



Energy Managers Workshop Tuesday, May 24, 2016

The order of the presentations is subject to change.

“Preparing for a Successful Energy Assessment”



Thomas Theising
Sustainable Energy Solutions

Thomas Theising earned a B.S. degree in Electrical Engineering (1981) from The Citadel, Charleston, SC and a Masters degree in Organization and Management (2001) from Capella University. He holds current certifications from the Association of Energy Engineers as a Certified Energy Manager and a Certified Demand Side Management professional.

Tom retired from BASF Corporation in 2014 after 31+ years of engineering assignments including project management, design department supervision, maintenance engineering, environmental operations, energy procurement, power reliability, and energy management. During his career he facilitated over 300 industrial energy assessments within BASF facilities and those of key customers. Tom now serves as the President of Sustainable Energy Solutions, LLC

offering energy and reliability consulting services to industry.

Topic Discussion

Preparing for an initial energy assessment is easier than most imagine. A small amount of data and an understanding of your facility are all that is required. This paper will present a handful of tasks that when completed will identify any number of efficiency improvement opportunities. The process described will follow the Pareto Principle, where 20% of the data can be used to identify 80% of the opportunity.

The author will walk you through the data requirements and how to analyze your facility’s consumption practices. This process often uncovers obvious anomalies through simple graphical representation. The calculations necessary for identifying the energy prices to be used for project economics will be explained. A method for creating an energy balance with minimal data but involving the correct personnel will be demonstrated. There are a variety of pre-assessment evaluations that will be described to identify low and no cost opportunities. Finally, an explanation of the process of selecting your assessment team members and allocating these resources during the assessment will be covered.



“Managing Energy, Managing People”



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. The ACEEE (American Council for Energy-Efficient Economy) recognized Fred as a “Champion of Energy Efficiency”. Additionally, he participates on the IETC (Industrial Energy Technology Conference) Advisory Board.

Topic Discussion

The elements that make up an energy program are complex and range from Technical Issues, to Planning Strategies, to Financial Evaluations. But sometimes the latent and often forgotten element is the people side of the program.

A company can train their engineers to address the technology issues, but the greatest impact for Continuous Improvement is managing the human side of the program at all levels of the organization.

Fred will discuss what motivates people to enhance an energy program.

“Innovative Approaches to Reducing Energy Use with Lowered Production”



Sharon Nolen, Eastman Chemical Company

Sharon Nolen is Manager, Worldwide Energy Program for Eastman Chemical Company. Sharon holds a BS in Chemical Engineering from Tennessee Tech University and has completed the University of Tennessee’s Executive Development Program. Sharon previously worked at the Environmental Protection Agency’s research facility in Research

Triangle Park, N.C. After moving to Eastman in 1989, she held a variety of leadership positions in Process Engineering, Plant Engineering, Corporate Quality, Information Technology, and Utilities Division before assuming leadership of the Worldwide Energy Program in 2010. Under her leadership, Eastman has been recognized by EPA for four consecutive years as an ENERGY STAR(r) Partner of the Year. Eastman is the only chemical company to have ever received Sustained Excellence, ENERGY STAR’s highest award. Sharon is a Professional Engineer and a Certified Energy Manager.

Topic Discussion

While decreased demand and production is never a desirable business condition, it can present unique opportunities to drive energy efficiency. For example, reliability in operations is a key consideration when capacity utilization is high, but it becomes less important when demand declines. In addition, cost pressures are potentially greater, incentivizing manufacturing to look more carefully at opportunities to reduce energy use. This presentation will cover Eastman’s approach to ensuring that the opportunities to reduce energy use with changes are fully identified and implemented. The challenges of maintaining these gains as production increases will also be discussed. .

“Integrated Site Energy Planning – Creating a Roadmap to Breakthrough Energy Productivity”



**Peter Garforth,
Garforth International llc.**

Peter Garforth leads 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. His specialty has been in profitable business development implementing energy productivity. He effectively strives to ensure that any recommended investment approach has a sound business basis and reflects the larger movements in the energy market.

Peter is well connected in the energy productivity business and regulatory community around the world. 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 United States, Western and Eastern Europe, Indonesia, India, Brazil, China and elsewhere. He has held senior management roles around the world at Honeywell, Landis & Gyr (now Siemens) and, most recently was Vice-President of Strategy for Owens Corning, the largest US manufacturer of insulation and other materials.

He was the Co-Chairperson of the International Advisory Committee of the Alliance to Save Energy in Washington, D.C., a founding member of the European Business Council for a Sustainable Energy Future, a member of the Steering Committee on Energy Efficiency Financing of the Russian Federation, and Chairman of the International Institute for Energy Conservation. He is also past President of the Board of Trustees of the Toledo Opera Association.

Peter is an engaging speaker with wide and varied experiences as a keynote presenter, session chair, and workshop facilitator. He has served as a travelling professor at the University of Indiana-Purdue. Because of his reputation in the energy community, Peter is often asked to provide quotes and interviews as an expert advisor on the topic. He is also a published author and currently contributes a monthly column to Plant Services magazine as the “Energy Expert”.

Topic Discussions

The industrial energy manager is under increasing pressure to simultaneously deliver high levels of energy efficiency, substantially reduced energy cost risk along with challenging reductions in greenhouse gas emissions. In parallel, the range of economically viable technical choices is growing. Energy data capture, control and reporting options, like all information technology, are cheaper and more comprehensive than would have been imaginable a decade ago. Clean and renewable energy supply choices, both on- and off-site, are becoming cost competitive and coming rapidly into the mainstream. Regulation, incentives and wider market forces are moving the world’s energy system to be less carbon intensive. All these trends can be expected to accelerate in the coming years.

The energy manager needs new planning approaches to assess how these growing choices can be combined to deliver reliable, clean and cost effective energy at vastly higher levels of performance, while meeting acceptable levels of investment return. Various scenarios will need to be compared and supported by a decision making process that selects the one that is the best compromise between often conflicting economic and environmental goals.

The session will discuss an approach to create risk-adjusted long-term energy master plans for industrial sites. Through optimizing investments in efficiency, energy distribution and energy supply, energy productivity gains well in excess

of 30% can typically be achieved with attractive financial returns. At the same time energy supply reliability can be improved and major greenhouse gas reductions achieved. Originally developed for entire communities and large complex facilities, the approach is also proving to be of value for much smaller enterprises. Real world example of both large and small facilities will be used.

“EPA’s Clean Power Plan: What Southeastern Energy Managers Need to Know”



Abby Fox
Southeast Energy Efficiency Alliance

Abby Fox serves as Policy Manager for the Southeast Energy Efficiency Alliance, where she focuses on utility and regulatory policy. In addition, Abby oversees regional energy efficiency policy and performance data tracking, and serves as SEEA’s technical lead on energy efficiency’s role in Clean Power Plan compliance. Prior to joining SEEA in 2012, Abby served as Marketing Coordinator for Southface Energy Institute. Abby holds a BS in Environmental Management and an MPA from Indiana University, and is a proud native of Memphis, Tennessee.

Topic Discussion

The Clean Power Plan, handed down in 2015 and now temporarily frozen under a Supreme Court stay, regulates carbon dioxide emissions from existing sources within the power sector. As litigation progresses through the courts, numerous questions remain regarding the rules impacts on the utility sector and end users. This presentation will provide a high-level overview of the Clean Power Plan and discuss the implications for industrial energy managers working in the Southeast, as well as the role of industrial energy efficiency in cost-effectively meeting state compliance targets.

“DOE eGuide for Energy Management”



Ridah Sabouni Energetics Incorporated

Ridah Sabouni is a Senior Engineer with Energetics, based out of the newly established Energetics office in Dubai, United Arab Emirates. In 7+ years with Energetics, Ridah has worked closely with clients at the U.S. Department of Energy Building Technologies Office and the Advanced Manufacturing Office, supporting energy management and research and development programs. He played a key role in the development of the DOE Superior Energy Performance program and the DOE eGuide for Energy Management.

Ridah is a Certified Energy Manager (CEM), Certified Measurement and Verification Professional (CMVP), and a certified Project Management Professional (PMP). He has a B.S. in Electrical Engineering from the University of California, Davis and an M.S. in Electrical Engineering from the University of California, Santa Barbara.

Topic Discussion

No matter how large or small your organization is, implementing some form of an energy management program is a key step to saving energy, cutting costs, and staying competitive. The DOE eGuide is an online guidance tool designed to help organizations from all sectors establish an energy management program that systematically improves organizational energy performance. The eGuide provides users step-by-step guidance, from the initial engagement of management, through planning and implementation, and ultimately to measuring results and reviewing for continuous improvement opportunities. It also presents easy-to-use templates and Excel tools, such as the Energy Footprint Tool that helps facilities input and track their energy consumption and significant energy end uses.

The eGuide tool is extremely flexible – it can be used by industrial, commercial, institutional, and government facilities, as well as utilities and state and regional program administrators. In addition, eGuide is designed to accommodate different levels of users, including facilities interested in a more basic foundational approach to energy management and users interested in implementing ISO 50001 or U.S. DOE’s Superior Energy Performance program. For each level, the tool emphasizes a systematic, continual improvement approach to energy management that follows the proven Plan-Do-Check-Act (PDCA) management structure.

“Treasure Hunt Exchanges”



Robert Bruce Lung
U.S Department of Energy

Robert Bruce Lung. For more than sixteen years, Mr. Lung has supported energy efficiency and clean energy programs through research and analysis of best practices and technologies as well as outreach and policy analysis on behalf of federal, private sector and non-governmental organizations.

Mr. Lung has worked as a Senior Associate at Resource Dynamics Corporation, as Director of the Alliance to Save Energy’s Industrial Program, and as President and owner of his consulting firm, Industrial EE Advisor, where he worked for the Institute for Industrial Productivity, the American Council for an Energy Efficient Economy and the Electric Power Research Institute.

Currently, Mr. Lung is an ORISE Fellow with the U.S. DOE’s Advanced Manufacturing Office where he supports the Better Plants and Superior Energy Performance programs by helping with expansion of industry participation and ensuring that the programs offer value to manufacturers and industrial-scale energy users.

Mr. Lung serves on the US Technical Advisory Group to PC 242, the advisory committee to the Industrial Energy Technologies Conference (IETC) and the Organizing Committee of the Water Environment Federation’s Water/Energy Conference.

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

This presentation will cover what are energy treasure hunts and how they can help industrial end users improve their energy performance. The presentation will begin with the origins/background of the treasure hunts as they evolved from the Japanese kaizen to the current treasure hunt events and the DOE treasure hunt exchange In Plant training. It will cover the difference between an energy assessment and existing treasure hunts. Then, the presentation will discuss how DOE is building on the EPA’s treasure hunt guidance and integrating energy treasure hunts in the Better Plants training portfolio. The DOE’s approach includes a focus on training the trainer, understanding the fundamental needs for a successful treasure hunt and the technical content and assistance that DOE can add.

The presentation will also discuss the DOE’s “swap” approach in which two plants from one company or two plants from two companies can participate in the treasure hunt exchange. Recent results and experiences from the first treasure hunt exchange will be presented along with plans for future treasure hunt exchanges including new tools and techniques. Finally, the presentation will offer some insights into how corporate energy managers can look at facilitating treasure hunts within their respective organizations.