



# IEPEC Conference – Draft Agenda

## MONDAY, AUGUST 7

### Pre-Conference Workshops – Half Day

8:30 – 12:30 Guilford	<b>Evaluating New Commercial Construction Programs: What Program Managers Should Know</b> Jeffrey Ihnen and Michael Frischmann, Michaels Energy
1:15 – 5:15 Guilford	<b>The Uniform Methods Project: A Crash Course on Phase II Activities and Next Steps</b> Michael Li, U.S. Department of Energy, Arlis Reynolds, Cadmus, and UMP Authors and Contributors
3:30 – 5:30 Federal Hill	<b>Cost-Effectiveness Testing</b> M. Sami Khawaja, Cadmus, and Scott Dimetrosky, Apex Analytics

### Pre-Conference Workshops – Full Day

8:15 – 4:45 Homeland	<b>Beyond Evaluation 101: Using Evaluation to Improve Programs</b> Jane Peters, Linda Dethman, and Todd Malinick, Research Into Action
9:00 – 5:00 Watertable A	<b>End-Use Metering, Nonintrusive Load Monitoring, and M&amp;V 2.0: When to Use What and How?</b> Amit Kanungo, DNV GL Energy
9:00 – 5:00 Fells Point	<b>Evaluation Management 101</b> Bobbi Tannenbaum, BTan Consulting, and Tammy Kuiken, DNV GL Energy
9:30 – 5:30 Federal Hill	<b>Basic Statistics and Cost-effectiveness Testing</b> M. Sami Khawaja, Cadmus, Scott Dimetrosky, Apex Analytics and Julie Michals, E4TheFuture

5:00 – 6:00 Watertable C	<b>Young Professionals Networking Reception</b>
5:00 – 6:30 Watertable B	<b>Board Meeting</b>
6:00 – 7:30 Maryland E&F	<b>OPENING NETWORKING RECEPTION</b> <i>Sponsored by</i> Opinion Dynamics
7:30 – 9:00	<b>ORGANIZED DINNERS</b>

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## TUESDAY, AUGUST 8


7:30 – 8:15 Maryland Foyer	Opening Breakfast <i>Sponsored by</i> 
7:30 – 4:00 Maryland Foyer	Registration
8:30 – 10:30 Maryland C&D	<b>Opening Plenary</b> <b>Keynote Address: From Skeptic to Realist</b> <b>Bob Inglis, Executive Director, RepublicEn.org</b>
10:30 – 11:00 Maryland Foyer	Morning Break
11:00 – 12:30	Concurrent Sessions
Maryland A	<p><b>IN SEARCH OF THE COUNTERFACTUAL</b> <b>Moderator: Ralph Prah, Prah &amp; Associates</b></p> <p><i>Setting baselines and assessing attribution are two of the most challenging issues in EM&amp;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></p> <ul style="list-style-type: none"> <li>• <b>Baseline Policy Enhancement in Massachusetts and California</b> - Jonathan Maxwell, ERS</li> <li>• <b>Not All Spillover is the Same—So Don't Treat it That Way!</b> - Ryan Bliss, Research Into Action</li> <li>• <b>Financing or Incentives: Disentangling Attribution</b> - Antje Flanders, Opinion Dynamics</li> <li>• <b>How Much Do We Know About Savings Attributable to a Program?</b> - Stefanie Wayland, Opinion Dynamics</li> </ul>
Maryland B	<p><b>HIGH-LIGHTING APPLICATIONS FOR EVALUATION IN PROGRAM DESIGN: FROM CANNABIS TO COMMUNITIES TO SMART PHONES</b> <b>Moderator: Anne Dougherty, ILLUME Advising</b></p> <p><i>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></p> <ul style="list-style-type: none"> <li>• <b>A National Review of Community-Based Energy Efficiency Program Designs: Finding Transferable Insights from 25 Unique Programs</b> - Aimee Powelka, Eversource Energy</li> <li>• <b>Behavioral Effects of a Smart Phone Mobile App</b> - Carly Olig, Navigant</li> <li>• <b>Bringing Multifamily Buildings to the Efficiency Dance: Revelations from a Study of Owners and Operators</b> - Piotr Urbanski, Southern California Edison</li> <li>• <b>High Usage in High Times: The Potential Energy-Demand Implications of the Legalized Cannabis Cultivation Market</b> - Joe Clark, Evergreen Economics</li> </ul>
Maryland E	<p><b>CALIFORNIA'S RESIDENTIAL TIME-OF USE PRICING PILOT—INITIAL FINDINGS FROM QUANTITATIVE AND SURVEY ANALYSES</b> <b>Moderator: Steve Braithwait, Christensen Associates Energy Consulting</b></p> <p><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. These include estimated load impacts, bill impacts, attrition rates, and survey-based estimates of potential economic and health impacts of the rates.</i></p> <ul style="list-style-type: none"> <li>• <b>Load and Billing Impact Findings from California Residential Opt-in TOU Pilots</b> - Stephan George, Nexant</li> <li>• <b>Getting a Bead on Hardship</b> - Benn Messer, Research Into Action</li> <li>• <b>Providing Commentary: How Utilities and Regulators Could Use TOU Research Results</b> - Andrew Lee, Pacific Gas and Electric Company (no paper)</li> </ul>
Baltimore A	<p><b>ISSUES IN RESIDENTIAL HVAC AND APPLIANCES</b> <b>Moderator: Scott Pigg, Seventhwave</b></p> <p><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></p> <ul style="list-style-type: none"> <li>• <b>Evaluating Cold-Climate Heat Pumps: Understanding How and Where Cold-Climate Heat Pumps Can Displace Less Efficient Heating Sources</b> - David Korn, Cadmus</li> <li>• <b>Accounting for Real-Life Conditions in Mini-Split Heat Pump Savings: Findings from a Billing Analysis</b> - Marie-Claude Hamelin, Econoler</li> <li>• <b>Issues with Evaluation of Early-Replacement HVAC Projects Rebated Through the Home Performance with Energy Star Program</b> - Joe Loper, Itron</li> <li>• <b>Gauging Consumer Appetite for Super-Efficient (Heat Pump) Dryers</b> - Amy Webb, Northwest Energy Efficiency Alliance</li> </ul>
Baltimore B	<p><b>TIME TO POP THE CORK ON THE CHAMPAGNE? HAVE LIGHTING PROGRAMS TRANSFORMED THE MARKET?</b> <b>Moderator: Scott Dimetrosky, Apex Analytics</b></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Glenn Reed, Energy Futures Group</li> <li>• Carrie Cobb, Bonneville Power Administration</li> <li>• Lisa Wilson-Wright, NMR Group</li> <li>• Stan Mertz, Globe Electric (formerly with CLEAResult)</li> </ul>
12:30 – 1:30 Maryland C&D	Lunch Break



## TUESDAY, AUGUST 8

1:30 – 3:00	Concurrent Sessions
Maryland A	<p><b>TACKLING ANALYTICAL CHALLENGES WITH STRATEGIC ENERGY MANAGEMENT AND OTHER PROGRAMS THAT RELY ON SAVINGS AT THE UTILITY METER</b>  <b>Moderator: Maureen McNamara, U.S. Environmental Protection Agency</b></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 with which evaluators of Strategic Energy Management (SEM) programs and other behavior programs grapple.</i></p> <ul style="list-style-type: none"> <li>• <b>Estimating Energy Savings Resulting from Strategic Energy Management Programs: Methodology Comparison</b> - Andrew Bernath, Cadmus</li> <li>• <b>Strategic Energy Management Modeling: What’s Good Enough?</b> - Phil Degens, Energy Trust of Oregon</li> <li>• <b>A Comparison of Approaches to Estimating the Time-Aggregated Uncertainty of Savings Estimated from Meter Data</b> - Bill Koran, SBW Consulting</li> </ul>
Maryland B	<p><b>UNDERSTANDING LOW-INCOME ENERGY NEEDS AND ENERGY SAVING POTENTIAL</b>  <b>Moderator: Jackie Berger, APPRISE</b></p> <p><i>This session focuses on low-income households, energy affordability, and energy usage reduction. The papers explore energy burden for low- and moderate-income households in CA and present findings on energy savings from the National Weatherization Assistance Program Evaluation.</i></p> <ul style="list-style-type: none"> <li>• <b>More Tools in the Toolbox: An Examination of Metrics for the Low-Income Customer Energy Burden</b> - Jenny Fraser, Evergreen Economics</li> <li>• <b>Exploring the Characteristics of Low-Income Households with the Highest Energy Burdens: One Size Does Not Fit All</b> - Martha Wudka, Evergreen Economics</li> <li>• <b>National Weatherization Assistance Program Evaluation: Methods and Findings for Single-Family Homes</b> - David Carroll, APPRISE</li> </ul>
Maryland E	<p><b>PEAK LOAD MANAGEMENT PERSPECTIVES</b>  <b>Moderator: Ed Thomas, Peak Load Management Alliance</b></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"> <li>• <b>Cutting Peak Demand: Two Competing Paths and Their Effectiveness</b> - Tony Larson, National Grid</li> <li>• <b>The Evolution of Residential Demand Response: From Program to Market</b> - Phil Bosco, Independent Electricity System Operator</li> <li>• <b>Process Overview for Planning, Designing, Executing, and Evaluating Geotargeted Non-Wires Alternative Distribution System Projects</b> - Ariel Esposito, Navigant</li> </ul>
Baltimore A	<p><b>RESIDENTIAL RETROFIT</b>  <b>Moderator: Nicholas DeDominicis, Exelon PECO</b></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"> <li>• <b>Energy Savings from Weatherizing Manufactured Homes</b> - James Stewart, Cadmus</li> <li>• <b>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</b> - Jared Powell, NMR Group</li> <li>• <b>Phased Deep Retrofit Project: Real-Time Measurement of Energy End-Uses and Retrofit Opportunities</b> - Karen Fenaughty, Florida Solar Energy Center</li> </ul>
Baltimore B	<p><b>PANEL: EVALUATION SOLUTIONS FOR LARGE-SCALE MIDSTREAM INTERVENTIONS</b>  <b>Moderator: Dulane Moran, Northwest Energy Efficiency Alliance</b></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Ralph Prah, Prah and Associates</li> <li>• Carrie Cobb, Bonneville Power Administration</li> <li>• Robert Strauss, California Public Utilities Commission</li> <li>• Todd Malinick, Research Into Action</li> </ul>
3:00 – 3:45 Maryland Foyer	Afternoon Break

## TUESDAY, AUGUST 8

3:45 – 5:15	Concurrent Sessions
Maryland A	<p><b>OUT OF CONTROL: COMPARISON GROUPS WHOLE-BUILDING</b>  <b>Moderator: Hossein Haeri, Cadmus</b>  <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"> <li>• <b>Finding your Perfect Match: A Qualitative Investigation of Matching Approaches</b> - Abigail Nguyen, Applied Energy Group</li> <li>• <b>Model-Based Matching and Other Benefits of High-Frequency Interval Data</b> - Lullit Getachew, DNV GL Energy</li> </ul>
Maryland B	<p><b>CUSTOMER DATA: BEST WAYS TO GET IT AND USE IT!</b>  <b>Moderator: Sharyn Barata, Opinion Dynamics</b>  <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"> <li>• <b>Conducting a Web-Based Residential Appliance Saturation Survey (RASS) Across Multiple Electric Cooperatives: Methodology, Challenges, Results, and Next Steps</b> - Mike Witt, DNV GL Energy</li> <li>• <b>Setting the Foundation for Strong Program Design and Evaluation Using Descriptive Segmentation</b> - Shannon Kahl, ILLUME Advising</li> <li>• <b>Planners Do It, Implementers Do It, Even Evaluators Should Do It: Utilizing Segmentation to Assess Program Performance</b> - Brad Kates, Opinion Dynamics</li> </ul>
Maryland E	<p><b>CODES AND STANDARDS</b>  <b>Moderator: Stu Slote, Navigant</b>  <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"> <li>• <b>Do Energy Codes Really Save Energy?</b> - Allen Lee, Cadmus</li> <li>• <b>Estimating the Energy Savings Potential of Improving Energy Code Compliance</b> - Ian Blanding, Midwest Energy Efficiency Alliance</li> <li>• <b>Scofflaw State: Quantifying HVAC Permit Rates for Residential Changeouts in California</b> - Jarred Metoyer, DNV GL Energy</li> </ul>
Baltimore A	<p><b>LIGHTING MEASUREMENT</b>  <b>Moderator: Jenna Canseco, DNV GL Energy</b>  <i>This session addresses aspects of evaluating programs, 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"> <li>• <b>All the Lights We Cannot See: Estimating the Distribution of Upstream Lighting Program Bulbs</b> - Russell Meyer, NMR Group</li> <li>• <b>Plugging the Holes in Leakage: Methods for Calculating the Leakage Out of and Into Upstream Residential Lighting Programs</b> - Tami Buhr, Opinion Dynamics</li> <li>• <b>Some Don't Like It Hot: The Effect of Temperature and Switching Patterns on Screw-Based LED Lamps</b> - Mike Ting, Itron</li> <li>• <b>Shedding Light on Winter Lighting</b> - Knud Hermansen, Navigant</li> </ul>
Baltimore B	<p><b>PANEL: THE 250-PAGE EVALUATION REPORT: VITAL INFORMATION OR SLEEP AID? OUR READERS SPEAK OUT</b>  <b>Moderator: Jeremy Kraft, EMI Consulting</b>  <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><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Les Stachow, New Hampshire Public Utilities Commission</li> <li>• Marissa Gillett, Maryland Public Service Commission</li> <li>• Mohit Chhabra, Natural Resources Defense Council</li> <li>• Robert Kasman, Pacific Gas and Electric Company</li> </ul>
5:15 – 5:30	Free time for networking and poster preparation
5:30 – 7:15 Maryland C&D	<p>POSTER SESSION AND RECEPTION</p> <p>Refreshments sponsored by </p>

## WEDNESDAY, AUGUST 9

7:30 – 8:30 Maryland Foyer	Continental Breakfast
7:30 – 4:00 Maryland Foyer	Registration
8:30 – 10:00	Concurrent Sessions
Maryland A	<p><b>BASELINE FINDINGS</b>  <b>Moderator: Scott Dimetrosky, Apex Analytics</b></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"> <li>• <b>How's that for Performance? Changes in New-Construction Practices Over Time</b> - Zack Tyler, NMR Group</li> <li>• <b>Leveraging Home Energy Scores in a Residential Baseline Study</b> - Tom Mauldin, NMR Group</li> <li>• <b>Measuring Up—How Does My Baseline Compare?</b> - Riley Hastings, Eversource Energy</li> <li>• <b>Generating a Statewide Baseline Market Characterization for Commercial and Industrial Customers</b> - James Leahy, DNV GL Energy</li> </ul>
Maryland B	<p><b>VALUE AND IMPACT BEYOND THE ENERGY SAVINGS</b>  <b>Moderator: Ingo Bensch, Evergreen Economics</b></p> <p><i>This session investigates the value and impacts beyond energy savings of 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"> <li>• <b>Painting the Whole Picture: Understanding the Impacts of Energy Efficiency Using Cost-Effectiveness Testing and Economic Impact Assessments</b> - Zachary Ross, Opinion Dynamics</li> <li>• <b>Saving Lives Through Energy Efficiency: Valuing the Health- and Safety-Related Benefits of Weatherization in Low-Income Homes</b> - Christopher Chan, Eversource Energy</li> <li>• <b>Do Low-Income Electricity Subsidies Change Peak-Consumption Behavior?</b> - Evan Sherwin, Carnegie Mellon University</li> </ul>
Maryland E	<p><b>ZERO NET ENERGY AND RENEWABLES</b>  <b>Moderator: Elizabeth Titus, Northeast Energy Efficiency Partnerships</b></p> <p><i>In this session evaluators apply their expertise to a variety of emerging DER situations, including: evaluation practice for delivering reliable ex ante estimates of solar generation; metrics important to measuring battery storage systems; strategies for measurement, and the need for evaluators to be flexible and keeping up with the rapid penetration of such systems; a pathway to increasing penetration of ZNE buildings in California.</i></p> <ul style="list-style-type: none"> <li>• <b>Counting on Solar: An Impact Evaluation of Solar PV Systems</b> - Sarah Castor, Energy Trust of Oregon</li> <li>• <b>Through the Looking Glass and What the Analyst Found There: Energy Storage Behind the Meter</b> - Stephan Barsun, Itron</li> <li>• <b>Driving ZNE to Scale in California State Buildings</b> - Ellen Steiner, Opinion Dynamics</li> <li>• <b>Charting Unmapped Waters: Adapting Our Research Methods for the Fast-Evolving Energy Storage Market</b> - Kara Crohn, EMI Consulting and Cynthia Manson, IEC</li> </ul>
Baltimore A	<p><b>FAST-FEEDBACK EVALUATIONS: TIMELY AND VALUABLE RESEARCH</b>  <b>Moderator: Lauren Gage, Apex Analytics</b></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"> <li>• <b>Reduce, Reuse, Recycle, Rethink: Continuously Collecting M&amp;V Data to Redefine the Future of Evaluation</b> - Paul Dobrowsky, ERS</li> <li>• <b>Fast Feedback Evaluation: A Combination of Riding Shotgun and Speed Dating</b> - Daniel Belknap, Tetra Tech</li> <li>• <b>Process Evaluation 2.0: What It Is and How It Can Be Leveraged to Advance the Energy Efficiency Industry</b> - Alex Dunn, ILLUME Advising</li> <li>• <b>Shape-Shifting Evaluation: Rapid, Flexible and Actionable Evaluation Within a Context of Continuous Improvement</b> - Hannah Justus, EMI Consulting</li> </ul>
10:00 – 10:30 Maryland Foyer	Morning Break

## WEDNESDAY, AUGUST 9

10:30 – Noon		Concurrent Sessions
Maryland A	<p><b>MAKING WHOLE-BUILDING APPROACHES BE CREDIBLE TOOLS</b>  <b>Moderator: Mary Sutter, Grounded Research &amp; Consulting</b></p> <p><i>This session takes the audience on a journey of whole building approaches from the detailed to the expansive. The session covers the very detailed application of whole building simulations, provides a regulatory view of the questions our industry needs to answer before whole building approaches (using M&amp;V 2.0) may be viable tools, and then broadens to how whole building approaches fit into the larger EM&amp;V paradigm across the nation.</i></p> <ul style="list-style-type: none"> <li>• <b>Variance and Optimization in Non-Residential Building Simulation Receptacle Loads</b> - Jeff Cropp, Cadmus</li> <li>• <b>M&amp;V 2.0 and Commercial Whole-Building Programs: The Army We Wish We Had</b> - Paula Gruending, California Public Utilities Commission</li> <li>• <b>Evolution of Energy Efficiency Evaluation, Measurement and Verification (EM&amp;V): States Experience that Looks to the Future</b> - Seth Nowak, American Council for an Energy-Efficient Economy</li> </ul>	
Maryland B	<p><b>NOW SERVING CUSTOMERS IN YOUR TOWN: DEVELOPMENTS IN SMALL BUSINESS EFFICIENCY PROGRAMS</b>  <b>Moderator: Jeremy Newberger, National Grid</b></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"> <li>• <b>Growing a Program from Scratch: Planting the Seeds of Evaluation in a Small-Business Program</b> - Katherine Cary, EMI Consulting</li> <li>• <b>A Tale of Two Channels: Assessing the Effectiveness of a Small Business Direct Install Program</b> - Alyssa Na'im, NMR Group and Joseph Dolengo, National Grid</li> <li>• <b>Tracking Small-Business Program Performance with Annual Billing Analyses</b> - Andrew Nawrocki, Navigant</li> </ul>	
Maryland E	<p><b>EVALUATING HARD-TO-MEASURE C&amp;I ENERGY PROGRAMS—FROM STRATEGIC ENERGY MANAGEMENT TO RETROCOMMISSIONING</b>  <b>Moderator: Jennifer Chido, Cx Associates</b></p> <p><i>While residential behavior programs are widely deployed and studied, programs that target behavior and operations in the C&amp;I sector are far less prevalent. Come learn about leading C&amp;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"> <li>• <b>Growing Pains: Lessons from the Edge of SEM Program Evaluation</b> - Lauren Gage, Apex Analytics</li> <li>• <b>Evaluating Strategic Energy Management: Lessons Learned</b> - Erika Kociolek, Energy Trust of Oregon</li> <li>• <b>Commercial Recommissioning Program Evaluation: Accurate and Timely Evaluation Results by Combining Qualitative Research with Statistical Analysis of Big Data</b> - Min Yu, BC Hydro</li> </ul>	
Baltimore A	<p><b>HOME ENERGY REPORTS: NEW DEVELOPMENTS FOR A MATURING BEHAVIORAL INTERVENTION</b>  <b>Moderator: Brian Smith, Pacific Gas and Electric Company</b></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 to this widely-developed behavioral intervention.</i></p> <ul style="list-style-type: none"> <li>• <b>Keep the Change: Behavioral Persistence in Energy Efficiency Programs</b> - Kira Ashby, Consortium for Energy Efficiency</li> <li>• <b>Accounting for Behavioral Persistence: A Protocol and a Call for Discussion</b> - Cheryl Jenkins, Vermont Energy Investment Corporation</li> <li>• <b>Home Energy Reports of Low-Income vs. Standard Households: A Parable of the Tortoise and the Hare?</b> - Anne West, Cadmus</li> </ul>	
Baltimore B	<p><b>PANEL: GAME CHANGERS: HOW NEW TECHNOLOGIES AND PRACTICES ARE RESHAPING THE TREATMENT OF ENERGY ALTERNATIVES IN ELECTRIC PLANNING</b>  <b>Moderator: Maureen McNamara, U.S. Environmental Protection Agency</b></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 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&amp;V.</i></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Derek Kirchner, DTE Energy</li> <li>• Anne Hampson, ICF Distributed Energy Resources</li> <li>• Shahana Samiullah, Southern California Edison</li> </ul>	
<p>Noon – 1:00  Maryland C&amp;D</p>	Lunch Break	

## WEDNESDAY, AUGUST 9

1:00 – 2:30	Concurrent Sessions
Maryland A	<p><b>NEW THINKING FOR SAVINGS ESTIMATION USING METERED CONSUMPTION DATA AND COMPARISON GROUPS</b>  <b>Moderator: Patrice Ignelzi, Applied Energy Group</b></p> <p><i>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 to improve the accuracy and interpretability of estimates of gross and net savings. These 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"> <li>• <b>Comparison Groups Whole-Building Program Impact Evaluations: They are Harder and Easier Than You Think</b> - Katherine Randazzo, Opinion Dynamics</li> <li>• <b>Not Just Another Pretty Formula: Practical Methods for Mitigating Self-Selection Bias in Billing Analysis Regressions</b> - Miriam Goldberg, DNV GL Energy</li> <li>• <b>Take It from the Top! An Innovative Approach to Residential and Commercial Program Savings Estimation Using AMI Data</b> - Steve Grover, Evergreen Economics</li> </ul>
Maryland B	<p><b>DATA ANALYTICS AND GEO-TARGETING</b>  <b>Moderator: Robert Wirtshafter, Wirtshafter Associates</b></p> <ul style="list-style-type: none"> <li>• <b>Enhancing Customer Data Analytics by Leveraging Spatial Analysis and Third-Party Data</b> - Noel Stevens, DNV GL Energy</li> <li>• <b>Finding Big Potential in Small Businesses: Behavior Change Opportunities and Targeting Approaches from a Statewide Study</b> - Eileen Hannigan, ILLUME Advising</li> <li>• <b>Where are the Low Hanging Fruit? Data to Help Understand Geographic and Demographic Characteristics of Households with Inefficient Equipment</b> - Kevin Price, Evergreen Economics</li> </ul>
Maryland E	<p><b>BILLING ANALYSIS: IT'S COMPLICATED!</b>  <b>Moderator: Philipp Degens, Energy Trust of Oregon</b></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"> <li>• <b>The Dynamics and Advantages of Using Billing Analysis to Evaluate New Residential Construction Programs</b> - Michael Li, BC Hydro</li> <li>• <b>The Devil's in the Details: What is the Effect of Methodological Decisions on Estimated Savings?</b> - Pace Goodman, Navigant</li> <li>• <b>Cleaning Up the Mess of Energy Billing Data: An Investigation of Differences in Billing Analysis Results Caused by Data Cleaning Methodologies</b> - Eric Ziemba, Opinion Dynamics</li> </ul>
Baltimore A	<p><b>PRACTICAL APPROACHES FOR KEEPING EVALUATION RELEVANT IN AN EVOLVING ENERGY POLICY ENVIRONMENT</b>  <b>Moderator: Bill Saxonis, New York Department of Public Service</b></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"> <li>• <b>The Continued Value of Evaluation in California's Shareholder Incentive Mechanism</b> - George Tagnipes, California Public Utilities Commission</li> <li>• <b>Making Impact Evaluations More Impactful: A California Collaboration the Nation Can Adopt</b> - James Gill, Itron</li> <li>• <b>From Targets to Impacts: Eight Steps for Evaluating Energy Efficiency Policies</b> - Barbara Schломann, Fraunhofer Institute for Systems and Innovation Research</li> </ul>
Baltimore B	<p><b>PANEL: IMPROVING EM&amp;V: WHAT'S WORKING AND NOT WORKING?</b>  <b>Panel Organizer: Michael Li, U.S. Department of Energy</b></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Carmen Best, independent advisor (formerly, California Public Utilities Commission)</li> <li>• Michael Goldman, Eversource Energy</li> <li>• Hossein Haeri, Cadmus</li> </ul>
2:30 – 3:15 Maryland Foyer	Afternoon Break

## WEDNESDAY, AUGUST 9

3:15 – 4:45	Concurrent Sessions
Maryland A	<p><b>METHODS &amp; MYSTERIES: EVALUATING C&amp;I ENERGY EFFICIENCY SAVINGS</b>  <b>Moderator: Michael Noreika, Puget Sound Energy</b></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"> <li>• <b>Double Ratio Estimation: Friend or Foe?</b> - Kathryn Parlin, West Hill Energy and Computing</li> <li>• <b>It's in the Water! Improving Energy Savings Calculations from CA Water Conservation</b> - Caroline Binkley, Itron</li> <li>• <b>Chasing the Elusive Heat: Sherlock Holmes and the Startling Case of the CHP Protocol</b> - George Simons, Itron</li> </ul>
Maryland B	<p><b>THERMOSTATS—THE MEASURE WITH MANY FACES</b>  <b>Moderator: Jane Peters, Research Into Action</b></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"> <li>• <b>Programmable Thermostats: Once More Up the Roller Coaster</b> - Jeremiah Robinson, DNV GL Energy</li> <li>• <b>When You Can't Go for the Gold: What is the Best Way to Evaluate a Non-RCT Demand Response Program?</b> - Olivia Patterson, Opinion Dynamics</li> <li>• <b>Measuring Demand Savings with Smart Thermostat Data</b> - Ethan Goldman, Vermont Energy Investment Corporation</li> </ul>
Maryland E	<p><b>QUICK TAKE: GROWING UP—THE EVOLUTION OF BEHAVIORAL PROGRAMS</b>  <b>Moderator: Michael Goldman, Eversource Energy</b></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"> <li>• <b>Does How You Pay Your Energy Bill Affect How Much You Pay for Your Energy?</b> - Gomathi Sadhasivan, DNV GL Energy</li> <li>• <b>Lessons Learned from a Mature Behavioral Program</b> - Valerie Richardson, DNV GL Energy</li> <li>• <b>Maximizing Home Energy Report Savings: Who Saves the Most, the Least, and Why?</b> - Hannah Arnold, Opinion Dynamics</li> <li>• <b>Piloting Home-Energy Reports: Testing Both Paper and Electronic Messaging</b> - Candice Potter, Nexant</li> <li>• <b>The Reliability of Behavioral Demand Response</b> - Debbie Brannan, Navigant</li> </ul>
Baltimore B	<p><b>CATCH OF THE DAY: Energy Policy in an Era of Uncertainty: Where are we now? Where are we headed?</b>  <b>Moderator: Jenna Canseco, DNV GL</b></p> <p><i>Energy Our Clean Energy Policies are under attack. Many Americans are questioning whether science is reliable, whether climate change is real, and whether we can trust the evening news. At the same time, the utility industry is undergoing rapid change and the electric grid is transforming before our eyes. This hot topic session will focus on current federal and local energy policies, review recent progress and setbacks, and encourage all of us to think more broadly about how to move beneficial energy policies forward under challenging circumstances.</i></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Maggie Molina, Senior Director of Policy, American Council for an Energy Efficient Economy</li> <li>• Nancy Seidman, Senior Advisor, Regulatory Assistance Project</li> </ul>
5:30 – 7:30 Boarding begins at 5:00	<b>HARBOR CRUISE</b>

## THURSDAY, AUGUST 10

7:30 – 8:30 Maryland Foyer	Continental Breakfast & Registration
8:30 – 10:00	Concurrent Sessions
Maryland A	<p><b>RESIDENTIAL LOAD DISAGGREGATION, SO CLOSE BUT YET SO FAR AWAY</b>  <b>Moderator: Jeff Ihnen, Michaels Energy</b></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"> <li>• <b>Disaggregation of End-Use Load from Whole-House Interval Meter Data</b> - Jeffrey Phung, ADM Associates</li> <li>• <b>Duckhunt! Benefits and Risks of Load Disaggregation and End-Use Metering for Determining End-Use Loadshapes</b> - Terese Decker, Navigant</li> <li>• <b>A Snapshot of NILM: Techniques and Tests of Non-Intrusive Load Monitoring for Load Shape Development</b> - Justin Elszasz, Navigant</li> </ul>



## THURSDAY, AUGUST 10

8:30 – 10:00	Concurrent Sessions
Maryland B	<p><b>RESIDENTIAL LIGHTING</b>  <b>Moderator: David Jacot, Los Angeles Department of Water &amp; Power</b></p> <ul style="list-style-type: none"> <li>• <b>It's Déjà Vu All Over Again: More Revelations from a Lighting Panel Study</b> - Kiersten von Trapp, NMR Group</li> <li>• <b>Keep Calm and Carry On: Why Upstream Lighting Programs are Still Important</b> - David Barclay, NMR Group</li> <li>• <b>A Market Lift Model for Assessing Net-to-Gross</b> - Scott Dimetrosky, Apex Analytics</li> </ul>
Maryland E	<p><b>EM&amp;V IN SUPPORT OF MARKET ENGAGEMENT</b>  <b>Moderator: Jennifer Meissner, NYSERDA</b></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&amp;V data by sales teams, customer journey mapping, and enhancing marketing/outreach/education campaigns.</i></p> <ul style="list-style-type: none"> <li>• <b>Innovative Uses for M&amp;V Data: Focusing the Sales Team</b> - Amaury De La Cruz, Con Edison</li> <li>• <b>Tapping Into Feelings: Upgrading Your Marketing Evaluation Paradigm</b> - Dre Voelkel, ILLUME Advising</li> <li>• <b>Getting the Right Ingredients: A Framework for Enhancing Marketing Education and Outreach Evaluation</b> - Alan Elliott, Opinion Dynamics</li> <li>• <b>Getting Higher in the Tree: Using Customer Journey Mapping to Understand Customer Experience</b> - Latisha Younger-Canon, Navigant</li> </ul>
Baltimore B	<p><b>PANEL: SURFING THE WAVE OF ADVANCED M&amp;V: WHAT OUR INDUSTRY NEEDS TO KNOW</b>  <b>Moderator: Elizabeth Titus, Northeast Energy Efficiency Partnerships</b></p> <p><i>This panel will explore the role of technology—advanced M&amp;V—whole-building software and associated data—relevant to residential and C&amp;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&amp;V that is hitting our industry, such as:</i></p> <ul style="list-style-type: none"> <li>• <i>How do we assess the performance, cost, promise, and value of advanced M&amp;V?</i></li> <li>• <i>What do regulators need to know to guide the direction of energy efficiency in the next generation of technology and grid planning?</i></li> <li>• <i>What energy program evaluation and other needs can advanced M&amp;V meet?</i></li> </ul> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Miriam Goldberg, DNV GL Energy</li> <li>• Jessica Granderson, Lawrence Berkeley National Laboratory</li> <li>• Manish Rukadikar, DTE Energy</li> <li>• Marissa Gillett, Maryland Public Utility Commission</li> </ul>
10:00 – 10:30 Maryland Foyer	Morning Break
10:30 – Noon Maryland C&D	<p><b>CLOSING PLENARY</b>  <b>Evidence-Based Policy and Researcher Subjectivity in a World of Facts and “Alternative Facts”</b></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><b>Moderator: Anne Dougherty, ILLUME Advising</b></p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Kateri Callahan, Alliance to Save Energy</li> <li>• Alex Bozmoski, RepublicEn</li> <li>• Dr. David Barker, American University</li> <li>• Dr. Jon Koliner, ILLUME Advising</li> </ul>
	<b>Adjourn</b>
12:30 – 3:30 Homeland	<b>Planning Committee Meeting</b>