



IEPEC Conference – Draft Agenda

MONDAY, AUGUST 7

Pre-Conference Workshops – Half Day	
8:30 – 12:30	Evaluating New Commercial Construction Programs: What Program Managers Should Know Jeffrey Ihnen and Michael Frischmann, Michaels Energy
1:15 – 5:15	The Uniform Methods Project: A Crash Course on Phase II Activities and Next Steps Michael Li, U.S. Department of Energy; Arlis Reynolds, Cadmus; and UMP Authors and Contributors
3:30 – 5:30	Cost-Effectiveness Testing M. Sami Khawaja, Cadmus, and Scott Dimetrosky, Apex Analytics
Pre-Conference Workshops – Full Day	
8:15 – 4:45	Beyond Evaluation 101: Using Evaluation to Improve Programs Jane Peters, Linda Dethman, and Todd Malinick, Research Into Action
9:00 – 5:00	End-Use Metering, Nonintrusive Load Monitoring, and M&V 2.0: When to Use What and How? Amit Kanungo, DNV GL
9:00 – 5:00	Evaluation Management 101 Bobbi Tannenbaum, BTan Consulting, and Tammy Kuiken, DNV GL
9:30 – 5:30	Basic Statistics and Cost-effectiveness Testing M. Sami Khawaja, Cadmus, and Scott Dimetrosky, Apex Analytics
Young Professionals Networking Reception	
Board Meeting	
6:00 – 7:30	OPENING NETWORKING RECEPTION <i>Sponsored by</i> Opinion Dynamics
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TUESDAY, AUGUST 8

7:30 – 8:30	Continental Breakfast
7:30 – 4:00	Registration
9:00 – 10:30	Opening Plenary Keynote Address: From Skeptic to Realist Bob Inglis, Executive Director, republicEn.org 
10:30 – 11:00	Morning Break
11:00 – 12:30	Concurrent Sessions
1A	IN SEARCH OF THE COUNTERFACTUAL Moderator: Ralph Prael, Prael & Associates <i>Setting baselines and assessing attribution are two of the most challenging issues in EM&V, due in large part to the out-sized role that counterfactual scenarios play in getting the right answer. This session showcases four papers on recent methodological advances in these two critical areas.</i> <ul style="list-style-type: none"> • It's All About That Base....Line: Baseline Policy Enhancement in Massachusetts and California - Jonathan Maxwell, ERS • How Much of That Savings Really is Attributable to the Program? - Seth Wayland, Opinion Dynamics • Financing or Incentives: Disentangling Attribution - Antje Flanders, Opinion Dynamics • Asking the Right Questions of the Right People About the Right Points of Influence to Get the Right Spillover Assessment - Ryan Bliss, Research Into Action
1B	PROGRAM DESIGN Moderator: Anne Dougherty, ILLUME Advising <i>From cannabis to communities to smart phones, this session will discuss how evaluation approaches can be used to improve programs and drive greater program adoption. We will dig deep on how evaluation is supporting program design and helping to improve customer experience.</i> <ul style="list-style-type: none"> • A National Review of Community-Based Energy Efficiency Programs: Finding Transferable Insights Across Unique Program Designs - Aimee Powelka, Eversource Energy • Energy Savings from a Smart Phone App - Carly Olig, Navigant • Bringing Multifamily Buildings to the Efficiency Dance: Revelations from a Study of Owners and Operators - Piotr Urbanski, Southern California Edison • High Usage in High Times: The Potential Energy-Demand Implications of the Legalized Cannabis Cultivation Market - Joe Clark, Evergreen Economics
1C	CALIFORNIA'S RESIDENTIAL TIME-OF USE PRICING PILOT—INITIAL FINDINGS FROM QUANTITATIVE AND SURVEY ANALYSES Moderator: Steve Braithwait, Christensen Associates Energy Consulting <i>This session includes two papers and a commentary that report and discuss initial findings from a large-scale statewide residential time-of-use pricing pilot in California. One paper reports estimated load impacts, bill impacts, and attrition rates, while the other reports survey-based estimates of potential economic and health impacts of the rates.</i> <ul style="list-style-type: none"> • Impacts from Large-Scale Residential Pilot Opt-in Time-of-Use Evaluation - Eric Bell, Nexant • Getting a Bead on Hardship - Benn Messer, Research Into Action • Providing Commentary: How Utilities and Regulators Could Use TOU Research Results - Andrew Lee, Pacific Gas and Electric Company (no paper)
1D	ISSUES IN RESIDENTIAL HVAC AND APPLIANCES Moderator: Scott Pigg, Seventhwave <i>This session will explore evaluation issues related to ductless heat pumps, early replacement of residential HVAC equipment, and the nascent North American market for heat-pump clothes dryers.</i> <ul style="list-style-type: none"> • Evaluating Cold-Climate Heat Pumps: Understanding How and Where Cold-Climate Heat Pumps Can Displace Less Efficient Heating Sources - David Korn, Cadmus • Gauging Consumer Appetite for Super-Efficient (Heat Pump) Dryers - Amy Webb, NEEA • Evaluation of Early-Replacement HVAC Projects Rebated Through HPwES - Joe Loper, Itron • Greater Accuracy for Mini-Split Heat Pump Savings: Findings and Lessons Learned from a Billing Analysis - Marie-Claude Hamelin, Econoler
1F	TIME TO POP THE CORK ON THE CHAMPAGNE? HAVE LIGHTING PROGRAMS TRANSFORMED THE MARKET? Moderator: Scott Dimetrosky, Apex Analytics Panelists: <ul style="list-style-type: none"> • Glenn Reed, Energy Futures Group • Carrie Cobb, Bonneville Power Administration • Lisa Wilson-Wright, NMR Group • Stan Mertz, Globe Electric (formerly with CLEAResult)
12:30 – 1:30	Lunch Break

1:30 – 3:00	Concurrent Sessions
2A	<p>TACKLING ANALYTICAL CHALLENGES WITH STRATEGIC ENERGY MANAGEMENT AND ESTIMATING SAVINGS AT THE METER Moderator: Maureen McNamara, U.S. Environmental Protection Agency</p> <p><i>How do you select the right regression framework? What level of model development is good enough? How do you quantify aggregate uncertainty? This session will explore these answers and other questions that evaluators of Strategic Energy Management (SEM) programs and other behavior programs grapple with.</i></p> <ul style="list-style-type: none"> • Strategic Energy Management Modeling: What's Good Enough? - Phil Degens, Energy Trust of Oregon • A Comparison of Approaches to Estimating the Time-Aggregated Uncertainty of Savings Estimated from Meter Data - Bill Koran, SBW Consulting • Clash of Methodology: A Model Building and Comparison Simulation for Estimating Energy Savings Resulting from Strategic Energy Management Programs - Andrew Bernath, Cadmus
2B	<p>UNDERSTANDING LOW-INCOME ENERGY NEEDS AND ENERGY SAVING POTENTIAL Moderator: Jackie Berger, APPRISE</p> <p><i>This session focuses on low-income households, energy affordability, and energy usage reduction. The paper explores energy burden for low- and moderate-income households in CA and presents findings on energy savings from the National Weatherization Assistance Program Evaluation.</i></p> <ul style="list-style-type: none"> • More Tools in the Toolbox: An Examination of Metrics for the Low-Income Customer Energy Burden - Jenny Fraser, Evergreen Economics • Exploring the Characteristics of Low-Income Households with the Highest Energy Burdens: One Size Does Not Fit All - Ingo Bensch, Evergreen Economics • National WAP Evaluation: Methods and Findings for Single-Family Homes - David Carroll, APPRISE
2C	<p>PEAK LOAD MANAGEMENT PERSPECTIVES Moderator: Ed Thomas, PLMA</p> <p><i>Gain insight on how to manage peak load from the perspectives of a Canadian independent system operator, Midwest utility planner, and New England utility program designer. You'll learn how consideration of the potential for demand response is evolving from the system to the substation to the residential end-user.</i></p> <ul style="list-style-type: none"> • Cutting Peak Demand: Two Competing Paths and Their Effectiveness - Tony Larson, National Grid • The Evolution of Residential Demand Response: From Program to Market - Phil Bosco, Independent Electricity System Operator • Methods for Matching Peak-load Reduction Potential with Need in Geo-Targeting Non-Wires Alternative-Pilot Substation Candidates - Omar Dickenson, Navigant
2D	<p>RESIDENTIAL RETROFIT Moderator: Nicholas DeDominicis, Exelon Corporation</p> <p><i>This session will explore the challenges of attaining and measuring persistent, cost effective savings from comprehensive residential retrofit programs. The authors in this session will address the real-world practices of weatherization contractors, savings opportunities in hard to reach manufactured homes, and real time measurement of energy end uses and corresponding retrofit opportunities.</i></p> <ul style="list-style-type: none"> • Energy Savings from Weatherizing Manufactured Homes - James Stewart, Cadmus • I'd Like to Fix Your Attic, But I'm Late for Another Appointment: Innovative Approaches to Uncovering the Real-World Practices of Weatherization Contractors - Jared Powell, NMR Group • Real-Time Measurement of Energy End-Uses and Corresponding Retrofit Opportunities - Karen Fenaughty, Florida Solar Energy Center
2F	<p>PANEL: EVALUATION SOLUTIONS FOR MIDSTREAM INTERVENTIONS: A PATH FORWARD Moderator: Dulane Moran, Northwest Energy Efficiency Alliance</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Ralph Prael, Prael and Associates • Michael Li, U.S. Department of Energy • Pete Skala, California Public Utilities Commission • Carrie Cobb, Bonneville Power Administration
3:00 – 3:45	Afternoon Break

3:45 – 5:15	Concurrent Sessions
3A	<p>OUT OF CONTROL: COMPARISON GROUPS WHOLE-BUILDING Moderator: Sami Khawaja, Cadmus</p> <p><i>The papers in this session explore different methods of finding the best comparison group for conducting billing analysis when random control trial is not an option.</i></p> <ul style="list-style-type: none"> • Finding your Perfect Match: A Qualitative Investigation of Matching Approaches - Abigail Nguyen, Applied Energy Group • Model-Based Matching and Other Benefits of High-Frequency Interval Data – Lullit Getachew, DNV GL Energy • What is the Role of Comparison Groups in EM&V 2.0? - Josh Schellenberg, Nexant
3B	<p>CUSTOMER DATA: BEST WAYS TO GET IT AND USE IT! Moderator: Sharyn Barata, Opinion Dynamics</p> <p><i>This session explores the challenges of obtaining and using customer data from self-reports and across multiple sources and entities. It will also share innovative ways that customer segmentation can be used to evaluate utility energy programs.</i></p> <ul style="list-style-type: none"> • Conducting a Web-Based Residential Appliance Saturation Survey (RASS) Across Multiple Electric Cooperatives: Methodology, Challenges, Results, and Next Steps - Mike Witt, DNV GL Energy • Setting the Foundation for Strong Program Design and Evaluation Using Descriptive Segmentation - Shannon Kahl, ILLUME Advising • Planners Do It, Implementers Do It, Even Evaluators Should Do It: Utilizing Segmentation to Assess Program Performance - Brad Kates, Opinion Dynamics
3C	<p>CODES Moderator: Stu Slote, Navigant</p> <p><i>This session will explore the value of assessing compliance with building energy codes and HVAC permitting. The authors in this session will address evaluating the energy savings impacts resulting from residential and commercial state energy codes.</i></p> <ul style="list-style-type: none"> • Do Energy Codes Really Save Energy? - Allen Lee, Cadmus • Estimating the Energy Savings Potential of Improving Energy Code Compliance - Isaac Elnecave, Midwest Energy Efficiency Alliance • Scofflaw State: Quantifying HVAC Permit Rates for Residential Changeouts in California - Amber Watkins, DNV GL Energy
3D	<p>LIGHTING MEASUREMENT Moderator: Jenna Canseco, DNV GL Energy</p> <p><i>This session includes four measurement and estimation papers involved in evaluating lighting, including: estimating leakage, LED life expectancy, winter peak demand coincidence for commercial buildings, and household saturation of efficient lamps. The papers provide useful guidance for improving the accuracy of critical inputs to lighting program evaluation studies.</i></p> <ul style="list-style-type: none"> • All the Lights We Cannot See: Estimating the Distribution of Bulbs for Upstream Lighting Programs - Russell Meyer, NMR Group • Some Don't Like It Hot: The Effect of Temperature and Switching Patterns on Screw-Based LED Lamps - Mike Ting, Itron • Plugging the Holes in Leakage: Methods for Calculating the Leakage into Upstream Residential Lighting Programs - Robert Saul, Opinion Dynamics • Shedding Light on Winter Lighting - Knud Hermansen, Navigant
3E	<p>PANEL: THE 250-PAGE EVALUATION REPORT: VITAL INFORMATION OR SLEEP AID? OUR READERS SPEAK OUT Moderator: Jeremy Kraft, EMI Consulting</p> <p><i>How can evaluations be made more responsive to those they are intended to serve? This panel will feature an interactive conversation between the audience at IEPEC (evaluators) and the audience that evaluation targets (regulators, advocates, program administrators, and policy makers). We will highlight current miscommunications, good practices, and opportunities to improve evaluation reports for our readers.</i></p> <p>Panelists:</p> <ul style="list-style-type: none"> • Les Stachow, New Hampshire Public Utilities Commission • Marissa Gillett, Maryland Public Service Commission • Mohit Chhabra, Natural Resources Defense Council • Robert Kasman, Pacific Gas and Electric Company
5:15 – 5:30	Free time for networking and poster preparation
5:30 – 7:15	<p>POSTER SESSION AND RECEPTION</p> <p>Refreshments sponsored by </p>

WEDNESDAY, AUGUST 9

7:30 – 8:30	Continental Breakfast
7:30 – 4:00	Registration
8:30 – 10:00	Concurrent Sessions
4A	<p>BASELINE FINDINGS Moderator: Scott Dimetrosky, Apex Analytics</p> <p><i>This session investigates the development and use of baseline for both existing buildings and new construction. The authors present a number of sophisticated sampling, weighting, and analysis techniques to maximize the value of site visits and see the actual and potential impact of efficiency programs.</i></p> <ul style="list-style-type: none"> • How's that for Performance? Changes in New-Construction Practices Over Time - Zack Tyler, NMR Group • Measuring Up—How Does My Baseline Compare? - Riley Hastings, Eversource Energy • Creating a Statewide Baseline for Energy Consuming Equipment for the C&I Sector - James Leahy, DNV GL Energy • Leveraging Home Energy Scores in a Residential Baseline Study - Tom Mauldin, NMR Group
4B	<p>VALUE AND IMPACT BEYOND THE ENERGY SAVINGS Moderator: Ingo Bensch, Evergreen Economics</p> <p><i>This session investigates the value and impacts beyond energy savings among residential (and low-income) energy efficiency programs and interventions. The authors report on the economic benefits and health impacts of residential programs and load impacts of rate subsidies. All three papers go beyond traditional measurements and metrics to study energy programs.</i></p> <ul style="list-style-type: none"> • Painting the Whole Picture: Understanding the Impacts of Energy Efficiency Using Cost-Effectiveness Testing and Economic Impact Assessments - Zachary Ross, Opinion Dynamics • Saving Lives Through Energy Efficiency: Valuing the Health- and Safety-Related Benefits of Weatherization in Low-Income Homes - Christopher Chan, Eversource Energy • Do Low-Income Electricity Subsidies Change Peak-Consumption Behavior? - Evan Sherwin, Carnegie Mellon University
4C	<p>ZERO NET ENERGY BUILDINGS (ZNE) AND RENEWABLES Moderator: Elizabeth Titus, Northeast Energy Efficiency Partnerships</p> <p><i>In this session evaluators apply their expertise to a variety of emerging DER situations. Sarah Castor from Energy Trust of Oregon shares results and recommendations on evaluation practice for delivering reliable ex ante estimates of solar generation, based on an impact evaluation of a PV incentive program. Stephan Barsun from Itron reviews what metrics are important in measuring battery storage systems, strategies for measurement, and the need for evaluators to be flexible and ready to jump hurdles associated with keeping up with the rapid penetration of such systems. Ellen Steiner of Opinion Dynamics Corp. outlines a pathway to increasing penetration of ZNE buildings in California to support climate goals, based on interviews and building-specific research that suggests that institutional barriers are the primary challenge.</i></p> <ul style="list-style-type: none"> • Counting on Solar: Impact Evaluation of Solar PV - Sarah Castor, Energy Trust of Oregon • Through the Looking Glass and What the Analyst Found There: Energy Storage Behind the Meter – Stephan Barsun, Itron • How Can We Drive ZNE to Scale? - Ellen Steiner, Opinion Dynamics • Evaluating the Fast-Evolving Market for Storage - Kara Crohn, EMI Consulting
4D	<p>HOW CAN WE MAKE EVALUATIONS MORE TIMELY AND VALUABLE? Moderator: Lauren Gage, Apex Analytics</p> <p><i>This session covers innovations in fast feedback evaluations, including impact and process evaluation for demand and energy. Authors will discuss methods, data issues, benefits, difficulties, and lessons learned.</i></p> <ul style="list-style-type: none"> • Reduce, Reuse, Recycle, Rethink: Continuously Collecting M&V Data to Redefine the Future of Evaluation - Paul Dobrowsky, ERS • Fast Feedback Evaluation: A Combination of Riding Shotgun and Speed Dating - Denise Rouleau, Tetra Tech • Process Evaluation 2.0: What It Is and How It Can Be Leveraged to Advance the Energy Efficiency Industry - Courtney Henderson, ILLUME Advising • Shape-Shifting Evaluation: Rapid, Flexible Evaluation Within a Context of Continuous Program Improvement - Hannah Justus, EMI Consulting
10:00 – 10:30	Morning Break

10:30 – Noon	Concurrent Sessions
5A	<p>MAKING WHOLE BUILDING APPROACHES BE CREDIBLE TOOLS Moderator: Mary Sutter, Grounded Research & Consulting</p> <p><i>This session explores two important aspects of using interval data to assess savings—a regulatory perspective on credible evidence and an in-the-trenches review of the savings uncertainty from billing analysis versus site metering. As our industry moves forward with using big data to assess savings, the authors’ contributions in this session help ensure robust information on methodological choices and awareness of a methodological framework that was acceptable to a regulatory agency.</i></p> <ul style="list-style-type: none"> • M&V 2.0 and Commercial Whole-Building Programs: The Army We Wish We Had - Paula Gruending, California Public Utilities Commission • Comparison of Savings Uncertainty Using Option C and Option A Methods for Lighting Retrofits – Dakers Gowans, Left Fork Energy
5B	<p>NOW SERVING CUSTOMERS IN YOUR TOWN: DEVELOPMENTS IN SMALL BUSINESS EFFICIENCY PROGRAMS Moderator: Jeremy Newberger, National Grid</p> <p><i>This session examines the application of results of studies that explore various aspects of small business programs in the interest of serving this hard-to-crack sector more effectively. The authors will discuss real time influencing of program design, testing two different forms of program delivery, and assessing performance longitudinally over time.</i></p> <ul style="list-style-type: none"> • Growing a Program from Scratch: Planting the Seeds of Evaluation in a Small-Business Program - Katherine Cary, EMI Consulting • A Tale of Two Channels: Assessing the Effectiveness of a Small Business Direct Install Program - Alyssa Na’im, NMR Group and Joseph Dolengo, National Grid • Tracking Small-Business Program Performance with Annual Billing Analyses - Andrew Nawrocki, Navigant
5C	<p>EVALUATING HARD-TO-MEASURE C&I ENERGY PROGRAMS—FROM STRATEGIC ENERGY MANAGEMENT TO RETROCOMMISSIONING Moderator: Jennifer Chiodo, Cx Associates</p> <p><i>While residential behavior programs are widely deployed and studied, programs that target behavior and operations in the C&I sector are far less prevalent. Come learn about leading C&I operational and behavioral change programs and how to effectively evaluate them so you have the knowledge necessary to foster, guide, and study these programs as they expand across the market.</i></p> <ul style="list-style-type: none"> • Growing Pains: Lessons from the (Bleeding) Edge of SEM Program Evaluation - Lauren Gage, Apex Analytics • Evaluating Strategic Energy Management: Lessons Learned from the Pacific Northwest - Erika Kociolek, Energy Trust of Oregon • Commercial Recommissioning Program Evaluation: Accurate and Timely Evaluation Results by Combining Qualitative Research with Statistical Analysis of Big Data - Min Yu, BC Hydro
5D	<p>HOME ENERGY REPORTS: NEW DEVELOPMENTS FOR A MATURING BEHAVIORAL INTERVENTION Moderator: Brian Smith, Pacific Gas & Electric Company</p> <p><i>While most program administrators have adopted the “standard” neighbor comparison treatment, new research demonstrates the impact of reports that are customized to the unique needs of low-income households. Other research proposes a new savings reporting protocol that addresses the intertwining issues of persistence of savings and cost-effectiveness. This session adds new dimensions for this widely-developed behavioral intervention.</i></p> <ul style="list-style-type: none"> • Home Energy Reports of Low-Income vs. Standard Households: A Parable of the Tortoise and the Hare? - Anne West, Cadmus • Accounting for Behavioral Persistence: A Protocol and a Call for Discussion - Cheryl Jenkins, Vermont Energy Investment Corporation • Home Energy Reports Behavioral Persistence Research - Kira Ashby, Consortium for Energy Efficiency
5E	<p>PANEL: GAME CHANGERS: HOW NEW TECHNOLOGIES AND PRACTICES ARE RESHAPING THE TREATMENT OF ENERGY ALTERNATIVES IN ELECTRIC PLANNING Moderator: Maureen McNamara, U.S. Environmental Protection Agency</p> <p><i>Low-cost distributed solar and batteries, smart technologies such as thermostats that blend energy efficiency and demand-response capabilities, and growth in electric vehicles in some markets are changing the nature and shape of electric load. The technology and operational functionality of the electric grid also is changing as the electric grid modernizes, enabling and requiring system operators to think differently about how to integrate and fully value energy alternatives in electric planning. This panel will discuss emerging trends in how these distributed-energy resources are being valued, the increased interest in these distributed-energy resources’ time and locational value, and what these emerging trends might signal for the future of EM&V.</i></p> <p>Panelists:</p> <ul style="list-style-type: none"> • Derek Kirchner, DTE • Matt Robison, ICF Distributed Energy Resources • Jonathan Rumble, Southern California Edison
Noon – 1:00	Lunch Break

WEDNESDAY, AUGUST 9

1:00 – 2:30	Concurrent Sessions
6A	<p>NEW THINKING FOR SAVINGS ESTIMATION USING METERED CONSUMPTION DATA AND COMPARISON GROUPS Moderator: Patrice Ignelzi, Applied Energy Group</p> <p><i>This session artfully pushes the envelope of how to actually improve the accuracy and interpretability of savings from today's energy efficiency programs. As portfolios include a combination of rebate and behavior programs, and more granular data on customer energy usage become available, evaluators can and should consider new methods for making estimates of both gross and net savings. The papers cover the landscape of methodologies for residential and non-residential programs; examine the implications of using different comparison groups; and range from concept, to methodological formulations and selection, to results.</i></p> <ul style="list-style-type: none"> • Evaluating Whole-Building Programs: It is Both Harder and Easier Than You Think! - Katherine Randazzo, Opinion Dynamics • Not Just Another Pretty Formula: Practical Methods for Mitigating Self-Selection Bias in Billing Analysis Regressions - Miriam Goldberg, DNV GL Energy • Take It from the Top! An Innovative Approach to Commercial Program Savings Estimation Using AMI Data - Steve Grover, Evergreen Economics
6B	<p>GEO-TARGETING Moderator: Bob Wirtshafter, Wirtshafter Associates</p> <ul style="list-style-type: none"> • Finding Big Potential in Small Businesses: Behavior Change Opportunities and Targeting Approaches from a Statewide Study - Eileen Hannigan, Illume Advising • Where are the Low Hanging Fruit? Data to Help Understand Geographic and Demographic Characteristics of Households with Inefficient Equipment - Kevin Price, Evergreen Economics • Enhancing Customer Data Analytics by Leveraging Spatial Analysis and Third-Party Data - Noel Stevens, DNV GL Energy
6C	<p>RESIDENTIAL BILLING ANALYSIS: "IT'S COMPLICATED" Moderator: Phil Degens, Energy Trust of Oregon</p> <p><i>This session looks at different research methodologies used in residential billing analysis and how the decision to use specific methods can affect outcomes. The authors in this session address billing analysis as used in retrofit and new construction programs, and how a variety of comparison groups construction methods, data cleaning protocols, and model specifications can affect the savings results.</i></p> <ul style="list-style-type: none"> • The Dynamics and Advantages of Using Billing Analysis to Evaluate Residential New Construction Program - Michael Li, BC Hydro • The Devil's in the Details: What is the Effect of Methodological Decisions on Estimated Savings? - Pace Goodman, Navigant • Cleaning Up the Mess of Billing Data: An Investigation of Differences in Billing Analysis Results Caused by Data Cleaning Methodologies - Eric Ziemba, Opinion Dynamics
6D	<p>PRACTICAL APPROACHES FOR KEEPING EVALUATION RELEVANT IN AN EVOLVING ENERGY POLICY ENVIRONMENT Moderator: Bill Saxonis, New York Department of Public Service</p> <p><i>This session explores practical approaches for keeping evaluation relevant in the real world of emerging data technologies, shareholder incentive mechanisms, and growing demands from policy makers for increased clarity, consistency, and reliability of impact evaluations.</i></p> <ul style="list-style-type: none"> • Evolution of Energy Efficiency Evaluation, Measurement and Verification (EM&V): States' Experience that Looks to the Future - Maggie Molina, American Council for an Energy-Efficient Economy • From Targets to Impacts: Eight Steps for Evaluating Energy Efficiency Policies - Barbara Schlomann, Fraunhofer Institute for Systems and Innovation Research • Making Impact Evaluations More Impactful: A California Collaboration the Nation Can Adopt - Adam Scheer, Pacific Gas and Electric Company • The Continued Value of Evaluation in California's Shareholder Incentive Mechanism - Jeorge Tagnipes, California Public Utility Commission
6E	<p>PANEL: WHAT IS AND ISN'T WORKING ABOUT EVALUATION AS WE PRACTICE IT? Panel Organizer: Michael Li, U.S. Department of Energy Panelists: TBD</p>
2:30 – 3:15	Afternoon Break

3:15 – 4:45	Concurrent Sessions
7A	<p>METHODS & MYSTERIES: EVALUATING C&I ENERGY EFFICIENCY SAVINGS Moderator: Michael Noreika, Puget Sound Energy</p> <p><i>Using Holmesian powers of observation and logic, the authors at this session present practical research on a variety of commercial and industrial evaluation topics. The research topics go beyond the elementary techniques and energy savings generally considered in commercial and industrial efficiency evaluations.</i></p> <ul style="list-style-type: none"> • Double Ratio Estimation: Friend or Foe? - Jenna Bagnall-Reilly, West Hill Energy and Computing • Variance and Optimization in Non-Residential Building Simulation Receptacle Loads - Jeff Cropp, Cadmus • It's in the Water! Improving Energy Savings Calculations from CA Water Conservation - Jeremy Eddy, Itron • Chasing the Elusive Heat: Sherlock Holmes and the Startling Case of the CHP Protocol - George Simons, Itron
7B	<p>THERMOSTATS—THE MEASURE WITH MANY FACES Moderator: Jane Peters, Research Into Action</p> <p><i>Thermostats have long been on the front line of energy programs: from set-back to upgrade, and today with digitization and home management. This session addresses three thermostat programs: one a programmable thermostat program where effective program design results in measurable savings and two demand response programs using smart thermostats, for which the authors provide innovative solutions to savings estimation.</i></p> <ul style="list-style-type: none"> • Programmable Thermostats: Once More Up the Roller Coaster - Jeremiah Robinson, DNV GL Energy • When You Can't Go for the Gold: What is the Best Way to Evaluate a Non-RCT Demand Response Program? - Olivia Patterson, Opinion Dynamics • Measuring Energy Savings with Smart Thermostat Data - Ethan Goldman, Vermont Energy Investment Corporation
7C	<p>QUICK TAKE: GROWING UP—THE EVOLUTION OF BEHAVIORAL PROGRAMS Moderator: Michael Goldman, Eversource Energy</p> <p><i>The scope, delivery, and outcome of behavioral programs continue to evolve. This session will focus on new developments and research into behavioral programs with a specific focus on new uses for behavioral programs, new ways of delivering behavioral messaging, and what happens when a program matures.</i></p> <ul style="list-style-type: none"> • Does How You Pay Your Energy Bill Affect How Much You Pay for Your Energy? - Gomathi Sadhasivan, DNV GL Energy • Lessons Learned from a Mature Behavioral Program - Valerie Richardson, DNV GL Energy • Maximizing Home Energy Report Savings: Who Saves the Most, the Least, and Why? - Hannah Arnold, Opinion Dynamics • Piloting Home-Energy Reports: Testing Both Paper and Electronic Messaging - Candice Potter, Nexant • The Reliability of Behavioral Demand Response - Debbie Brannan, Navigant
7D	<p>CATCH OF THE DAY: TBD Panel Organizer: Jennifer Canseco, DNV GL Panelists: TBD</p>
5:30 – 7:30 Boarding begins at 5:00	HARBOR CRUISE

THURSDAY, AUGUST 10

7:30 – 8:30	Continental Breakfast & Registration
8:30 – 10:00	Concurrent Sessions
8A	<p>RESIDENTIAL LOAD DISAGGREGATION, SO CLOSE BUT YET SO FAR AWAY Moderator: Jeff Ihnen, Michaels Energy</p> <p><i>Disaggregation of interval data from advanced metering infrastructure offers opportunities to measure impacts using non-intrusive, remote monitoring. This session will demonstrate methods and findings of multiple disaggregation approaches against status quo end-use monitoring and billing regression for residential loads.</i></p> <ul style="list-style-type: none"> • Disaggregation of End-Use Load from Whole-House Interval Meter Data - Jeffrey Phung, ADM Associates • Duck Hunt! Benefits and Risks of Load Disaggregation and End-Use Metering for Determining End-Use Loadshapes - Terese Decker, Navigant • A Snapshot of NILM: Techniques and Tests of Non-Intrusive Load Monitoring for Load Shape Development - Justin Elszasz, Navigant
8B	<p>RESIDENTIAL LIGHTING Moderator: David Jacot, Los Angeles Department of Water & Power</p> <ul style="list-style-type: none"> • It's Déjà Vu All Over Again: More Revelations from a Lighting Panel Study - Kiersten von Trapp, NMR Group • Keep Calm and Carry On: Why Upstream Lighting Programs are Still Important - David Barclay, NMR Group • A Market Lift Model for Assessing NTG - Scott Dimetrosky, Apex Analytics
8C	<p>USING EM&V FOR MARKET ENGAGEMENT Moderator: Jennifer Meissner, NYSERDA</p> <p><i>As programs seek to reach past low-hanging fruit and look for more effective market engagement strategies, enhanced evaluation approaches and new uses for evaluation data can be important contributors to getting to the next level. Authors in this session discuss innovative uses of EM&V data by sales teams, customer journey mapping, and enhancing marketing/outreach/education campaigns.</i></p> <ul style="list-style-type: none"> • Innovative Uses for M&V Data: Focusing the Sales Team - Lucy Neiman, ERS • Upgrading Your Marketing Evaluation Paradigm - Dre Voelkel, ILLUME Advising • Getting the Right Ingredients: A Framework for Enhancing ME&O Evaluation - Alan Elliott, Opinion Dynamics • Getting Higher in the Tree: Using Customer Journey Mapping to Understand Customer Experience - Latisha Younger-Canon, Navigant
8D	<p>PANEL: SURFING THE WAVE OF ADVANCED M&V: WHAT OUR INDUSTRY NEEDS TO KNOW Moderator: Elizabeth Titus, Northeast Energy Efficiency Partnership</p> <p><i>This panel will explore the role of technology—advanced M&V—whole-building software and associated data—relevant to residential and C&I sectors—in the future of evaluation of utility efficiency programs. In the changing landscape of utilities efficiency is part of the distributed energy resource. There is growing interest in and need for rapid feedback, and timing and geographic location of impacts can matter, as well. What do evaluators and regulators of energy efficiency programs need to know and do to surf the wave of advanced M&V that is hitting our industry:</i></p> <ul style="list-style-type: none"> • <i>How do we assess the performance, cost, promise, and value of advanced M&V?</i> • <i>What do regulators need to know to guide the direction of energy efficiency in the next generation of technology and grid planning?</i> • <i>What energy program evaluation and other needs can advanced M&V meet?</i> <p>Panelists:</p> <ul style="list-style-type: none"> • Mimi Goldberg, DNV GL • Jessica Granderson, LBL • Manish Rudikar, DTE • Emily St Clair, DNREC
10:00 – 10:30	Morning Break
10:30 – Noon	<p>CLOSING PLENARY Evidence-Based Policy and Researcher Subjectivity in a World of Facts and “Alternative Facts”</p> <p><i>In our new media and policy moment, how can evidence-based policy making survive in a world of alternative facts? This panel will explore how the tools of the scientific method are being used to dismantle it, the social and critical science theory that got us here, and discuss how to strengthen our messages and communications.</i></p> <p>Anne Dougherty, ILLUME Advising</p> <ul style="list-style-type: none"> • Dr. Eric Plemons, University of Arizona • Dr. Elizabeth Kelley, Georgetown University • Dr. Jon Koliner, ILLUME Advising • Dr. Daniel Lauriston, Swathmore College
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