



# **Certifying U.S. Manufacturing Plants for Energy Efficiency**

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## **Strategic Goals of Plant Certification**

- Fosters an organizational culture of continuous improvement in energy efficiency
- Develops a transparent system to validate energy intensity improvements and management practices, and thus
- Creates a verified record of energy source fuel savings and carbon emission reductions with potential market value that could be recognized both nationally and internationally



## Benefits of Plant Certification

- Establishes systematic means to achieve continuous improvement
  - Standards for energy management and system assessments
  - Tools and resources to assist in implementation
  - Process for validation
  - Focus on reducing energy intensity per unit of output
- Helps plants get on the path to improvement by adopting tools and resources
  - Promotes buy-in to energy efficiency
- Applies to most companies (a wide range of industries)
- Delivers value to all plants, not just those that pursue certification
- Creates a transparent way to compare energy efficiency

# Superior Energy Performance Partnership

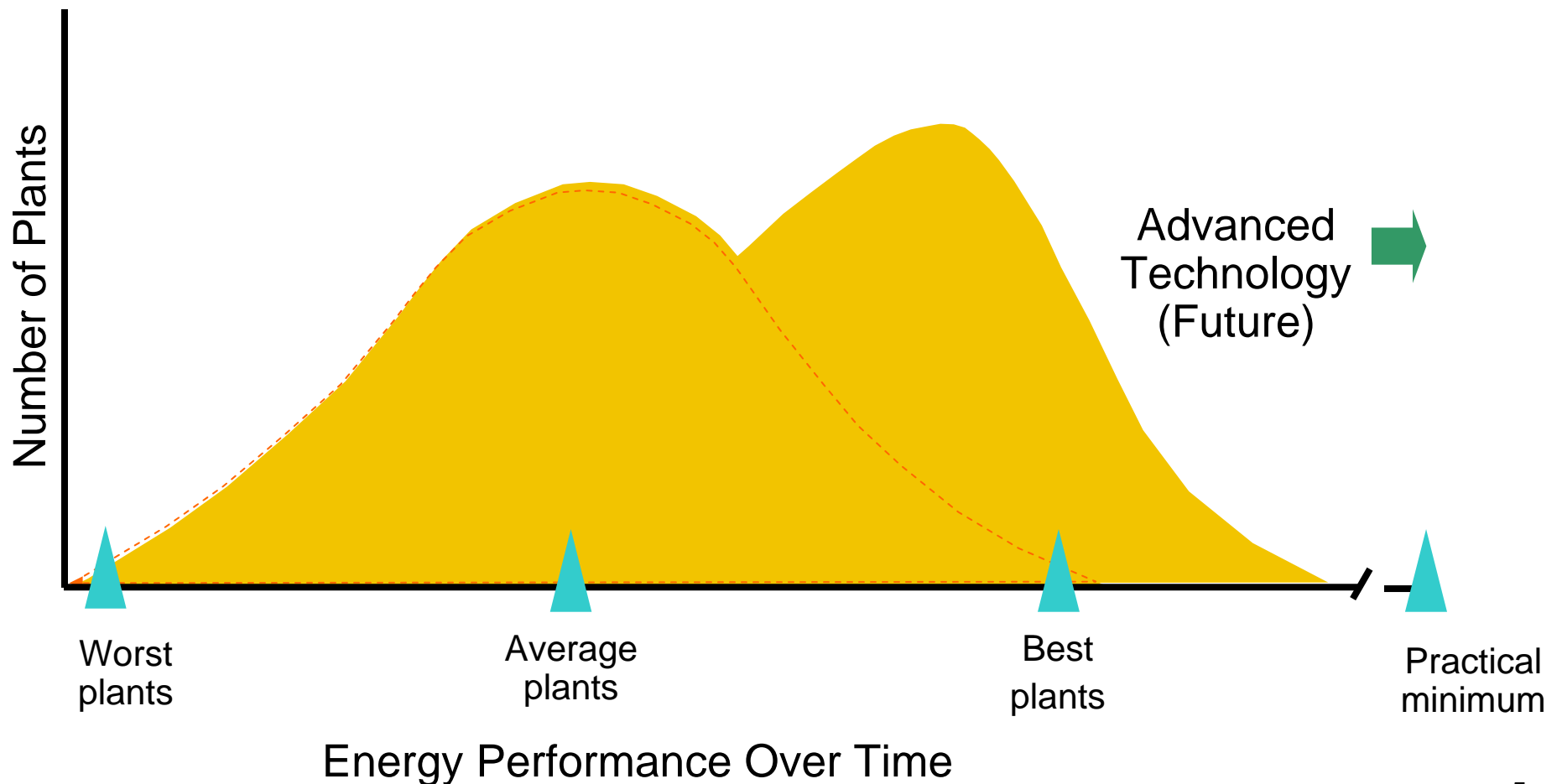


- Collaboration of industry, government, and non-profit organizations
- Seek to improve the energy intensity of U.S. manufacturing through a series of initiatives.
- Support Plant Certification program

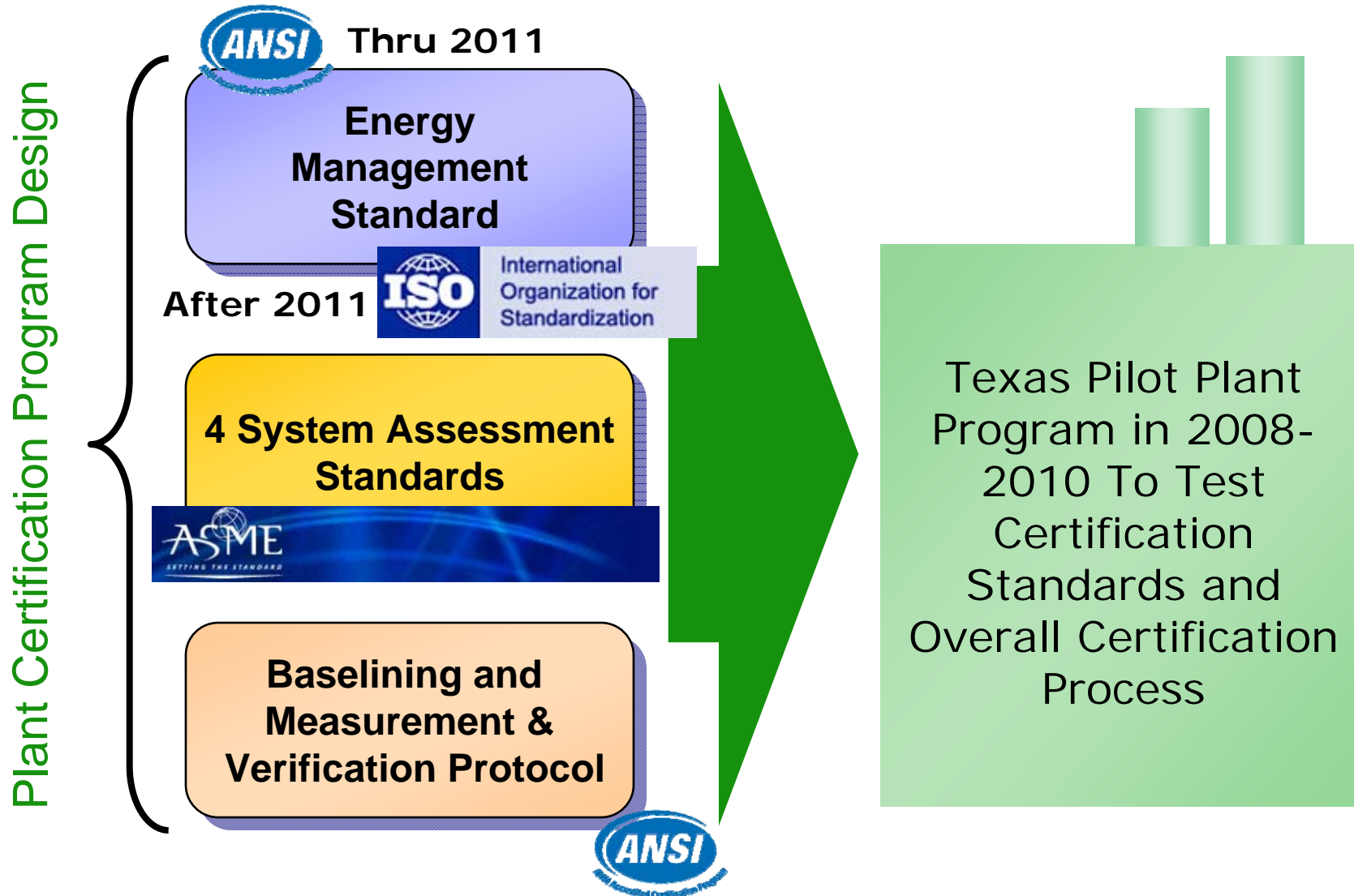


[www.superiorenergyperformance.net](http://www.superiorenergyperformance.net)

# Impact on All Manufacturing Plants' Energy Performance



# ANSI/ISO Energy Management



# Basic Elements of ANSI Management System for Energy (MSE 2000:2008)



[www.ansi.org](http://www.ansi.org)



## System Assessment Standards

- Builds off DOE Save Energy Now and IAC programs, Compressed Air Challenge, state/regional energy efficiency initiatives, etc.
- Start with four standards: Steam, Process Heating, Pumping and Compressed Air systems
- Develop consistent standards under ASME technical committees
- Four ASME standards ready for field testing in June, 2008



## Measurement and Verification Protocol

- Verify results and impacts of energy efficiency projects
- Specify parameters required to quantify facility energy efficiency
- Track energy efficiency/intensity changes over time
- Build off experience: IPMVP, utility experience, OSHA Star, etc.
- Balance of rigorous protocol to validate performance and overall cost to become certified

# Future Certification Infrastructure

## Overall Plant Certification Standard

Energy Management Standard

System Assessment Standards

Measurement & Verification Protocol

## Certifying Organization (TBD)

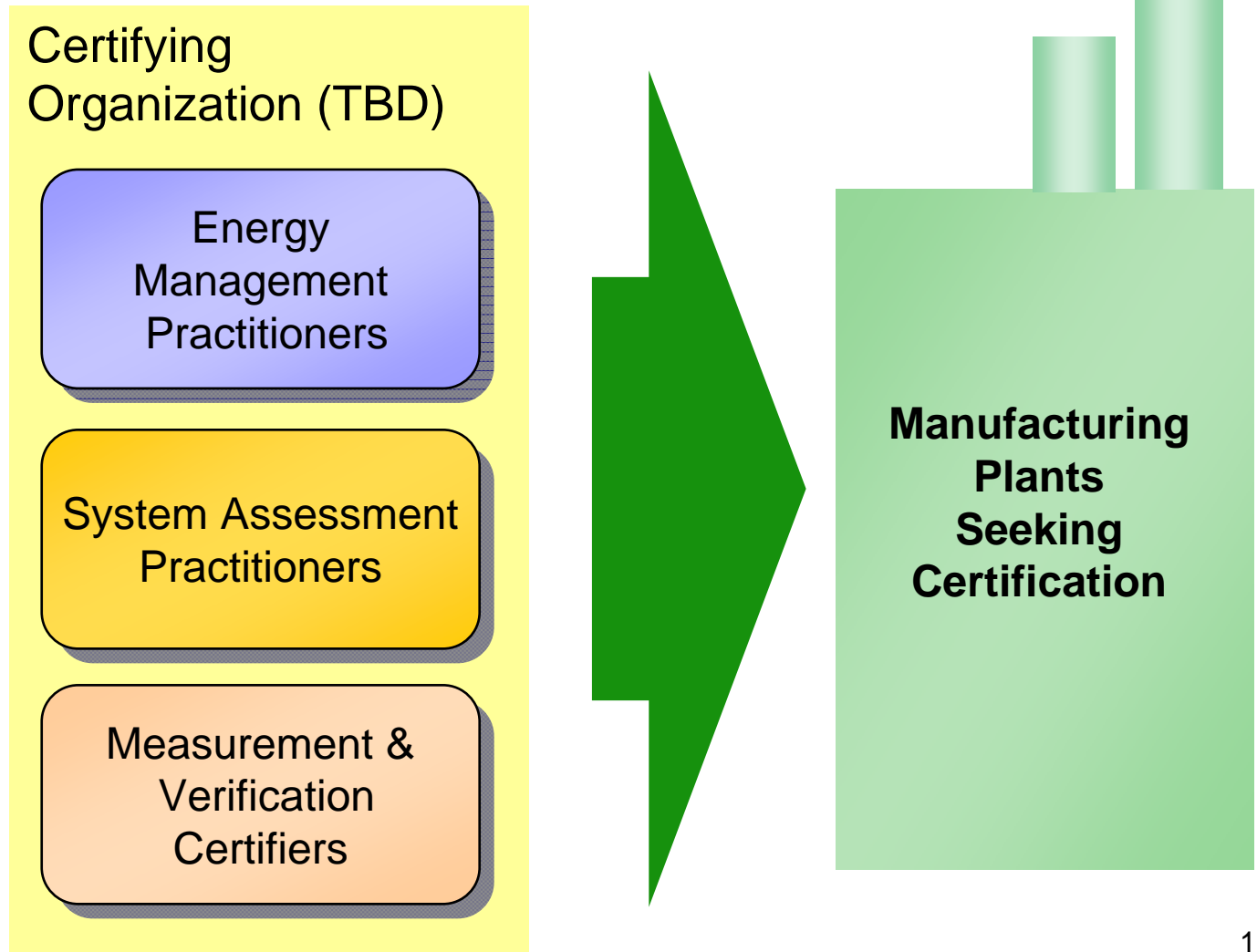
Energy Management Practitioners

System Assessment Practitioners

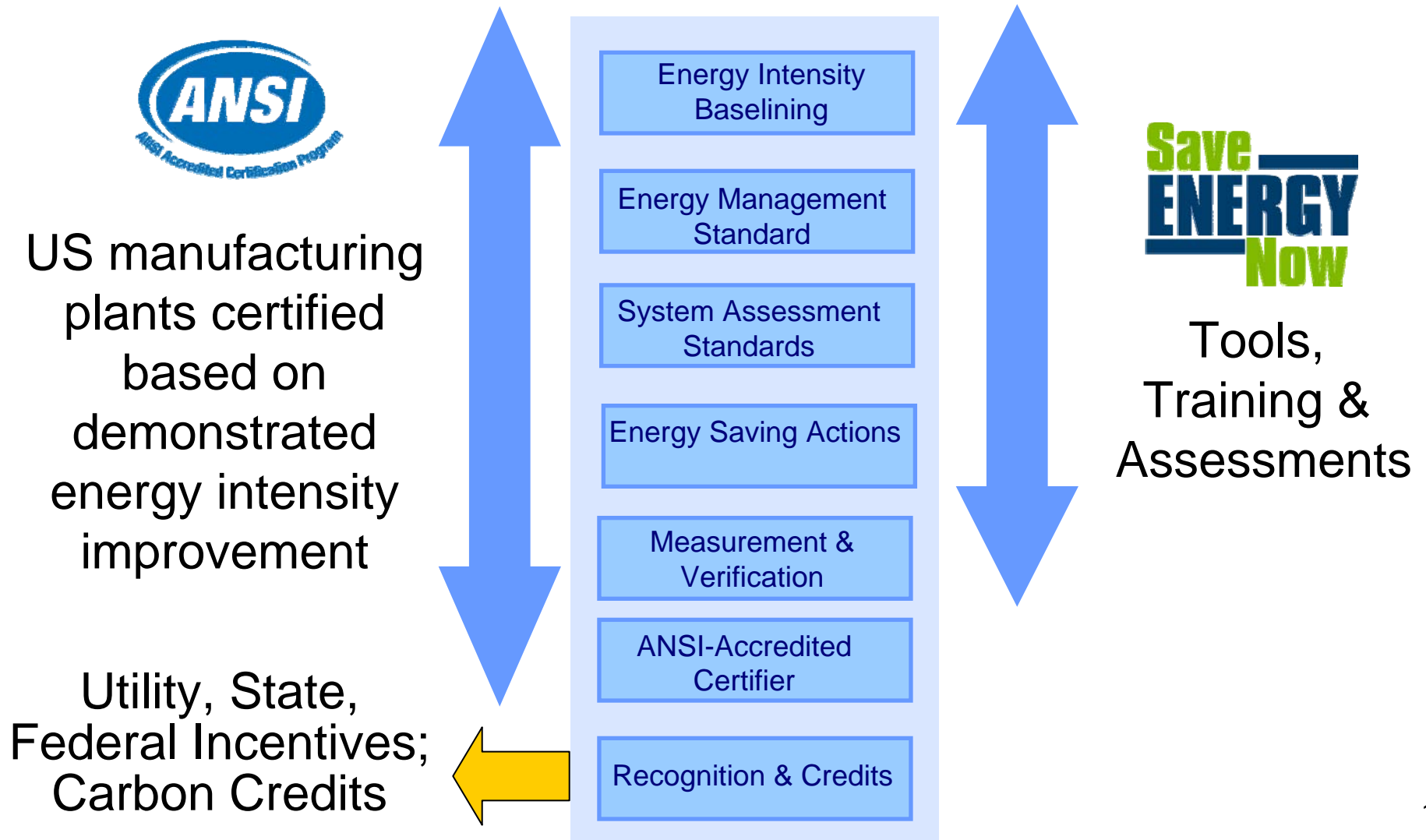
Measurement & Verification Certifiers

Manufacturing Plants Seeking Certification

# Certified Practitioners



# Comprehensive Plant Energy Management





## Looking Forward: Key Milestones

- **June 2008:** Texas Pilot project begins field testing ANSI energy management standard and system assessment standards
- **Feb. 2009:** Select Certifying Organization
- **May 2009:** Begin field testing of measurement and verification methodology in pilot plants
- **Feb. 2010:** First plants are ANSI certified for energy efficiency, based on pilot program results
- **June 2010:** Begin training certified practitioners in energy management and system assessments
- **Dec. 2010:** ISO Energy Management Standard published; replaces ANSI energy management standard
- **June 2011:** National launch of Certification program

## For More Information

[www.superiorenergyperformance.net](http://www.superiorenergyperformance.net)

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