



BEHAVIOR, ENERGY & CLIMATE CHANGE CONFERENCE

A conference focused on understanding the behavior and decision-making of individuals and organizations and using that knowledge to accelerate our transition to an energy-efficient and low-carbon future

convened by



BECC 2016 | October 20 - October 22, 2016 | Baltimore, MD

Wednesday, October 19

9:00 AM – 5:00 PM | **Preconference Workshops** *(see last page for list)*

7:00 PM – 9:00 PM | **Kickoff Program and Dessert Reception**
Registration 6:00 – 9:00 PM
Libations sponsored by

Thursday Morning, October 20

7:00–8:15 | **Continental Breakfast and Registration** | *Sponsored by* **ILLUME**

8:30–10:00 | **Opening Plenary**
Maryland C/D | **Welcome:**
Alice Kennedy, Baltimore Office of Sustainability
BECC Conference Directors and Co-Chairs

Keynote: Cass Sunstein, Harvard University

To kick off our celebration of 10 years devoted to behavioral nudging, we are honored to have Cass Sunstein as our keynote speaker. A noted author of books such as Nudge, Sunstein will discuss the role of behavior change in creating new energy strategies to meet global needs.



10:00–10:30 | **Morning Break**

Follow [#BECC2016](https://twitter.com/BECC2016) on Twitter

Thursday Morning

10:30–12:00 Concurrent Sessions

Baltimore A

Lightning Session: Marketing

Moderator: Carol Suhan, Fortis BC

- **Assessing the Effectiveness of EE Campaigns in India** – Heather Worley, World Bank
- **Coordinating on National ENERGY STAR® Promotions to Improve Regional Success** – Rosemarie Stephens-Booker, EPA Energy Star
- **A Year of Insights from Energy Wire: We've Got a Big Marketing Problem!!!** – Mary Stewart, KSV
- **Changing the Conversation on Energy: How Framing Can Impact Behavior** – Rebecca Sokoloski, University of Massachusetts, Amherst
- **Smart Home Shopping: Insights from Research at Retailers** – Angela Sanguinetti, SEE Change Institute
- **Change Perceptions, Change Lives: Successfully Reaching Lower-Income Residents** – Beth Parsons, Tennessee Valley Authority
- **Virtual Reality: Can VR be Used to Educate People on Energy Efficiency?** – Mitch Moore, Center for Sustainable Energy

Maryland A

Asking Big Questions

Moderator: Amy Wolfe, Oak Ridge National Laboratory

- **Planning for Energy Efficiency in a Large Healthcare Organization** – Troy Savage, Mazzetti
- **Determining Optimal Carbon Display Properties: How the Presentation of Information Influences Willingness to Pay for Carbon Reductions** – Steven Isley, National Renewable Energy Laboratory
- **Energy-Efficiency Investment: Why Do Firms Apply Such Restrictive Financial Methods and Selection Criteria?** – Catherine Cooremans, University of Neuchâtel
- **Chains, Nodes, Nexus(es) and Needs to Tip Energy Behavior Profoundly** – Darrell Beschen, U.S. Department of Energy

Maryland B

RCT and Quasi-Experimental Design: Results from the Field

Moderator: Sharyn Barata, Opinion Dynamics

- **Go for the Silver? "Gold Standard" RCT Versus Quasi-Experimental Methods** – Anna Spurlock, Lawrence Berkeley National Laboratory
- **Random Assignment + Billing Analysis + Thermostat Data = Reliable Savings Estimates for Smart Thermostats?** – Lucy Morris, Pacific Gas and Electric Company
- **Encouraging Sustainable Practices Beyond Here and Now: The Case of Programmable Thermostats for Low-Income Tenants** – Joana Abreu, Fraunhofer CSE
- **The Impact of Smart Technology on Consumer Welfare** – Justin Ho, University of California, Irvine

Maryland E

Electric Vehicle Usage and Adoption

Moderator: Gil Tal, University of California, Davis

- **How Do Two-Car Households Experience a Battery Electric Vehicle?** – Frances Sprei, Chalmers University of Technology
- **Characterizing California Electric Vehicle Consumers Segments** – Brett Williams, Center for Sustainable Energy
- **Merging Expert Perspectives to Site DC Fast Charging** – Morgan Metcalf, Pacific Gas and Electric Company
- **Social Adoption of Plug-In Electric Vehicles: Modeling and Policy Review** – Michael Maness, Oak Ridge National Laboratory

Maryland F

State and Local Programs

Moderator: Courtney Henderson, Illume Advising

- **Town and Gown Energy Partnerships: Renters, Split Incentives, and the Smart Grid** – Daniel Fredman, University of Vermont
- **Cut the Waste: Lessons from Oklahoma's 20x2020 State Energy Program** – Claire Farr, ES2
- **A Place-Based Educational Videogame on Climate Change: Future Delta 2.0** – Alicia LaValle, University of British Columbia
- **Promise and Pitfalls of Rural Small Business Energy Efficiency Campaigns** – Alexis Troschinetz, Clean Energy Resource Teams, University of Minnesota Extension

Baltimore B

Panel Session: Keep the Change: The Persistence of New Energy Behaviors

Demonstrating the persistence of savings from behavioral programs can boost their cost effectiveness and enhance their credibility. Utilities from across the U.S. and Canada will detail how they have measured persistence and share their findings on how long behavior change can last after a program stimulus is removed.

Moderator: Kira Ashby, Consortium for Energy Efficiency, Inc.

Panelists:

- Bruce Cenicerros, Sacramento Municipal Utility District
- Vincent Gutierrez, Commonwealth Edison
- Bill Mann, Duke Energy
- Steve Menges, National Grid

12:00–12:45 **Lunch**

12:00–12:45 **Precourt Fellows Lunch – Watertable A/B**

12:45–1:45 **Lunch Panel Session: A Real R-EE-ality Show: Can Whole Foods Modify the Carbon Footprint of Hilton and Vice Versa?**

The U.S. Department of Energy’s Better Buildings Challenge SWAP has arrived, and it’s a fun, new way to elevate the power of peer influence, best practices, and commitments to spur behavior change and energy savings among the nation’s top commercial and industrial building owners and operators. Hilton Worldwide and Whole Foods Market were featured in the first-ever reality TV series where the star is energy efficiency. In this session we will recap the show reality TV reunion style, talk to show participants about lessons learned (including a ha moments and bloopers), and what is coming up next season (hint: think wild blue yonder versus deep blue sea).

Panelists:

- Aaron Daly, Whole Foods Market
- Randy Gaines, Hilton Worldwide
- Bryan Cohen, C+C
- Maria T. Vargas, U.S. Department of Energy

Thursday Afternoon

2:00–3:30 **Concurrent Sessions**

Baltimore A

Lightning Session: Water, Waste and Consumption

Moderator: Gene Rodrigues, ICF

- **Can Water Teach Electricity about Designing Behavioral Efficiency Programs?** – Kate Zerrenner, Environmental Defense Fund
- **Trash Talk and Action: Improving Waste Diversion through Organizational Change** – Laurèn DeMates, Lawrence Berkeley National Laboratory
- **Commercial Recycling Programs: What Drives These Behaviors?** – Gary Horton, Horton Consulting
- **Effect of Social Norms on Residential Water Conservation** – Christine Jaeger, California State University, San Marcos
- **Water and Energy—Meet Sustainability** – Amy McLean Salls, The United Illuminating Company
- **It IS Possible to Conduct Positive, Productive Stakeholder Meetings in Energy, Recycling, and the Environment: Colorado’s “Future of Recycling” Project as an Example** – Michael Santulli, Econservation Institute
- **Contingent and Non-Contingent Incentives on Recycling Behavior** – Daniel Schwartz, University of Chile
- **Lectures or Lawn Coaches? Behavior Beyond End-of-Program Intentions** – Jessica Branom-Zwick, Cascadia Consulting Group

Maryland A

Think You Know Home Energy Reports? Think Again!

Moderator: Debbie Brannan, Navigant

- **A Look Inside Those Average HER Savings** – Anthony Duer, Applied Energy Group
- **Home Energy Reports: Who Is Driving the Savings? Using Multi-level Models to Identify High, Medium, and Negative Savers** – Olivia Patterson, Opinion Dynamics
- **Lifting the Lid on “Lift”: The Importance of Overlapping Savings** – Kelly Marrin, Applied Energy Group

Maryland B

Effective Climate Change Communication

Moderator: Maria Vargas, U.S. Department of Energy

- **Words Matter** – Suzanne Shelton, Shelton Group
- **From Skepticism to Engagement: Making Climate Communication on Social Media Relevant to the American Public** – Irina Feygina, Climate Central
- **Motivating Sustainable Behavior through the Anticipation of Positive Future Emotions** – Claudia Schneider, Columbia University

Maryland E

Behavior Change in Large Organizations

Moderator: Holly Barrett, Brand Cool

- **Workplace Engagement: Finding and Filling the Gaps for Fruitful Energy Savings** – Kat Donnelly, Empower Efficiency
- **Exploring New Dimensions of Eco-Feedback: A Tangible, Community-Level Energy Display for a ZNE Building** – Kelsea Dombrowski, University of California, Davis
- **Duke Energy’s Smart Energy in Offices: Year Two and Beyond** – Julie Hyde, Duke Energy
- **Behavior Change for a City: Urban Smart Bellevue** – Emma Johnson, City of Bellevue

Thursday Afternoon

2:00–3:30 Concurrent Sessions

Maryland F

Making People and Buildings Smarter with Technology**Moderator: Elizabeth Titus, Northeast Energy Efficiency Partnerships**

- **Leveraging Smart Meters to Benefit Low-Income Customers** – Heather Roth, Oracle
- **Occupant Engaged: A High-Performance Building Control Strategy for Engaging Occupants** – Shanti Pless, National Renewable Energy Laboratory
- **There's an App for That: Can Mobile Technology Impact Behavior?** – Honey Berk, CUNY Institute for Urban Systems
- **Smart Grid Technologies and Services: Will Consumers Engage?** – Jordan Folks, Research into Action

Panel Session: Decision Science and the Transportation Revolution – Part 1

How people develop and make use of the goods and services associated with transportation has important implications for energy use and greenhouse gas emissions—the sector is now an even greater source of U.S. CO₂ emissions than is the electricity sector. Meanwhile, many innovations have the potential—depending on human and organizational behavior—to transform the transportation sector in ways that have uncertain implications for sustainability.

In the first part of this two-session mini-workshop, the U.S. Department of Energy (DOE) will present some of its most prominent efforts to incorporate insights about human and organizational behavior into its work on reducing the energy use associated with transportation. Outside experts in transportation systems analysis, travel demand modeling and surveys, consumer behavior, and competitive strategy will then provide thought-provoking commentary. In the second part of the workshop, participants will work in structured breakout sessions to identify research needs, opportunities, and resources, with the full group reconvening at the end for a broader discussion.

Baltimore B

Moderator: Margaret Taylor, PEEC, Stanford University**Presenters:**

- **Traveler Response Architecture using Novel Signaling for Network Efficiency in Transportation (TRANSNET)** – Kristen Brown, Fellow, U.S. Department of Energy, Advanced Research Projects Agency - Energy
- **Decision Science in the Systems and Modeling for Accelerated Research in Transportation (SMART) Mobility Consortium** – Reuben Sarkar, Deputy Assistant Secretary for Transportation, U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy
- **Changing Consumer Behavior through Outreach and Awareness** – Robert Graham, Director, EV Everywhere, U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy

Discussants:

- **Systems Analysis** – Lei Zhang, Director, National Transportation Center, University Maryland
- **Demand Models and Surveys** – Colin Smith, Director, Resource Systems Group, Inc.
- **Consumer Behavior** – Rebecca Lindland, Kelley Blue Book
- **Competitive Strategy** – John Paul MacDuffie, Wharton, University of Pennsylvania

3:30–4:00 Afternoon Break

4:00–5:30 Concurrent Sessions

Baltimore A

Lightning Session: Models and Metrics**Moderator: Jennie Rice, Cadmus**

- **Ontology-Based Semantic Modeling for Occupant-Centered Building Energy Performance** – Zhidan Zhao, Qatar Environment and Energy Research Institute
- **Inter-state Transfer of Energy Efficiency Programs in the United States** – Cheng-Hao Shih, Center for Energy and Environmental Policy, University of Delaware
- **Household Archetypes and Behavioral Patterns in UK Domestic Energy Use** – Hui Ben, University of Cambridge
- **Frog Princes and Free-Ridership: Contractor Influence in Residential Programs** – Ryan Bliss, Research Into Action
- **Applying Decision Science Methods to Commercial Building Energy Efficiency** – Nichole Hanus, Carnegie Mellon University
- **Understanding the Impact of Time-of-Use Electric Rates at the Household Level** – Christina Machak, Center for Sustainable Energy
- **Retention, TDFs, and EULs in Behavioral Programs: What Are the Results and Specific Program Implementation Implications?** – Lisa Skumatz, Skumatz Economic Research Associates, Inc.

Maryland A

Engaging Low-Income Communities**Moderator: Michael Li, U.S. Department of Energy**

- **The Use of Efficiency Coaching to Create Behavior Change in the Low-Income Sector** – Anita Kelman, Capstone Community Action
- **Smartphone and Low-Income Housing: A Unique Opportunity for Energy Conservation** – DeAndrea Newman Salvador, Renewable Energy Transition Initiative
- **Using Environmental and Public Health Messages to Motivate Energy Conservation** – Wesley Schultz, California State University, San Marcos
- **Environmental Education for K-5 Kids in Affordable Multifamily Communities** – Emma Starkman, Foundation Communities

Maryland B

Attitudes, Choices, and Theories of Decision-Making**Moderator: Jenna Bagnall-Reilly, West Hill Energy & Computing**

- **Broadening the Tent of Environmental Attitudes Scales** – Cameron Brick, Hamilton College
- **What Drives Interest in Rooftop Solar? Insights from the Field and Theory** – Kim Wolske, University of Michigan
- **Information Salience and Behavior Change in Solar: Three Experiments** – Ariane Beck, The University of Texas at Austin
- **Assessing Public Perceptions of Energy Tradeoffs with Discrete Choice Analysis** – Brian Sergi, Carnegie Mellon University

Thursday Afternoon

4:00–5:30 **Concurrent Sessions**

Maryland E

Battle of the Continents: Innovative National Policies from Europe, Asia, and North America

Moderator: Steve Nadel, American Council for an Energy Efficient Economy

- **Analysis of Innovative Information Measures to Promote Behavior Change in EU Member States** – Paolo Bertoldi, European Commission
- **Connected Thermostats: The ENERGY STAR® Approach to Demonstrating Savings** – Abigail Daken, U.S. Environmental Protection Agency
- **Psychological Barriers to Bipartisan Public Support for Carbon Pricing Policy** – Phillip Ehret, University of California, Santa Barbara
- **The Efficacy of UNDP-GEF's BRESL Program on Energy-Efficient Fans Market: A Behavioral Analysis** – Humera Farah, Department of Earth and Environmental Sciences, Bahria University, Islamabad

Maryland F

Proven Approaches to Program Design That Drive Behavior Change and Conservation

Moderator: Susan Norris, Pacific Gas and Electric Company

- **Lessons Learned from Past Behavioral Change Initiatives** – Peter Love, York University
- **Change Agents in the Military: The Flash Mob Versus the Choir** – Laura Michael, Booz Allen Hamilton
- **Moving from Insights to Interventions: Saving Fuel, Changing Culture** – Amy K. Wolfe, Oak Ridge National Laboratory
- **Estimating the Impact of Exceptional Climate Change Education on Individual Lifetime Carbon Emissions** – Eugene Cordero, San Jose State University

Baltimore B

Panel Session: Decision Science and the Transportation Revolution – Part 2

This session continues the mini-workshop started in Part 1 (2:00 pm session) regarding how insights into human and organizational behavior can reduce the energy use associated with transportation at a time when the sector is both undergoing tremendous change and is of growing importance as a source of U.S. carbon dioxide emissions. This session will be very interactive, starting with targeted breakout sessions and ending in a group discussion related to research needs, opportunities, challenges, and resources.

Thursday Evening

5:45–7:00
Maryland
B/C



Film Festival

Featuring Bill LeBlanc, Chief Instigation Agent, E Source

Sponsored by

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Friday Morning

7:30–8:30 Continental Breakfast and Registration

Sponsored by **TENDRIL**

8:30–10:00 Concurrent Sessions

Baltimore A

Lightning Session: Stronger Together: Leveraging Groups for Behavior Change

Moderator: Cathy DuBois, Kent State

- Inspiring Organizational Change through Grassroots Green Initiatives – Shauna Thompson, Independent Environmental Consultant
- Transforming Towns and Cities into Sustainable Energy Communities – Samantha Sojka, Eversource Energy
- Building Sustainability through Institutional Behavior Change – Christopher Payne, Lawrence Berkeley National Laboratory
- An Integrated Framework to Untangle the Decision-Making Process of Energy Saving for Small and Medium-Sized Enterprises in Taiwan – Der-Fang Hung, Industrial Technology Research Institute
- Tips for Tips: Effective Strategies for Presenting Behavioral Recommendations – Jason Kaufman, SEE Change Institute
- Engaging Local Governments to Prioritize Energy Efficiency and Climate Action Planning: Lessons from Utility-Government Partnerships – Jen Loomis, Research Into Action
- Who Are the Contractors Who Serve Small Businesses? – Karen Maoz, DNV GL
- Change Leadership for a Changing Climate: Positive Deviance, Innovation, and Institutional Investing – Abigail Abrash Walton, Antioch University New England
- Online Energy Portals for Businesses: How Well Do They Align with the Values and Perspectives of Small and Medium Business Owners? – Amy Meyer, Navigant

Maryland A

Effects on Behavior: Finding Relevant Factors

Moderator: Kelly Kuehn, Duke Energy

- Design Learning from the Extremes? Energy Efficiency in Saudi Arabia – Gomathi Sadhasivan, DNV GL
- Which Buttons Should We Push to Maximize Energy Savings? – Marta Lopes, IPC-ESAC, INESC Coimbra
- Customer Behavior and Engagement in a Smart Grid Pilot – Dana Max, Navigant
- Behavioral Considerations for Effective Time-Varying Electricity Prices -- Ian Schneider, Massachusetts Institute of Technology

Maryland B

Municipal-Level Policy: The Importance of Engagement

Moderator: Kristin Heinemeier, University of California, Davis

- Seizing the Moment: Helping Homeowners Make an Efficient Choice – Josh Brock, Renovate America
- Going Farther Together: How 31 Local Government Entities Collaborated to Procure Solar Garden Subscriptions at Low Cost – Trevor Drake, Great Plains Institute/Clean Energy Resource Teams
- Shaping Sustainable Energy Practices in the City of Orlando – Brittany Sellers, City of Orlando
- Crowd-Sourcing Low-Carbon Behavior in Ontario – Alena Grunwald, Ontario Ministry of Environment and Climate Change

Maryland E

Clarity Begins at Home: Insights into Residential Behavior

Moderator: Bruce Cenicerros, Sacramento Municipal Utility District

- The United States on 10–15 kWh/Day – Philip Coleman, Lawrence Berkeley National Laboratory
- Energy Cultures: Renting in a University Town – Elizabeth Palchak, University of Vermont
- Factors Relating to Energy Saving in Households: Evaluating Behavioral and Demographic Variables in a Smart Home Project – Saraansh Dave, Toshiba Research Europe, Ltd.
- Certified Community Energy Ambassadors: Developing a Local Network of Support for Ongoing Action – Christine Granger, Cool Davis

Maryland F

Get Out of Your Car: New Mobility for the 21st Century

Moderator: Shruti Vaidyanathan, American Council for an Energy Efficient Economy

- Measuring Transportation Behavior Change: Past, Present, and Future – Cathy Cibor, Alta Planning + Design
- Impact of a Daily Season Parking Scheme on Car Park Usage at the Workplace – Waiyan Leong, Land Transport Authority
- Aligning Incentives and Public-Private Actors to Realize Co-Benefits for Smart Urban Mobility – Joshua Sperling, New Concepts Incubator, National Renewable Energy Laboratory

Baltimore B

Panel Session: Using Behavioral, Cultural, and Social Insights to Expand Uptake of Residential Energy Efficiency

Through its Electric Program Investment Charge (EPIC) program, the California Energy Commission funds innovative electricity research for clean energy technologies and approaches. This panel showcases first-year results from four grantees who apply social science theory to better understand household energy use, uptake of energy-efficient behaviors and retrofits, and how these vary across segments of California households.

Moderator: Tim Treadwell, Center for Sustainable Energy

Panelists:

- Stephanie Berkland, TRC Energy Services
- Susan Mazur-Stommen, Indicia Consulting, LLC
- Andy Campbell, Energy Institute at Haas

10:00–10:30 Morning Break

Friday Morning

10:30–12:00 Concurrent Sessions

Baltimore A

Lightning Session: Influencing Clean Vehicles, Shared or Active Mobility Decisions: Lessons from the Field**Moderator: Frances Sprei, Chalmers University of Technology**

- **The Effect of Gasoline Prices on the Willingness to Consider Fuel-Efficient Vehicles** – Yeong Jae Kim, Georgia Tech
- **EV Adoption Trends Across the United States** – Georgina Arreola, Center for Sustainable Energy
- **Socially Optimal Replacement of Conventional Vehicles with Electric Vehicles for the U.S. Household Fleet** – Eleftheria Kontou, University of Florida
- **New Car Insurance Models for Shared Mobility** – Allen Greenberg, U.S. Department of Transportation/FHWA
- **Alternative Fuel Vehicles: Who Buys, Who Might Buy, and What Can Induce Them to Buy?** – Rubal Dua, KAPSARC
- **Evaluating SRTS Program Impacts on CO₂ Emissions** – Ursula Vogler, Metropolitan Transportation Commission

Maryland A

Seeing Around Corners: Innovative Approaches to Program Design**Moderator: Tim Pettit, DNV-GL**

- **Look Before You Leap: Leveraging Landscape Analysis As a Method for Behavioral Program Selection, Design, and Improvement** – Lea Lupkin, Yale University/SEE Change Institute
- **Design Thinking: An Innovative Approach for Utilities to Unlock Customer Value** – Jenni Cathcart, Vermont Energy Investment Corporation
- **Mapping the Customer Journey: Pathways to Satisfaction and Deeper Savings** – Amanda Dwelley, ILLUME Advising
- **How We Decide: Evaluating Strategies and Trade-Offs** – Cole Roberts, Arup

Maryland B

Scaling Up Solar Deployment: Modeling Behavior in Markets, Participation, and Adoption**Moderator: Susan Mazur-Stommen, Indicia Consulting**

- **The Solar Energy Evolution and Diffusion Studies (SEEDS) Program** – Dave Rench McCauley, U.S. Department of Energy
- **What Are the Financial and Social Costs/Benefits of Different Community-Based Solar Approaches?** – Sharon Klein, School of Economics, University of Maine
- **Information Preferences for Solar PV Adoption: Comparing Two Markets** – D. Cale Reeves, LBJ School of Public Affairs

Maryland E

Engaging Stakeholders in Complex Organizations**Moderator: Kathy Kuntz, Cool Choices**

- **Connecting the Dots in Higher Performing Buildings: What K-12, Higher Ed, and Government Have in Common** – Ashley Ruiz, McKinstry
- **Behavior Change Begins with Education** – Laura Divine, The Energy Coalition
- **Using One Program for Multiple Resource Savings in Multi-family Complexes** – Patrice Ignelzi, Applied Energy Group

Maryland F

Getting Consumers to Yes: Marketing Insights from Acquisition to Action**Moderator: Jennifer Hampton, Navigant**

- **Using an Online Marketplace to Boost Participation in Residential Plug Load Appliance Programs: Lessons Learned from PG&E, Snohomish PUD, and LADWP** – Alex Katzman, Enervee
- **How to Stay Relevant to Your Customer: Personalization Versus Segmentation** – Cavan Chasan, KSV
- **Closing the Values-Action Gap: Motivating Energy Efficient Home Construction** – Ben Block, Clean Markets
- **How Smart Utilities Can Master Communication with Millennials and Why They Should** – Ashley Nicholls, KSV

Baltimore B

Panel Session: Leveraging Audience Identity to Drive Behavior**Moderator: Col. James Caley (ret.), U.S. Navy****Panelists:**

- **Defining Energy Consumer Identities from 10 Years of Energy Pulse™ Data** – Lee Ann Head, Shelton Group
- **Granny's Got Game: Using Games Across Demographic Segments** – Robert Feeney, Ringorang
- **Energy Is Me: Tying Energy to the U.S. Marines' Warrior Ethos** – Darrin Kayser, Booz Allen Hamilton

12:00–1:30 Lunch

Friday Afternoon

1:30–3:00 Concurrent Sessions 6

Baltimore A

Lightning Session: What Did You Do? Programs and Insights

Moderator: Lisa Cascio, Northeast Energy Efficiency Partnerships

- **Home Energy Report Pilot: Large-Scale Look at Consumer Behavior in Japan** – Sho Hirayama, Jyukankyo
- **MyHER Program: Getting Bigger, Better, Greener** – Kelly Kuehn, Duke Energy
- **Climate Change in Cities: Retrofitting New York Multi-family Housing for Resilience** – Katherine Gloede, University of Virginia
- **Market Transformation: Changing Behaviors in Residential New Construction in the Northwest** – Anu Teja, Northwest Energy Efficiency Alliance
- **One of These Households Is Not Like the Other: Capitalizing on Household Diversity** – Annika Todd, Lawrence Berkeley National Laboratory
- **Just Do That: Targeting High-Impact Behaviors via Engagement Games** – Kathy Kuntz, Cool Choices
- **Stacking Behavior in Our Favor: A Digital Behavioral Intervention Pilot** – Laura Orfanedes, Fiveworx
- **Softening the Tone: Improving HER Program Satisfaction** – Molly Podolefsky, Navigant
- **ENERGY STAR® Home Advisor: Taking Our Energy Efficiency Work Home** – Rebecca Hudson, U.S. Environmental Protection Agency

Maryland A

Panel Session: Organizational Decisions on Moving Goods

Freight transportation is essential to economic development, but rising truck miles and increasing globalization are projected to increase freight emissions at faster rates than all for other sources of transport-related emissions. This panel will discuss carbon-reducing programs in the freight transportation sector that emphasize or require behavior change. It includes projects overseen by academic researchers and policy makers.

Moderator: Rachael Nealer, U.S. Department of Energy

Panelists:

- Buddy Polovick, U.S. Environmental Protection Agency SmartWay
- Shama Campbell, Rensselaer Polytechnic Institute
- Jim Dwyer, Maryland Port Administration

Maryland B

Getting Smart about Smart Homes

Moderator: Beth Karlin, University of Southern California

- **Homeowner Behavior in the First Net Zero Energy Townhomes in the United States** – Aaron Adelstein, Master Builders Association
- **Can Smart Thermostats Help Residential Customers Reduce Heating Usage?** – Dan Rubado, Energy Trust of Oregon
- **From the Technical to the Human Potential: The Development of an Energy Management System** – Carlos Antunes, University of Coimbra, INESCC
- **The Importance of Customer Engagement for Wi-Fi Connected Home Products** – Carol Burwick, Duke Energy

Maryland E

Well Measured: The Art of Effective Benchmarking and Modeling

Moderator: Ed Smyth, DNV-GL

- **Helping Schools Save Through Energy Behavior Programs** – Laurel Kruke, Pierce Energy Planning
- **Leveraging Benchmarking Data for Behavior Change** – Erik Lyon, EMI Consulting
- **Innovations in Energy Efficiency Modeling at the National and Regional Scale** – Jim Turnure, U.S. Energy Information Administration
- **Scaling Energy Benchmarking Policies** – Alissa Burger, Center for Sustainable Energy

Maryland F

Making New Technologies Stick: From Lean Launchpads to Crowdsourcing

Moderator: Linda Dethman, Research Into Action

- **Social Acceptance of Community Solar Gardens: A Portland Case Study** – Anne Weaver, Portland State University
- **The ENERGY STAR® Retail Products Platform: Transforming the Way Energy-Efficient Products and Messages Are Delivered through Retail** – Peter Banwell, U.S. Environmental Protection Agency
- **Changing Market Behaviors by Accelerating Commercialization** – Marjorie McRae, Research Into Action
- **Turning Ideas into Solutions: An Up-Close Look at JUMP, Oak Ridge National Laboratory’s Crowdsourcing Initiative** – Caroline Hazard, CSRA

Baltimore B

Panel Session: Engaging Residents in Affordable Housing: Examples from the Denver and District of Columbia Housing Authorities

The panel will discuss the development, implementation, and evaluation of two residential engagement programs. The programs took place in affordable housing properties located in Denver and Washington, D.C

Moderator: Krista Egger, Enterprise Green Communities

Panelists:

- Nicole O’Connor, Energy Outreach Colorado
- Rachelle Macur, Group14 Engineering
- Chris Jedd, Denver Housing Authority
- Molly Simpson, D.C. Housing Authority

Friday Afternoon

3:00 – 3:30 Afternoon Break	
<p>Spotlight Panels 3:30–5:00</p>	<p>Spotlight 1 Shifting the Climate Change Conversation (Maryland E/F)</p> <p>Moderator: Paul Wright, Director of the Berkeley Energy and Climate Institute</p> <ul style="list-style-type: none"> The Honorable Bob Inglis, U.S. Representative (R-South Carolina, 1993-1995, 2005-2011) It's time to change the conversation and begin asking fellow conservatives, "How can free enterprise solve climate change?" Climate change is real and at republicEn we believe it's our duty and our opportunity to reduce the risks. But to make a difference, we have to fight climate change with free enterprise instead of ineffective subsidies and regulations. Sharon Dunwoody, Evjue-Bascom Professor, University of Wisconsin-Madison The tide is turning. Greater numbers of Americans are buying into the reality of climate change. But how do we turn beliefs into behaviors? One increasingly popular answer: social norms.
	<p>Spotlight 2 How Did That Box Get to My Door? The Future of Freight (Maryland A/B)</p> <p>Moderator: Therese Langer, American Council for an Energy Efficient Economy</p> <ul style="list-style-type: none"> Benoit Montreuil, Georgia Tech, Professor and Coca-Cola Material Handling & Distribution Chair in the Stewart School of Industrial & Systems Engineering at Georgia Tech where he is Director of the Physical Internet Center and Director of the Supply Chain & Logistics Institute The way we deal with physical objects has to change: this includes how we move, deploy, realize, supply, design, and use them. Orders-of-magnitude improvements in the economic, environmental and societal efficiency, capability and sustainability of logistics, transportation, and supply chains are needed. This requires gradually evolving to a hyperconnected era, building a Physical Internet, enabling open asset sharing, and flow consolidation on a grand scale. Such a disruptive innovation induces the need for numerous behavioral transformations from all stakeholders. Alex Stark, Kane is Able The biggest breakthroughs in supply chain efficiency will not come from the collective efforts of individual companies working separately. They will come from companies working together to store and ship the same volume of freight using far less energy. As logistics professionals, we must begin to view warehouse and freight capacity as more of a shared distribution infrastructure. When that happens, we will realize game-changing cost savings and dramatically lower the impact of logistics activities on global greenhouse gas emissions.

5:30–7:00 Maryland C/D Poster Session

Saturday Morning

7:30–8:30	Continental Breakfast and Registration
8:30–10:00	Concurrent Sessions

Baltimore A	<p><u>Lightning Session: You Did What!? Does Evaluation Tell Us What We Think It Does?</u> Moderator: Teresa Lutz, Michaels Energy</p> <ul style="list-style-type: none"> The Decision Paradox: Cracking the Barrier Code for Residential Customers – Kathryn Parlin, West Hill Energy and Computing Household Energy Consumption Effects of PG&E's Electrical Efficiency Rebate Program – Evan Sherwin, Carnegie Mellon University A Formative Evaluation of Behavior Change Elements within a Colorado Weatherization Assistance Program – Pat Aloise-Young, Colorado State University The Impact of Energy Education on Low-Income Households: Evidence from a Randomized Field Experiment – Sebastien Houde, University of Maryland Energy Savings from Utility Customer Engagement Web Portals: Xcel Energy's My Energy Program – Jennifer Hockett, Cadmus How Wrong Can You Be about What Causes Participant Spillover? – Zach Ross, Opinion Dynamics Schools Get Schooled on the Importance of Continuous Energy Improvement – Kristie Rupper, Cadmus How Long Does Commercial Strategic Energy Management Stick? A Study of Savings Persistence – Jennifer Barnes, DNV GL Keep the Focus on the Big Picture: An Analytical Method for Evaluating Commercial Retro-Commissioning Net Impacts – Min Yu, BC Hydro
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Maryland A	<p><u>What Can Data Tell Us About Occupants?</u> Moderator: Therese Pepper, University of California, Berkeley</p> <ul style="list-style-type: none"> Understanding Variability in Residential Load Profiles Using Cluster Analysis – Sam Borgeson, Convergence Data Analytics, LLC Meta-Review of Behavior-Based Energy Savings Potential Models and Estimates for Commercial Buildings – Karen Ehrhardt-Martinez, Navigant Behavioral Energy Usage Archetypes Help Explain EE Program Savings Rates – Matt Frades, Oracle
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Maryland B	<p><u>The Secrets to Success for Behavior Programs</u> Moderator: Sarah Outcalt, University of California, Davis</p> <ul style="list-style-type: none"> Are Students the Future of Energy Efficiency? Findings from an EU-Wide Energy Saving Project – Richard Bull, De Montfort GIGO: What Are We Putting into Our Energy Efficiency Program Evaluation Research? – Carol Edwards, Southern California Edison Using Embedded Experiments to Guide Improvements for Behavior Change Programs: A Powerful New Tool – Linda Dethman, Research Into Action University Programs Encouraging Energy Efficiency through Behavior Change: A Review – Reuven Sussman, American Council for an Energy Efficient Economy
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Saturday Morning

8:30–10:00 Concurrent Sessions 7

Maryland E

Engaging Stakeholders in Complex Organizations

Moderator: Christopher Payne, Lawrence Berkeley National Laboratory

- **Funding an Innovative Community of Practice in Residential Consumer Engagement** – Uzma Noormohamed, Illinois Science and Energy Innovation Foundation
- **Commercial Strategic Energy Management Program: Best Practices and Approaches** – Jay Luboff, Navigant
- **One Town at a Time** – Nicole Peoples, Corporation for Ohio Appalachian Development
- **Driving Behavioral and Operational Savings in Commercial Buildings for the Maryland Energy Administration** – Mike Kaplan, Ecova

Maryland F

Engaging Low-Income Communities

Moderator: Tom Calhoun, Corporation for Ohio Appalachian Development

- **Insights from Therapists: Energy Conservation for Households on a Low Income** – Heather Hill, Queensland University of Technology
- **Partnering with Non-profit Organizations to Reduce Low-Income Energy Costs** – Paul Markowitz, Vermont Energy Investment Corporation
- **Illinois Smart Meter Awareness, Research & Technology (iSMART) Pilot Project: Transforming Public Housing Authorities into Smart Energy Consumers** – Kate Brown, University of Illinois
- **Collaborating with Progressive Initiatives in Rural Oregon Communities** – Karen Chase, Energy Trust of Oregon

Baltimore B

Panel Session: The Importance of an Integrated Design in Creating High Performance Green Buildings

An integrated design process has long been recognized as core to creating high performance green buildings. Methodologies for implementing integrated processes exist; however, research is lacking on the effects of using such processes, particularly for federal government construction projects—until now. While playing nice with others on a project team sounds straightforward, does using integrative processes and collaborative practices really make a difference?

Moderator: Bryan Steverson, U.S. General Services Administration

Panelists:

- Renee Cheng, University of Minnesota
- Laura Stagner, U.S. General Services Administration

10:00–10:30 Morning Break

**10:30–Noon
Maryland B/C**

CLOSING PLENARY: Profiles in Leadership

Moderator: James Sweeney, PEEC, Stanford University

- **Maya Shankar, Senior Advisor for the Social and Behavioral Sciences at the Office of Science and Technology Policy, White House, and Founder and Chair of the White House Social and Behavioral Sciences Team**

The White House Social and Behavioral Sciences Team seeks to translate insights from the behavioral sciences into measurable improvements in federal programs and policies. Maya will focus on projects with the Department of Energy and the Environmental Protection Agency.

- Elaine Ulrich, SunShot, U.S. Department of Energy
- Chris Weaver, U.S. Environmental Protection Agency

Workshops

Wednesday, October 19 – Preconference Workshops

- **9:00 AM – 12:30 PM: Creating Effective Organization Change: A Five-Step Framework for Incorporating Sustainability into Organizations –** Christopher Payne, Lawrence Berkeley National Laboratory
- **1:00 PM – 5:00 PM: Methods and Approaches to Change Office Practices Toward Reducing Energy and Improving Comfort –** David Keyson, Delft University of Technology
- **9:00 AM – 5:00 PM: Design Thinking: A System for Social Innovation –** Jenni Cathcart, Vermont Energy Investment Corporation

Saturday, October 22 – Postconference Workshops

- **1:00 PM – 5:00 PM: Behavior Change and Social Marketing Maneuvers, Magic, and Mastery: Developing Effective Environmental Outreach Programs –** Meghan Kelly, Green Motivate
- **1:00 PM – 5:00 PM: Get SchooLED in Behavior Change –** Laura Divine and Melanie Peck, The Energy Coalition
- **1:00 PM – 5:00 PM: The Platinum Standard: Integrating Theory, User Research, and Pretesting to Optimize Energy Pilots –** Beth Karlin, SEE Change Institute

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