



Intelligent Efficiency Conference

The Westin Boston Waterfront • Boston, MA • December 6-8, 2015

CONFERENCE PROGRAM

Sunday, December 6

4:00 pm – 7:00 pm REGISTRATION OPEN Harbor Foyer

5:00 pm – 7:00 pm WELCOME RECEPTION (*sponsored by Schneider Electric*) Marina Ballroom I-II

Monday, December 7

7:00 am – 7:00 pm REGISTRATION OPEN Harbor Foyer

7:30 am – 8:30 am CONTINENTAL BREAKFAST Marina Ballroom

8:30 am – 10:00 am WELCOME, INTRODUCTIONS & FEATURED PANEL Harbor Ballroom I-II

Welcome and Introductions: **Steve Nadel**, Executive Director, American Council for an Energy-Efficient Economy
 Ethan Rogers, Senior Manager, Industry Program, American Council for an Energy-Efficient Economy
 Penni McLean-Conner, Senior Vice President, Eversource

Plenary Session: Beyond the Horizon

Moderator: **Gene Rodrigues**, Vice President, ICF International

Panelists: **Penni McLean-Conner**, Senior Vice President, Eversource
 Caroline Choi, Vice President of Energy and Environmental Policy, Southern California Electric
 Dian Grueneich, Senior Research Scholar, Stanford University
 Kelly Warner, President, Advanced Microgrid Solutions

This featured panel will set the stage for the rest of the conference with a facilitated “couch conversation” between these leadership-level panelists sharing their thoughts on how information and communications technologies (ICT) are and will transform the energy sector. They will discuss why they believe emerging technologies will enable the safe and reliable integration of distributed energy resources (including energy efficiency) into the electric grid and what it will mean for stakeholders and customers. The discussion will range from issues emerging today to the issues we might face five to ten years from now.

10:00 am – 10:30 am NETWORKING BREAK Harbor Foyer

10:30 am – 12:00 pm**BREAKOUTS***Session 1A**Burroughs***Utility Grid Load Integration and Balancing**Moderator: **David Dobratz**, Eversource

Panelists: **Mark Dyson**, Rocky Mountain Institute
Raymond Kaiser, Amzur Technologies
Tim Maurer, Nxegen
Darrel Hollis, Conservation Resource Solutions

Description: This session will address the grid management use of ICT to integrate various distributed energy resources (DER) into the grid and balance the load. Panelists will discuss key attributes of end-user econometrics, critical attributes of facility situational awareness, and grid condition visibility, as well as the remaining barriers to the full integration of grid communications.

*Session 1B**Carlton***Smart Cities – Engaging and Serving Residents**Moderator: **Sandra Baer**, Personal Cities

Panelists: **Dale Pennington**, Utiliworks
Jennifer James, Black and Veatch
Seth Federspiel, Cambridge Community Development Department
Ryan Colby, Uber

Description: The adoption of technologies that enable companies to collaborate with their communities will enable them to become a larger part of the smart city conversation. The ecosystem of cities, companies and civic organizations is starting to embrace the notion of true stakeholder engagement, yet implementation is slow in many cities across the US. How are cities and companies serving cities finding ways to better ways communicate their value to citizens? How are companies finding new approaches to true partnerships with city leaders? Hear the perspective from an expert panel—cities and companies—all looking at energy efficiency and the new engagement model.

*Session 1C**Harbor Ballroom I***Residential Program Design**Moderator: **Kara Saul-Rinaldi**, National Home Performance Coalition

Panelists: **Claire Miziolek**, Northeast Energy Efficiency Project
Hannah Bascom, NEST
Mike Bukin, Aclara

Description: This session will address the future of home energy performance and how energy management technology and software can further maximize energy savings. The session's panelists will discuss how smart grid technologies can increase energy savings, enhance EM&V (evaluation, measurement, and verification), uncover valuable energy data, and open up a key gateway to new customers. Learn about the current state of the smart grid and the smart home and what policies can advance the home energy efficiency industry.

*Session 1D**Lewis***Commercial Program EM&V**Moderator: **Tim Pettit**, DNV GL

Panelists: **Emrah Ozkaya**, Southern California Edison
Claude Godin, DNV GL
David Jacot, Los Angeles Department of Water and Power

Description: The commercial EM&V session will discuss how ICT is enabling the collection of richer, less expensive, and more valuable energy performance data that assists in energy efficiency planning, impact estimation, and the operation of commercial and multi-family facilities. Panelists will discuss recent work and applications of end-use metering technologies, community pilots and the use of new EM&V practices to other end-use applications.

12:00 pm – 1:30 pm**LUNCH***Marina Ballroom***1:30 pm – 3:00 pm****BREAKOUTS***Session 2A**Burroughs***Dynamic Pricing to Encourage More Energy Efficiency**Moderator: **Mark Dyson**, Rocky Mountain Institute

Panelists: **Nick Payton**, Opower
David Littell, Regulatory Assistance Project
Kristina Mohlin, Environmental Defense Fund
William Greene, NEST

Description: This session will focus on the role of emerging technology to facilitate customer response to dynamic and/or time-varying pricing in order to drive energy savings. Speakers will discuss the role of technology, both customer-sited devices and utility-run software, in delivering cost and energy savings. The session will also cover implications for program design, regulations and/or policy, and customer engagement.

*Session 2B**Carlton***Economic Potential and Co-Benefits Studies**Moderator: **Lara Bonn**, Efficiency Vermont

Panelists: **Ingrid Malmgren**, Vermont Energy Investment Corporation
Derek McGarry, Abundant Power
Nathan Strong, Eversource

Description: ICT enables many new methods to save energy. It also enables better and more accurate measurement of performance. This session will look at benefits of energy efficiency programs beyond energy savings, assess their economic value, and examine how to best incorporate this value to support efficiency programs.

*Session 2C**Harbor Ballroom I***Using ICT to Improve Residential Customer Engagement**Moderator: **Karen Horkitz**, CadmusPanelists: **Katie Tenbrink**, DTE Insight
Susan Norris, Pacific Gas and Electric Company
Kristen Pomer, Eversource

Description: This session will explore how utilities are applying information and communication technology to measurably increase residential customer engagement, satisfaction, and energy efficiency. This experiences of three utilities to increase and improve their engagement with residential customers will be shared and discussed.

*Session 2D**Lewis***How Intelligent Efficiency Affects Commercial Program Design**Moderator: **Mike Kaplan**, RetroficiencyPanelists: **Monisha Shah**, National Renewable Energy Laboratory
Tim Lezgus, Con Edison
Greg Baker, Vermont Energy Investment Corporation

Description: This session will investigate how ICT is improving existing program models and make possible new models such as contained within New York's REV initiative. It will also look at programs that focus on intelligent efficiency as measures such as energy management information systems and as enablers of measures such as the use of continuous monitoring to drive behavior savings. With the maturation of commercial energy efficiency programs, there is an increasing need to unlock new customer segments and efficiency measures to help achieve savings goals. This panel will explore several real-world case studies of how IT and data analytics are transforming the design and implementation of commercial energy programs today.

3:00 pm – 3:30 pm**NETWORKING BREAK***Harbor Foyer***3:30 pm – 5:00 pm****BREAKOUTS***Session 3A**Burroughs***Creating Markets for Programs: What Does It Take to Make Scalable, Investable Markets for Energy Efficiency?**Moderator: **Dian Grueneich**, Stanford UniversityPanelists: **Maria Fields**, Joule Assets
Adam Procell, Lime Energy
Eric Winkler, ISO-New England

Description: This session will address the ability of ICT to facilitate the bidding of energy efficiency into capacity and other markets. Panelists will discuss existing and future market structures and how to bring them to scale. They will also explain how the application of ICT throughout the implementation cycle will enable financial markets to better monetize the value of energy efficiency and thereby increase the volume of investment. The session panelists will discuss the opportunities and challenges faced by each of the many stakeholders likely to be involved and the likely steps needed to move forward.

*Session 3B**Carlton***Smart Cities – Policy**Moderator: **Chris Hankin**, Information Technology Industry Council

Panelists: **Sandra Baer**, Personal Cities
Harvey Michaels, Massachusetts Institute of Technology
Brad Swing, Energy Policy and Program, City of Boston
Leo Weinek, Co-Founder & CEO, FairCity

Description: On September 14th, the White House announced its new Smart Cities Initiative. This was followed by several policy-oriented panels during Smart Cities Week in Washington, DC, and then again in November when NIST hosted its 2016 Global Cities Team Challenge kick-off event. The panel will discuss these activities and the policy steps that governments can take in accelerating the development of smart cities in the United States.

*Session 3C**Harbor Ballroom I***Residential Program EM&V**Moderator: **Abigail Daken**, US Environmental Protection Agency

Panelists: **Emily Kemper**, CLEAResult
Greg Lovett, Ameren Services
Miriam Goldberg, DNV GL

Description: This session will focus on advances in M&V for residential programs that are enabled by intelligent efficiency, or by the same ICT infrastructure needed for intelligent efficiency. This session will examine the new technologies and their respective advantages and disadvantages. It will also ask the questions, “Where are we now?” and “Where are we going?”, and “What challenges need to be overcome?”

*Session 3D**Lewis***Applying ICT to Drive Commercial and Industrial Customer Engagement**Moderator: **Richard Tonielli**, Commonwealth Edison

Panelists: **Jeremy Cappello**, DTE Energy
Indy Ratnathicam, FirstFuel
Elizabeth Grobbel, Graham Partners
Shannon Smith, Abundant Power

Description: This session will explore how ICT can be used to identify C&I customers with high likelihood to adopt energy efficiency (EE), and how to overcome the barriers hindering those customers from moving forward with efficiency projects. Real-world examples of successful engagement strategies will be emphasized.

5:30 pm – 7:30 pm**RECEPTION (sponsored by FirstFuel)***Sauciety***Tuesday, December 8****7:00 am – 5:00 pm****REGISTRATION OPEN***Harbor Foyer***7:30 am – 8:30 am****CONTINENTAL BREAKFAST***Marina Ballroom*

8:30 am – 10:00 am**FEATURED PANEL****Harbor Ballroom I-II****Intelligent Efficiency and Energy Efficiency Program Policies**Moderator: **R. Neal Elliott**, Associate Director for Research, American Council for an Energy-Efficient EconomyPanelists: **David Jacot**, Director of Energy Efficiency, Los Angeles Department of Water and Power (*invited*)
Judith Judson, Commissioner, Massachusetts Department of Energy Resources
Bill Kallock, Vice President of Business Development, Integral Analytics, Inc.

Description: This featured panel will discuss the role of policy in scaling up intelligent efficiency. New technologies and practices are enabling innovation in efficiency program design, how we measure and verify savings, and how we integrate energy efficiency with grid. Policies will need to adjust to keep up with these innovations. What policies are utility regulators and policymakers in leading states already adopting or considering? What are the challenges and opportunities?

10:00 am – 10:30 am**NETWORKING BREAK****Harbor Foyer****10:30 am – 12:00 pm****BREAKOUTS**Session 4A**Burroughs****The Role of Intelligent Efficiency in Environmental Policy**Moderator: **Ari Peskoe**, Harvard Law SchoolPanelists: **Jake Oster**, EnergySavvy
Stephen Jordan, Global e-Sustainability Initiative
Matt Stanberry, Advanced Energy Economy

Description: Emerging intelligence and next-generation capabilities can help increase the use of energy efficiency to achieve environmental goals. In order to use energy efficiency to meet the environmental compliance requirements of state and federal regulations, the reductions in energy consumption that result from targeted investments in energy efficiency must be quantifiable. This session will explore the role of intelligent efficiency in environmental policy and with an emphasis on EPA's Clean Power Plan (CPP).

Session 4B**Carlton****Running a Smart City**Moderator: **David Ribeiro**, American Council for an Energy-Efficient EconomyPanelists: **Michael Donaghy**, Massachusetts Bay Transportation Authority
Joseph LaRusso, City of Boston, Energy Efficiency & Distributed Generation Finance
Gina Fiandaca, City of Boston, Transportation Department

Description: This session will examine how local governments and public authorities can use ICT and intelligent efficiency to more effectively run city business and save energy in the process. The panel will discuss city-use of ICT both within their own operations and during interactions with residents in their cities. Panelists will discuss the use of ICT in remote building analytics, maximizing the use of municipal resources, and in smart transportation initiatives.

*Session 4C**Harbor Ballroom I***ICT-Enabled Building Control**Moderator: **Elizabeth Tate**, Johnson Controls

Panelists: **Lindsay Baker**, Building Robotics
Anirudda Deodar, Autodesk
Badri Raghavan, FirstFuel
Rick Stehmeyer, CX Associates, LLC
Jessica Granderson, Lawrence Berkeley National Laboratory

Description: Advanced information technologies, data analytics and controls have the opportunity to transform the way we design, retrofit, operate and manage buildings in the future. This session will review new commercial technologies from the marketplace and as well as emerging technologies for our laboratories that target significant improvements in cost and performance across the entire building life cycle.

*Session 4D**Lewis***Industrial Program Design and EM&V**Moderator: **Jeffrey Perkins**, ERS

Panelists: **Elizabeth Grobbel**, Graham Partners
Rich Jett, ICF International
Steven Mysholowsky, ConEdison
Gary Epstein, ERS

Description: This session will look at what it takes to implement Information and Communications Technologies (ICT) in a manufacturing environment and what kinds of solutions are being offered. The Panel will expand into the use of ICT to improve EM&V and how utilities can best utilize ICT to evaluate, target, capture and assure energy efficiency.

12:00 pm – 1:30 pm**LUNCH***Marina Ballroom***1:30 pm – 3:00 pm****BREAKOUTS***Session 5A**Burroughs***ICT & Microgrids: Making Greater Integration of Distributed Energy Resources Possible**Moderator: **Katherine Hamilton**, 38 North Solutions

Panelists: **Bradford Swing**, Boston Redevelopment Authority
Chris Evanich, S&C Electric Company

Description: This session will examine how the application of Information Communications Technology (ICT) to microgrids are making greater integration of distributed energy resources (DER) possible. Panelists will discuss how predictive analytics, bi-directional communications, and connected networks are enabling the incorporation of more combined heat and power, renewable energy, energy efficiency, and demand response into local microgrids and how the same technologies are enabling microgrids to interact with utility electric grids. Panelists will present examples of successful projects, talk about the features of well-designed and managed microgrids, and examine solutions to common challenges.

*Session 5B**Carlton***Smart Cities – Technology and EM&V**Moderator: **Angela Bassa**, EnerNOCPanelists: **Colin Fraser**, EnerNOC
Jessica Granderson, Lawrence Berkeley National Laboratory
Mark Gately, Tendril
Tommy Hayes, Lyft

Description: Examining how technology can be used to more effectively measure and verify energy efficiency programs at the city level, this panel of experts on M&V who will cover three major sectors of urban energy use: commercial and industrial, residential, and transportation. They will also talk about the challenges facing implementers, evaluators and administrators and the importance of leveraging experimental design and data analysis to distill meaningful results from energy efficiency initiatives.

*Session 5C**Harbor Ballroom I***International Programs and Policies**Moderator: **Chris Hankin**, Information Technology Industry CouncilPanelists: **Jeremy Domm**, US Department of Energy
Rona Newmark, EMC Corporation
Skip Laitner, Economic and Human Dimensions Research Associates

Description: This session will feature information on the recent discussions in the G-20 on intelligent efficiency, and considerations for a continued work stream in 2016. The G-20 (Group of Twenty) is an international forum for the governments and central bank governors from 20 major economies that meet annually to discuss a variety of issues, such as the environment, that have the potential to affect the global economy.

*Session 5D**Lewis***Making Big Data Work for You: The Value of Custom Analytics**Moderator: **R. Neal Elliott**, American Council for an Energy-Efficient EconomyPanelists: **Matt Gee**, Open Meter
Geoff Phillips, Eversource
Sam Borgeson, Convergence Data Analytics
Ethan Goldman, Vermont Energy Investment Corporation

Description: Making big data serve the needs of efficiency programs goes beyond managing the data and selecting commercial analysis and engagement services. Combining data from smart meters, connected devices, demographic data and program participation records can allow programs to more accurately target advice, calculate savings, and even tap into new sources of savings. This session will explore how programs can develop their data capabilities to go beyond off-the-shelf solutions and become truly data drive.

3:00 pm – 3:30 pm**NETWORKING BREAK***Harbor Foyer*

3:30 pm – 5:00 pm**TRADING SPACE***Harbor I-II*

Description: In this session, we deviate from our usual format. Researchers and innovators will have the floor to present information on their research, new product or service, or initiative and ask for data, assistance, participation, or funding. Each person will be given approximately 5 minutes. The objective of Trading Space is to facilitate connections that lead to new research, products, services, projects, and collaborative endeavors. Depending on volume of interest, there will be one or two concurrent sessions. If the latter, one will likely focus on research collaboration and the other on commercial endeavors.

Submit your idea and join us for **Trading Space**, a session for researchers and innovators to make their elevator pitch. Email your contact information and pitch in 50 words or less to industry@aceee.org. Use the subject line “2015 ACEEE Intelligent Efficiency Conference – Trading Space.”

Submissions will be accepted until **11:59 pm, Monday, December 7!**

Note: You must be registered for the conference in order to have your topic accepted.

THANK YOU FUNDERS AND ALLY MEMBERS!

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