




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

Conference Program

WEDNESDAY EVENING, NOVEMBER 7	
6:00-9:00PM	Conference Registration
6:30-8:30PM Edgewater Ballroom 1 & 2	<p>BEHAVIOR & INNOVATION Conference Kick-off and Networking Reception</p> <p>The conference will start with an interactive, provocative and fun session designed to stimulate discussion and develop new connections. Make your travel plans so that you won't miss the wine & appetizers, thought-provoking presentation, lively roundtables and opportunity to share experiences and explore new ideas about behavior, energy and climate change.</p> <p>Welcome: Linda Schuck, BECC Conference Chair, California Institute for Energy & Environment</p> <p>Moderators: Sharyn Barata, Vice-President, Opinion Dynamics Corporation Rick Diamond, Senior Advisor, California Institute for Energy & Environment</p> <p>Speaker: Andy Hargadon, Director, Center for Entrepreneurship University of California, Davis</p>
	 <p>Kick-off Reception Host</p>
THURSDAY MORNING, NOVEMBER 8	
7:30-8:30AM	Continental Breakfast & Registration
8:30-10:30 Edgewater Ballroom 1 & 2	<p>BEHAVIOR, ENERGY & CLIMATE CHANGE Opening Plenary</p> <p>Welcome: Linda Schuck, BECC Conference Chair Carl Blumstein, Director, California Institute for Energy & Environment (CIEE), University of California Steve Nadel, Executive Director, American Council for an Energy-Efficient Economy (ACEEE) Jim Sweeney, Director, Precourt Institute for Energy Efficiency, Stanford University (PIEE)</p> <p>Setting the Stage: Why Behavior is Important Loren Lutzenhiser, Conference Co-Chair and Professor, Portland State University</p> <p>Thinking about Our Impacts: Offsetting BECC's Climate Footprint Rick Diamond, Senior Advisor, CIEE and Gail Slocum, PG&E's ClimateSmart Program</p> <p>Anticipating the Future: Technologies, Cultures and Cheeseburgers Jamais Cascio, Institute for the Future; Fellow, Institute for Ethics & Emerging Technologies; Founder, WorldChanging.Com</p>
10:30-11:00	Break

THURSDAY MORNING, NOVEMBER 8 (CONTINUED)

11:00-12:30

BEHAVIOR TOPICS 1: Concurrent Sessions

Topic 1A

11:00-12:30

Edgewater
Ballroom

4

IMPROVING ASSUMPTIONS, THEORIES & MODELS

Moderator: Skip Laitner, American Council for an Energy-Efficient Economy

How Behavior Matters for Policy Options: The Impact of Preferences, Behavior and Changing Elasticities

Skip Laitner, Senior Economist for Technology Policy, ACEEE

Modeling Behavioral Change: The Evolution of Consumer and Producer Behavior

Marvin Horowitz, President, Demand Research

Economic and Non-Economic Approaches to Behavior: Insights for Energy Models

Charlie Wilson, Institute for Resources, Environment and Sustainability, University of British Columbia, Vancouver

Underlying every policy, legislative proposal, program and economic model is a set of assumptions about how organizations and individuals behave and change. This session will review the current assumptions and "common knowledge" underlying energy and climate change approaches and discuss emerging strategies to refine the models on which policies and programs are based.

Topic 1B

11:00-12:30

Edgewater
Ballroom

3

INDIVIDUAL BEHAVIOR IN A SOCIAL CONTEXT: THE IMPACT OF NORMS & NETWORKS

Moderator: Chris Nichols, Academy for Educational Development

The Secret to Using Social Norms to Reduce Household Energy Consumption

Robert Cialdini, W.P. Carey Distinguished Professor of Marketing and Regents' Professor of Psychology, Arizona State University

Relationships Matter: Using Social Network Analysis to Understand and Change Social Norms

Chris Nichols, Senior Marketing Manager, Academy for Educational Development, Center for Social Marketing and Behavior Change

The Bulb is the Catalyst: Accessible Actions Stimulate Networks for Change

Stuart Hickox, Executive Director, Project Porch Light, One Change

Behavioral theory informs real world programming to speed diffusion of innovation. Combining an understanding of social norms and "permission" behaviors with network analysis to map social chains of communication and power can help policy makers catalyze voluntary behavior change more quickly, for greater good. This session includes examples of effective social marketing programs addressing climate change (Project Porchlight and more), explanations of social norms and network analysis, and short interactive exercises.

Topic 1C

11:00-12:30

Edgewater
Ballroom

2

INFORMATION, EDUCATION & VOLUNTARY ACTION

Moderator: Karen Ehrhardt-Martinez, Conference Co-Chair, American Council for an Energy-Efficient Economy

Changing Behavior in Households and Communities through Education and Information: Critical Insights

Paul Stern, Director, Committee on the Human Dimensions of Global Change, National Research Council

Media, Messages and Messengers: Insights into Effective Communications and Behavioral Change

Renee Bator, Associate Professor, Psychology, State University of New York, Plattsburgh

Leveraging Social Networks to Motivate Voluntary Change in Energy Use

Jennifer Mankoff, and Susan R. Fussell, Human-Computer Interaction Institute, Carnegie Mellon University

Approaches and Effectiveness of Energy and Carbon Labels

Jennifer Thorne Amann, ACEEE

Education and information can accelerate citizen awareness and empower people to act. However, the truism that "knowledge is power," while encouraging the sharing of information, tends to overlook the complexities of effective communications that can successfully move people to action. This session will explore the effectiveness of information and education programs, highlighting lessons learned from the past 30+ years, and discuss a variety of new strategies for stimulating climate-positive action.

12:30-1:30

Lunch – Edgewood Deck & Edgewater Ballroom 1 & 2

THURSDAY AFTERNOON, NOVEMBER 8	
1:30-3:00	BEHAVIOR TOPICS 2: Concurrent Sessions
<p>Topic 2A 1:30-3:00</p> <p>Edgewater Ballroom # 4</p>	<p><u>BEHAVIOR AS A RELIABLE RESOURCE FOR ENERGY EFFICIENCY & EMISSIONS REDUCTIONS</u> Moderator: Loren Lutzenhiser, Conference Co-Chair, Portland State University</p> <p>How Conventional Policy Approaches Produce a Distorted Picture of Behavior Loren Lutzenhiser, Professor of Urban Studies and Planning, Portland State University</p> <p>Using Behavior Research at BC Hydro Ken Tiedemann, Power Smart, British Columbia Hydro</p> <p>Utility Perspectives on Behavior, Program Design and Regulatory Requirements in California Gene Rodrigues, Director of Energy Efficiency, Southern California Edison</p> <p>Regulatory Concerns and Opportunities Related to Behavior, Efficiency Acquisition and Climate Change Jeanne Clinton, Clean Energy Advisor, California Public Utility Commission</p> <p>Even if there is broad agreement that behavior, choice and human action are key to affecting climate change, it's another thing altogether to actually incorporate behavior change into energy efficiency policy and programs. There are real questions about whether we know enough about behavior to see it as a reliable resource. Can behavior changes result in persistent savings? How do "behavioral" interventions such as social marketing (that rely on voluntary action) compare to traditional "technology" programs (that often involve subsidies)? Can the behavior and technology approaches exist side-by-side, or should they be integrated? Should they be evaluated by the same standards? Do better understandings of behavior force us to rethink well-tooled energy planning concepts such as "free ridership," "non-energy benefits," "market transformation effects" and "spill-overs?" What are the barriers to improved behavioral interventions, as well the traps and perverse disincentives, found in current (and emerging) demand-side policy and program requirements? How does concern about global warming change this picture?</p>
<p>Topic 2B 1:30-3:00</p> <p>Edgewater Ballroom # 3</p>	<p><u>PEOPLE ARE DIFFERENT: UNDERSTANDING OPINIONS, ATTITUDES & SEGMENTS</u> Moderator: Sylvia Bender, California Energy Commission</p> <p>What Americans Think and Do About Climate Change: Insights from a Psychological Perspective Jon Krosnick, Frederic O. Glover Professor in Humanities and Social Sciences, Stanford University</p> <p>Results: Next 10/Field Global Warming Survey of Californians: Perceptions of Costs & Opportunities Noel Perry, President, NextTen & Mark DiCamillo, Senior Vice President, Field Research Corporation</p> <p>People Really ARE Different: Leveraging Segmentation to Accelerate Climate Action Bill Guns, President and CEO, SRI Consulting Business Intelligence</p> <p>The session will review the results of recent surveys that probe the opinions, attitudes and preferences of individuals. It will look at public opinions and attitudes about global warming, how they are changing and the conditions under which changes in attitudes are likely to translate into climate-positive actions. The session will also explore segmentation analysis - especially what it reveals about the different ways people respond to policy and program communications - and will suggest that new approaches are needed to move beyond "preaching to the choir."</p>
<p>Topic 2C 1:30-3:00</p> <p>Edgewater Ballroom # 2</p>	<p><u>BUILDING ON EXPERIENCE: WHAT WE CAN LEARN FROM ENTERTAINMENT & OTHER FIELDS</u> Moderator: Carrie Armel, Conference Co-Chair, Precourt Institute for Energy Efficiency</p> <p>The Use of Serial Dramas to Change Behavior Around the World William Ryerson, President, Population Media Center</p> <p>Assessing the Public Impact: <i>The Day After Tomorrow, An Inconvenient Truth, and LiveEarth</i> Anthony Leiserowitz, Director, Yale Project on Climate Change, Yale University</p> <p>Applying Health Promotion Intervention Principles to Climate Change Carrie Armel, Precourt Institute for Energy Efficiency & Stanford Medical School Prevention Research Center</p> <p>As with major public health challenges, climate change is most likely to be effectively addressed using multiple complementary approaches. Two approaches that work synergistically to promote individual/community level behavior change are entertainment education and community-based interventions. This session provides an introduction to the extraordinarily effective genre of serial dramas, evaluates the impact of the major entertainment education efforts on climate change to date in the U.S., and illustrates health promotion intervention principles using climate-relevant behaviors.</p>
3:00-3:30	Break

THURSDAY AFTERNOON, NOVEMBER 8	
3:30-5:00	BEHAVIOR TOPICS 3: Concurrent Sessions
<p>Topic 3A 3:30-5:00</p> <p>Edgewater Ballroom # 4</p>	<p><u>SCIENCE, POLICY DESIGN & POLITICAL LEADERSHIP</u> Moderator: James Goldstene, Executive Officer, California Air Resources Board</p> <p>Panelists: Art Rosenfeld, Commissioner, California Energy Commission Ralph Cavanagh, Senior Attorney, Natural Resources Defense Council</p> <p>This panel addresses the critical nexus between science and policy. The panelists and moderator, long experienced in bridging the two worlds, will reflect on "institutional behavior" in the policy arena and key lessons that can help researchers and policy makers working to address climate change. The discussion will also cover a range of topics including how science is translated into policy; whether policy-makers can lead public opinion on questions of science, such as global warming, or only follow; and the role of the media in influencing public attitudes and policy making on science-based issues.</p>
<p>Topic 3B 3:30-5:00</p> <p>Edgewater Ballroom # 3</p>	<p><u>MOTIVATING INDIVIDUALS TO ACTION: SUCCESS STORIES</u> Moderator: Sharyn Barata, Vice-President, Opinion Dynamics Corporation</p> <p>Behind the Curtain – How to Get the Vote Ernie Paicopolos, Principal, Opinion Dynamics Corporation</p> <p>The How, When and Why's of Effective Social Marketing Campaigns Richard Earle, Author of "The Art of Cause Marketing"</p> <p>Energy Star -- Moving from Awareness to Action Maria Tikoff Vargas, US EPA, Brand Manager for ENERGY STAR</p> <p>Join us for a dynamic session highlighting some of the most successful ways to motivate individuals to action. We will look at how successful political campaigns have tailored their messages to motivate constituents to vote for candidates and initiatives and how energy/climate programs can use the best techniques in political research to change consumer behavior. We will explore examples of good social marketing campaigns and what they have in common. Finally, we will discuss how EPA's ENERGY STAR campaign has applied behavior research to increase awareness of energy-efficient products and change consumer purchasing patterns.</p>
<p>Topic 3C 3:30-5:00</p> <p>Edgewater Ballroom # 2</p>	<p><u>MOBILIZING ACTION IN COMMUNITIES & GROUPS</u> Moderator: Merrilee Harrigan, Vice-President for Education, Alliance to Save Energy</p> <p>Community-Based Social Marketing: Research and Tools for Changing Energy-Use Behavior Edward Maibach, Professor and Director, Center of Excellence in Climate Change Communication Research, George Mason University</p> <p>Students as Change Agents: Universities at the Forefront of Climate Activism Crystal Durham, Executive Director, California Student Sustainability Coalition</p> <p>Walking the Talk: The Role of Communities of Faith in Making Radical (or not) Changes in Lifestyle Rev. Dexter McNamara, Executive Director, Interfaith Service Bureau</p> <p>Individual energy-use behaviors are influenced not just by the larger culture but also by the norms of the smaller groups of which we are part. This session explores the influence of college students, as they influence their institutions and each other, and faith communities, as they influence their members' environmental impact. A discussion of "Community-Based Social Marketing" will describe valuable research and tools that can help us understand and develop strategies to influence these and other populations.</p>
5:15	Demonstration of Stanford's New Bibliographic Database on BECC Topics – Edgewater 3
<p>5:30-7:30</p> <p>Edgewater Ballroom 1 & 2</p>	<p>RECEPTION & POSTER SESSION</p> <p>Enjoy light refreshments and stimulating one-on-one discussions with authors of more than 50 posters on behavior, energy and climate change and the conference sponsors. No host bar.</p> <p>Coordinators: Ed Vine, CIEE and Karen Sharp, CIEE</p>
8:00-9:30	<p>Participant Organized Informal Discussions: For those still going strong! <i>Check bulletin board at BECC Registration Desk for topics and locations</i></p>

FRIDAY MORNING, NOVEMBER 9	
7:30-8:30AM	Continental Breakfast & Registration
8:30-9:45 Edgewater Ballroom 1 & 2	INFLUENCING CLIMATE BEHAVIOR Keynote Plenary Cathy Zoi, Founding CEO, Alliance for Climate Protection <p>The Alliance for Climate Protection is spearheading a massive campaign to persuade Americans -- and people elsewhere in the world-- of the importance and urgency of adopting and implementing comprehensive solutions for the climate crisis. The organization is chaired by Former Vice President Al Gore who recently gave his Nobel Peace Prize award money to further its work. The Alliance's founding CEO will discuss its program to engage people from all walks of life in the solutions to the climate crisis. In particular she will provide examples from the Alliance's 'surround-sound' portfolio of activities, including the recent global Live Earth concerts, viewer-generated advertising contests, collaborations with new community-based organizations and a forthcoming substantial mass media campaign.</p>
9:45-10:15	Break
10:15-11:45	BEHAVIOR TOPICS 4: Concurrent Sessions
Topic 4A 10:15-11:45 Edgewater Ballroom # 4	<u>ACCELERATING TECHNOLOGY SOLUTIONS</u> Moderator: Martha Krebs, California Energy Commission Human-Centered Technology Innovation Craig Lawrence , Practice Lead, Consumer Experience Design, IDEO Involving Stakeholders from Conception to Adoption: Demand Response Case Study Paul Wright , A. Martin Berlin Chair in Mechanical Engineering, UC Berkeley Accelerating Technological Change: Getting Consumers to Pay Attention to Fuel Economy Tom Turrentine , Research Anthropologist and Director, Plug-In Hybrid Electric Vehicle Center, UC Davis
Topic 4B 10:15-11:45 Edgewater Ballroom # 3	<u>LEVERAGING PAST LESSONS FOR CURRENT ACTION</u> Moderator: Jane Peters, Research Into Action Lessons from 30 Years of Energy Efficiency Program Implementation Jane Peters , President, Research Into Action Closing the Loop between Evaluators and Implementers; Innovation and Experimental Design Ed Vine , Research Coordinator, California Institute for Energy & Environment Discussants: Valerie Richardson , Director, Consumer Energy Efficiency, Pacific Gas and Electric Company Beth Sachs , Executive Director, Vermont Energy Investment Corporation <p>Two speakers and two discussants with a wealth of experience in making energy efficiency programs work will talk about how evaluation, innovation, experimental design and internal program management practices can lead to programs that are effective in changing the ways people and organizations use energy and reduce GHG emissions.</p>
Topic 4C 10:15-11:45 Courtyard 203 Past the restaurant Follow the signs	<u>WHAT MOTIVATES BUSINESSES TO CHANGE</u> Moderator: Steve Schiller, CIEE and California Climate Action Registry Panel: Joel Levin , Vice President, Business Development, California Climate Action Registry Robert Parkhurst , ClimateSmart Manager, Pacific Gas and Electric Company Robyn Beavers , Director of Sustainability, Google, Inc. (invited) Corporate Representatives among conference participants <p>The session focuses on corporate behavior and how and why organizations make changes with respect to energy, environmental, and sustainability opportunities. Panelists will present case examples and perspectives about what motivates businesses to change and how policy makers, researchers, and others can most effectively interact with organizations to accelerate energy efficiency and climate positive decisions. There will be an interactive discussion on lessons learned and best practices.</p>

FRIDAY, NOVEMBER 9 (CONTINUED)

11:45

Lunch and Plenary Panel

12:30-2:00
Edgewater
Ballroom
1 & 2

BEHAVIOR & POLICY: FUTURE DIRECTIONS

Closing Plenary

Moderator: Ralph Cavanagh, *Natural Resources Defense Council*

Panel:

Jackalynne Pfannenstiel, Chair and Commissioner, California Energy Commission
Rep. Brian Baird, Chair, US House Science Subcommittee on Research and Science Education
Dian Grueneich, Commissioner, California Public Utilities Commission
Ira Ruskin, CA Assemblymember, 21st Assembly District

This panel brings together an extraordinary group of policy-makers whose decisions will shape our future. They will reflect on themes and lessons of the conference and on the value of understanding and applying of behavior knowledge in the current policy context and in the long-term.

Itron

Closing Lunch Host

2:00

Conference Adjourns

2:00-4:00
Edgewater
Ballroom
4

PLANNING WHAT'S NEXT

Post-Conference Informal Session

Convener: Carl Blumstein, Director, CIEE

Facilitators: Rick Diamond, Senior Advisor, CIEE & John Weyant, Deputy Director, PIEE

By popular request, we have added this post conference informal session as opportunity to discuss issues, evaluate results and coordinate more concretely the next steps to follow-up on the BECC conference.

Acknowledgements

Convening Directors

Carl Blumstein, CIEE, University of California
 Steve Nadel, ACEEE
 Jim Sweeney, PIEE, Stanford University

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Linda Schuck, CIEE, University of California
Co-Chairs
 Karen Ehrhardt-Martinez, ACEEE
 Loren Lutzenhiser, Portland State University
 Carrie Armel, PIEE, Stanford University

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 Jane Peters, Research into Action
 Steve Schiller, CIEE, CA Climate Action Registry
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