Energy Managers Workshop

Tuesday, May 29, 2012

The order of the presentations is subject to change.

"Guiding Principles for successfully IMPLEMENTING Industrial Energy Assessment Recommendations"

Fred Schoeneborn, FCS Consulting Services Inc.

Fred C. Schoeneborn, CEM, CEA is president of FCS Consulting Services, Inc. During his 38 year career with Mobil Oil Corporation he created and managed a Global energy management program. Since 2000 Fred has worked as an independent consultant assisting Fortune 100 companies establish their energy programs. Fred supports the EPA ENERGY STAR program by assisting ENERGY STAR partners in improving their energy efficiency. In addition, he conducts energy assessment workshops for the DOE Oak Ridge National Lab and in 2010 conducted a monthly series of Implementation web-conferences for the DOE Save Energy Now program. In 2005 the ACEEE (American Council for Energy-Efficient Economy) recognized Fred as a "Champion of Energy Efficiency."

Topic Discussion

Fred has managed hundreds of assessments for many Fortune 100 companies and has witnessed the challenges IMPLEMENTATION of identified energy efficiency projects represent.

Ask most energy managers what their Implementation rate is for assessment projects and you are likely to get a disappointed look and a number in the mid-teens. There is a variety of reasons why energy assessment implementation rates can be low, but often it is the result of a lack of planning and formation of an implementation strategy at the end of the assessment process.

Fred will outline a strategy for successful implementation of energy efficiency improvement projects.

“Establishing and Maintaining a Strategic Partnership with the Chief Financial Officer”

R. Neal Elliott, American Council for an Energy Efficient Economy

Neal Elliott is the Associate Director for Research of the American Council for an Energy-Efficient Economy (ACEEE), coordinating ACEEE's overall research efforts. Elliott has been with ACEEE since 1993, founding the Industrial and Agricultural Programs. Elliott is an internationally recognized expert and author on energy efficiency, energy efficiency programs and policies, electric motor systems, combined heat and power and clean distributed energy, analysis of energy efficiency and energy markets, and a frequent speaker at domestic and international conferences.

Topic Discussion

Decisions on moving forward with energy efficiency project are usually made by the CFO or comptrollers within companies. Many engineers find it intimidating to talk with the C-suite because they speak a different language and use decision criteria unfamiliar to their engineering training. The C-suite can be a valuable partner in advancing projects if you develop a relationship with them. This presentation will discuss how corporations make investment decisions and discuss the terms and methods that they use, and will present strategies to developing a partnership with your CFO or comptroller. You all have the same goal--a financially successful company.

"Measuring and Benchmarking Industrial Energy Management Performance"

Peter Garforth, Garforth International llc.

Peter Garforth heads a specialist consultancy based in Toledo, Ohio and Brussels, Belgium. He advises major companies, cities, communities, property developers and policy makers on developing competitive approaches that reduce the economic and environmental impact of energy use. Peter has long been interested in energy productivity as a profitable business opportunity and has a considerable track record establishing successful businesses and programs in the US, Canada, Western and Eastern Europe, Indonesia, India, Brazil and China. Peter is a published author, has been a traveling professor at the University of Indiana at Purdue, and is well connected in the energy productivity business sector and regulatory community around the world.

Topic Discussion

Assessing the energy performance of a manufacturing site can be significantly more complex than it first would appear. At the same time, failure to have a sound understanding of the overall energy efficiency of a plant may result in loss of competitiveness and unacceptable risks to the overall health of the business. This task can be made even more challenging by the need to present the complexities of energy procurement, use and risks in a way that informs senior management, allowing them to make critical investment and other management decisions.

This session will explore multiple approaches to benchmarking manufacturing energy performance, and how and when each should be used. Some approaches may be more appropriately used to establish continuous improvement programs, while others might be better suited to highlight future risks and suggest opportunities for risk avoidance investments. Yet others may showcase areas where a creative approach to energy management could yield business advantages in an increasingly competitive world. Regardless of the approach, all reliable benchmarking requires trustworthy data from inside and outside the plant, and methods of achieving this will be discussed. Last but certainly not least, the way benchmarking results are packaged for high-level decision making requests will be reviewed.

"So I Have an Energy Assessment. Now What?"

Christopher Russell, Energy Pathfinder Management Consulting, LLC

Christopher Russell has documented and evaluated energy management practices at dozens of facilities, and has advised corporations, utilities, trade associations, and government agencies in the planning and promotion of industrial energy programs. As a political appointee, he served as the energy manager for Howard County, Maryland from 2010-2012. He is currently a Visiting Fellow at the American Council for an Energy Efficient Economy. His reader-friendly publications include "The Industrial Energy Harvest" (2008) and "North American Energy Audit Program Best Practices" (2010). He is recognized by the Association of Energy Engineers both as a Certified Energy Manager and as a Carbon Reduction Manager. He is a capstone advisor to graduate students in the Georgetown University School of Continuing Studies (Real Estate). Christopher is on the Advisory Board for the Texas A&M University Industrial Energy Technology Conference. He holds an MBA and a Master of Arts from the University of Maryland, and a Bachelor of Arts from McGill University in Montreal, Canada. For more information: www.energypathfinder.com.

Topic Discussion

Industrial energy choices are more than a technical issue-- choices reflect the career philosophy of the decision-maker. The technical hurdles to energy improvements are not nearly as insurmountable as the human barriers.

Energy assessments do not even begin to address these issues. In fact, they can't. Barriers are better explained by the fears and aspirations of people who are simply trying to maintain their careers, working as individuals in a large business organization.

Energy assessments play a pivotal role in realizing energy efficiency gains. In the end, the assessment's actual effectiveness relies on the receptiveness of key decision-makers. A broad generalization reveals two different management philosophies: (1) energy as a cost, and (2) energy as a resource. This presentation develops this dichotomy by presenting the side-by-side story of two facility managers. With similar credentials, scopes of responsibility, and resource limitations, they tackle energy management from two very different directions. One sees it as a distraction-and wants to get it over with as quickly as possible. The other sees it as a means for supporting his own career agenda, as well as the agendas of others in his organization. The conclusion is a powerful call to action.

"ISO 50001: Design and Procurement Provisions to Maximize Energy Efficiency"

R. Bruce Lung, Alliance to Save Energy

Robert Bruce Lung, Director, Industrial Program**,** joined the Alliance to Save Energy's Industrial Team in September of 2009. Mr. Lung provides strategic input into and implements the Alliance's industrial energy efficiency initiatives. Mr. Lung works with key stakeholders, including the U.S. Department of Energy's (DOE) Advanced Manufacturing Office (AMO) and the Lawrence Berkeley National Laboratory (LBNL) coordinate outreach, analysis, marketing, research, technology delivery, education and programmatic direction for the DOE's Superior Energy Performance program. Mr. Lung also supports the organizational development of the U.S. Council for Energy Efficient Manufacturing, manages the Alliance's Watergy in the U.S. program and is the editor-in-chief of the Alliance Industrial program's newsletter, the *Industrial Spotlight*.

Mr. Lung holds a bachelor of science in foreign service from Georgetown University, and a master's in economics from Virginia Polytechnic & State University.

Topic Discussion

Since the launch of ISO 50001 much has been said about the standard's potential for market transformation through changes in corporate culture by elevating energy efficiency into the management structure of any organization that adopts it. However, ISO 50001 also contains provisions that address procurement of energy efficient products. While the focus of the standard is on managing energy, these procurement provisions can enhance an organization's energy management strategy.

OEM's of manufacturing equipment can play a role. Energy management is not just the purview of end users - OEMs have the ability to influence energy efficient design – this can help differentiate their product. For example, an OEM whose machine operates at 90% of the cost of their competitor's product can make their product line more attractive to end users. Reduced energy use can help the customer become more efficient, saving cost throughout. Energy management can be yet a different differentiator.

"The ExxonMobil Energy Outlook to 2040"

Frank Roberto, ExxonMobil Chemical

Frank Roberto is the Global Energy Advisor for ExxonMobil Chemical Company and is located in their Headquarters facility in Houston. In that position, he is actively involved in the ongoing implementation and sustainment of the company's Energy Management System in existing facilities across the company. Frank joined Exxon Chemical Company in their Florham Park, NJ, Research and Engineering facility. Through a variety of Engineering and Technology assignments in US and European locations, Frank focused on Energy and Utility Systems, including key roles in the development of several Cogeneration applications and the Global Energy Management System. He has also supported existing operations of the company's facilities worldwide and been involved in several major project development activities for new facilities. Frank graduated from Stevens Institute of Technology in Hoboken, NJ, in 1976 with a Bachelor of Engineering Degree.

Topic Discussion

ExxonMobil's "Outlook for Energy" forecasts long-term trends in energy demand, supply and technology with a detailed analysis out to 2040. We expect that expanding populations and economies -- particularly in Non OECD (developing) countries -- will continue to push energy demand higher. In 2040, global energy demand will be about 30 percent higher than it is today, with essentially all the growth in developing countries. The biggest source of this growth continues to be the need for energy to generate electricity around the world.

“Energy Management at BASF – The Chemical Company”

Thomas R. Theising, BASF

Mr. Theising earned a B.S. degree in Electrical Engineering (1981) from The Citadel, Charleston, SC and an M.S. degree in Organization and Management (2001) from Capella University, an online university. During his 29 years with BASF, he has held various engineering positions at seven BASF facility locations within North America, responsible for project management, design department supervision, maintenance engineering, environmental operations, energy procurement and energy management. Since 1992 he has served in his current position of Energy Manager, directing the energy programs at numerous BASF Corporation sites providing internal consulting services. He has provided these services to approximately 150 of BASF’s manufacturing sites during his tenure. As a result of this broad background he has experienced a variety of work environments and has been involved in multiple process technologies. The scope of Mr. Theising's responsibilities includes all aspects of energy supply, conversion and process technology and conservation. He has organized and conducted energy audits both internal and external to BASF at more than 200 manufacturing sites.

Topic Discussion

Many details are available describing technical feasibility, third party financing, performance contracts, or the savings potential of various energy conservation opportunities. The organization and implementation of a do-it-yourself program is what I will present. Having completed approximately 150 energy audits of industrial facilities I have developed a checklist approach to planning an energy audit, preparing the documents, details, schedule, and personnel necessary to perform the audit. In past presentations I have shown the how-to of an audit and the details of tracking the “finished product”, the findings. The methods I have developed have allowed me to maintain an 18% of energy spending annual savings average with one-year payback opportunities. The audience will be shown the details of planning prior to an audit, scheduling during an audit and the common low/no cost items of recent audits.

Additional topic and speaker:

"Utility Costing and Energy Management Systems"

James E. Robinson, DES Global, LLC

James E Robinson PE, P.Eng., CEM, CEP is a founding member and Principal Project Engineer at DES Global, LLC. He is reponsable for projects in the US and Canada with over 35 years of experience in the design, construction and automation of industrial powerhouses. During that time he had various design, construction, and startup reponsabilites at Catalytic Engineering and Construction, Honeywell PMSD, B&W, Gotaverken, Kvaerner, and Siemens Westinghouse. The objective of his work has been the application of advanced controls and in particular Energy Management and Reporting Systems (EMRS) to reduce facility operating cost, reduce emissions and improve overall system reliability. In addition he is a board member of IETC and the Pennsylvania Smart Energy Initiative (SEI).

Topic Discussion

These are challenging times with fuel and electric prices at levels seldom seen. Facility operators are challenged, on a moment to moment basis, to provide reliable utility service, reduce operating cost, while operating facilities in modes seldom seen before. This discussion addresses utility costing and powerhouse automation to reach the proper decision for overall facilities operation.