



23rd Energy Managers Workshop

Energy Management: Strategies and Successful Applications

Tuesday, June 2

8:00 am – 5:00 pm, lunch included

Learn the strategies that all energy managers must know about NOW, and learn how successful managers have applied what they have learned. Managers, who are doing just that, will be the instructors.

Confirmed topics and speakers are:

- Organizing for Success – Creating a Sustainable Energy Management Program, Thomas R. Theising, Sustainable Energy Solutions, LLC.
- Managing Energy Efficiency at a Large Global Industrial Company, Walter Brockway, Alcoa, Inc.
- What it Takes to Sustain an Energy Program, Fred Schoeneborn, FCS Consulting Services, Inc.
- Developing a Water Strategy; Next Steps in a Sustainability Journey, Sharon Nolen, Eastman Chemical Company.
- Integrated Site Energy Planning – Creating a Roadmap to Breakthrough Energy Productivity, Peter Garforth, Garforth International LLC.
- Effective Strategies for Using Simple Payback: A Checklist for Energy Managers, Christopher Russell, Energy Pathfinder Management Consulting.
- DOE Better Plants Program: New Ways of Finding Energy Savings and Delivering Value to Industry, Bruce Lung, U.S. Department of Energy

More up-to-date information on the remaining speakers is found at <http://ietc.tamu.edu>.



Energy Managers Workshop Tuesday, June 2, 2015

The order of the presentations is subject to change.

“Organizing for Success, Creating a Sustainable Energy Management Program”



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 . During his 31+ years with BASF, he held various engineering positions with responsibilities for project management, design department supervision, maintenance engineering, environmental operations, energy procurement, power reliability, and energy management.

As Energy Manager he directed the energy optimization programs at numerous BASF sites providing consulting services inside BASF and to external customers.

He provided these services to more then 100 of BASF’s manufacturing sites

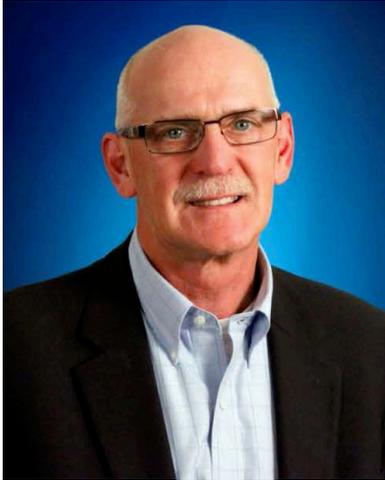
during his tenure. He organized and conducted energy assessments both internal and external to BASF at more than 200 manufacturing sites.

During his career BASF received numerous awards for activities developed and initiated by Mr. Theising including, 42 Annual Energy Awards from The American Chemistry Council, two BASF Chairman’s Awards for energy improvements, and the Power Partner Award from Duke Energy Company.

Topic Discussion

The ability to identify energy improvement opportunities is critical to beginning an energy management program. Without the organization and practices to maintain the program, progress will be short lived. The author will explain proven methods for organizing a sustainable energy management program. A key to maintaining success can be found by involving as many stakeholders as possible. Communication is the key to involving “the masses”. Methods for communicating from the production floor to the board room will be explained. Another key to maintaining success is the ability to track progress and plan for the future. This will allow you to not only express the success you have already achieved but to create budgets to fund future improvements and develop a long term strategy for advancement.

“Managing Energy at a Large Industrial Company”



Walter F. Brockway
Manager of Global Energy Efficiency, Alcoa, Inc.

Walt Brockway is the Manager of Global Energy Efficiency for Alcoa, Inc. located in Knoxville TN where he is responsible for coordinating efforts within all Alcoa businesses and regions to improve energy intensity. He has held various energy and power roles at Alcoa for the past 30 years including:

- Power engineer, Power Supervisor, Power and Engineering Manager at the Alcoa Massena Operations.
- As Corporate Energy Manager Walt was responsible for facility electricity supply arrangements. In this role he started the Alcoa energy efficiency network which is today one of the premier industrial programs.
- As Manager of hydroelectric operations for Alcoa he managed operating assets, modernization of the assets and relicensing of two FERC hydroelectric projects.
- As Manager of Energy Regulatory Affairs Walt was responsible for oversight of energy affairs at the federal, regional and state levels for one of the largest electricity consumers in the world.
- Prior to joining Alcoa he was employed by General Electric’s Nuclear Energy Business Operations and Niagara Mohawk Power Corp.

Topic Discussion

Being an internal consulting group has challenges not unlike external consultants in showing value and keeping clients engaged. This presentation will discuss how to navigate a large company with multiple businesses with different energy use and focus. The discussion will look at how to gain sponsorship, what tools and resources are available, how to execute opportunities and how to navigate different countries and cultures.

“What it Takes to Sustain an Energy Program”



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, as Global Energy Manager, 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 In-Plant Training - Implementation workshops for the DOE

Oak Ridge National Lab. The ACEEE (American Council for Energy-Efficient Economy) recognized Fred as a “Champion of Energy Efficiency.”

Topic Discussion

The creation of an Energy Program takes a lot of effort from many participants over a dedicated time period. BUT to sustain the program, as part of the company culture, requires real organization and commitment from many people for a long duration.

We all know of the motivated “Hard-Charger” who single-handedly created a corporate energy program -- only to have the program fail when that person leaves the position. Fred will share his many years of experience of creating energy programs and “**What it takes to sustain them.**”

“Leveraging Energy Management to Address Water Conservation”



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 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 received the highest ENERGY STAR Award, Sustained Excellence, in 2014 and 2015. Sharon is a Professional Engineer and a Certified Energy Manager.

Topic Discussion

Eastman Chemical Company has a long history of energy efficiency improvements. In 2010, setting a public ambitious goal caused a complete revamp of the worldwide energy program which resulted in the company being named ENERGY STAR® Partner of the Year in 2012 and 2013 and receiving the highest ENERGY STAR Award, Sustained Excellence, in 2014. No other chemical company has ever achieved this level of recognition.

In 2014, Eastman’s Sustainability Council which governs the corporate sustainability strategy made the decision to build on the success of the energy program and expand the governing organization to include, more broadly, natural resources. Accordingly, the Energy and Climate Change Sustainability Sub-council was re-named Design and Natural Resources indicating increased interest in incorporation of conservation early in the design process and a broader interest in conservation to go beyond energy and include other natural resources such as water.

Since then, Eastman has initiated work to evaluate establishing water goals, define an appropriate strategy and develop an organizational structure. This paper will provide an overview of Eastman’s continuing progress on the sustainability journey.

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



**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, Japan 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 Discussions

The session will discuss an approach to create risk-adjusted long-term energy master plans for industrial sites. Through the optimizing investments in efficiency, energy distribution and energy supply, energy productivity gains typically well in excess of 30% can be achieved with attractive financial returns. At the same time energy supply reliability is typically improved and major greenhouse gas reductions are achieved. Originally developed for large complex facilities, the approach is also potentially proving to be of value for much smaller enterprises. Real world examples of both large and small facilities will be used.

“Effective Strategies for Using Simple Payback: A Checklist for Energy Managers”



Christopher Russell
Energy Pathfinder Management Consulting, LLC

Christopher Russell is a nationally-recognized expert in the planning, justification, and evaluation of business-sector energy cost control initiatives. He is a visiting fellow with the American Council for an Energy Efficient Economy in Washington, D.C. He served as the politically-appointed energy manager for the Howard County, Maryland government. He 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.

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 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 of Canada.

Topic Discussion

Whether or not simple payback is a good investment measure does not matter. It remains the customary tool of choice for most industrial energy improvements. Facility managers hang their project proposals, if not their careers, on payback projections. For these reasons, the use of simple payback deserves careful consideration. Payback metrics can and should be used strategically to measure, interpret, and communicate the results of proposed investments. This workshop presentation provides a checklist of strategies for making the most of an imperfect metric.

“DOE Better Plants Program: New Ways of Finding Energy Savings and Delivering Value to Industry”



Robert Bruce Lung
U. S. Department of Energy

Robert 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 for more than fifteen years.

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 board 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

The U.S. Department of Energy’s (DOE) Advanced Manufacturing Office launched the Better Plants program in December 2009. This initiative, part of the President’s Better Buildings Initiative, is a corporate energy efficiency leadership initiative through which manufacturers partner with DOE to set and achieve energy saving goals. In return, manufacturers receive in-person technical assistance and national recognition from DOE. In addition, these partner organizations receive priority access to an array of DOE-developed resources such as trainings, analytical tools and CHP screenings. Since 2009, more than 150 manufacturing companies and industrial organizations have joined the program and have achieved cumulative energy and energy cost savings of approximately 320 Trillion Btus and \$1.7 billion.

To increase its value to industry, the program has developed new initiatives and resources to facilitate greater energy efficiency gains in the past year. These initiatives include:

- Supply Chain Pilot
- Water Savings Pilot
- New In Plant Trainings on topics beyond the traditional industrial systems such as Energy Management and processes (papermaking)
- Water/Wastewater Agencies – the program has expanded to serve the water/wastewater treatment sector

“Cost Components of a Retail Electricity Price”



Eric Bratcher
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Eric Bratcher has been engaged in Texas’ deregulated electricity industry since its original kickoff in January 2002. Prior to electricity, he was in Houston learning settlements in the wholesale natural gas industry during the late 1990’s.

Eric was most recently the Director of Pricing and Load Forecasting at First Choice Power, where he ran and developed both the commercial and mass market retail pricing models and the portfolio load forecasting models. He picked up a vast understanding of the wholesale electricity business

working in the risk management and wholesale electricity settlement groups at TXU. As Director of Operations and Customer Service at 5 Point Power, a much smaller retail electricity provider, he became intimately familiar with the detailed operations of a supplier’s back office. From day-ahead trading and scheduling during Hurricane’s Katrina and Rita, to forecasting load during Hurricane Ike and the blazing hot summer of 2011, if it’s happened in Texas’ deregulated electricity market, Eric’s seen it.

Texas A&M University, Class of ‘98

Topic Discussion

Eric Bratcher, Senior Analyst at the national energy advisory firm 5, will lead an in-depth discussion about the cost components of deregulated electricity for both scarcity and capacity market designs. Topics include Block Energy, Ancillary Services, NITS, Capacity, Line Losses, and more. You will learn how these costs are derived, how they are interrelated and the inherent risk premiums associated with each. This session is designed to provide a unique look into the dynamics of your energy insurance dollars at work.

