2014 ACEEE Summer Study On Energy Efficiency in Buildings

The Next Generation: Reaching for High Energy Savings

August 17 - 22, 2014
Asilomar Conference Center
Pacific Grove, California

The 2014 ACEEE Summer Study is the 18th biennial ACEEE conference on Energy Efficiency in Buildings. A diverse group of professionals from around the world will gather at this preeminent meeting to discuss the technological basis for, and practical implementation of, actions to reduce energy use and the climate impacts associated with buildings. Presentations and discussions will relate to the theme, “The Next Generation: Reaching for High Energy Savings.”

Advancements in information technology, communications, sensors, controls, and social media are changing the technology landscape in many industries and beginning to spill over into buildings. The digitization of data and access to tools to convert them into actionable information in real-time provide a huge opportunity to overcome the fragmentation of the buildings industry and accelerate sustainability and energy efficiency activities and developments. The investigation of not only building-scale but community-scale programs, integrated government and utility programs, codes and standards, technologies, integrated design processes, operation practices, financing sources, behavioral factors, and workforce development needs will require the integration and utilization of information technology to meet a variety of objectives for buildings industry stakeholders over the duration of a building’s lifetime. The main challenge remains to develop, implement, and maintain systems that foster innovation for both legacy buildings and new construction. Come to the 2014 Summer Study with your ideas, experiences and vision to move beyond incremental impact to The Next Generation: Reaching for High Energy Savings.

We invite you to contribute your most creative work in the following areas:

- design, operations, and performance of buildings
- program design, implementation, and evaluation
- utilities
- market transformation
- behavior
- climate change and energy efficiency policy
- sustainable communities
- leveraging high tech

CONFERENCE CALENDAR

OCTOBER 18, 2013
Abstracts due to the ACEEE Summer Study Office

JANUARY 2 – 10, 2014
Authors notified of abstract status — acceptance letters sent and instructions for preparing papers posted

MARCH 7, 2014
First drafts of refereed papers due to designated Panel Leaders

APRIL 2014
Registration materials available

APRIL 18, 2014
Reviewed drafts sent to authors

MAY 5, 2014
Papers due to Panel Leaders for final review

MAY 12 – 15, 2014
Final refereed papers uploaded

JULY 17, 2014
Conference registration deadline (late fee in effect after this date)

AUGUST 17 – 22, 2014
Summer Study

CONFERENCE ARRANGEMENTS

The Summer Study will be held August 17-22, 2014 at the Asilomar Conference Center in Pacific Grove, California. Information about accommodations at Asilomar will be provided in registration materials.

The Early Bird Registration Fee for the full conference is $850; the Regular Registration Fee is $950; and, the One-Day Fee is $500.

ALL SPEAKERS MUST PAY THE EARLY BIRD REGISTRATION FEE.

The conference will be conducted in a casual atmosphere. The dress is also casual.
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Abstracts

Abstracts should relate to the panels described. There are three general categories for abstract submission:
- Oral Paper Presentation (Presentation + Published Paper)
- Poster Paper Presentation (Display + Published Paper)
- Display Only Presentation (Display - No Published Paper)

Authors may submit more than one abstract in each category, but only one abstract per “lead author” will be accepted and the lead author will be expected to present the resulting paper. Only one presentation by an author will be allowed. If you are “lead author” on more than one abstract selected, you will be asked to designate a co-author as “lead author.” Your abstract may be accepted for a category other than the one you have chosen; therefore, it is important that you rank your abstract submissions in order of priority. To ensure a balanced program, ACEEE reserves the right to exclude papers at any point in the publication process.

Every author is required to register (pay registration fees) to attend the Summer Study. If the registration fee is not received by the deadline date, July 17, 2014, the author’s paper will not be scheduled for presentation or published in the proceedings.

The following criteria will be used for selecting papers for the Summer Study:
- Presentation of new material (must not have been presented at another conference or published in another set of proceedings)
- Relevance of topic to the conference theme
- Likelihood of stimulating discussion and debate
- Clarity of thought and presentation

The Summer Study is intended to be a participatory event and actively seeks knowledgeable reviewers to assist in the peer review of submitted papers. If you wish to volunteer as a reviewer, please fill out the Reviewer Request Form.

Refereed Paper (for Oral or Poster Paper Presentation)

Authors with accepted abstracts will prepare a draft paper that will be peer reviewed and returned to the author for revision. Authors will then submit a final paper to be included in the published proceedings. Final papers are limited to 12 pages. Each author of a Refereed Paper for Oral Presentation will be allotted 20 minutes for their presentation at the Summer Study. Authors of a refereed Poster Paper Presentation will be assigned to a two-hour display session.

Display Only Presentation

This category is designed for the presentation of material not suited to a refereed paper. Examples include interactive software, operable technologies, video displays, or complex graphics.

Display sessions, scheduled on two afternoons, are designed so that participants may circulate and discuss these presentations with their authors. Authors will be assigned to a two-hour display session, and will have an area approximately 10’ x 8’ for their displays.

Instructions for Authors

Abstracts must not exceed 250 words of text. The following information must be included at the top of each abstract:
- a. Title of Abstract
- b. Category:
  - I. Oral Paper Presentation (Presentation + Published Paper)
  - II. Poster Paper Presentation (Display + Published Paper)
  - III. Display Only Presentation (Display - No Published Paper)
- c. Selection of Panel (by Panel number)

Do not include authorship or institutional affiliation on the abstract.

Submit abstracts online: http://www.aceee.org/conferences/2014/ssb/call

Or, if mailing abstracts, send them to:
ACEEE Summer Study Office
Attn: Rebecca Lunetta
P.O. Box 7588
Newark, DE 19714-7588 USA

2014 Summer Study Organizing Committee
Patrick Hughes (Co-Chair)
Oak Ridge National Laboratory
Sila Kiliccote (Co-Chair)
Lawrence Berkeley National Laboratory
Rebecca Lunetta, Glee Murray, Steve Nadel, Lynn Pyle, and Mallory Wertherman
American Council for an Energy-Efficient Economy

Panel Descriptions

Abstracts from outside the U.S. are encouraged and will be included in all relevant panels below.

1 Residential Buildings: Technologies, Design, Operations, Performance, and Building Industry Trends

PANEL LEADERS: Michael Gestwick, National Renewable Energy Laboratory and Roderick Jackson, Oak Ridge National Laboratory

SESSION TOPICS: Building science and engineering focusing on high performance solutions for new and existing homes; risk identification and mitigation strategies; integrated design; envelope load reduction; energy-efficient and demand-responsive equipment, appliances and systems for building services; systems and whole-house integration including smart controls and on-site renewable energy and distributed generation; net zero energy; indoor air quality; design software and interoperability; performance analysis/modeling; performance monitoring; benchmarking/rating/labeling; fault detection and diagnostics; commissioning.

2 Residential Buildings: Program Design, Implementation, and Evaluation

PANEL LEADERS: Valerie Richardson, DNV KEMA Energy & Sustainability and Tony Weber, Southern California Edison Company

SESSION TOPICS: Fresh ideas on design, implementation, and measurement of residential energy efficiency, renewable energy, and load management programs, including: innovations in program design for new and emerging measures; mixing proven technologies with new; balancing short- and long-term savings; integration of energy efficiency and demand response; leveraging smart meters; use of innovative partnerships and delivery channels; delivering comprehensive retrofits; role of financing; new ideas in low- and middle-income programs; balancing codes with program design; software trends; data mining approaches; innovative impact evaluation; online program/tool impacts; behavior impacts; and understanding customer response to program outreach.

3 Commercial Buildings: Technologies, Design, Operations, Performance, and Building Industry Trends

PANEL LEADERS: Srinivas Katipamula, Pacific Northwest National Laboratory and Clay Nesler, Johnson Controls, Inc.

SESSION TOPICS: Building science and engineering focusing on retrofitting existing buildings and new construction technologies; integrated design; energy-efficient and demand-responsive equipment, systems and controls for ventilating, space conditioning, lighting, daylighting, and water heating; innovative technologies; building systems integration; occupant comfort; performance analysis/modeling; smart, integrated control systems; energy information systems; performance monitoring; benchmarking; commissioning; fault detection and diagnostics; on-site use of renewables; distributed energy management; plug loads and data centers, industry and market trends.
SESSION TOPICS:
Designing, implementing, and evaluating innovative energy-efficiency and demand-reduction programs for commercial buildings; innovative/advanced program implementation or evaluation approaches; working with non-traditional implementation partners, addressing and overcoming special challenges; serving hard-to-reach markets; new integration methods for efficiency, demand response, and distributed generation programs; lessons learned from targeting commercial building types and segments; influence of business models and leasing arrangements; programs for existing building commissioning and deep retrofits; whole building versus component approaches; progress towards net-zero energy buildings; integration of utility programs with customer and third party sustainability programs; R&D programs; deploying emerging technologies and strategies into programs; innovative/advanced financing approaches; transitioning government policy into program design; innovations to enhance application of codes and standards; outcome-based codes; installation standards; code compliance and enforcement.

SESSION TOPICS:
Energy efficiency as a component of state, national, and international strategies, policies, and regulations; community-scale and local energy efficiency initiatives; energy efficiency as a resource in energy planning; energy efficiency in air quality planning and as a driver to meet emissions targets; status, trends, and compliance in appliance and equipment standards and building codes; financial incentives, funds, and financing mechanisms for energy efficiency; climate policy and international climate mechanisms as drivers for energy efficiency; role of energy efficiency in market and regulatory mechanisms to control greenhouse gas emissions including cap-and-trade); innovative R&D strategies and programs for energy efficiency; international experience with, and coordination of, energy efficiency policies; efforts to benchmark energy efficiency at state, regional, national, or international level.

SESSION TOPICS:
Energy consumption trends in the commercial, industrial, or residential sectors and the role of utilities in implementing building energy codes; reliability-focused integrated energy efficiency, demand response and distributed generation programs; energy efficient building loads as a resource for maintaining grid reliability; successful models of cooperation between ESCOs and utilities.

SESSION TOPICS:
Energy consumption trends and patterns in the miscellaneous and electronic product sector, such as televisions, set top boxes, computers and monitors, networking devices, other appliances and devices, etc.; research on standby, low power and active modes; power supplies and transformers; trends in new product technology; impacts on product energy consumption from new network and communications functionality; energy efficiency of standalone servers and server closets; product opportunities to save energy and water; domestic and international voluntary and mandatory product initiatives; product labeling efforts; monitoring and testing; advancements in and evaluations of metering, monitoring and control technologies; improvements in appliance efficiency and lighting efficacy.

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**Who Should Attend?** Individuals interested in energy efficiency and climate change issues associated with buildings including innovative technologies, programs, financing, design and operations practices, policies and education are encouraged to attend, including representatives from industries and utilities; architects; builders; financial and insurance professionals involved with buildings; clean-tech investors; manufacturers of building products, appliances and equipment; building owners and operators; engineers; government personnel; energy and climate researchers and educators; and consultants. Be sure to sign up early for this opportunity to participate in a unique blend of presentations and informal meetings.

**Deadline for Abstract Submission: October 18, 2013**