



# 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 2017 | October 15 - October 18, 2017 | Sacramento, CA**

## Sunday, October 15

8:30 am–  
5:00 pm

**Preconference Workshops** (see last page for list)

5:30 pm–  
6:45 pm  
Regency F

**Young Professionals Reception**

Sponsored by

7:00 pm–  
9:00 pm  
Regency ABC

**Kickoff Program and Dessert Reception**  
Registration 6:00–8:00 pm

## Monday, October 16

7:00–8:30 am **Continental Breakfast and Registration**

Sponsored by

8:30–10:00 am  
Regency ABC

**Opening Plenary**  
**Andrew McAllister**



Andrew McAllister was appointed to the California Energy Commission by Governor Edmund G. Brown, Jr. in May 2012, and re-appointed in January 2017. Beginning in the early 1990s, Commissioner McAllister has been working on clean energy deployment and policy for his entire 25-year career.

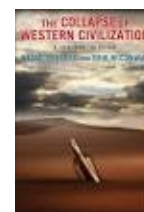
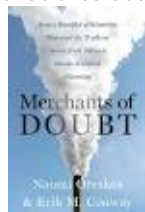
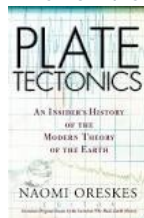
**Keynote: Naomi Oreskes**

Areas of Research: History of Environmental Sciences, Science Policy, Philosophy of Science, Science and Religion, STS, Technology and Society, Women and Gender Studies



Naomi Oreskes is Professor of the History of Science and Affiliated Professor of Earth and Planetary Sciences. She arrived at Harvard in 2013 after spending 15 years as Professor of History and Science Studies at the University of California, San Diego, and Adjunct Professor of Geosciences at the Scripps Institution of Oceanography. Professor Oreskes's research focuses on the earth and environmental sciences, with a particular interest in understanding scientific consensus and dissent.

Her 2010 book, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco to Global warming*, co-authored with Erik M. Conway, was shortlisted for the Los Angeles Time Book Prize, and received the 2011 Watson-Davis Prize from the History of Science Society. Author of:



1A	Golden State	<p><b><u>Lightning Session: Commercial Programs</u></b>  Moderator: Sharyn Barata, Opinion Dynamics</p> <ul style="list-style-type: none"> <li>• <b>Big Efficiency Squeeze: Energy Code Compliance in California Buildings</b> – Sahar Abbaszadeh, Cadmus</li> <li>• <b>Does Your Health Trump Our Environment? Motivating Hotel Guests to Save Water</b> – Anouk Griffioen, Wageningen University</li> <li>• <b>Changing How We Do Business: Saving Energy and Improving Processes in Small Businesses</b> – Shannon Kahl, ILLUME Advising</li> <li>• <b>We've Got Issues: Employee Perspectives on the Journey to Sustainability</b> – Kathy Kuntz, Cool Choices</li> <li>• <b>Behavior Change Strategies to Advance Sustainable Business Practices</b> – Amy McLean Salls, United Illuminating</li> <li>• <b>Smart Thermostats for the Small Business Gap</b> – Charlie Richardson, Consumers Energy</li> <li>• <b>Multi-Stage Interventions to Promote Persistent Plug-Load Energy Savings in Office Buildings</b> – Emma Johnson, City of Bellevue, Washington</li> <li>• <b>It's Complicated! How To (and How NOT To) Motivate Sustainable Energy Management in Commercial Buildings</b> – Stephanie Whitney, University of Waterloo</li> <li>• <b>Reimagining Workplace Thermal Comfort and Energy Efficiency through "Smart" Office Chairs</b> – Gwelen Paliaga, TRC Energy Services</li> <li>• <b>How Continuous Energy Improvement Programs Change What Energy Managers Do All Day</b> – Anna Kelly, Cadmus</li> </ul>
1B	Regency E	<p><b><u>The Three R's of TOU: Recruiting, Responses, and Reactions</u></b>  Moderator: Debbie Brannan, Navigant</p> <ul style="list-style-type: none"> <li>• <b>How Consumers Make Decisions about Time-of-Use Electricity Pricing Plans</b> – James Fine, Environmental Defense Fund</li> <li>• <b>Getting to Know You: Predicting Customer Response to Utility Programs</b> – Anthony Duer, Applied Energy Group</li> <li>• <b>Stretch It Out: Heterogeneity in Estimated Demand Elasticities under Residential Time-Based Rates</b> – Peter Cappers, Lawrence Berkeley National Laboratory</li> </ul>
1C	Carmel	<p><b><u>Framing and Segmentation</u></b>  Moderator: Sierra Martinez, Energy Foundation</p> <ul style="list-style-type: none"> <li>• <b>Moral Foundations and Environmental Decision-Making</b> – Erica Iverson, Columbia University</li> <li>• <b>Using Neuroscience to Predict Nationwide Energy Decisions</b> – Nik Sawe, Precourt Energy Efficiency Center, Stanford University</li> <li>• <b>Promoting Pro-Social and Pro-Environmental Behavior through Values-Affirmation</b> – Claudia Schneider, Columbia University</li> <li>• <b>Financial Scarcity Shapes Conservation Choices and Motivations</b> – Brandon Tomm, University of British Columbia</li> </ul>
1D	Regency F	<p><b><u>The Future of Mobility</u></b>  Moderator: Shruti Vaidyanathan, ACEEE</p> <ul style="list-style-type: none"> <li>• <b>Community Context, Human Needs, and Transportation Choices</b> – Matt Biggar, Connected to Place</li> <li>• <b>Personalized Infrastructure: Leveraging Behavioral Strategies for Future Mobility</b> – Andrew Duvall, National Renewable Energy Laboratory</li> <li>• <b>Reducing Drive-Along Trips in a Car-Light Urban Neighborhood</b> – Julie Colehour, C+C</li> <li>• <b>Towards Energy Efficient and Shared Mobility Services in Three Cities</b> – Clement Rames, National Renewable Energy Laboratory</li> </ul>
1E	Big Sur	<p><b><u>Shaking Up the Norm</u></b>  Moderator: Ed Smyth, DNV GL</p> <ul style="list-style-type: none"> <li>• <b>Five Ways to Scale Up Energy Efficiency in Commercial Settings</b> – Holly Barrett, Brand Cool Marketing</li> <li>• <b>CBSM for Tribal Recycling: Recalling the Past to Drive the Future</b> – Brenna Thorpe, Booz Allen Hamilton</li> <li>• <b>South Sup: Community Demand Response</b> – Adriane Wolfe, Quinn Energy</li> <li>• <b>Encouraging Customers in Multifamily Complexes to Reduce Energy and Water Use: Off the Drawing Board and into the Field</b> – Patrice Ighelzi, Applied Energy Group</li> </ul>
1F	Regency D	<p><b><u>Panel Session: Connecting Relevant Research to the Market</u></b>  Moderator: Elaine Ulrich, US Department of Energy</p> <p>Panelists:</p> <ul style="list-style-type: none"> <li>• Kris Mayes, Arizona State University</li> <li>• Vikram Aggarwal, EnergySage</li> <li>• Margaret Taylor, PEEC, Stanford University</li> </ul>

**Noon–1:30 pm Lunch Panel Session: Take Two! SWAP-ers Tell It All: Learning from Leaders**

Regency ABC

When you think about energy savings, reality TV probably doesn't come to mind. But that all will change when you hear about how a web-series has attracted over 45 million viewers—and counting.

Starting in 2016, the Department of Energy debuted a way to exchange and share proven solutions: the Better Buildings Challenge SWAP. In the series, leaders of organizations and businesses in locations all over the country broadcast their innovative approaches to saving energy as they power and operate their building.

Last year you heard from Whole Foods and Hilton Worldwide. During this lunch plenary, the cast of SWAP Season 3—from the cities of Atlanta and Boston—will reunite and talk about how they lead each other toward greater energy efficiency. These SWAP partners will tell us all about their multi-day experiment in sharing tips between energy professionals. Working together in a fun, collaborative, and sometimes competitive way helps them learn proven and lasting lessons that apply to every organization, business, and building type. SWAP partners tell us all about it.

**Moderator:** Bryan Cohen, Co-owner, C+C

**Panelists:**

- Timothy Keane, Commissioner, City Planning, City of Atlanta
- Adam Jacobs, Energy Manager, City of Boston
- Maria T. Vargas, Director, Better Buildings and Senior Program Advisor, Office of Energy Efficiency and Renewable Energy, US Department of Energy

**Noon–1:30 pm Precourt Fellows Lunch (Capital View, 15<sup>th</sup> floor)**

**1:30–3:00 pm Concurrent Sessions**

2A  
Golden State

**Lightning Session: Transportation**

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

- **Identifying Areas with High Proclivity to Adopt Electric Vehicles** – John Anderson, Center for Sustainable Energy
- **A Carbon Price by Another Name May Seem Sweeter: Consumers Prefer Upstream Offsets to Equivalent Downstream Taxes** – Alec Beall, University of British Columbia
- **Race to the Bottom: Using Advanced Analytics, Operator Training, and Feedback to Improve Electric Bus Fuel Economy** – Mersiha McClaren, Research Into Action
- **Quantitative Estimation for Residential Vehicle Parking Rates in China and Its Potential Influence on PEV Purchasing** – Shiqi Ou, Oak Ridge National Laboratory
- **Transitions to Alternative Fueled Vehicles Using a Spatial Consumer Choice and Fueling Infrastructure Model** – Kalai Ramea, University of California, Davis
- **Findings from a Meta-Analysis of In-Vehicle Eco-Driving Feedback** – Angela Sanguinetti, University of California, Davis
- **Assessing Long-Distance Trip Length Distributions for Improving the Modeling of Plug-In Vehicle Market Demand and EV Travel Performance** – Gil Tal, University of California, Davis
- **Outcomes from a Northern California Electric Vehicle Incentive Program from the Lead Agency, Administrator, and Dealer Perspectives** – Kipp Searles, Center for Sustainable Energy
- **Report from the Dealer Trenches: Selling EVs in San Diego** – Eric Cahill, Plug In America

2B  
Regency E

**Thermostats!**

**Moderator:** Jennifer Robinson, Electric Power Research Institute

- **Staying Cool: Understanding Residential Air Conditioning Use Behavior** – Molly Podolefsky, Navigant
- **The Role of Self-Reporting in Heating Energy Efficiency** – David Keyson, Delft University of Technology
- **Clearing up the Unclear Savings of Advanced Thermostats** – Pace Goodman, Navigant
- **Squeezing Every Last Drop: A Nest Seasonal Savings Evaluation** – Noah Lieb, Apex Analytics

2C  
Regency D

**No Seriously, Start Building an Ark: Communicating Strategically about Climate Change**

**Moderator:** Darrin Kayser, Booz Allen Hamilton

- **Can Metaphor Shift the Behavior of Climate Skeptics? Hopeful Evidence from a Public Goods Game** – Cynthia Frantz, Oberlin College
- **The Surprising Relationship between Psychological Distance and Psychological Avoidance: Results from Climate Change Communication Research** – Christie Manning, Macalester College
- **Extreme Weather and Attention to Climate: An Analysis and Messaging Tool** – Matthew Sisco, Columbia University
- **Effective Communication Tactics: A Consumer Neuroscience Perspective** – Michael Smith, Nielsen

2D  
Regency F

**Using Information and Data to Engage Consumers**

**Moderator:** Sylvia Bender, California Energy Commission

- **Insights on Effective Nudging across Decision Styles and Choice Models** – Anne Arquit Niederberger, Enervee
- **Designing and Implementing Demand Response Trials in a Large-Scale Representative Household Sample** – Thomas Rushby, University of Southampton
- **Click Here for Savings? Using Online Tools for Continuous Customer Engagement in Energy Efficiency** – Valerie Richardson, DNV GL
- **The Virtual Solar Panel As a Unit of Measurement** – Duane Jonlin, City of Seattle

1:30–3:00 pm **Concurrent Sessions**2E  
Carmel**When It's Not About the Money: Engaging Low-Income and Multifamily Residents**

Moderator: Wesley Schultz, California State University, San Marcos

- **Integrated Sustainability Management at the Rose** – Stephanie Barr, Colorado State University
- **Sustainability at Your Service: How an Ecoconciierge Can Boost Savings from the Tough-to-Reach Multifamily Market** – Jacqueline Freidel, Seventhwave
- **SEM for Multifamily: Engaging Multiple Audiences in Energy Saving Behaviors** – Julie Hayes, Milepost Consulting and Elly Bunzendahl, O'Brien and Company
- **Motivating Energy Savings in Apartment Buildings without Financial Incentives: Long-Term Persistence** – Joey Schmitt, Action Research

2F  
Big Sur**Panel Session: Customer Data and Behavior Change**

Moderator: Lea Lupkin, ICF

Panelists:

- Michael Murray, Mission:data
- Marco Pritoni, ecobee
- Laura Cornish, Ecotagious

3:00–3:30 pm **Afternoon Break (Regency Foyer)**Sponsored by 3:30–5:00 pm **Concurrent Sessions**3A  
Golden State**Innovative Communication to Engage Audiences and Deliver Program Objectives**

Moderator: Matt Perry, DDB San Francisco

- **The High Five: Capturing People's Imagination to Capture Their Participation** – Lara Whitley, Community Office for Resource Efficiency
- **Education: Key to Successful Weatherization Programs** – Jennifer Alldredge, Alliance to Save Energy
- **Achieving Global Energy Savings: An Optimized Approach to Engage and Communicate with Utility Customers** – Lonny Blumenthal, Oracle
- **Lunch at the Walmart: Outreach Strategies for Rural Communities** – Clare Butterfield, Illinois Science and Energy Innovation Foundation
- **Quantifying the Role of Education in Behavior Programs** – Eugene Cordero, San Jose State University
- **Looking at Home Energy Efficiency through the Hispanic Lens: Insights from a Sociocultural Study in California** – Ria Langheim, Center for Sustainable Energy
- **Using Market Segmentation and Targeting to Enhance Program Participation** – Lisa Lancaster, Wisconsin Energy Conservation Corporation
- **Keep It Simple: How Nest Recruited Over 750,000 Participants in 2 Days** – Amanda Sahl, Nest Labs

3B  
Regency E**Designing Effective Programs for Commercial Buildings**

Moderator: Amanda Dwelley, ILLUME Advising

- **Small Actions Add Up! Engaging Large Organizations in Behavior Change** – Jen Loomis, Research Into Action
- **Synergies for Success: Optimized Relationships between Behavior-Based and Measures-Based Electricity Conservation Programs** – Bryan Young, Independent Electricity System Operator
- **Smart Energy in Offices - Year Three and Beyond** – Julie Hyde, Duke Energy
- **SEM for SMB: DIY, YMMV, MOOC, WTF?** – Dan Fredman, Vermont Energy Investment Corporation

3C  
Carmel**Panel Session: Innovating for Inclusion: Removing Communication Barriers to Niche Markets**

Moderator: Jason Kupser, DTE Energy

*An interactive dialogue with DTE Energy on the role of dynamic partnerships and how they opened the door to serving the deaf and hard of hearing community.*

Panelists:

- David DeLind, DTE Energy
- Todd Morrison, Alliance for Deaf Services
- Mylan Stevens, Franklin Energy Group

3D  
Big Sur**Bold Experiments and Innovative Approaches to Behavior Change**

Moderator: Karen Ehrhardt-Martinez, Navigant

- **How Do You Rate? How Scoring Systems Impact Consumer Behavior** – Charles Ehrlich, DNV GL Energy
- **ThermWise Personalized Recommendations** – Ted Peterson, Questar Gas
- **Sort It Out: Effective Communication Strategies to Encourage Food Scrap Recycling** – Judi Ettlinger, StopWaste and Wesley Schultz, California State University, San Marcos
- **Monsters, Magic Carpets, and Fairy Tale Stories: The Findings of Task 24** – Sea Rotmann, IEA DSM Task 24 and Kady Cowan, Carolinas Healthcare System

3E  
Regency D**Framing Policies and Programs**

Moderator: Annalisa Schilla, California Air Resources Board

- **Understanding the Impact of Non-Energy Benefits in the United States** – Brendan Wade Brown, Green & Healthy Homes Initiative
- **Framing Energy Efficiency with Payback Period during Facility Procurement Processes** – Laura Delgado, US Coast Guard
- **Partisan Barriers to Bipartisanship: Understanding Policy Support of Washington State's Carbon Tax Initiative** – Phillip Ehret, University of California, Santa Barbara
- **Success Stories of Bipartisan Support for Energy Efficiency** – Mary Shoemaker, American Council for an Energy-Efficient Economy

Monday, October 16

3:30–5:00 pm **Concurrent Sessions**

3F  
Regency F

**Panel Session: Applying Game Design Thinking to Demand Response Programs**

Moderator: Kathy Kuntz, Cool Choices

**Panelists:**

- Bonnie Reese, University of Vermont
- Marguerite Dibble, GameTheory
- Neale Lunderville, Burlington Electric Department

Monday Evening

5:30-6:45 pm  
Regency ABC



**Film Festival**

Featuring Bill LeBlanc, Chief Instigation Agent, E Source

Sponsored by NAVIGANT

Tuesday, October 17

7:30–8:30 am **Continental Breakfast and Registration (Regency Foyer)**

Panels  
8:30–10:00 am

**Spotlight 1 (Regency ABC)**

**Design for People! Inspiration from Urban Planning, Architecture, and Engineering Towards Carbon-Free Living**

Moderator: Rick Diamond, Lawrence Berkeley National Laboratory

Design shapes our buildings, our landscapes, and our communities and is instrumental to influencing behavior. This spotlight describes shaping behavior in the urban context (e.g., encouraging walking and use of public transportation) and in buildings (e.g., encouraging use of stairs, a building that teaches, breaking out of conventional HVAC design) as well as the institutions that help drive these changes.

- Susi Marzuola, Architect and LEED BD+C
- Professor Louise Mazingo, Chair of the Landscape Architecture and Environmental Planning Department at University of California, Berkeley
- Kevin Hydes, CEO of Integral Group and former chair of USGBC

**Spotlight 2 (Regency DEF)**

**Immersion, Emotion, and the Power of Storytelling**

Moderator: Beth Karlin, See Change Institute

Good storytelling is vital to successful climate communication. Three senior media professionals who are using stories across various media platforms—virtual reality, social media, and television—will discuss how they curate and create stories to build awareness, engage the public, and accelerate action for climate mitigation and adaptation.

- Jill Kubit, Co-Founder and Director, *Dear Tomorrow*
- Liz Bronstein, Executive Producer, *Whale Wars and Ocean Warriors* (Animal Planet Channel)
- Catherine Upin, Producer, *Greenland Melting*

10:00–10:30 am **Morning Break (Regency Foyer)**

Sponsored by

10:30 am–  
Noon

**Concurrent Sessions**

4A  
Golden State

**Lightning Session: Residential Programs**

Moderator: Chris Jones, University of California, Berkeley

- Getting Customers to Choose Efficient Products without Financial Incentives – Alex Katzman, Enervee
- Gateways to Dynamic Pricing Enrollment Explosions: Lessons in Failure and Success – Sarah Gulezian, Elevate Energy
- HowPower: A Dynamic New Energy-Saving App – Carrie Armel, Precourt Energy Efficiency Center, Stanford University
- Enhancing Behavioral Programs for Aging-in-Place Populations with Wireless Sensor Technologies and Applications – Cecilia Arzbaeher, Applied Energy Group
- Breaking Down Barriers on Hard-to-Reach Multifamily Consumers: Understanding How Behaviors and Cultural Factors Correlate to Energy Consumption – Stephanie Berkland, TRC Energy Services
- Public Service Company of New Mexico (PNM): A Flexible, High-Impact Approach to the State's First Multifamily Program – Elizabeth McCollum, TRC Energy Services
- Connecting with Low Income Customers – Jim Malcom, Apogee Interactive
- Gathering Learnings from a Behavioral Methodology Aimed at Rio De Janeiro Low-Income Communities with High Incidence of Energy Commercial Losses – Rodrigo Lagreca, HomeCarbon
- Increasing Uptake on Home Retrofits with Large-Scale Thermal Imaging – Stephen Sheppard, University of British Columbia

4B  
Regency E

**Alternative Approaches to Targeting and Engaging Hard-to-Reach Customers (Low Income, Multifamily, SMB, and the Disengaged)**

Moderator: Susan Norris, Pacific Gas and Electric Company

- What Are Thermostats Really Doing? – Lynn England, Apogee Interactive
- Opportunities to Save Energy and Money in Large, Multifamily Public Housing – Marta Marello, Boston University
- Small Businesses and Behavioral Energy Efficiency: Diving Deep into Data to Estimate Statewide Potential – Eileen Hannigan, ILLUME Advising
- Leading with Behavior—Does It Make a Difference? – Ingrid Rohmund, Applied Energy Group

Tuesday, October 17

10:30 am–Noon Concurrent Sessions

4C  
CarmelProgram Design Mysteries Solved!

Moderator: Linda Dethman, Research Into Action

- Incentives Are Key—But What Really Changes Behavior? Results on Loyalty Points (RecycleBank™) and PAYT (Recycle & Save) – Dana D'Souza, Econservation Institute
- Using Health Impact Assessments to Reframe the Conversation – Courtney Henderson, ILLUME Advising
- **Ubiquitous but Overlooked: Associative Learning and Climate Change** – Susan Schneider, Root Solutions
- **Odd Couple or Perfect Pair? Recommendations for Academia-Industry Partnerships in Energy Research** – Nicole Sintov, Ohio State University

4D  
Regency FUsing Information to Affect Transportation Choices

Moderator: Jane Peters, Research Into Action

- GreenFLY: Adding Carbon to the Equation in Online Flight Searches – Nina Amenta, University of California, Davis
- **Game-Changer: Shifting Commutes with Gamification and Social Marketing** – Sarah Church, Alameda County General Services Agency
- **EV Explorer: Facilitating Electric Vehicle Adoption with an Online Energy Cost Calculator** – Kiernan Salmon, University of California, Davis
- **Electrification of Transport Refrigeration: A Technical Assistance Case Study** – John Thornton, CleanFuture, Inc.

4E  
Regency DOrganizational Decision-Making

Moderator: Christopher Payne, Lawrence Berkeley National Laboratory

- **FISHing for Energy Efficiency in UK MOD: A New Behavior Change Model for Reducing Infrastructure Energy Consumption in Multiuse Buildings** – Eleanor Forrest, Bright HF
- EMIS: Identifying Variables that Act as Barriers and Enablers to Adoption – Nora Harris, Virginia Tech
- **Applying Principles of Behavioral Economics to the Design and Construction of Energy Efficient Buildings in Kuwait** – Dalya Ismael, Virginia Tech
- **Measuring Impacts of Institutional Change Workshops Given at BECC** – Liyang Wang, Lawrence Berkeley National Laboratory

4F  
Big SurPanel Session: Behavioral Strategies for Energy Code Compliance

Moderator: Jeffrey Domanski, Institute for Building Technology and Safety

Panelists:

- Ken Baker, Northwest Energy Efficiency Alliance
- Suzanne Shelton, Shelton Group
- Cosimina Panetti, Building Codes Assistance Project

Noon–1:30 pm Lunch (Regency ABC)

1:30–3:00 pm Concurrent Sessions

5A  
Golden StateLightning Session: Renewable Energy—Power FROM the People

Moderator: Gene Rodrigues, ICF

- **How Do Swiss Renters and Homeowners Value Green Building Features?** – Anna Ebers, University of St. Gallen/University of Maryland
- **Leveraging Discrete Choice Experiments to Forecast Residential Solar PV Adoption** – Jen Robinson, Electric Power Research Institute
- **Residential Demand Response Using a Single Variable Information System** – Susan Mazur-Stommen, Indicia Consulting
- **Project RePower: Empowering States through Renewable Energy Targets** – Melissa Miyashiro, Blue Planet Foundation
- **Are Carbon Neutrality and Energy Efficiency Important to California Homebuyers? A Study of the Zero Net Energy Home Market** – Chelsea Petrenko, Opinion Dynamics
- **Sustainability in Unexpected Places (We're Talking about Dubai)** – Alan Meier, University of California, Davis

5B  
Regency EFeedback and Behavioral Demand Response

Moderator: Jim Parks, Sacramento Municipal Utility District

- Preferences for Demand Response Behavioral Sacrifices – Pat Aloise-Young, Colorado State University
- **Going the Distance: Behavioral Persistence in Utility Energy Efficiency Programs** – Kira Ashby, Consortium for Energy Efficiency
- **Behavioral Energy Efficiency and Flexible Demand Opportunities in Low-Carbon Resource Constrained Environments: A Case Study in Nicaragua** – Diego Ponce de Leon Barido, University of California, Berkeley
- **Who Should Join DR? Modeling with Machine Learning and Credit Scoring** – Wonjong Rhee, Seoul National University

5C  
Regency DLeading with People and Behavior

Moderator: Laurie ten Hope, California Energy Commission

- **Relationship between Residents' Saving Habits and Electricity Bills in Thai Households** – Daranee Jareemit, Faculty of Architecture and Planning, Thammasat University
- **Watts It Worth? Targeted Interventions Show Behavior Change ROI** – Laura Michael, Booz Allen Hamilton
- **Opportunities to Tackle the "Hidden" Energy and Emissions Embodied in Goods and Food** – Miya Kitahara, StopWaste

1:30–3:00 pm		Concurrent Sessions
5D	Big Sur	<u>Spotlight on Efficiency in Schools and Hospitals</u> Moderator: Taghi Alzera, ADM Associates <ul style="list-style-type: none"> <li>Evaluation Methods to Avoid Undercounting Savings in Behavior Programs – Emily Cross, Navigant</li> <li>The Challenges and Opportunities for Measuring Behavior Programs with K-12 Schools – Laurel Kruke, Pierce Energy Planning</li> <li>Do I Turn On the Lights or Not? Investigating Room Light Signatures – Signo Uddenberg, MKThink</li> <li>Teacher Knows Best? Balancing Energy Savings, Air Quality, and Comfort in Schools – Sarah Outcault, University of California, Davis-Western Cooling Efficiency Center</li> </ul>
		<u>Industrial Strategic Energy Management—Best Practices and Managing Organizational Change</u> Moderator: Bruce Cenicerros, Aluminum Coating Technologies <ul style="list-style-type: none"> <li>Be the Change: Collaboration Fuels Strategic Energy Management – Kim Crossman, Great Work Energy</li> <li>Continuous Improvement in Industry: Getting to Strategic Energy Management Best Practices – Elizabeth Titus, NEEP</li> <li>Customer Characteristics That Lead to a Successful Strategic Energy Management (SEM) Program – James Reese, California Manufacturing Technology Consulting</li> <li>Change Management Applied to Energy Efficiency Behaviors – A. Kris Widdison, California Manufacturing Technology Consulting</li> </ul>
5E	Regency F	<u>Panel Session: How to Talk about Home Energy Upgrades: Lessons from Psychology and Behavioral Economics</u> Moderator: Reuven Sussman, ACEEE Panelists: <ul style="list-style-type: none"> <li>Hale Forster, Columbia University</li> <li>Douglas Miller, Rocky Mountain Institute</li> <li>Lauren Cheatham, Stanford University</li> </ul>
		3:00–3:30 pm Break (Regency Foyer)
3:30–5:00 pm		Concurrent Sessions
6A	Golden State	<u>Lightning Session: Social Norms – Putting Herd Mentality to Productive Use Saving Energy and Saving the Planet</u> Moderator: Elaine Ulrich, US Department of Energy <ul style="list-style-type: none"> <li>Home Energy Reports—Avoiding a Mid-Life Crisis – Guillaume Calas, Pacific Gas and Electric Company</li> <li>Utility Behavioral Demand Response Programs: Cost-Effective Demand Savings – Beth Fitzjarrald, E Source</li> <li>Assessing Consumers' Perceptions of Electricity Use: Does Providing Reference Points Help? – Vedran Lestic, Leeds University Business School</li> <li>Casting a Wide Net: What We Know Now about Behavioral Strategies and Energy Use – Elizabeth Palchak, University of Vermont/Vermont Energy Investment Corporation</li> <li>Improving Customer Satisfaction in Home Energy Report (HER) Programs without Sacrificing Savings – Rebecca Malfroid, DTE Energy</li> <li>National Energy Literacy Survey of High School Seniors – Gary Swan, National Energy Foundation</li> </ul>
		<u>Scaling Up Utility Program Savings</u> Moderator: David Jacot, Los Angeles Department of Water and Power <ul style="list-style-type: none"> <li>Behavioral Energy Efficiency Programs Also Boost Utility-Branded Marketplace Sales – Elena Dulys, Simple Energy</li> <li>Mass-scale, Multifamily Benchmarking and Conservation: Lessons from a Behavioral Energy and Water Competition Pilot – Galib Rustamov, Pomona College</li> <li>Insights from California's Very Own "Nudge Unit" – Josh Schellenberg, Nexant</li> <li>Designing Better Energy and Water Programs by Understanding the Nexus at the Residential Level – Kate Zerrenner, Environmental Defense Fund</li> </ul>
6B	Regency E	<u>Electric Vehicles: Past, Present, and Future</u> Moderator: Rachel Kuykendall, Sonoma Clean Power <ul style="list-style-type: none"> <li>Modeling Human Behavior Is Critical to Accurately Assess the Promise of Electric Vehicles for the Smart Grid and the Need for Charging Infrastructure – Colin Sheppard, Lawrence Berkeley National Laboratory</li> <li>Evaluating the Connecticut Dealer Incentive for Electric Vehicle Sales – TBD, Center for Sustainable Energy</li> <li>Consumer Behavior and the Plug-in Electric Vehicle Purchase Decision: A Research Synthesis – Margaret Taylor, PEEC, Stanford University</li> <li>Are Electric-Vehicle Rebates Just for Rich, White Men Buying Toys They Would have Bought Anyway that Don't Do Any Good? – Brett Williams, Center for Sustainable Energy</li> </ul>
		<u>Scaling Up Solar</u> Moderator: Dave Rensch-McCauley, US Department of Energy <ul style="list-style-type: none"> <li>Long-Run Effects of Competition on Solar PV Demand and Pricing – Kenneth Gillingham, Yale University</li> <li>Learning in Renewable Energy Ecosystems: A Knowledge Network Study – Mark Hand, LBJ School of Public Affairs</li> <li>Measuring PV Technical and Financial Feasibility for US Educational Buildings – Nichole Hanus, Carnegie Mellon University</li> <li>Making Decisions While the Sun Shines: Savvy Consumers and Strategic Technology Adoption Timing – D. Cale Reeves, LBJ School of Public Affairs</li> </ul>
6C	Regency F	
6D	Regency D	

Tuesday, October 17

3:30–5:00 pm **Concurrent Sessions**6E  
Big Sur**Using Unique Research and Engagement Processes to Develop Better Policies**

Moderator: Kristin Heinemeier, University of California, Davis

- **Low Income, High Efficiency: Appliance Markets and Purchase Behaviors in Low-Income Societies** – Joseph Lopes, DNV GL
- **Multi-Pronged Approaches to Public Engagement for City Climate Action Planning** – Andrea Martin, Cascadia Consulting Group
- **Recycling vs. Energy Programs - Who Wins? Cost-effectiveness, Energy Trade-Offs, and Integrated Planning** – Lisa Skumatz, Skumatz Economic Research Associates
- **Prove It: Generating Commercial Evidence on Behavior Change for UK Government Policymaking – A Case Study on Smart Meters** – Jeremy Vincent, UK Department of Business, Energy, and Industrial Strategy

6F  
Carmel**Panel Session: Buildings Are for People: Engaging Occupants on Resilience and Energy Efficiency**



Moderator: Kat Donnelly, AZENTIVE

**Panelists:**

- David Younan-Montgomery, AZENTIVE
- Lauren Taymor, DNV GL
- Syreeta Gibbs, California Public Utilities Commission

5:30–7:00 pm

Regency ABC

Sponsored by **Poster Session**Refreshments sponsored by 

Wednesday, October 18

7:30–8:30 am **Continental Breakfast and Registration (Regency Foyer)**8:30–10:00 am **Concurrent Sessions**7A  
Golden State**Panel Session: Constructing California's Climate Careerforce: Building California's Career Pipeline through Workforce Education and Training Programs**

Moderator: Melanie Peck, The Energy Coalition

**Panelists:**

- Baily Hall, Bay Area Community Resources, Climate Corps AmeriCorps
- Kecia Washington, Los Angeles Department of Water and Power
- Veronica Soto, Emerald Cities Collaborative
- Audrey Knox, The Energy Coalition

7B  
Carmel**Behavior Change through Rates and Bills**

Moderator: Kira Ashby, Consortium for Energy Efficiency

- **The Costs of Convenience—Do Auto Pay and Budget Bill Options Lead to Higher Energy Bills?** – Gomathi Sadasivan, DNV GL
- **Behavioral Drivers of Prepaid Electric Service** – Nat Treadway, DEFG
- **Time-Of-Use Pilot: Insights from Southern California Edison Customers** – Prapti Gautam, Southern California Edison.

7C  
Regency F**Motivating Behavior Changes Through Feedback**

Moderator: Aaiysha Khursheed, Opinion Dynamics

- **Reducing Contamination in Recycling** – Anna DeMers, C+C
- **Characters Animated by Real-Time Data Enhance Emotion and Conservation** – John Petersen, Oberlin College
- **Engage and Expand: How to Keep Home Energy Report Programs Fresh and Impactful** – Kelly Kuehn, Duke Energy
- **Incentivizing Energy Efficiency in Commercial Buildings through Peer Comparison** – Ammon Reagan, City and County of San Francisco

7D  
Big Sur**Panel Session: Artists and Climate Change and Climate Solutions?**

Moderator: Jenn Richler, Nature Energy and Nature Climate Change

**Panelists:**

- **Kirsi Jansa**, documentary filmmaker and producer of *Sustainability Pioneers and Gas Rush Stories*, co-founder of Creatives for Climate, visiting researcher and video journalist at The Institute for Green Science, Carnegie Mellon University
- **Beth Osnes**, applied theater practitioner, theater scholar, solo performer, co-founder of Inside the Greenhouse, University of Colorado
- **Chantal Bilodeau**, playwright and translator, artistic director of Arctic Cycle, founder of Artists & Climate Change, co-founder of Climate Change Theater Action

7E  
Regency E**Using Data to Support the Value Proposition to Users**

Moderator: Derek Okada, Southern California Edison

- **Effective Occupant Engagement Technology for Reduced Plug Load Consumption** – Moira Hafer, Stanford University
- **Smart Home Energy Management: A User Scenario Approach** – Marco Pritoni, See Change Institute
- **Using Building Analytics to Drive Behavioral Energy Savings** – Jaymes McMullin, McKinstry
- **Making It Personal—Aligning Customer Wants and Needs with the Universal Loading Order of Integrated Demand Side Management** – Sharon Talbott, ILLUME Advising



7F  
Regency D

**Panel Session: Know Your People, People: Understanding the Human Benefits of Low-Income Energy Efficiency Program Delivery**

Moderator: Scott Harrell, Tennessee Valley Authority

**Panelists:**

- Elizabeth Parsons, Tennessee Valley Authority
- Erin Gill, City of Knoxville, Tennessee
- Bruce Tonn, Three<sup>3</sup>

10:00–10:30 am **Morning Break**

10:30 am–Noon  
Regency ABC

**Closing Plenary**

**Profiles in Leadership – Lessons from the Past and Inspiration for Our Future**

Moderator: Linda Schuck, Founding Chair, BECC Conference, Berkeley Energy and Climate Institute

In this session, two of the most innovative, dedicated, and effective professionals in energy-efficiency will talk about their long experience, their different approaches, the strategies they use to stay the course through vacillating political climates, and their perspectives on the future.



- Amory Lovins – Co-Founder, Chair Emeritus and Chief Scientist, Rocky Mountain Institute. For 40+ years, Amory Lovins has been a leading, innovative thinker in the field of energy efficiency, has authored 31 books and 600 papers, and has advised major firms and governments in 65+ countries.



- Ralph Cavanagh – Co-Director, Energy Program, Natural Resources Defense Council. Since joining NRDC in 1979, Ralph Cavanagh has focused on removing barriers to cost-effective energy efficiency and on the role that utilities can play in leading a clean energy transition.

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**Future Conferences**

BECC 2018 / October 7-10, Hyatt Regency Capitol Hill, Washington, DC

BECC 2019 / November 17-20, Hyatt Regency, Sacramento, CA

BECC 2020 / December 6-9, Capital Hilton, Washington, DC

## Preconference and Postconference Workshops

### Sunday, October 15

- 8:30 am–5:00 pm | **Reaching Customers through Innovative Community Engagement Programs**  
Paul Markowitz, Efficiency Vermont, Vermont Energy Investment Corporation
- 8:30 am–5:00 pm | **Behavior Program Evaluation 101**  
Alexandra Dunn and Amanda Dwelley, ILLUME Advising
- 1:30 pm–5:00 pm | **Cause and Effect: Using RCTs and Machine Learning to Identify Interventions that Work**  
Maximilian Auffhammer, University of California, Berkeley and Mar Reguant, Northwestern University

### Wednesday, October 18

- 1:00 pm–4:00 pm | **Creating Effective Organizational Change: A Five-Step Framework**  
Christopher Payne, Lawrence Berkeley National Laboratory
- 1:00 pm–4:00 pm | **Transportation Workshop: Emerging Travel Behaviors, Mobility Choices of Millennials, and Impacts on Transportation Planning**  
Giovanni Circella, University of California, Davis
- 1:00 pm–5:00 pm | **You Want to Know What Gets Between Me and My Clean Energy Technology? Permitting. But That Can Change...**  
Margaret Taylor, PEEC, Stanford University

## Acknowledgements

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Lea Lupkin, ICF  
Beth Karlin, See Change Institute

#### Opening Dessert Reception

Beth Karlin, See Change Institute  
Gene Rodrigues, ICF  
Nick Lange, Vermont Energy Investment Corporation  
Lea Lupkin, ICF

#### Networking Dinners

Angela Sanguinetti, University of California, Davis  
Lea Lupkin, ICF  
Beth Karlin, See Change Institute

#### Evening Social

Laura Parsons, Center for Sustainable Energy  
Nichole Hanus, Carnegie Mellon University  
Beth Karlin, See Change Institute

#### Morning Running Group

Nick Lange, Vermont Energy Investment Corporation

#### Morning Yoga

Karen Ehrhardt-Martinez, Navigant  
Therese Peffer, BECI, UC Berkeley  
Beth Karlin, See Change Institute

#### Meet the Editors

Beth Karlin, See Change Institute  
Therese Peffer, BECI, UC Berkeley

#### Social Media Meet-up

Sea Rotmann, See Change Institute

#### Relaxation Room

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