

September/October 2005

STEAMING AHEAD

Energy-Efficiency News for Steam Plant Managers

Published by the Alliance to Save Energy and the U.S. Department of Energy (DOE)

Read this Newsletter online at: <http://www.steamingahead.org/>

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"Save Energy Now": ITP Energy Teams to Visit 200 Plants

As part of President Bush's national campaign to save energy, the U.S. Department of Energy's Industrial Technologies Program (DOE-ITP) has launched the **Save Energy Now** initiative to help U.S. industry during this period of tightening energy supply and rising costs. Through the initiative, ITP will provide to industry:

- Targeted energy assessments for 200 large energy-consuming plants,
- Industrial Assessment Center (IAC), <http://www.eere.energy.gov/industry/bestpractices/iacs.html>, energy assessments for over 500 small-to-medium sized plants,
- Training in classroom and webcast formats,
- Mini workshops conducted by IACs to educate small-to-medium sized plant staff on easy ways to save energy, and
- Web-site recognition of all plants receiving a targeted energy assessment.

Your company can be a part of this initiative by sponsoring/attending DOE training events or webcasts, identifying plant staff eligible to become DOE Qualified Specialists (http://www.eere.energy.gov/industry/bestpractices/qualified_specialists.html), and disseminating *Save Energy Now* materials and resources to your peers. If you are not part of the 200 initial assessments, you can complete your own assessment and let DOE know the results so they can recognize your company.

Visit the *Save Energy Now* web site, <http://www.eere.energy.gov/industry/saveenergynow/>, if you are interested in learning more or participating in the initiative. The *Save Energy Now* web site will be constantly updated, so check back soon for new information.

Updated and Enhanced BestPractices Web Site

DOE-ITP recently updated and enhanced the BestPractices web site to help industry better access ITP resources for saving energy and reducing operating costs, <http://www.eere.energy.gov/industry/bestpractices/>. Be sure to update your bookmarks!

The new web site features audience-specific navigation to help corporate executives, plant managers, technical individuals, and the public find the energy-efficiency information they need with ease.

DOE Awards \$2.6 Million to Boost Combustion Efficiency

DOE recently announced the selection of three new combustion technology research and development (R&D) projects that will receive nearly \$2.6 million in total cost-shared funding over the next two years. The selected R&D teams plan to develop advanced industrial boilers that deliver superior energy and environmental performance. By 2020, these technologies are expected to reduce energy use in industrial boilers by seven percent, saving industry \$2 billion per year in energy costs.

"Combustion systems use nearly three-quarters of all energy consumed in U.S. manufacturing," said Douglas L. Faulkner, Acting Assistant Secretary for Energy Efficiency and Renewable Energy. "These new technologies are expected to help save energy, increase efficiency, and improve environmental performance throughout the manufacturing sector."

More information about the three R&D projects is available at http://www.eere.energy.gov/industry/news/news_detail.html/news_id=9370

3E Plus[®] Insulation Software Upgrade

The North American Insulation Manufacturers Association (NAIMA) recently announced the launch of its updated version of 3E Plus[®], a computer program that calculates the optimal amount of insulation needed to use less energy, reduce air emissions, and improve process efficiency. The 3E Plus[®] program, available for free at <http://www.pipelnsulation.org>, quantifies energy, environmental and cost savings resulting from the optimization of pipe, duct and vessel insulation in commercial buildings and industrial facilities.

Users will find that 3E Plus[®] version 4.0 is easier to use and more flexible than previous versions. The new version provides users with more guidance and easier data labeling, and the capability to create and save new default entries. A key change is the ability to calculate in both metric and inch-pound units.

New IAC Case Studies Highlight Energy Savings at Five Plants

DOE Industrial Assessment Centers (IACs) across the country are helping industry save money, reduce waste, and operate more efficiently through energy assessments. Projects identified in a recent IAC assessment will save Containers Southwest nearly \$680,000 a year through modifications that will pay for themselves in savings within 5 months (calculated as a simple payback). More information about the Containers Southwest assessment and other recent IAC assessments is available:

- Containers Southwest: A Plastic Beverage Bottles Maker Implements All Recommendations <http://iac.rutgers.edu/technicaldocs/casestudies/AS0318CaseStudy.pdf>
- Coating Technology: Metal Finishing Plant Implements 100% of Recommendations <http://iac.rutgers.edu/technicaldocs/casestudies/SU0156CaseStudy.pdf>
- Dickten & Masch: Energy Assessment Finds Potential Savings for Plastics Manufacturer <http://iac.rutgers.edu/technicaldocs/casestudies/WI0454CaseStudy.pdf>
- Dura Automotive Systems: Industrial Energy Assessment Finds Significant Savings <http://iac.rutgers.edu/technicaldocs/casestudies/UF0239CaseStudy.pdf>
- Metzeler: Automotive Door-Seal Maker Implements IAC Recommendations for Energy Dollar Savings <http://iac.rutgers.edu/technicaldocs/casestudies/OK0658CaseStudy.pdf>

Assessments are performed by local teams of engineering faculty and students from one of the 26 participating universities across the country. Students gain valuable experience that will benefit them and their future employers.

All of the IAC case studies are available from http://iac.rutgers.edu/technicaldocs/case_studies.php

Industrial Assessment Centers: Solicitation for Applicant Schools

The U.S. Department of Energy anticipates issuing a competitive solicitation in October 2005 for colleges and universities interested in directing Industrial Assessment Centers (IACs). Funding will be awarded for the fall 2006 academic year. Funds permitting, DOE anticipates selecting approximately 26 centers for up to 5-year terms at an approximate annual budget of \$180,000 per center. More information about the solicitation is available from the BestPractices solicitations page: <http://www.eere.energy.gov/industry/financial/solicitations.html>

Plant-Wide Assessment at Houston Refinery

A recent plant-wide energy assessment at Valero Energy Corporation's refinery in Houston, Texas, <http://www.eere.energy.gov/industry/bestpractices/pdfs/valero.pdf>, identified projects that could result in total annual energy savings of about 1.3 million MMBtu for fuel and more than 5 million kWh for electricity. These reductions in turn would generate cost savings of about \$5 million per year and reduce environmental emissions.

The assessment was a two-stage process in which the assessment team first conducted an energy systems review to identify primary natural gas and refinery fuel gas users, electricity- and steam-producing equipment, and cooling water systems. Then, they developed an energy optimization and management strategy and identified ways to reduce water use and emissions.

More than a dozen projects were identified. For example, the team recommended replacing two rented diesel air compressors with a new, steam-driven compressor. This alone would reduce diesel fuel use by 108 gallons per day and save the plant \$160,000 per year in rental fees.

Former ITP Technology Delivery Lead Named ACEEE 2005 Champion of Energy Efficiency

Former Industrial Technologies Program (ITP) Technology Delivery Manager, Peter Salmon-Cox, took a short break from retirement on July 20 to accept a "Champions of Energy Efficiency" award from the American Council for an Energy-Efficient Economy (ACEEE) at its Summer Study on Energy Efficiency in Industry, in West Point, New York. Presented to outstanding leaders involved with the industrial sector, the award recognizes accomplishments that move energy efficiency forward.

Read the DOE-ITP article about the award to Peter Salmon-Cox <http://www.aceee.org/press/champ05.htm>. In addition, ACEEE honored Fred Schoeneborn and EnSave, Inc. with 2005 Champions of Energy Efficiency awards. Visit the ACEEE web site for more on the awards: <http://www.aceee.org/about/awards.htm>.

DOE BestPractices Solicitations

DOE-ITP provides cost-shared funding for qualified BestPractices R&D projects. Awards are based on a competitive process open to collaborative teams, which may include academia, suppliers, universities, national labs, and others. The following is a list of active and upcoming solicitations. Visit http://www.eere.energy.gov/industry/bestpractices/bestpractices_solicitations.html for more details.

Solicitation Title	Solicitation Opens	Proposals Due	Selection Announcements	Funding
Chemicals Industry of the Future	09/07/2005	01/11/2006	TBD	DOE expects to fund projects at \$500,000 for the first 12 months, with a maximum of \$10 million for the remaining years.
Laboratory Call for Materials For Energy Efficient Industrial Processing	07/19/2005	10/26/2005	TBD	DOE expects to fund projects at an award level of \$300,000 to \$1 million per year per project for up to 4 years.
Materials for Energy Efficient Industrial Processing	07/11/2005	10/19/2005	02/28/2006	DOE expects to fund projects at an award level of \$300,000 to \$1.5 million per year per project for up to 4 years.
Industrial Assessment Center	10/10/2005	TBD	TBD	Approximately \$26,000,000

Note: Official notices of solicitations can be found at <http://www.fedbizopps.gov> or in the Federal Register. This list is for information only—it may not be inclusive of all solicitations. Funding amounts and schedule dates are subject to change.



**ALLIANCE TO
SAVE ENERGY**
Creating an Energy-Efficient World

Steaming Ahead: <http://www.steamingahead.org>

DOE BestPractices Steam: <http://www.eere.gov/industry/bestpractices/>

Alliance to Save Energy: <http://www.ase.org/>



U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**
Bringing you energy products, information, and services
to help you save energy, reduce costs, and protect the environment.

Financing Efficiency with DOE's Financing Toolbox

Manufacturers face a number of barriers as they seek to modernize and remain competitive. However, they are not alone in their search for financing and technical assistance. The DOE-ITP *Toolbook for Financing Energy Efficiency and Pollution Prevention Technologies*, http://www.eere.energy.gov/industry/financial/fin_toolbook.html, is designed to help manufacturers work through key issues and alternatives relating to financing manufacturing modernization.

Before you say, "we don't have the money to make energy efficiency improvements", consult this toolbox. Some manufacturers may choose to read the entire document to get a full understanding of the barriers to and opportunities for financing efficiency and other improvements. Others will want to concentrate on different types of available assistance, such as loan guarantees or equity capital, in order to learn what resources could best fit their needs. In any situation, the Toolbox can help manufacturers advance their efforts to become more efficient and more competitive.

Events

U.S. Department of Energy Steam End-User Training

The DOE BestPractices Steam End-User Training course is a one-day training session covering the operation of typical steam systems and methods of system-efficiency improvements. The course encompasses steam-generation efficiency, resource-utilization effectiveness, and steam distribution system losses. The course familiarizes participants with DOE BestPractices Steam Software Tools for steam system assessment and optimization. For a full course description, visit http://www.steamingahead.org/temp/euttraining_desc.pdf.

- November 8, 2005: Birmingham, Alabama
Dana Stone: dstone@atn.org, 205-943-4806
- November 10, 2005: Charleston, West Virginia
Bill Johnson: william.johnson@wvu.edu, 304-293-2867, ext. 5530
- November 15, 2005: Baltimore, Maryland
Angie Funk: afunk@spirax.com, 800-251-7676

U.S. Department of Energy Steam Specialist Qualification Training

The DOE BestPractices Steam Specialist Qualification Training program is a two-and-a-half day course teaching the effective use of DOE BestPractices Steam software tools. Participants who pass the final exam are recognized by DOE as Qualified Specialists in the use of the BestPractices Steam Software Tools. For a full course description, visit http://www.steamingahead.org/temp/qstraining_desc.pdf.

- Nov 1 to 3, 2005: Downey, California
Larry Bennett: lbennett@semprautilities.com, 562-803-7570
- January 24 to 26, 2006: Center Valley, Pennsylvania
Angie Funk: afunk@spirax.com, 800-251-7676