

## WEEE BREAKOUT SESSION TOPICS & SPEAKER INFO – 9:15 Session

**Topic:** *Energy Reductions with Innovative Lighting Technology & Controls*

**Description:** Case studies will be presented showing how new advanced lighting technology and wireless control strategies can yield significant electrical waste reductions in specific applications. Actual projects with MillerCoors, Sysco and Quad Graphics will show how advanced dimming strategies, LED, light pipe and control technology were used to achieve maximum energy reductions.

**Speaker Information:** Klaus Pilz is responsible for developing and managing energy projects for large commercial and industrial customers for Orion Energy Systems. Klaus has 28 years of energy management experience developing lighting, mechanical systems, EMS and performance contracting solutions.

**Topic:** *Heat Recovery and Recycled Energy*

**Description:** Highlights from energy efficiency projects will be presented (more info to follow).

**Speaker Information:** Mike Rohde and Craig Bahr from Rohde Brothers, Inc., each have multiple years experience designing and implementing energy efficiency projects and are both members of the WAEE board.

**Topic:** *Energy Management Planning*

**Description:** Energy cost management is an important component of a competitive business plan. This workshop will discuss how to identify the steps for energy management planning for your facility, how to prioritize energy management tasks, best practices for energy management and methods to keep the process in motion.

**Speaker Information:** Nicholas Welch is a CEM, Energy Engineer, certified One2Five Energy Facilitator with Franklin Energy. Nicholas serves on a team that provides education and awareness to business utility customers. He performs energy assessments, identifying potential energy projects and calculating associated savings.

**Topic:** *Integrated DER Solutions & Micro Grid for Energy Security*

**Description:** This presentation will include information about microgrids, advantages and benefits, when to use them, and will include case studies from installations at several prominent sites in the U.S.

**Speaker Information:** Chris Kuhl of ZBB Energy has extensive experience working with power requirements in IT, telecom, data centers and micro-grid projects. Working with key integrators and end-users, Chris helped define the design and operational parameters for micro grid applications of the ZBB EnerSystem™ for the Perfect Power system at IIT, the SPIDERS team at Joint Base Pearl Harbor Hickam in Hawaii, with some remote villages in Alaska through the AEA and with commercial building projects and data center sites.

**Topic:** *Solar Thermal System Design Considerations*

**Description:** Specific details of the presentation include drain back vs. pressurized systems, how to size a solar thermal system taking into consideration jobsite limitations, combination solar thermal dwh and space heating systems. When solar thermal can't be applied, high efficiency is the best option – these options will be presented.

**Speaker Information:** Aaron Adler has been involved with Hot Water Product's solar offerings since their inception. Aaron specializes in solar thermal system design & site assessments and is a member of SMACNA, ASPE, MREA, and the Solar Hot Water Business Council in Milwaukee.

## WEEE BREAKOUT SESSION TOPICS & SPEAKER INFO – 10:30 Session

**Topic:** *Data Driven Buildings*

**Description:** Despite the fact that real estate has big impacts on our economy and environment, we make little use of the data waiting to be discovered. In the last 24-36 months, new technologies and solutions on both the automated solutions and intelligent building side are revolutionizing the industry.

**Speaker Information:** Paul Oswald is president and principal owner of ESI. Paul has over 30 years of experience with EMS and systems integration. Paul has authored numerous articles and presented at national and international conferences on control system architectures and open communication standards. He has served on several industry committees for open communication protocols and standards development.

**Topic:** *Focus on Energy 2013/2014 RCx Program*

**Description:** Like cars, buildings and data centers need regular maintenance checks and tune-ups in order to achieve optimal fuel efficiency. This presentation will provide the details of the new streamlined Focus on Energy Retrocommissioning (RCx) program and the new Data Center pilot RCx program. Discussions will assist in defining the right facility to RCx, incentives and technical help available and success stories of past projects.

**Speaker Information:** Nate Nygaard and Geoff Overland of CLEAResult have several years of experience working with utility incentive programs, in particular Focus on Energy programs and managing RCx programs.

**Topic:** *Panel Discussion - Why is Energy Efficiency Important Now?*

**Speaker Information:** Jedd Winkler (Aurora), Mark Albert (Sargento Cheese), Joel Burow (We Energies), Marcy Schaefer (Kohl's), Kurt Emerson (Harley Davidson)

**Topic:** *Ultrasonic Leak Detection*

**Description:** This presentation will focus on Ultrasonic inspection as it relates to energy consumption reduction, efficiency, and the additional benefits of condition based monitoring. It will highlight the basic principles of ultrasound as a technology, the major application groups of inspection and the techniques utilized along with real world case histories.

**Speaker Information:** Blake Canham is a Regional Manager for UE Systems. His primary role has evolved into equipment training and technical assistance for users of UE Systems ultrasonic inspection equipment. He is Level 1 certified in Airborne Structureborne ultrasound and is an active member of multiple reliability associations including AEE, AFE, SMRP, and the Vibration Institute.

**Topic:** *VRF with Dedicated OA Ventilation*

**Description:** This presentation will provide information on Variable Refrigerant Flow (VRF) technology and associated energy use and life cycle costs vs. conventional HVAC systems .

**Speaker Information:** Bill Hoch has been in the HVAC industry for 13 years, 12 of them with Trane. John Longden spent several years in product management and sales of large Trane systems and is now responsible for sales and engineering of VRF products in Wisconsin, Northern Illinois and Minnesota.

## WEEE BREAKOUT SESSION TOPICS & SPEAKER INFO – 1:30 Session

**Topic:** *Demystifying LED Luminaires and Applications*

**Description:** LED lighting is a rapidly evolving technology. Applications producing better illumination, greater security and safety in outdoor applications while saving significant energy will be presented. New applications for indoor lighting and new concepts such as color tuning will also be discussed. Actual projects and associated savings will be presented.

**Speaker Information:** Eric Haugaard is Director of Technology at CREE and is renowned expert with all types of lighting, specifically LED lights and systems.

**Topic:** *Saving Energy with High Efficiency Boilers (3 case studies)*

**Description:** Projects include two high-pressure steam system conversions to low pressure, and the retrofit of a heating plant from non-condensing to condensing boilers. The building applications vary from an historic 35-story office building in downtown Chicago, 1 million square foot technical college in Madison, and an industrial facility near Milwaukee. The presentation will focus on design challenges, maintainability of systems, and resulting energy savings in each of the three designs.

**Speaker Information:** Brian Basken, President of Pearson Engineering is a regular presenter at professional development courses at the University of Wisconsin-Madison on subjects related to energy audits, energy management, HVAC design, system analysis, and renovation of buildings. Brian has worked extensively in the field of energy management, performing analyses and supervising efficiency improvements for various establishments in Okinawa Japan, Honolulu Hawaii, Mason City Iowa, Chicago Illinois, Duluth Minnesota, and throughout Wisconsin.

**Topic:** *Wisconsin's Political and Regulatory Energy Trends*

**Description:** An overview of current political and regulatory trends and changes in recent decades. Key statistics regarding Wisconsin's economy, generation resources, supply/demand and rate comparisons along with upcoming federal, regional and state regulations and how that may impact Wisconsin's ratepayers will be presented.

**Speaker Information:** Todd Stuart is executive director of the Wisconsin Industrial Energy Group, Inc. (WIEG). WIEG is a non-profit association of large energy consumers that advocates for policies that drive affordable and reliable energy. WIEG testifies before the Legislature, the Public Service Commission and the Department of Natural Resources in order to control costs for large ratepayers

**Topic:** *Using Data Loggers to Understand Building Energy Use*

**Description:** Data loggers are a handy energy auditing tool used to measure energy use often at a micro level. Capabilities of data loggers and situations of where loggers can be used as part of energy / environmental studies will be presented.

**Speaker Information:** Matt Rivers from Onset has over 20 years of experience working in the data logging and electrical products markets, specifically on commercial and industrial projects with a heavy emphasis on switchgear and lighting design and sales.

**Topic:** *High Performance Glazing Systems*

**Description:** This presentation will explore how recent energy codes and standards are transforming the way commercial window systems are manufactured and used. The topics covered include: new energy standards (NFRC and AAMA), review advancements in glass and window design, proper window selection, and specific applications used in commercial window retrofits.

**Speaker Information:** Gregg White is President of AluSpec Inc, a firm focused on commercial fenestration products and related envelope design. Gregg has over 30 years of experience within the fenestration construction industry. He offers technical assistance on proper use and application of window technology to meet today's demanding commercial construction market and energy codes.

## WEEE BREAKOUT SESSION TOPICS & SPEAKER INFO – 2:45 Session

**Topic:** *Light and Human Health*

**Description:** This presentation will provide information on how to achieve as much as 70+% energy savings on lighting projects and how light affects human physiology and psychology. Learn how to improve visual performance and comfort based a photo receptor in your eye that was discovered 10 years ago. The color of light affects your visual acuity, alertness, attitude, and even your sleep patterns. Learn how the rapidly evolving science of light can change your work environment for the better.

**Speaker Information:** Rodney Heller LC, CLEP, is Senior Designer at Energy Performance Lighting. He is lead author of the Illuminating Engineering Society's Upgrading Lighting Systems in Commercial & Institutional Space and has over 10 years of experience in lighting retrofits.

**Topic:** *Building Science: Adding the Power of Infrared to Your Toolbox*

**Description:** Infrared Imaging (or Thermography), plays a critical role in the home inspection, energy auditing or weatherization process. Missing insulation, moisture intrusion, and air infiltration, are all problems that infrared cameras can efficiently locate better than any other technology available. By collecting infrared radiation and building a visual image, the camera allows the operator to "see" what's happening within a structure.

**Speaker Information:** Mike Schneider is National Sales Manager/Field Director for the WassHale Group who represent FLIR products. In addition to sales responsibilities Mike leads a team of thermographers who specialize in building moisture intrusion, building envelope studies and roof moisture survey applications. Mike currently holds a Level II Certification through the FLIR Infrared Training Center (ITC).

**Topic:** *Data Center Energy Efficiency*

**Description:** This presentation will provide information on how the design of data centers, corporate requirements, equipment configurations and cooling systems affect energy use. Learn how to implement measures that will significantly reduce energy use in data centers.

**Speaker Information:** Rich Cotton has over 30 years of experience in data center design that supports current mission-critical requirements and anticipates future growth and technology enhancements. He has worked with several prominent companies including Rockwell, Epic, Journal Communications and American Family Insurance.

**Topic:** *Case Study: Heat Recovery Chiller System – Medical College of Wisconsin*

**Description:** A case study of the recent installation of a heat recovery chiller system at the Medical College of Wisconsin will be presented. It will include a brief look at the building, the HVAC systems, the installation of the heat recovery chillers, and the end result- savings, and payback.

**Speaker Information:** Scott Galligan, PE, CEM, CPM, is a facility engineer at the Medical College of Wisconsin with over 30 years of diverse engineering and management experience in manufacturing, facility management, HVAC, commercial/industrial energy conservation, and consulting.

**Topic:** *Panel Discussion - Measure It, Manage It.*

**Speaker Information:** Jim Finiak (Rockwell Automation), Brian Basken (Pearson Engineering), Phil Vetterkind (Hunzinger Sustainable Building Solutions), Jerry Eaton (Focus on Energy)