



AESP ONLINE WEBCAST

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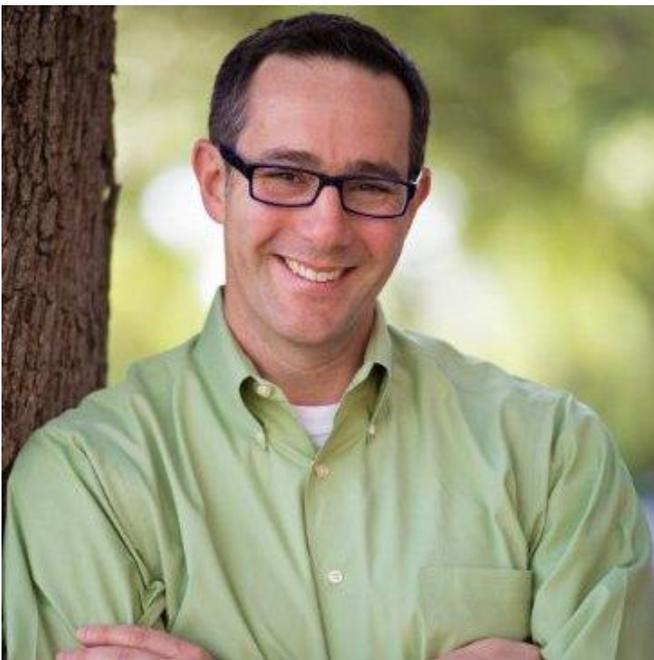
Launching July 2017

Riding the Wave - Realizing Energy Savings in the Water Sector

Electric utilities have had varied success in capturing energy efficiency savings from the water "sector," whether from water-related efficiency measures, water treatment and conveyance, or a combination of both. With an estimated \$1 Trillion investment to be implemented by 2035, now is a good time for electric utilities to look at how to "ride the wave" of infrastructure renewal and "smart water" systems. This presentation reviews the types of energy efficiency opportunities in the water sector, and then focuses on new software packages to manage both energy and energy efficiency projects. Water sector clients and measures require support beyond cash incentives, and significant savings opportunities exist in water and wastewater plants in particular.

Speaker:

Jonathan Kleinman, AIQUEOUS



Jonathan Kleinman is the President of AIQUEOUS, a software-as-a-service company based in Austin, Texas. AIQUEOUS simplifies tasks, enhances operational performance, and reduces costs for utilities and cities that want a modern approach for both employees and customers. Mr. Kleinman has worked in the energy and water sectors in his 25-year career, including positions at Efficiency Vermont, Optimal Energy, and as the Vice President for Policy, Design & Evaluation at CLEARResult.

Thermal Energy Management Systems – Improve Quality, Reduce Operating Costs and Save Energy

Thermal Energy Storage (TES) enables existing refrigeration equipment to run more efficiently. Viking Cold Solutions, a thermal energy management company, will explain how installing Phase Change Material and thermal energy management systems can result in significant electricity savings and greater food quality. They will share how a leading ice cream distribution facility on the West Coast reduced its energy consumption over 27% after installing the TES system inside the freezer space. Find out how the facility was able to effectively reduce equipment runtime and maintain more consistent food temperatures by managing heat infiltration through the TES systems.

Speaker:

Collin Coker, Viking Cold Solutions, Inc.



Collin brings 30+ years of sales and leadership experience in retail and wholesale power, including Reliant Energy and Constellation Energy. He has university leadership certifications from schools, including the Wharton School of Business, Villanova, Rice University, and Motorola University. Collin attended Texas State University.

Don't Throw that Heat Away, just Move it.... It's FREE!

Why throw away heat? Most buildings run a boiler and AC expending large amounts of energy, dumping heat from the AC while heating is still required or to reheat AC for occupant comfort. Variable Refrigerant Flow (VRF) heat pumps package the complexity of traditional heating, cooling and controls elements into a single super high efficient system. One of the greatest opportunities for efficiency is moving waste heat to where it is needed.... not in the sense of discarded ventilation heat recovery. Residential ductless mini-split technology advancements are on the cusp of moving byproduct waste heat during AC to the domestic hot water.

Speaker:

Kevin DeMaster, Mitsubishi Electric US, Inc.



Kevin DeMaster is Manager of Utility Programs and Strategic Accounts with Mitsubishi Electric Cooling and Heating. In this role, Kevin supports utilities and implementers of residential and commercial energy efficiency programs to help achieve their energy savings objectives utilizing ductless mini-split and variable refrigerant flow (VRF) heat pump technology. Kevin is no stranger to energy efficiency consulting having spent 15 years in various capacities starting as an Energy Manager for a school district reducing electric, gas and water, consumption by over 30% equating to over \$1M per year in savings. He expanded his role consulting to utilities as an Implementer with Wisconsin Energy Conservation Corporation (WECC) and CLEARResult designing, implementing and managing well over \$100M of residential and commercial energy efficiency programs, which developed knowledge of real energy efficiency potential.

Creating Better Office Space Through Networked Lighting Controls

Networked lighting refers to the digital integration of lighting fixtures, sensors and software to create an environment that maximizes occupant comfort and saves energy. The emergence of inherently controllable LED technology, coupled with the ubiquity of lighting, makes it the ideal platform to begin the Smart building revolution. This webinar will draw on the experiences of a utility customer who needed a way to lower their operating costs, increase occupant comfort and reduce energy usage. To achieve their goals, this client looked to an emerging technology: Advanced Lighting Controls (ALC). To this effect, the utility (to be named) reduced demand by 507,986 kWh/year while their customer achieved yearly savings of over \$43,000. As ALC programs evolve with emergent technologies, incorporating best practices in lighting design saves energy and increases positive outcomes for the people who experience it. Besides savings, good lighting is fundamental for maintaining visual comfort. When spaces are appropriately lit workers are more productive, children are more attentive, and patients are healthier. Though objective measures exist to define visual comfort, much of how people experience illumination is subjective. Networked lighting controls are a critical component to how we balance natural and artificial light.

Key Takeaways:

- Networked lighting controls help large office buildings save big on energy
- Networked lighting controls help to maximize fixture life and reduce maintenance cost
- Networked lighting gives personal control to users, increasing comfort and raising productivity.

Speaker:

Wesley Whited, DNV GL



Wesley Whited is a Senior Consultant for Advanced Lighting & Controls at DNV GL. Mr. Whited has seven years' experience in the commercial lighting market ranging from project management to sales. Mr. Whited is a graduate of West Virginia University (WVU) and holds a MBA from Capital University in Columbus, OH.

Implications of innovations in data analytics and data access on evaluation, measurement, and verification practices

Innovations in data analytics software and services, and greatly increased data access from smart meters and smart thermostats, are creating both new opportunities and new questions for energy efficiency EM&V. At the same time, policymakers have been putting increased attention on energy efficiency as a clean, low-cost and reliable utility system resource and policy strategy to meet long-term energy needs and climate goals. Energy efficiency also has an important role to play as a distributed energy resource for utility planning. This increased attention on energy efficiency brings with it greater demands for EM&V practices which are more rigorous, consistent, and time and cost-effective. Through interviews with evaluation experts and data collection in selected states, our research examines ways states and utilities are responding to the opportunities made possible by these rapidly evolving tools for improved EM&V. We give examples of successful approaches and challenges, and how utilities are putting big data access and analytics to use for enhanced customer engagement and program design. We will also investigate how deemed savings approaches are being improved or could be in the future by leveraging data analytics and greater data access.

Key Takeaways:

- How some states and utilities are responding to new opportunities for improved evaluation, measurement and verification resulting from innovations in data analytics and data access
- Examples of early successes and challenges
- How are utilities putting big data access and emerging data analytics software to use in EM&V

Speaker:

Seth Nowak, ACEEE



Seth Nowak conducts research on energy efficiency programs and policies in the electric and natural gas utility sector. Focus areas include exemplary programs, best practices, and evaluation, measurement, and verification. Seth earned a master of business administration and a master of public affairs from the University of Wisconsin.

Home Energy Management Systems (HEMS): The Next Generation of Measures for EE Programs

A discussion about Home Energy Management Hardware, Software and Measures (outlets, switches, geo sensors etc.) utilizing data obtained from the development and implementation of two HEMS Pilot Programs in the North East.

Topics of discussion include:

- What are the benefits and barriers of the product category for Utilities?
- How do these products help increase or decrease energy savings?
- How do they assist or hinder evaluation?
- What types of programs do they fit into?
- General product performance and identifying the needs of the EE industry at a hardware/software level
- General HEMS Pilot Design and changing methodologies to better fit today's technology?
- Should how we look at savings (energy and cost) change? Active vs Passive

Speaker:

Brad Piper, Lockheed Martin Energy



Brad Piper has 13 years of Successful Energy Efficiency Program development, and Implementation for Lockheed Martin Energy. 7 of those years of experience are working with Emerging Technologies such as: Advanced Power Strips (APS), Connected Home and Home Energy Management Systems (HEMS). For the past 3 years Mr. Piper has been responsible for HEMS Pilot Development and Implementation Management for New York State Energy Research and Development Authority (NYSERDA) HEMS Pilot Demonstration and Project in New York and National Grid's Smart Lighting System Pilot in Massachusetts and Rhode Island. Mr. Piper is currently responsible for Pilot Development, Methodology development, Customer Recruitment and Research, Equipment Procurement, Installation Management and Logistics, Participant Support and Experience, Data Harvesting, Data management and Evaluation Support.

Modernizing the Utility Survey Experience

Existing home audits and utility surveys can gather useful information, but they have some shortcomings in their overall value proposition:

- Generic insights/recommendations based on statistical models
- Low participation/completion rates due to consumer indifference and survey length
- Static tool requiring user input for updates

Bigely addresses the shortcomings above and provides the following benefits personalized to each consumer:

- Increased survey take-up rates/completion rates: Consumers can access rich information even before they answer any questions, making it more enticing for them to take the survey and more likely to complete it. Further, survey data is pre-filled and disaggregation reduces the number of survey questions required.
- Personalized insights/recommendations: A household of five with active appliance usage is different from the household next door with a retired couple. Bigely's disaggregation identifies the unique usage patterns for the two homes. Thus, the energy savings recommendations made by the solution are highly personalized, addressing the appliance categories that truly are the largest and most inefficient.
- Dynamic updating: When a home's energy usage patterns change due to behavior or lifestyle changes, the Bigely platform identifies the actual changes and alerts the customer to the anomalies in their appliance level usage compared to past usage. No user input required.

Speaker:

Josh Gleason, Bigely



Josh leads Product Marketing at Bigely, a software company that is transforming utility customer engagement by leveraging the power of energy disaggregation. Prior to Bigely, Josh co-founded a company providing clean water solutions to utilities, and before that, he worked for Morgan Stanley.

A Case Study in Smart Thermostats

Smart thermostats are quickly becoming recognized as the hub of a smart home and have the potential to provide significant energy savings. These devices blend technology with building science, weather data, and occupant behavior offering a unique opportunity for energy efficiency programs. In 2015, the Southern Maryland Electric Cooperative (SMECO) launched a pilot to explore the impacts of smart thermostat technology and the potential benefits for its members. An overview of the technology used, customer insights, and preliminary findings will be presented.

Speaker:

Stacey Hill, SMECO



Stacey Hill is an energy analyst at SMECO with more than 10 years of experience with the utility. She oversees SMECO's smart thermostat pilot program and several other energy efficiency programs. Hill is a certified building analyst through BPI, Inc., and serves on the board of directors for the St. Mary's County Chamber of Commerce.

Energy Portal: If You Build It, Will They Come?

While providing businesses with an energy intelligence/management software platform is a good idea with clear benefits, the availability of the platform does not guarantee its success regardless of intent or the features available. This session will share lessons learned from Power TakeOff's eight-year history as the EIS provider of InfoWise from Xcel Energy, which Xcel Energy makes available to any business across their service territory. Utilities, in particular, will gain knowledge on how to improve the structure and delivery of their existing or planned energy management software portal.

Speaker:

Peter Widmer, Power TakeOff



Peter Widmer is the VP of Business Development & Marketing for Power TakeOff, a utility energy management system and behavior program provider to businesses. At Power TakeOff, Peter manages the company's utility programs, including those with Xcel Energy, ComEd, and VEIC.

Smarter Homes, Better Savings: How Smart Products Can Actually Help Homes Save Energy

In the emerging technology world of home energy management systems (HEMS) and smart home products, features that enhance comfort, convenience, and safety are often cited as benefits that may help to tip a consumer toward accepting and using new smart home technologies into their lives. Smart home products are often not designed to optimize energy consumption, but to enhance the way an occupant interacts with the entire home. In this session, we'll discuss how program administrators can capitalize on the consumer-facing benefits of smart home products to deliver incremental energy savings at the individual home and program portfolio level. The opportunities presented by smart home products for energy programs include new distribution channels, enhanced customer engagement, advanced M&V, greater evaluation preparedness, and quicker data collection.

Speakers:

Claire Miziolek, NEEP
Emily Kemper, CLEAResult



Claire Miziolek is the Market Strategies Program Manager at Northeast Energy Efficiency Partnerships (NEEP). Her role is to help speed the adoption of efficiency solutions in the Northeast and Mid-Atlantic. Claire manages NEEP's work in Consumer Electronics, Home Energy Management Systems, and Residential Lighting and is working to develop strategies and recommendations to bring these efficient technologies to broader scale and ultimately decrease the amount of energy homes and businesses use.



Emily Kemper is a licensed architect, building science expert, and an avid proponent of smart and high performance homes. Ms. Kemper manages CLEAResult's cross-functional engineering, technical, and building science team in support of residential energy programs and projects across the country.