



## Superior Energy Performance—A New Certification Program for Industrial Facilities

### Key Points

- Superior Energy Performance is a new certification program specifically for manufacturing plants.
- Industrial facilities will have a standardized method to measure energy performance and track progress toward improvements.
- The program is currently in development under the guidance of the U.S. Council for Energy-Efficient Manufacturing.



Source: [www.epa.gov](http://www.epa.gov)

Manufacturing facilities—with their specific, energy-intensive processes—are often difficult to incorporate within general green building standards, such as ENERGY STAR® and LEED (Leadership in Energy and Environmental Design). Superior Energy Performance, a new plant certification program currently in development, hopes to fill this gap by providing manufacturing facilities with a system for validating energy intensity performance improvement and management practices. The program is designed to contribute towards a goal of reducing the energy intensity of U.S. manufacturing plants by 25% over the next decade.

The [U.S. Council for Energy-Efficient Manufacturing](#) is guiding the development of the program. The council is a cooperative effort between the U.S. government, industry, and universities—as well as several standard-making organizations. Pilot testing is ongoing at a number of industrial facilities in Texas. It is expected that the first plants will be certified in 2010 and the national voluntary program will be launched in 2011.

### The Need for a Standard

While the cost of purchasing energy for production receives significant attention, the use of that energy once inside the factory is often viewed as simply the cost of doing business. Experience has shown that unless a facility actively manages energy use, it will have a much lower level of energy efficiency. Without performance indicators that relate energy consumption to production output, it is difficult to measure or document improvements in energy intensity. Many industrial facilities have already established internal goals to improve energy efficiency and reduce their carbon footprint. Superior Energy Performance will provide facilities with a practical and standardized approach to measuring and validating these improvements.

Participation in Superior Energy Performance may also include a number of other benefits:

- A mechanism for a company to document energy-efficiency improvements.
- National recognition by a third party of the company's leadership in energy management.
- A method for communicating to stakeholders about progress in energy improvement programs.
- Helps to put in place a continuous improvement program for reducing energy intensity per product of output.

### Program Building Blocks

Improving industrial energy efficiency by using energy management best practices and system assessments can help to reduce production costs and improve competitiveness. The elements of the Superior Energy Performance program are being designed to help facilities manage energy use, identify and implement energy-savings opportunities, and measure results. Standards and protocols included in the framework are as follows:

- Energy Management Standard—The energy management standard is a framework for industrial plants or entire companies to manage energy, including all aspects of procurement and use. Qualifying companies must conform to the ANSI/MSE 2000-2008 standard, which will transition to the new ISO 50001 standard currently in development.
- System Assessment Standards—The system assessment standards will provide guidance in conducting energy-efficiency assessments for four types of energy systems: compressed air, process heating, pumps, and steam. The standards—which are being developed by the American Society of Mechanical Engineers (ASME)—are not required within the program, but they can be useful in helping industrial plants identify important opportunities to reduce energy use.
- Measurement and Verification Protocol—The measurement and verification methodology under development will help facilities measure energy efficiency, verify the results of energy-efficiency investments, and track progress over time.

Certified practitioners will be trained to assist applicants in conforming to program requirements and in applying the energy management and system assessment standards. Candidates will be required to pass a qualification exam and undergo a program of continuing education. End user awareness training will be developed to educate partners about program requirements and the ISO 50001 standards.

#### Qualifying for Certification

Superior Energy Performance will offer three levels of participation—Participant, Partner, and Certified Partner—depending on the amount of data validated and the degree of involvement desired. To achieve certification, facilities must conform to the ANSI/MSE 2000-2008 (until development of ISO 50001) energy management standard and meet the program's energy intensity targets. The program will offer silver, platinum, and gold designations that signify levels of performance. Facilities will need to re-certify every three years to validate their performance and their conformance to program requirements.

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