

Tuesday, August 14, 2012

ACEEE Summer Study at Asilomar, California

Generating Energy Savings through Exemplary Programs

ACEEE recently completed a retrospective study on electric utility energy efficiency programs, which have existed in some form in some states for 30 years or longer. There have been a few wide swings in the funding and support for such programs over the years, but since the early 2000s there's been consistent and rapid growth. In 2010, budgets nationwide for these programs were \$4.6 billion, almost 5 times the 2000 budget total of \$1.1 billion. Projections are that growth will continue over the next decade. Energy efficiency is the top priority energy resource for utilities in some states and regions, essentially eliminating demand growth in some cases. In a few leading states, the demand curve for electricity over time is actually bending down, an unthinkable proposition to many given the industry history of seemingly inevitable growth of electricity use. A similar story can be told for natural gas energy efficiency programs.

Despite this record of success, meeting and sustaining high savings through customer energy efficiency programs will require continued improvement. With "energy efficiency

resource standards" (EERS) now in place in half the states, program administrators have substantial savings obligations to meet. ACEEE research has shown that by and large, states are doing well in meeting these standards, but it is requiring innovation and a lot of hard work.

To recognize the innovation and hard work associated with the successful energy efficiency programs, ACEEE is currently planning our 3rd National Review of Exemplary Energy Efficiency Programs for this fall. We will issue a "call for nominations" later this month. We will be seeking programs across the full spectrum of customers and program categories for both electric and natural gas customers. ACEEE previously completed such national reviews in 2003 and 2008. It's time for a new look at the best utility-sector energy efficiency programs.

In addition to recognizing exemplary programs, we also will create and publish short profiles of them to provide concrete



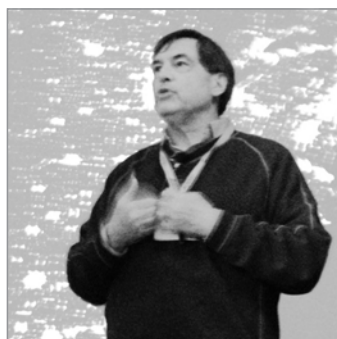
Dan York
ACEEE Utilities
Program Director

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A Night In the Life of the Summer Study

The Monday night plenary speaker, Jon Wellinghoff, Chairman of the Federal Energy Regulatory Commission (FERC), described his coming to FERC in 2006 as a border crossing from the world of energy efficiency—according to Steve Nadel, before joining FERC, Chairman Wellinghoff attended 12 Summer Studies—to the world of the grid and the wholesale power marketplace. Now he sees his mission as integrating the two.

Using a colorful map of the Midwestern United States, Wellinghoff described a grid in need of some more coordination, so that electricity load and production correlate more directly, therefore causing the electricity grid to operate more efficiently. A system in steady state is more efficient than one that is constantly ramping up and down—this is true of cars,



HVAC systems, and the electricity grid.

In Wellinghoff's example, the blue states are the ones with an overabundance of electric power, making it relatively cheap (even dipping below zero cost), and the red states, the ones where electricity is scarce and expensive. At 1 am the area around Terre Haute, Indiana, is desperate for electric power, while up north in Illinois, nuclear power is cheap and plentiful and westward in Iowa, wind generation is at a peak. Up by Fort Wayne they are burning kilowatts for next to nothing. Through the course of the day the map constantly turns colors, with hot spots (expensive electric power) and cool spots (cheap power) covering large swaths of the map or popping up in particular locations. In the afternoon, Michigan is dark red and across Lake Michigan, Jainsville, Wisconsin, is a dark blue spot.

Continued on page 3

Generating Energy Savings continued

examples and share lessons learned. This sharing of experiences is also a hallmark of ACEEE's Summer Study. I think it's safe to say that many of the best policies and programs to advance energy efficiency have had their origins in the many interactions that happen here at Asilomar. As you engage in this year's Summer Study, we invite you to consider nominating a program for our upcoming national review as a way to share your experiences and be recognized for your work. Please watch for full details later this month. We also could use a few final funders to support this new "exemplary programs" project (please see me or the posting in the Summer Study office).

As many times as I've participated in the Summer Study, it never fails to leave me with a renewed sense of optimism for what's possible through energy efficiency. Sometimes the year to year progress may be hard to see, but looking back 30 years or more reveals astounding achievements. Imagine where we'll be 30 years from now.

LEARN MORE

Natural Gas Energy Efficiency Programs

<http://www.aceee.org/research-report/u121>

Electric Utility Energy Efficiency

<http://www.aceee.org/research-report/u123>

2003 National Review

<http://www.aceee.org/research-report/u035>

2008 National Review

<http://www.aceee.org/research-report/u081>

Linda Latham Scholarship Winners

Linda Latham served as ACEEE's Chief Operating Officer until her untimely death in September 2011. Linda believed that students bring talent and creativity to the field of energy efficiency, especially if we provide a venue to inspire and educate them.



Front Row (left to right): Efrie Friedlander, Univ of Michigan; Katie Ackerly, UC Berkeley; Hui Shin Wong, Multimedia Univ, Cyberjaya, Malaysia. Back Row (left to right): Lara Gale, Energy Management Project, Salt Lake Community College; Dasa Majcen, Delft Univ of Technology; Jaxon Love, Univ of Oregon, Center for Sustainable Business Practices; Erin Harris, East Carolina Univ, Center for Sustainable Tourism; Jessica Jones, Univ of Kentucky.

ANNOUNCEMENTS

MORNING SESSION UPDATE—not on the schedule.

Please note an addition to the 10:30-12:00 Tuesday morning session, Panel 9, Dolphin: "Local Power Distribution—Nanogrids," led by Bruce Nordman.

Evaluation Needs and Peeves. Want to provide input on how to best serve the needs of organizations and individuals who use evaluation results? Visit the International Energy Program Evaluation Conference online survey at <https://www.surveymonkey.com/s/IEPEC2012Asilomar>

BOXED LUNCHES will be available on Wednesday and Friday. sign up by 10am in **Surf and Sand** the day before to secure your boxed lunch.

JOBS

ACEEE seeks a **Research Analyst** to focus on local policy as a member of its Policy Team. The position provides a balance of research, analysis, and outreach on energy efficiency policy in the

United States as it relates to policy and program implementation by local governments and in cities and metropolitan regions.

ACEEE is seeking a **Research Analyst** for its buildings program. See the job posting on the board in surf and sand or go to <http://www.aceee.org/print/about/jobs/buildings-program-research-analyst-0>.

Program Manager, Institute for Building Efficiency, Johnson Controls is seeking an individual to produce original analysis, coordinate research, and write on a building efficiency topics. Milwaukee, WI. Contact katrina.managan@jci.com for more information.

Evaluation, Program/Product/Market Management, and Planning positions. The Northwest Energy Efficiency Alliance (NEEA) is seeking several experienced individuals to join our dedicated staff of energy efficiency market transformation professionals in Portland Oregon. Look for details here over the next few weeks: <http://neea.org/about-neea/careers>. Contact Susan Stratton, Karen Horkitz, or Jeff Harris here at Asilomar.

A Night in the Life continued

Making the whole map bluer, so to speak (no reference to political affiliations intended), requires digital controls at end uses, transmission, and production. It requires the participation of homeowners as well as factory bosses. On the residential end use side, Wellinghoff sees price signals offering individuals the greatest opportunity for control of their energy and the cost of that energy. This is a great opportunity for people to participate

more directly in the grid. Imagine utility customers becoming utility partners. Imagine providing power back to the grid from your car battery, and getting paid for it!

Add efficiency to the mix, and you not only increase the load factor, i.e. better match production and load, create a more efficient grid, and lower energy costs, but you can lower overall energy use as well.

INFORMAL SESSIONS

2-4 pm

Performing In-Depth Analysis of Household Energy Consumption Using Residential Energy Consumption Survey Data, Bill McNary, Energy Information Administration. **ROOM:** Embers Living Room

Illuminating the Road Ahead—Next Generation Street Lighting. Dan Young, Energy Solutions. **ROOM:** Chapel

National Weatherization Assistance Program (WAP) Evaluation Results. Dr. Bruce Tonn, Oak Ridge National Laboratory. **ROOM:** Scripps

Industry Perspectives on the Future of Energy Efficiency in California. Matt O’Keefe, California Energy Efficiency Industry Council. **ROOM:** Evergreen

Beyond Usability - What’s next for programmable thermostats? Olga Sachs, Fraunhofer CSE and Alan Meier, Lawrence Berkeley National Lab. **ROOM:** Fred Farr Forum

The Super-efficient Equipment and Appliance Deployment (SEAD) Initiative: Transforming the Global Market for Efficient Equipment and Appliances. Gabrielle Dreyfus and Stephen Patano, CLASP. **ROOM:** Acacia

Data Center Energy Efficiency Opportunities. Alan Rose, Intel Corporation. **ROOM:** Heather

Energy Efficiency Finance and the Financial Regulatory Environment.

Casey Bell, American Council for an Energy Efficiency Economy and Phil Henderson, Natural Resources Defense Council. **ROOM:** Kiln

The Future of California’s Long-Term Energy Efficiency Strategic Plan. Kristina Skierka, Energy Initiatives. **ROOM:** Nautilus

Weatherization Assistance Program Technical Tools. Josh Olsen and Jennifer Somers, U.S. Department of Energy. **ROOM:** Oak Shelter

Commercial Building Energy Ratings – Managing the Upcoming Paradigm Shift. Eliot Crowe, PEI. **ROOM:** Sanderling

Building Energy Code Implementation: Strategies for Pursuing Savings Opportunities through Greater Utility Involvement. Harry Misuriello, American Council for an Energy Efficiency Economy. **ROOM:** Toyon

Designing Programs for Maturing Residential Markets. Monica Curtis, WECC. **ROOM:** Triton

Find Out What it is, What it does, and How to Join, and Why to Join, NEEP’s Design Lights Consortium, **ROOM:** North Longview

Residential New Construction: Squeezing Energy Savings Out of an Ever-Shrinking Above-Code Pool. Matthew Christie, Heschong Mahone Group. **ROOM:** Marlin.

Investor Informational Needs to Support Underwriting Efficiency in Commercial Building Ellen Franconi. Rocky Mountain Institute. **ROOM:** Afterglow Living Room

Short Changing Program Design: Can We Make 1% Spending on Design Standard Practice? Toben Galvin, Navigant Consulting. **ROOM:** South Longview

TM3- Not Typical and Not Normal. John Proctor, Proctor Engineering Group. **ROOM:** Manzanita 1

Scoring a Perfect 100: Home Energy Label Designs for the Retrofit Market. Jenny Edwards and Carl Nelson, MN Center for Energy and Environment. **ROOM:** Manzanita 2

High Efficiency Space and Water Heating: A Combined System Approach. Ben Schoenbauer, Center for Energy and Environment. **ROOM:** Willow Inn 1

Product Placement, Video Clips, and Twitter Parties: How Can We Creatively Spread the Word About the Lighting Standards? Marianne DiMascio, ASAP and Jeff Harris, Alliance to Save Energy. **ROOM:** Willow Inn 2

Errata

In Monday’s *Grapevine*, in the description of Sunday’s plenary, Amory Lovins should have been identified as, not CEO, but Chairman and Chief Scientist of RMI, which he cofounded in 1982. And the *Reinventing Fire* new-auto efficiency is not 125 mpg but a range of 125-240 mpge (remember they’re electrified), depending on segment.

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Get updates and connect with other Summer Study attendees on Twitter at <http://bit.ly/RbTk0a>. Or sign into Twitter and search on hashtag #SummerStudy.

PANEL 14: DISPLAYS & POSTERS – MERRILL HALL

4:00 pm – 6:00 pm Tuesday, August 14

Impact of Energy Performance Certificates in Germany

Hermann Amecke, Climate Policy Initiative

Green Energy Match: Linking Behavioral Energy Savings Programs to Job Creation

Martha Amram, Wattzon.com

A Comprehensive User Interface for the EnergyPlus Whole Building Energy Simulation Program

Mangesh Basarkar, Lawrence Berkeley National Laboratory

Combined Heat and Power as Part of an Energy Efficiency Portfolio to Reduce GHG Emissions

Stephan Barsun, Itron

SystemOutliner, User-Friendly HVAC with EnergyPlus

Kyle Benne, National Renewable Energy Laboratory

The Global Equipment Energy-Use and Cost Database: A New Dataset for Efficiency Policy Research

Nick Bojda, Lawrence Berkeley National Laboratory

How Well can Energy Efficiency Incentive Schemes be Translated to Different Industry and Regulatory Contexts?

Sangeetha Chandrashekeran, University of Melbourne

Yikes! EISA's At Our Doorstep... Now What'll We Do?

Steve Cofer, The Cadmus Group

Codes to Cleaner Buildings: Effectiveness of U.S. State Building Energy Codes

Jeff Deason, Climate Policy Initiative

Enabling True Net-Zero: Understanding How Carbon Emissions Vary by Hour

Michael Deru, National Renewable Energy Laboratory

Energy Performance Policies and Renovation Pathways of Buildings in Europe

Marina Economidou, Building Performance Institute Europe

Panel 4 Paper – *Utility Programs in a World of Rapid, Code-Induced Advancements in Energy Baselines*

James Edelson, New Buildings Institute

Panel 5 Paper – *Responding to Increasingly Stringent Energy Codes: Xcel Energy's Preliminary Strategy*

Jennifer Elling, Xcel Energy

Panel 3 Paper – *Building Distributed Energy Performance Optimization for China: A Regional Analysis of Building Energy Costs and CO2 Emissions*

Wei Feng, Lawrence Berkeley National Laboratory

Best Practice Utility Shareholder Incentives... Making the Rats Smell the Cheese

Toben Galvin, Navigant

Existing Homes: More Challenging to Model than New Zero Energy Homes?

Scott Horowitz, National Renewable Energy Laboratory

Scaling Up: Community-Wide Residential Building Energy Modeling

Scott Horowitz, National Renewable Energy Laboratory

The World-Wide-Web of Financial Incentive Programs: A Global Comparative Analysis of Effective Appliance-Specific Programs

Alissa Johnson, Lawrence Berkeley National Laboratory

Panel 3 Paper – *Getting Your Money's Worth: Diagnostic Benchmarking for Commissioning*

Les Lambert, Lambert Engineering Services

Panel 4 Paper

Achieving Natural Gas Savings Goals: Commercial Heating Programs Heat It Up
Lark Lee, Tetra Tech

Evaluating Behavior-Based Programs Using Experimental and Quasi-Experimental Design
Patrick McNamara, Efficiency 2.0

Investing in Energy Efficiency and DSM Data Management: Don't Pay to Do the Same Thing All Over Again

Eric Merkt, Navigant Consulting

EISA Impacted Market Transformation: Understanding the Consumer Needs and Barriers and Marketing through Them

Ashley Nicholls, Kelliher Samets Volk

Data Center Baselines: Another Moving Target for Efficiency Programs

Nicholas O'Neil, Energy Trust of Oregon

EnLIGHTened Evaluation: Best Practices in Visually Interpreting Time of Use Lighting Data

Jessica Rivas, Navigant Consulting

Panel 4 Paper – *Reach for Stranded Savings: The Challenges and Opportunities of Energy Efficiency in Affordable Multifamily*
Scott Swearingen, Energy Trust of Oregon

Plug Loads and People: Observations and Analysis from the Field

Adam Stoeckle, University of Washington

Leveraging the Energy-Saving Power of the Purse: Assessing the Benefits of the U.S. Energy Efficient Product Procurement Program

Margaret Taylor, Lawrence Berkeley National Laboratory

Path to Efficiency: SCE's Online Buyer's Guide
Kitty Wang, Energy Solutions

Achieving Long-Term Building Energy Performance Goals in China under Alternative Socioeconomic Scenarios

Sha Yu, Pacific Northwest National Laboratory

Tuesday Plenary – “Japan: Growing Smart and Green Post-Fukushima or Losing Another Decade?”

This evening's plenary speaker is Andrew DeWit, Professor in the School of Policy Studies at Rikkyo University, and a coordinator of the *Asian-Pacific Journal*. Quoting DeWit from the June 13, 2012 *Asian-Pacific Journal* (online):

“Just when it seemed Japanese politics was being pulled back into the hands of the collusive interests who brought us Fukushima, it's thrown up another surprise. The reformists, centered in innovative capital and local government, seem to have found a new, and very promising, avenue to fight against the revanchist old guard that still dominates the central government.”

Be there at 7:30 at Merrill Hall. After the plenary, find out the 2012 Champion of Energy Efficiency award winners, and celebrate our colleagues.

the greener

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