
INFORMAL SESSIONS

THURSDAY 2:00 PM – 4:00 PM

Campaigning for a Better National Model Energy Code: Advocates' Briefing on the current campaign to make the 2018 International Energy Conservation Code more energy-efficient (Chapel)

Harry Misuriello, American Council for an Energy-Efficient Economy (HMisuriello@aceee.org)

The International Code Council (ICC) is more than halfway through its process this year to update the International Energy Conservation Code (IECC) for the 2018 edition. Efficiency advocates are concerned that the 2018 IECC may be the first National Model Energy Code to fail the DOE “determination” test to save more energy than its previous edition. This is because the ICC’s Residential Energy Committee passed numerous measures that weaken the prescriptive path, the performance path and the new Energy Rating Index (ERI) compliance path. This Advocates’ Briefing will review the technical issues that may reduce energy efficiency features in the model code as well as campaign efforts to defeat such measures using the ICC’s nationwide electronic voting system, cdpACCESS. This session should be attended by Summer Study attendees representing state and local governments who are interested in advocating for more efficient energy efficiency codes.

Improving ZNE Programs by Engaging the Design Community (Fred Farr Forum)

Ryan Kerr, Gas Technology Institute (representing California ETCC); (Ryan.Kerr@gastechnology.org)

California has the most progressive ZNE goals in the country. Among many, two essential stakeholders are the building design community and utilities. The California Emerging Technology Coordinating Council, and its advisors, are beginning work on a project to identify the key areas of focus where the utility ET programs have the greatest potential to better engage with the building design community to successfully drive ZNE goals forward. Please join members of the California ETCC and its advisors to help guide the project, this initial step will help the Council identify the right engagement points and platforms.

Emerging Technologies: What Is New and What Is the Cost? (Heather)

Brian McCowan, *ERS*; bmccowan@ers-inc.com

This session will utilize a 2016 ERS emerging technology study conducted for NEEP as the kicking off point for a discussion regarding technologies that promise significant savings potential. The ERS/NEEP study covered the technical basics, market status, challenges, and incremental costs of several technology categories.

Session participants will be encouraged to add to the following list of technologies:

- Variable refrigerant flow heat pumps
- LED fixtures with integrated multi-function control systems
- Controllable “smart” home energy management devices
- Advanced thermostats and integrated “cloud” based controls
- Gas fired heat pump water heaters
- Advanced motor technologies beyond EC motors
- Advanced commercial refrigeration

Deep Energy Efficiency —Getting to Scale: Lighting Retrofits and the UC 2025 Carbon Neutrality Initiative (Kiln)

Karl Brown, University of California, Berkeley Energy and Climate Institute/CIEE (karl.brown@uc-ciee.org)

Over the last decade the University of California (UC) has implemented energy efficiency retrofits avoiding over 10% additional greenhouse gas emissions —relative to a 2014 baseline including over 100 million gross square feet of floor area. UC’s Carbon Neutrality Initiative has now established a goal of net zero greenhouse gas emissions by 2025 (scopes 1 and 2). A key strategy toward this goal is doubling or tripling the pace of energy efficiency retrofits, challenging traditional planning and financing. We are exploring new planning models for comprehensive lighting retrofits—potentially applicable to a large fraction of floor area and to other end-uses.

Extended Motor Product Database (XMP) (Nautilus)

Geoff Wickes, *Northwest Energy Efficiency Alliance*; gwickes@neea.org

The Extended Motor Product Labeling Initiative (EMPLI) was launched shortly after the 2013 ACEEE Summer Study. Since then, three working groups (pumps, fans, and compressors) have identified motor-driven commercial and industrial products with superior energy performance. NEEA has designed a marketplace database (XMP Database) in which these products and utility program incentives can be matched and tracked. We will have a discussion on how to turn this into a national asset that can be used by all interested OEMs, programs administrators, and implementers.

Leveraging Field Inspector’s Time for Energy Code Enforcement (Scripps)

Russell King, *Benningfield Group, Inc.*; russ.king@benningfieldgroup.com

Most energy features installed in buildings are determined by building energy codes. California has some of the strictest energy codes in the nation. As with many other states, enforcement of the energy code falls to the local building departments. As the code have gotten more and more strict, it has become more and more apparent that enforcement is seriously lacking. This session would discuss ways to leverage the limited time building inspectors spend at a job site to improve energy code enforcement.

The Five “D’s” of the Smart Grid – Dodge, Duck, Dip, Dive and Delay! (Triton)

Sam Piell, Pacific Gas and Electric and Mark Martinez, Southern California Edison (s4p5@pge.com; mark.s.martinez@sce.com)

As more renewables integrate themselves into the grid, it becomes critical for electric utilities to not just to double down on energy efficiency, but to get the customer be a part of the smart grid and clean energy solution! Dynamic pricing, time of use, and “smart rates” all mean we need to learn the new dance steps of Dodge, Duck, Dip and Delay! (the five “D’s of DERs). When the grid needs to be “fast and flexible” it is no longer just how much energy you use, but when, where, what kind, and for how long! This discussion will focus on what the electric utilities are strategically thinking about in terms of managing consumer choices in shifting and reducing load, as well as increasing load, and when it matters most. We will share DR emerging technology projects and ask participants to vote on what appear to be the most promising for meeting California’s needs for the Grid of the Future!

Strategies for Building Decarbonization (Evergreen)

Merrian Borgeson, *Natural Resources Defense Council*; MBorgeson@nrdc.org

Learn about building decarbonization strategies, with a focus on electric end uses, including policy and market development for electric heat pump technology and control strategies in residential and commercial buildings. Identify opportunities for collaboration on research and policy development.

How HVAC Will Save Solar: Smart HVAC Systems Role in Providing Grid and Consumer Benefits (Oak Shelter)

John Taylor, *Consortium for Energy Efficiency*; jtaylor@cee1.org

The escalation of distributed energy resources, many of which are intermittent in nature, is creating new challenges for utilities and other entities tasked with balancing the grid. This trend is also raising important questions about rate design for residential customers. Smart, efficient, connected products that are price responsive and capable of participating in demand response programs – particularly thermostats, HVAC equipment, and water heating – having the potential to offer a partial solution to these challenges. During this informal session, real-world case studies of how these smart products have contributed grid benefits will be shared. Attendees will also gain an update on relevant standards and specifications in development related to the identification and promotion of smart systems that will empower customers served by the “utility of the future.” **Lights, Meters, Study!**

Lights, Meters, Study! A Preview of the Upcoming California Residential Lighting Inventory and Metering Study (Acacia)

Jenna Canseco, *DNV GL*; Jennifer.Canseco@dnvgl.com

In 2010, the CPUC published the largest residential lighting inventory and metering study to date, installing 7,300 meters in more than 1,200 California homes. The study provided break-through insights regarding how consumers use lighting and established hours-of-use by lamp technology and location. The study is still widely-referenced today, but the data are aging. The CPUC will soon conduct another study of similar scale, the results of which will help inform the next generation of residential lighting programs in California and beyond. This session will preview the proposed approach and present an opportunity to provide feedback on study goals and priorities.

Residential Energy Labels: Getting to Scale through Mandates or Voluntary Approaches? (Toyon)

Richard Faeseey, Energy Futures Group (rfaeseey@energyfuturesgroup.com)

Residential energy labels have the potential to value energy efficiency in the real estate transaction and beyond. However, significant market penetration of energy labels is required for it to realize its potential impact. Multiple cities and towns are now exploring adopting mandatory energy disclosure at point of sale. Berkeley, CA was successful in adopting a mandatory energy label. At the same time, the State of Massachusetts attempted mandatory energy labels but was shut down by strong realtor opposition. Join us to discuss pros and cons of encouraging versus mandating home energy ratings and help frame the future of residential energy labels.

Connected Thermostats: How Should We Estimate Their Energy Savings? (Dolphin)

Abi Daken, US Environmental Protection Agency (daken.abigail@epa.gov)

Connected thermostats almost certainly save energy, but how do you estimate those savings if you are a utility? Manufacturer? Consumer? ENERGY STAR? We will discuss the problems of baselines, secret sauces, setpoints, algorithms, and extracting simple conclusions from a flood of data. This informal session will be hosted by Abi Daken (EPA), Michael Blasnik (Nest), and Alan Meier (LBNL).

Energy Efficiency Programs and Policies to Support China's Energy & Climate Good (Sanderling)

Bo Shen, Lawrence Berkeley National Laboratory, boschen@lbl.gov

China is the world's largest energy user and emitter of greenhouse gases. Over the last ten years, the country has made tremendous efforts by issuing policies and carrying out a wide variety of programs to improve energy efficiency in homes, buildings, and factories through the country's last two Five-Year Plans (FYPs). Moving into the new 13th FYP (2016-2020), however, China is facing a challenge in achieving greater efficiency gains while the country's economy enters into the "new normal" and as some perceive that the low-hanging fruit in energy efficiency have been harvested. Come join this informal session to hear insights from experts on China's energy efficiency progress and issues and to share your ideas and current work helping China move forward to advance energy efficiency.

Climate Action Plans: What's Needed to Support Robust Buildings Elements (Afterglow Living Room)

Liz Beardsley, United States Green Building Council (ebeardsley@usgbc.org)

Leading states and cities have developed, or are developing, climate action plans. Among other things, these plans lay out GHG emission reduction targets, and typically identify goals and strategies by sector. Buildings are a critical element of these plans and can be a focal point for key climate strategies including efficiency, renewable energy, green infrastructure, and others. USGBC and NASEO will lead this discussion of how best the building efficiency community can maximize the opportunity to leverage climate action plans to achieve robust, effective buildings policies.

The End of Residential Lighting: How Soon Will We Be Done and Can We Fill the Gaping Chasm Left Behind? (Embers Living Room)

Glenn Reed, Energy Futures Group; (greed@energyfuturesgroup.com)

A number of converging factors – rapid commercialization of LEDs, high customer satisfaction, proposed Federal CFL and LED standards, and relaxed ENERGY STAR lifetime requirements for LEDs – are accelerating the pace at which residential sockets are being filled with efficient lamps. There will likely be limited, if any, need for continued PA support of residential lighting beyond the end of this decade. Given the disproportionate contribution of residential lighting to PA portfolios, can the “hole” created by this success be filled with savings from other technologies and practices?

India Energy Efficiency Building Code Implementation (Hearth Living Room)

Sameer Kwatra, *Natural Resources Defense Council*; (SKwatra@nrdc.org)

This session will discuss latest efforts on building energy code implementation in India. Some of these include an online compliance system, simplification of local codes and state level implementation.

Re-defining the Preponderance of Evidence Standard (Manzanita 1)

Alejandra Mejilla, CALTF (Alejandra.mejilla@futee.biz)

This session is in response to proposed guidance from the California Public Utilities Commission that CPUC staff and the CALTF develop a consensus based approach to defining the “preponderance of evidence standard” for early retirement EE projects. The session will discuss various alternative proposals aimed at helping regulatory and program staff document and evaluate early retirement projects that wish to use existing baselines. The session would benefit greatly from a variety of stakeholder input.

Redesigning Test Methods to Prevent Gaming (Manzanita 2)

Matt Malinowski, ICF International (matt.malinowski@icfi.com)

Given recent scandals with gaming of efficiency test methods (e.g., VW recall of diesel cars), policymakers need a new approach to testing that will reduce the risk of gaming without imposing excessive burden on manufacturers. This will be a discussion of how to jointly optimize repeatability, representativeness, and reasonableness in today’s world of highly configurable, software-enabled products. Ideas for discussion include random variation during testing, testing worst-case conditions, and how efficiency requirements would need to change in response.

What's the State of Your State? Current Efficiency Mix of HVAC Equipment at the State Level (Oak Knoll 1 Living Room)

Daniel Vida, D+R International; (dvida@drintl.com)

Please join Dan Vida and Chris Cloutier from D+R International in an open Q&A session about state level HVAC markets across the country.

Standardizing Connected Device Manufacturers' Data for Utility EE Programs (Willow Inn 2)

Patrick Hughes, National Electrical Manufacturers Association (Patrick.Hughes@nema.org)

Standardized data from connected technology manufacturers would help reduce utilities' administrative costs for EE programs. As a standards development organization, the National Electrical Manufacturers Association (NEMA) is in a position to standardize data formats across connected device manufacturers (thermostats, lighting systems, building energy management systems, submeters, smart meters, and more). This session will be focused on collecting information on the data needs of utilities and EE program administrators, existing efforts to standardize data, and how utilities and others can partner with manufacturers to standardize data formats.

Something to CHEER About! (Marlin)

Stephen Bickel, D+R International (SBickel@drintl.com)

Feeling panicked by the lighting cliff? Wish there was a measure that you could implement at the same kinds of scale as residential lighting, but which also addressed residential plug load? Come learn about the Coalition for Home Electronic Energy Reduction (CHEER) which is coordinating an effort to enable utility funded direct-install of Tier 2 AV Advanced Power Strips by pay-TV provider technicians. Sponsored by D+R International and SMUD.