

## CASE STUDY

## Field Advisors Help Guide Participating Industries



## NEEA-sponsored field advisors gain experience in the field

In October 2008, NEEA recruited 10 consultants to assist companies participating in its ISO 50001/SEP-based Demonstration Pilot and the U.S. DOE's *Save Energy Now* LEADER programs. ISO management standards (including ISO 9001 for quality and ISO 14001 for environmental management) are based on 65 years of experience from more than 1.2 million companies in over 160 countries. Management systems lay out the basic principles required to manage any business function. They comprise a series of business processes that create a logical structure for evaluating and controlling business operations. SEP is based on ISO 50001 and adds additional statistical analysis and validation to a company's ISO program.

As advanced forms of strategic energy management (SEM) systems, ISO 50001 and SEP have the ability to influence 60 percent of the world's energy use across many economic sectors. It is expected that between 500,000 and 1,000,000 companies worldwide will seek ISO 50001 certification (similar to the numbers of ISO 14001 and ISO 9001 certifications). And while these systems don't directly address Greenhouse Gas Emissions, implementing the systems supports companies in managing their carbon footprint.

NEEA had three goals for the consultants working with the program:

1. Provide individual support to companies participating in the pilot.
2. Share best practices and key learnings with other energy and management systems consultants.
3. Ensure a base of trained, experienced, and certified consultants in the Northwest was ready to help companies achieve both ISO 50001 and SEP certification.

All companies and consultants participating in the pilot attended workshops presented by the authors of ISO 50001 as well as webinar trainings, one-on-one consultations with the standard authors and pilot Program Manager, and were provided with support materials. The companies also received at least five hours a month of one-on-one support from their assigned consultants, underwritten by NEEA. Consultants drafted procedures, reviewed documents, advised on management processes, recommended energy savings opportunities, and conducted mock audits to allow companies to determine their readiness for certification.

Because of their training and experience in the NEEA pilot, the 10 consultants were now eligible to become among the nation's

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The four companies participating in the Demonstration Project collectively documented 17,000 kWh and 2,500 MMBTU's in energy savings.\*

\*These savings are self-reported and have not been validated by an independent third party.

# THE JURY IS IN

Industrial facilities choosing to implement strategic energy management have persistent and reliable energy savings, bolster the bottom line, and position themselves for sustained success in the increasingly competitive global marketplace.

first consultants certified through the SEP program. Beginning in fall 2011, the American National Standards Institute (ANSI)-accredited program will offer five consultant certifications in two categories:

- 1. Certified Practitioners Energy Management Systems:** These certified consultants can assist facilities in implementing the ISO 50001 global energy management standard and/or the SEP requirements and preparing for certification to either or both standards.
- 2. Certified Practitioners in Systems Assessments:** These consultants are trained and certified to assist facilities in conducting one or more of four energy system-specific assessments, and helping to establish procedures for continuously improving energy efficiency of that system. All four of the system assessments are performed in accordance with the American Society of Mechanical Engineers (ASME) system assessment standards. The four systems that can be assessed are compressed air, process heating, pumping, and steam. Consultants can be certified to conduct assessments to one or more of these standards. These assessments are not required for ISO 50001 or SEP certification, but can be very helpful in identifying opportunities and the need for operational controls.

Some level of SEM will likely work for any size of organization, because an SEM specifies what processes must be in place, as opposed to how those processes need to operate. It is up to the company to determine how they will do things. Both ISO 50001 and SEP are designed to be flexible so that they can adapt to a wide range of industries and practices around the world, including different regulatory structures, cultures, and social systems. With certified and experienced consultants to assist them, companies will be able to adapt these programs to meet their needs and offer the greatest benefits for their operations. Companies will have the assistance they need to construct a SEM system best suited to the way their company does business. Companies choosing to implement SEM will continue to realize energy savings, bolster their bottom line, and position themselves for sustained success in the increasingly competitive global marketplace. ■

## About NEEA's pilot program

The Northwest Energy Efficiency Alliance's (NEEA) Northwest Strategic Energy Management (SEM) Demonstration Pilot of the International Standardization Organization's (ISO) 50001 energy management standard, and the U.S. Department of Energy's (DOE) Superior Energy Performance (SEP) program is part of its commitment to transform the market for strategic energy management in the Northwest. NEEA, with the help of utility partners, conducted the pilot from October 2008-June 2011 with five participating companies from throughout the region. NEEA provided strategy and technology support, training, utility coordination efforts, and included NEEA field advisors to work with participating companies to embed energy management into industrial business plans — from leadership to operational levels — to support long-term energy savings.



### »» Pilot Benefits

- Implementation of energy-saving efforts at each of the participant companies
- Persistent and reliable energy savings
- Statistically validated energy savings

### »» Pilot Challenges

- Started at the height of the recession
- Many companies were not in a financial or staff resources position to participate
- All companies experienced major business changes during the pilot timeframe
- Many utilities and company "facilities maintenance" groups were not familiar with ISO-style management systems

### »» Best Practices for Energy Reduction

- Executive, public commitment to the U.S. DOE's *Save Energy Now* LEADER program
- Goal of 5% energy intensity reduction over the past 3 years, plus 25% more future energy intensity reduction over 10 years
- Data tracking and analysis
- Describing and documenting processes
- Energy training
- Auditing and corrective action
- Management reviews

