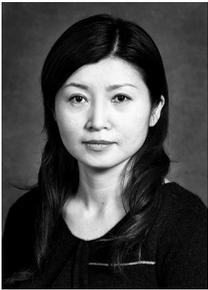


Sunday, August 21, 2016

ACEEE Summer Study at Asilomar, California

Co-Chairs' Welcome



Nan Zhou, Conference Co-Chair, Lawrence Berkeley National Laboratory

Since the last Summer Study, world leaders have reached a landmark achievement. In November of 2014, the presidents of the US and China announced an agreement that includes more aggressive targets for carbon emissions reductions by the United States and a first-ever commitment by China to stop its emissions from growing by 2030.

This agreement, and other previous accomplishments, paved the way to achieve a global agreement at the United Nations Climate Conference in Paris in 2015. Through this 21st Conference of the Parties (COP21) to the UN Framework Convention on Climate Change, representatives of 195 nations reached a landmark accord. A key step forward in this agreement is that it requires action in some form from every country, developed and developing. This new framework establishes

a foundation for countries to collaboratively put the world on a more sustainable path and helps us pass on a legacy to our children and grandchildren that gives us pride.

The extent to which countries follow through will determine if this agreement becomes a true turning point for the world; that is where the Summer Study becomes incredibly important. Energy efficiency is crucial in meeting these commitments. Summer Study panels comprehensively represent the means with which we influence the adoption and realization of energy efficiency in our economy. To improve our chances of success we need to identify more cost-effective strategies, more optimal integration, and solutions with greater scale of impact, hence the focus of this Summer Study: From Components to Systems, From Buildings to Communities.

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Welcome to Summer Study!



Jennifer Amann, Buildings Program Director, ACEEE

On behalf of ACEEE, I'd like to welcome you all to the 19th biennial ACEEE Summer Study on Energy Efficiency in Buildings.

Since the first Summer Study in 1980, the efficiency community has come together to learn about the latest research in buildings energy efficiency, as well as lessons from efficiency programs and policies, and new strategies for ongoing growth and success. This year is no different. We have an agenda packed with top-notch research findings and a full house of participants eager to engage and explore new ideas together.

To set the stage for the week, let's take a look at recent impressive gains in buildings energy efficiency. Results of the 2012 Commercial Building Energy Consumption Survey released this spring show that energy use per square foot of floor area declined 12% relative to 2003. Of particular note is the significant decrease in lighting energy use—a whopping 46% decline from 2003, despite a 22% increase in building area. Similar trends exist for residential buildings—energy use per home has shown small but steady declines since 1993; newer homes built from 2000 to 2009 use about the same amount of energy as the average, but are 30% larger.

These efficiency improvements come from a mix of ongoing technological innovation, shifting demographic trends, and successful policies and programs targeting buildings. And these numbers don't yet reflect the impacts of recent progress on both the policy and program fronts. The most recent building codes require construction that is over 30% more energy efficient than those of a decade ago. The historic pace of action on appliance and equipment standards by the Obama administration will cut consumer and business utility bills by \$540 billion through 2030 (with more standards expected to be completed by January 2017). Annual efficiency investments through utility customer-funded programs grew to roughly \$7 billion in 2014; further growth could more than double program spending by 2025.

Continued on back page

Co-Chairs' Welcome continued

In order for us to be successful, we need to maintain the existing trust and favorability energy efficiency enjoys in public opinion by continuing to not settle for anything less than transparency, traceability, and accuracy of energy savings projections and processes. The pursuit of these crucial characteristics ideally will not slow down the pace, which can be accomplished by uncovering creative ways to further streamline programs, identifying key leverage points and maximizing innovation. Shifting from components to systems, from buildings to communities will require multi-discipline approaches, so in addition to attending panels that align with your core focus, we encourage you to explore other panels to gain a better understanding of your counterparts' different perspectives. By doing so, you will have an opportunity to uncover ideas for more collaborative, integrated, and holistic approaches.

Our Summer Study attendees and panel topics provide a fantastic forum to accelerate achieving COP21 commitments by uncovering and revising ideas, strategies, collaborations, and solutions. You will undoubtedly join stimulating conversations, learn, generate many ideas, and uncover collaboration opportunities. When we return home and get back to our busy lives, be sure to make the extra effort to follow-up on conversations and collaboration opportunities to realize the full benefit of this conference.

We all should strive to achieve even greater energy savings through our interactions with the many bright minds that attend. After all, we have to make significant contributions to meet these commitments, so let's roll up our sleeves and get to work.

We are very thankful to the many volunteers who make the Summer Study possible, especially the panel leaders, the paper and poster authors, and the peer reviewers. Their dedication and commitment are crucial for the success of the Summer Study. In addition, we would like to express our appreciation to the dedicated ACEEE staff under the capable leadership of Steve Nadel, in particular Rebecca Lunetta, Glee Murray, Lynn Pyle, Justine Seas, and Jennifer Amann. The staff and the many volunteers provide all of us with terrific opportunities, so please also thank them during your stay.

Enjoy this opportunity to interact as part of the Summer Study's unprecedented gathering of building energy efficiency leaders among the inspiring natural beauty of Asilomar!

William Livingood *Conference Co-Chair*
National Renewable Energy Laboratory
Nan Zhou *Conference Co-Chair*
Lawrence Berkeley National Laboratory



Big Sur Wildfire Update

The Soberanes Wildfire continues to burn in rugged, inaccessible terrain near Big Sur, about 30 miles south of Asilomar. Expected containment is 8/31/16. Coast Highway 1 is open in both directions, but all State Parks from Garrapata SP through Julia Pfeiffer Burns SP are closed until further notice. As of 8/16 the 24-hour air quality index is good for Pacific Grove. While you can see some haziness in the Monterey Bay area, Asilomar staff has informed guests that there is no serious impact to the conference grounds or guests.

If you plan to head south, the Monterey Bay Air Resources District asks you to use discretion as this dynamic event unfolds. If smoke degrades the air you are breathing, please avoid physical exertion and consider sheltering in place with your windows and doors closed, or leaving the area until conditions improve. Go to http://www.fire.ca.gov/current_incidents for updates.

As a grim reminder of the effects of global warming, 4,600 fires have burnt more than 306,000 acres on state and federally-owned land since January 2016, according to Cal Fire. The past winter's El Niño rainfall was lower than average and California is once again tinder dry.



BOXED LUNCH SIGN-UP WEDNESDAY—FRIDAY

Boxed lunches must be requested 48 hours in advance. Deadlines are as follows:

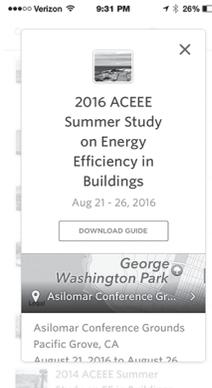
Wednesday Lunch – Sign up by Monday, 11:00 am
Thursday Lunch – Sign up by Tuesday, 11:00 am
Friday Lunch – Sign up by Wednesday, 11:00 am

Please sign up at Surf and Sand for boxed lunches for Wednesday, Thursday, and/or Friday. Place a “V” next to your name if you are requesting a vegetarian option. All lunches must be picked up by 10:30 am in Crocker Dining Hall.

Access the Summer Study Mobile App on Your Device:



1. Download the host app **Guidebook** from the app store on your device.
2. Open the app and click on the QR code square in the search bar to scan the QR code below, or type in the conference title **“2016 ACEEE Summer Study on Energy Efficiency in Buildings”** in the search bar. Your download will begin.



Mobile app features:

- Access the conference program and get notifications about updates
- Create a personalized schedule to follow
- Check into the app to connect with attendees and chat
- Use the Interact feature to engage in real time with attendees
- View and post photos of your Summer Study experience
- Access the Asilomar grounds map, area map, and other useful guides
- Join the conversation on Twitter and Facebook.

Make sure to check for updates throughout the Summer Study week for possible program changes.

(Devices must be connected to WiFi or cellular data for automatic updates.)

INFORMAL SESSIONS

Participants are welcome to schedule informal discussions during designated afternoons of the Summer Study. Sessions are typically two-hour discussions about topics that relate to the theme of the Summer Study but do not have published papers or formal presentations.

These sessions encourage group participation about topics that Informal Session organizers want to discuss. Organizers are encouraged to prepare brief introductions about the discussion themes to present at the beginning of their sessions. A sign-up sheet is posted (for time and room assignments) in the Summer Study office (**Surf and Sand** building).

A list of Informal Sessions with times and locations will be announced daily in *The Grapevine*.

Informal Session times are:

Monday	2:00 pm – 4:00 pm 4:00 pm – 6:00 pm
Tuesday	2:00 pm – 4:00 pm
Thursday	2:00 pm – 4:00 pm



Scan with your Guidebook App

to download the ACEEE Guide

Twitter Alert!

Join the Summer Study conversation on Twitter using hashtag #SummerStudy16



Opening Plenary Speaker



Cole Roberts leads the energy and sustainability business in Arup's 300 person San Francisco office, specializing in design, planning, and innovation in the new and existing built environment. He is co-author of *Two Degrees – Our Built Environment and the Changing Climate* and has been a keynote speaker at numerous conferences. He is a published contributor to many peer reviewed journals and is a frequent guest lecturer at Stanford University and the University of California at Berkeley.

We are moving the party to the beach!



WEDNESDAY: 7:30 – 10:30 pm
@ THE MONTEREY BEACH HOUSE



Light hors d'oeuvres and an array of desserts will be served. Activities such as beach volley ball and bocce ball, a bonfire, music, and other activities and games are planned.

Admission costs are included with full-week registrations. Tickets for daily registrants and guests are available in Surf & Sand until 11:00 a.m. Wednesday. The cost is \$50 for adults and \$25 for children, ages 2-12.

Director's Welcome, continued

While we celebrate these gains, we must acknowledge the scale of the challenges we face and push for efficiency solutions that help address climate change, provide healthier and more affordable homes, and support business success. You're in the right place to learn what's working and to explore new solutions. Throughout the week, our stalwart Summer Study panels will cover the latest research in residential and commercial building technologies and programs, utilities, market transformation approaches, and behavior, while other panels address the latest directions in net zero and net positive buildings, codes and standards, smart buildings, and information technologies.

Come hear the presentations and then bring your ideas and pressing questions to participant-organized informal sessions. In these afternoon sessions, the discussion often focuses on moving ideas into action, whether strategizing on getting our priorities onto the agenda of the new administration, or efforts to increase diversity in the energy efficiency community.

Let's get started! I hope you learn a lot, have fun, and leave feeling invigorated to apply these new ideas in your work.

Jennifer Amann, Buildings Program Director, ACEEE



Thursday Night Dance Party!

Wrap up a great week by joining us at the Dance Party on Thursday from 8:00 – 11:30 pm in **Merrill Hall** featuring talented local Bay area performers, **Robin Applewood and Friends**. Come join your peers and continue the energizing experiences of the week as we dance the night away!

THE GRAPEVINE DAILY NEWSLETTER

The Grapevine is published daily to highlight upcoming presentations and events, review events of the previous day, and list important announcements. It will be distributed each morning at breakfast in the **Crocker Dining Hall**, and in the **Surf and Sand** room.

Got Something to Report?

We welcome suggestions for the next day's newsletter. If you have any announcements, updates, or information related to ACEEE events, drop them off at **Surf and Sand** to the attention of *The Grapevine* Staff in "Report Basket" or email them by 3:30 pm to twhite@homeenergy.org. *The Grapevine* will also appear on the ACEEE Blog at www.ACEEE.org/blog.

Sunday, August 21

3:00 pm – 8:00 pm **CONFERENCE REGISTRATION**
Hearst Social Hall

4:00 pm – 6:00 pm **OPENING RECEPTION**
Hearst Social Hall, West Deck

All participants, families, and guests are invited to enjoy an informal reception on the West Deck of the Hearst Social Hall facing the Pacific Ocean. Greet your friends in the energy efficiency community after you register for the 2016 Summer Study.

6:00 pm – 7:00 pm **DINNER FOR REGISTRANTS**
Crocker Dining Hall

All Summer Study registrants staying at Asilomar are welcome to enjoy a special dinner at the Crocker Dining Hall. Off-site registrants are also welcome, but must purchase dinner tickets from ACEEE Staff in **Hearst Social Hall**.

7:30 pm – 9:00 pm **WELCOME AND OPENING PLENARY**
Merrill Hall

WELCOMING REMARKS

Jennifer Amann, Buildings Program Director, American Council for an Energy-Efficient Economy Co-Chairs – 2016 Summer Study
William Livingood, National Renewable Energy Laboratory

Nan Zhou, Lawrence Berkeley National Laboratory

INTRODUCTION

Nan Zhou, Lawrence Berkeley National Laboratory

PLENARY

Cole Roberts, Associate Principal Energy & Resource Sustainability
From Zero Net Energy Buildings to Zero Net Energy Communities

9:00 pm – 11:00 pm **SOCIALIZE**

Fred Farr Forum

The Hospitality Suite will be open in Fred Farr Forum following the plenary.

the grapevine

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