
INFORMAL SESSIONS

TUESDAY 2:00 PM – 4:00 PM

International Collaborations in Buildings Energy Efficiency with China and India (Scripps)

Reshma Singh, *Lawrence Berkeley National Laboratory*; reshmasingh@lbl.gov

Two bilateral building energy R&D programs such as the US-China Clean Energy Research Center (CERC) and US-India Joint Center for Building Energy Research & Development (CBERD) are housed at Lawrence Berkeley National Lab. What are some of the opportunities and challenges, highlights and outcomes of these programs? Join our interactive panel and presentations about these programs and enjoy some international flavor.

CEIP: An Opportunity for Low-Income Energy Efficiency under the Clean Power Plan (Kiln)

Martin Kushler and Sara Hayes, *American Council for an Energy-Efficient Economy*; MGKushler@aceee.org; SHayes@aceee.org

In spite of the Supreme Court “stay” on the implementation of the Clean Power Plan (CPP), much activity is proceeding regarding the Clean Energy Incentive Program (CEIP) provisions of the proposed CPP. This session will provide an overview of this potentially excellent opportunity to advance energy efficiency in the low-income sector, including summarizing the latest information from the federal government (EPA, OMB) as well as presenting examples of activity in leading states. Come to hear the updates, and share information on plans and activities in your state(s).

When the Rubber Hits the Road: EE Impact Measurement in an All-source Procurement Framework (Toyon)

Christina Lawson (Torok), *Evergreen Economics*; Lawson@evergreenecon.com

This informal discussion will consider emerging EE performance requirements associated with DER competitive solicitations, and current EM&V methodologies. These worlds are fairly disconnected, but they attempt the same thing, to measure and verify savings. We will share examples of RFO-based contract performance requirements for EE grid services, and outline analogous protocol compliant evaluation methods. Participants are encouraged to present examples and will be invited to share their observations of key differences. How are the risk, cost, benefit and uncertainties different? How does this look to different stakeholders: implementer, administrator, regulator and ratepayer. What are differences in underlying information needs?

Strategies, Methods, and Best Practices for Estimating Behavior-based Energy-efficiency Potential (Heather)

Karen Ehrhardt-Martinez, *Navigant* and Michael Li, *United States Department of Energy*

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Come learn about methods used to account for behavioral savings in energy efficiency potential studies. The US Department of Energy recently held a workshop examining different approaches to estimate potential energy or carbon savings through behavior changes. We will share a little from this workshop, talk about the pros and cons of different approaches, their costs, and things to consider for future potential studies.

Supporting Industry Advancements in Next-Generation M&V (M&V 2.0) Methods, Tools, and Applications (Nautilus)

Ellen Franconi, *Rocky Mountain Institute*; efranconi@rmi.org

“M&V 2.0” is a catchall phrase for how M&V tools and methods are leveraging ubiquitous data and powerful computing to enable broader industry changes. What this hot-button phrase means isn’t always clear. This open-discussion session will examine key considerations for understanding M&V advances; improving energy efficiency valuation methods; and supporting industry efforts to develop, apply, and advance the next stages of M&V methods/tools. A diverse team of stakeholders (RMI, DNV GL, PG&E, EnergySavvy, Open Energy Efficiency, LBNL and DOE) have collaboratively drafted a white paper on emerging M&V capabilities, and they will frame the issues and questions for discussion.

Leveraging Geo-Targeting and Data Integration to Tailor Energy Efficiency Program Delivery and Strategy (Oak Shelter)

Rich Crowley, *DNV GL*; Richard.Crowley@dnvgl.com

During the first half of this Informal Session, the DNV GL team, utilities, and program administrators will present explanations of how we have used integrated data streams across program portfolios to conduct valuable spatial analysis, data visualization, and strategy development followed by Q&A. In the second half, the presenters will invite audience members to engage with us in an open discussion about how the above methods represent opportunities for expanding understanding of their own markets and customers.

Shining a Spotlight on the Shadow Economy HVAC Changeouts in California (Evergreen)

Amber Watkins, *DNV GL*; Amber.Watkins@dnvgl.com

California law requires permits and code compliance (P&C) for new residential HVAC change outs. However, stakeholders characterize HVAC change outs as an “underground economy” with an assumed P&C rate of 10%. It is also assumed that increasing the P&C rate will result in improved efficiency. The CPUC commissioned this study to start establishing and estimating metrics to assess progress toward the state’s goal to improve P&C. This discussion includes: the studies multiple applied methods and metrics, qualifying the level of savings (or lost opportunities) for HVAC change outs, managing response bias in an underground economy, and variability of code requirements and access to date.

Where are the Deltas? — Opportunities for Energy Efficiency Programs in a Time of Rising Baselines (Triton)

Chris Granda, *Appliance Standards Awareness Project (ASAP)* and Chris Neme, *Energy Futures Group*

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The 30 year partnership between mandatory standards and voluntary programs has been dynamic and productive without being particularly coordinated. For the last eight years we have seen steady support for state and local energy efficiency programs, for federal appliance labeling programs, for federal efficiency standards and for state-level standards in California. These positive and sustained trends have helped flatten the growth in national electricity sales, and have contributed to the decoupling of electricity consumption from economic growth in the US.

Success is now challenging the established models for both voluntary programs and mandatory standards. Rising baselines are taking some popular energy efficiency measures out of play for voluntary programs. Rapid technology change and the diversity of the marketplace is pushing against the constraints of the standard setting process.

How do both advocates of mandatory standards and providers of voluntary programs adapt to these changing conditions while continuing to drive energy efficiency forward? In this informal session Chris Granda from the Appliance Standards Awareness Project (ASAP) and Chris Neme of Energy Futures Group (EFG) will lead a discussion exploring technology development, market changes and the need for regulatory innovation.

Tackling Climate Change through Zero-Energy Urban Districts (Acacia)

Chuck Kutscher, *National Renewable Energy Laboratory* (Chuck.Kutscher@nrel.gov)

Buildings are responsible for approximately 40% of US carbon emissions and consume 75% of US electricity. Rapidly growing cities are responsible for 70% of the world's fossil fuel emissions and over 1,000 US mayors have endorsed a climate change agreement. Great progress has been made in developing zero energy buildings. Extending these to high-efficiency zero energy urban districts is the key to addressing climate change. This informal session will be an opportunity for researchers, building designers, city planners, and others to share their knowledge in creating these districts, which are now occurring in California, Colorado, and around the country.

HVAC Market in Flux: What Does the Data Say? (Fred Farr Forum)

Chris Cloutier, *D+R International* (ccloutier@drintl.com)

On July 1, a new Federal minimum efficiency went into effect for HVAC products. For the first time ever, the Federal government created a federal minimum efficiency standard for HVAC products that is based on climate regions and not a single, national standard. This change is important, including the energy savings captured by this new standard. But, what does this change mean for programs? How will your HVAC programs adapt to these changes? Join us for a data-based discussion of this spec change!

Assessing the Impact of Benchmarking and other Building Performance Policies (Dolphin)

Jayson Antonoff, *Institute of Market Transformation*; Adam Hinge, *Sustainable Energy Partnerships*; jayson@imt.org

Now that multiple cities in the US have had benchmarking and related energy efficiency requirements (e.g. audits and RCx) in place for several years, the overarching question remains: are these policies having the desired impact? We would like to have an open conversation with city representatives, academics, NGOs, and others to a) survey the efforts under way to assess impacts in these jurisdictions, b) discuss the results that have been documented thus far, and c) review the methodologies being used to evaluate impacts. After these updates and the ensuing discussion, we hope to identify some tangible next steps that could be undertaken to answer the primary question more effectively.

Fixing the Window Gap – What’s Happening in Insulating Window Covering Options? (Chapel)

Stacy Lambright, *Hunter Douglas* and Lisa Skumatz, *Skumatz Economic Research Associates*
(stacy.lambright@hunterdouglas.com; skumatz@serainc.com)

Audits of older homes commonly find energy losses through windows, but programs have few options to address this. Finally, real progress is being made – in measurement, ratings (and ask about the pilot program). Come to this session, and find out:

- New information on types and performance of window coverings and treatments – including new, high-tech insulating window treatments – and how / why they work
- Progress on a rating council which is rating, certifying, and labeling the energy performance of window attachments. This universal metric (like R-value) will help utilities and implementers identify those measures with great insulation performance.
- Lab and energy modeling results on a variety of window treatments
- Research on gas and electric energy savings, NEBs, cost-effectiveness, and behavioral and climate influencers for window shade measures
- Hear about a new pilot program partnership between utilities and a window shade company – and how you can participate.

Is a Green Bank Right for My State? Insights from the ACEEE Green Banks Study (Marlin)

Chris Kramer, *Energy Futures Group* (ckramer@energyfuturesgroup.com)

The past several years have seen a steady growth in the launch of financing-focused entities, including several green banks and a number of additional green bank “style” administrators. An international “Green Bank Network” was announced at the Paris Climate Talks in December 2015, and some green banks are even emerging at the local or regional level. Yet questions such as “what is a green bank?” are still common in the energy efficiency industry and beyond. This session will provide a sneak peek at insights from the forthcoming ACEEE green banks study, which attempts to define green banks, describe various models and roles they can play, explore metrics for judging their success, and offer quantitative results and lessons learned to date. These insights will feed into a discussion among session participants as to whether a green bank is right for their state or local jurisdiction, options for what a green bank might look like, and metrics for tracking progress.

The Next Standby Power Specification Will be 0 Watt (Sanderling)

Alan Meier, Lawrence Berkeley National Laboratory (akmeier@lbl.gov)

We will discuss an entirely new approach to reducing standby power draw in appliances and equipment while, at the same time, encouraging greater resiliency to outages and responsiveness to grid events. Does the approach make sense? Can it be improved? That's why your participation is needed. This session is hosted by Hans-Paul Siderius, Alan Meier, and others.

Energy Codes of Cooperation: Better Implementation through International Exchange (Afterglow Living Room)

Meredydd Evans, Pacific Northwest National Laboratory (m.evans@pnnl.gov)

Building energy codes can deliver many benefits, but only when they are implemented. Different jurisdictions have developed diverse approaches to implementing building energy codes. This session will share results of a comprehensive study of implementation practices across 22 countries, followed by a discussion of how to use international exchange to improve code practices, both in the U.S. and abroad.

Energy Efficiency in the Higher Education Curriculum (Hearth Living Room)

Joel Swisher, Western Washington University (joel.swisher@wwu.edu)

Although energy efficiency has become an essential resource, it is still nearly invisible in most higher education programs. We will share ideas and experiences regarding the teaching and learning of the technical, business and policy dimensions of energy efficiency as a resource.

Energy Efficiency for All Project (Oak Knoll 1)

Stephen Morgan, *Clean Energy Solutions*; smorgan@cleanenergysol.com

Energy Efficiency for All is a major project to address EE for affordable housing in 12 states by improving utility incentives, assessing demand response, renewables, healthy homes, and solar sources of funding and investment.

Pushing Building Integration for Grid Integration (Embers Living Room)

Brendan Owens, *US Green Buildings Council*; (bowens@usgbc.org)

An increasing suite of technologies and strategies are available to integrate buildings with energy infrastructure in significant ways: microgrids, storage, distributed generation, demand response, district energy systems. USGBC will host a lively discussion on what is standing in the way of a greater scale up of these technologies – and using them to maximum benefit. The discussion will highlight market mechanisms to push deployment of these approaches on both the building side and the grid side.

Sociocultural Factors Influencing Home EE Upgrade Adoption (Manzanita 2)

Laura Parsons, Center for Sustainable Energy

A discussion with the research team exploring sociocultural factors influencing adoption of home energy efficiency upgrades, with a focus on Latino households in California. The team has conducted focus groups and structured interviews, and is currently designing online experiments to test messaging and framing around motivations and financing.

Community Optimization Planning Tools: What's needed to Help Local Governments, Developers, and Utilities Move Forward in Creating Sustainable and Resilient Communities? (Willow Inn 1)

Joan Glickman, US Department of Energy (Joan.Glickman@ee.doe.gov)

Cities across the world are talking about resiliency but uncertain how to proceed with infrastructure development, energy planning, and a host of related challenges. This session will focus on defining 1) what resources already exist; 2) what modeling tools and other resources are needed; 3) next steps to develop and test these tools.