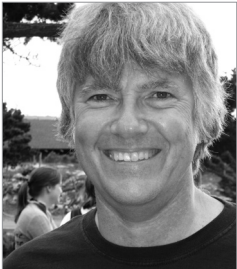


Wednesday, August 20, 2008

ACEEE Summer Study at Asilomar, California

Utility Sector Energy Efficiency? This Wild Ride Is Just Getting Started



**Marty Kushler, Director,
ACEEE Utilities Program**

by Marty Kushler

In my *Grapevine* article for the 2006 Summer Study, I mentioned that energy efficiency was benefiting from a “perfect storm” of (1) record-high energy prices; (2) growing utility system reliability concerns; (3) enormous national security costs related to energy dependence; and (4) ever-more-alarming news about global warming.

As we gather here today in 2008, it’s hard to argue with the proposition that every single one of those four elements of the storm has grown even more urgent. So have we truly entered the energy efficiency “golden age”? Well clearly, not yet.

Of particular concern is the abysmal failure of our policymakers in Washington, D.C., to establish anything remotely resembling a strong national policy for energy efficiency. The technical studies of energy efficiency potential, and the associated projections of

economic and environmental benefits, continue to pile up. But all we seem to hear about on energy policy are loony proposals for gas tax holidays and drilling in protected offshore areas. Hopefully, better days are coming.

As has been the case for decades, the states continue to lead on utility sector energy efficiency policy, and there the picture is much brighter. Not surprisingly, New England and the West Coast continue to forge ahead with aggressive energy efficiency policy proposals and expanded energy efficiency program budgets. And it is significant that traditionally lagging areas like the Midwest and the Southwest are making major advancements. Even the traditionally absent Southeast region has several states considering serious utility sector energy efficiency programs.

But where are we really, in terms of the big picture? As befits the tradition of the Summer Study, let’s take a peek over the horizon.

Given the realities we face in the 21st Century, it is imperative that we develop a new “business model” for utilities. For 80 years

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How We Live While We Are Here

We talk all week about building energy use, global warming, and the environment, all the time gathering, eating, playing, and sleeping in several buildings on a beautiful plot of earth on the Pacific Ocean. (There are 180,000 guests who stay here each year. Asilomar has an 85% occupancy rate.) But do our words and the way we live act in concert? There probably isn’t a way to determine the exact effect of the surroundings on the work we do, but the local environment must have an impact. Are we walking the walk as well as talking the talk while we are here?

There is a 96% efficient Munchkin boiler in the California State Parks training center at Asilomar, LED signage, and the Delaware North Companies, Parks, and Resorts, Incorporated, (DNC) crew has installed 3,000 CFLs on the property. “A few years ago we looked into putting solar panels on one of the buildings in the Corporation Yard,” says Asilomar Facilities/ Environmental Manager Rick Wood, “but at the time it wasn’t cost effective.” Through its GreenPath Program DNC has reduced electrical usage by approximately 630,000 kWh per year, and

reduced natural gas by 92,000 therms. They’ve saved about 10 million gallons of water and about 5,000 gallons of gasoline; donated about 9,000 meals to local charities; and composted over 36 tons of food waste in the last two years. (Still no excuse for wasting food though.)

Asilomar was the first to be named a Green Business in Monterey County. Wood has worked closely with Ed Schaupp, Director of Facilities at Asilomar, to make the historic, Julia Morgan-designed buildings at Asilomar as efficient as possible given the limits of historical preservation; for example, there are no wall cavities for insulation and they can’t install solar hot water or PV on the roofs of historic buildings—though they may soon install a solar heating system for the swimming pool. They save energy and water mostly through measures that are not easy to spot and that don’t affect the aesthetic of the buildings and grounds: with low-flow showerheads and toilets; no-flush urinals in Hearst Hall; low flow nozzles in the kitchens; and photocell

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Policies that Bring Change to Scale



Andy Karsner, US DOE

Andy Karsner, Assistant Secretary in the Office of Energy Efficiency and Renewable Energy at the U.S. DOE, gave one of his final two public addresses at the Town Hall meeting on Monday. As Steve Nadel characterized him in

his introduction, Andy has been an Energizer bunny at DOE, but he's looking forward to slowing down to understand what he's been through and galvanize support for energy efficiency.

Andy has been sprinting to the tape in his time at DOE. He's been operating with a "no apologies" approach, at hyperspeed. After a 13 year hiatus, DOE has helped to issue two national energy policy acts in two years, changing the energy discussion in Washington DC, the United States, and between the United States and the world. Andy shattered the conventional polarized partisan approach to energy supply and conservation, changing the way DOE does business.

"We can't be healthy, competitive, or strong without being green," Andy stated in his Town Hall meeting. "DOE has helped to

put a phoenix in place of ashes, in places like Greenburg, Kansas and New Orleans. Why wait for disasters to do the right thing? Do we need a tornado or a hurricane to open our eyes?"

Andy brought our attention to the soldiers in the field coming home. "We can't shred apart their role in the Mideast from our role in promoting energy efficiency. This is a golden moment—energy efficiency provides the ultimate opportunity to let green technology unite us. A green economy is convergent with their dreams and the dreams of their children."

One of Andy's goals at DOE was to help make his successors more successful. And one of the new DOE programs that the new administration will help to implement is a \$50 billion loan guarantee program for technology that avoids, sequesters or reduces CO₂. Only a small fraction of the applications have come from the energy efficiency community and he encouraged Summer Study attendees to apply. "Make energy efficiency profitable, and with more profit we'll get more market penetration."

We wish Andy the best success in his new endeavors and expect that he'll be making many contributions to energy efficiency efforts for years to come.

Announcements

Job Openings

The Rocky Mountain Institute (RMI) is seeking exceptional and highly motivated persons to be key contributors to its Energy and Resources Team. Jobs require a graduate degree or equivalent experience in any one or a combination of the following: Engineering, Economics, Mathematics/Statistics, and Finance/Business. Background in energy and electric utility industry preferred.

RMI is also looking for dynamic, knowledgeable, and experienced professionals to join its MOVE (Mobility and Vehicle Efficiency Practice) Team core automotive and heavy trucking, freight, and transportation systems program. Candidates should have a capability in both technology and business issues, and the creation of hypothesis-driven advanced business and technical models.

Please contact Siu Chan of RMI at (303) 245-1003 or schan@rmi.org for information about both jobs.

Intercity Workgroup

The Intercity Existing Building Energy Efficiency Workgroup Policymakers meet at 5:30 pm today at the Merrill Hall Poster session (south entrance opposite screen). Notice posted by Vinh Mason, City of Portland, (503) 442-4520.

Energy Efficiency In the Southern France

The European Council for an Energy Efficient Economy (ECEEE) is holding its 2009 Summer Study June 1–6 at La Colle Sur Loup, Cote d'Azur, France. Call for Abstracts deadline is September 26. The

Summer Study event in Europe is half the size of the U.S. version and they offer wine for lunch and dinner! Find out more at www.eceee.org.

Product Efficiency 2008

Product Efficiency 2008: Getting global agreement on defining energy efficient products, is being organized by the European Council for an Energy Efficient Economy (ECEEE). The conference is being held in Brussels, Belgium, October 30–31, 2008. For more information, go to www.eceee.org.

New Kids on the Block at ACEEE

The monthly utility bill will soon not be the only means to judge household energy use anymore. Advances in AMI/smart metering, microelectronics, and computing will introduce real time energy feedback information to engage consumers to change their behavior. The question is what information to present and how to present it. Interesting question? Visit today's informal session on energy feedback and help us find the answers.

Seattle City Light Ramping Up the Savings

Seattle Mayor Greg Nichols launched a major energy savings program today that will double Seattle City Light's current energy conservation program during the next five years. The \$185-million investment in dozens of efficiency programs will save customers more than \$310 million in their residential and business bills during the next five years and create more than 1,000 green jobs.

Talk with Robert Balzar or another of the Seattle City Light employees here at Summer Study for more on the Mayor's energy savings program.

Living Here, continued

controls on the outside lights, among other measures.

“Delaware is very environmentally conscious,” says Wood. “The bid required by the state for us to run the facilities here runs about 280 pages. They get very specific about requirements for energy use, water use, and how we treat the landscape.” The company is in the process of re-bidding its contract for the next 20 years. “When and if we get the contract, we can begin thinking more long term again,” says Wood. Like putting PV in the Corporation Yard. That way, Lawrence Berkeley National Laboratory facility engineer, *Home Energy* technical editor, and *Grapevine* bicycle delivery man Steve Greenberg will be able to charge his electric vehicle with the sun at both ends of his trip to Summer Study—at his home in Berkeley, and here at Asilomar.

THE STUCK-UPS

A 1924 employment ad for college women working at Asilomar: Stuck-ups [the name given to the young maids and waitresses] will work 6 hours a day, seven days a week; this will be the work schedule of the time. There will be occasional time off for each employee.
— from *visitAsilomar.com*

Utility Sector, continued

our electric (and natural gas) utility system has been premised upon—and designed to achieve continual growth in sales. Every aspect of utility regulation from cost recovery to rate design, to cost allocation for system expansions, to the means for utility earnings was essentially designed to feed a perpetual growth machine. But to quote the immortal Yogi Berra: “the future ain’t what it used to be.”

Quite simply, given the urgent need we face to dramatically reduce carbon emissions, that historical business model is now dysfunctional. We must transition to a regulatory paradigm whereby a utility can be economically viable under conditions where their gross throughput of energy is declining. Moreover, utilities must become willing partners in facilitating that decline.

Energy efficiency, which was never even anticipated in the original regulatory model, must become the predominant system “resource.” We must commit the ultimate heresy: take the traditional utility sales growth chart and bend the curve downward. Making this an accepted objective in utility boardrooms across the nation is the paramount challenge we face in the utility sector in the next decade.

PANEL 12—Display and Poster Sessions

4:00 pm - 6:00 pm

All Presentations are Located in Merrill Hall

Leaders: Elizabeth Brown, National Renewable Energy Laboratory; Pat Love, Oak Ridge National Laboratory

Carbon Neutral Building Retrofit: The Energy Refurbishment of the Architecture Building at the University of Illinois, Urbana-Champaign

Ralph Hammann, University of Illinois at Urbana Champaign-School of Architecture

The Lighting Portal—A New Resource for the Lighting Community

Melissa Blevins, California Lighting Technology Center

Two-Pipe or Not Two-Pipe

Will Price, Eugene Water & Electric Board

Energy Savings and Costs of Different Architecture 2030 Scenarios

Tina Kaarsberg, U.S. Department of Energy, Office of Policy and Int’l Affairs

A Comparison of Program Logic Models to Build Better Programs

Luisa Freeman, Black & Veatch

Getting to Fifty: The Methods and Measures Used to Achieve Significant Energy Savings

Cathy Higgins, New Buildings Institute

DOE’s Commercial Lighting Initiative Interactive Web Tool

Ruth Taylor, Pacific Northwest National Laboratory

Upstream Market Transformation: “Leaning” the Supply Chain for Government and Corporate Purchasing

Jeffrey Harris, Alliance to Save Energy

Lessons Learned on the Way to Zero Energy Housing

Theresa Gilbride, Pacific Northwest National Laboratory

Energy Efficient Digital Networks

Bruce Nordman, Lawrence Berkeley National Laboratory

Energy Efficient Lighting in Historic Buildings

Cheryl Rezabek, Wisconsin Division of State Facilities

Laying the Foundation for Energy Efficiency Potential Estimates through Market Assessment

Mark Thompson, Forefront Economics, Inc.

Teaching Customers to Value Energy Efficiency: A Comparison of CFL Fundraisers

Katherine Johnson, Market Development Group

Energy Efficiency and Emission Trading Schemes

Joel Sandersen, Orion Energy Systems

Measuring CFL Market Saturation: A Collaborative Regional Study on the Northwest’s Largest Efficiency Resource

Eric Brateng, Puget Sound Energy

High Performance Homes in the Southwest: Savings Potential, Cost Effectiveness and Policy Options

Steve Dunn, SWEEP

INFORMAL SESSIONS

2:00 pm - 4:00 pm

L Prize™ - A New Competition for LED Replacement Lamps

Kelly Gordon, Pacific Northwest National Laboratory (**Scripps**)

Improving Communication and Benchmarking Of Building Energy and Carbon Performance

Bill Bordass, The Usable Buildings Trust, UK (**Oak Shelter**)

Realtime Energy Feedback In Households: What To Present and How to Present It

Henk van Elburg, SenterNovem The Netherlands; Sarah Darby, Oxford Univ (**Evergreen**)

Brainstorming Energy Efficiency Programs for Local Governments

Robin Snyder, District of Columbia Department of the Environment (**Dolphin**)

Going Deeper Still: A Program Design Charrette for 2015

Bill Prindle, ICF International (**Fred Farr Forum**)

In Hot Water

Harvey Sachs, ACEEE (**Heather**)

CFL Testing – 12,000 Data Points Illuminate the Market

Stuart Jeffcott, Department of the Environment, Water and the Arts, Australia (**Triton**)

Achieving the Next Level of Energy Efficiency Savings: How to Maximize Savings by Encouraging Behavior-Based Programs and Innovation

Karen Ehrhardt-Martinez, ACEEE (**Kiln**)

Improving HUD-Code Manufactured Housing Codes and Standards

Michael Lubliner, Washington State University Energy Program (**Nautilus**)

Building Networks: The Internet as a Model for Success?

Bruce Nordman, Lawrence Berkeley National Laboratory (**Toyon**)

Maximizing Energy Savings with Comprehensive Whole House Performance Programs

Robert Mowris and Ean Jones, Verified, Inc.; Peter Hoffman, BO Enterprises, Inc. (**Chapel**)

U.S. Residential Energy Consumption Survey Trends in 2005 and Implication for Future Measurement

Eileen O'Brien, EIA (**Acacia**)

Energy Use Disclosures/Labeling for Consumer Electronics

D. Johnson (**Curlew**)

Got Your M.E. (Masters in Efficiency)? Teaching Energy Efficiency in Colleges/Universities

Paul Komor, Univ. of Colo., Boulder (**Marlin**)

Local Government Programs to Complement DSM Programs: Maximizing Effectiveness Communicating Metrics to Policy Makers

City of Boulder CO (**Sanderling**)

Leveraging the California Public Interest Energy Research Program

Lynn Stein (**Pirates Den/Tide Inn**)

E-scale

Christine Barbour, Newport Ventures; Terry Logee U.S. DOE (**Scripps Living Room**)

“Live Smart BC”: Residential Program and Incentives. Utility Partnership in Climate Action

Cory Waters, BC Ministry of Energy (**Lodge Living Room**)

20- and 30-Something Only: Balancing Career Growth, Industry Growth, and Health

Audrey Parker, CLEAResult Consulting, Inc. (**Hearth**)

Implementing 30% Beyond 90.1 2004-2006 IGCL

Jean Boulin (**Embers**)

Peak Oil & Natural Gas Impacts/Urgency (ASPO Conf. Sacto, Sept. 21-23)

Bruce Baccei, Sacramento Municipal Utility District (**After Glow**)

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Got Something to Report?

If you have any announcements, updates, or important information related to events here at ACEEE, drop them off at the Grapevine Office (Room 509 in the Pirates' Den) or email them by 3:30 pm to jgunshinan@homeenergy.org.

 30% post-consumer waste paper. 100% delivered by bicycle.