. The program offers flexibility by offering three tiers, depending on the degree of data validation desired by a plant. Plants will select the tier depending on the value they perceive for verification or certification of savings and management practices.

All plants must comply with the ANSI MSE 2000:2008 (ISO 50001) energy management standard and demonstrate an energy intensity improvement.

The U.S. Council for Energy-Efficient Manufacturing is developing the tiers and testing the program elements, strategy, scheme, and requirements. During this development period, facilities can participate in the program through the pilot projects being run in several states.

Pilot Program

To ensure that Superior Energy Performance offers value and flexibility for plants of various sizes and experience in managing energy, the program is conducting field testing in five manufacturing plants through a pilot program in Texas.

The goal of the pilot project is to verify that the processes, standards, and performance criteria under Superior Energy Performance 1) are practical and achievable, 2) provide benefit to participating plants, and 3) reliably identify plants that meet the proposed certification criteria.

Diverse facilities were recruited to provide a robust assessment of the proposed Superior Energy Performance program. The sites represent four industrial sectors: food, insulation, semiconductors and chemicals, and range in size and experience in energy management.

Learn More

To learn more about Superior Energy Performance and the U.S. Council for Energy-Efficient Manufacturing, visit www.superiorenergyperformance.net.

U.S. Council for Energy-Efficient Manufacturing

Providing guidance and oversight throughout the development of Superior Energy Performance

The U.S. Council for Energy-Efficient Manufacturing seeks to enable U.S. industry to achieve global leadership in energy efficiency and greenhouse gas emissions reduction. It is a voluntary partnership that brings together the respective strengths of industry, government, and other organizations and is led by a committee of representatives from the following organizations:

3M Company

Dow Chemical Company

Eastman Chemical

Ford Motor Company

Frito-Lay

HP

Huntsman Chemical

LyondellBasell

Owens Corning

PPG Industries

SSAB

Toyota

Weyerhaeuser

Alliance to Save Energy

American National Standards Institute (ANSI)

National Institute of Science & Technology (NIST), Manufacturing Extension Partnership

Texas Industries of the Future

US Department of Energy's Industrial Technologies Program, *Save Energy Now*

US Environmental Protection Agency's ENERGY STAR for Industry Program

Contact Information:

For questions or comments regarding the U.S. Council for Energy-Efficient Manufacturing and Superior Energy Performance, please send email inquiries to SEP@energetics.com.