ACE3

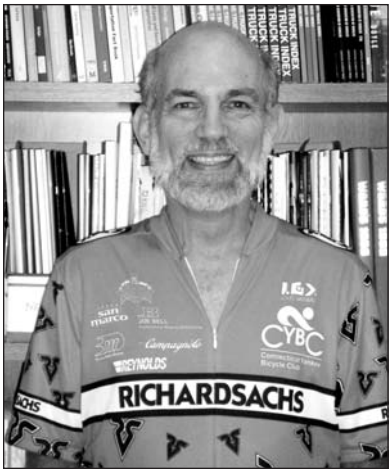
THE GRAPEVINE

ACEEE Summer Study at Asilomar, California

Tuesday, August 15, 2006

Sustainability = Energy Efficiency + Sufficiency

by Harvey Sachs



Harvey Sachs
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Energy efficiency is elegant. Like T'ai Chi, it strives to maximize productive output while using the minimum required effort. As we reach higher levels of success, we not only reduce wasted energy but also discover and fulfill our potential as scientists, engineers, and program professionals. Energy efficiency is a term that distills the work we do into an essence that appeals to the analytical intellectual.

As a community, we've saved tens of quads of energy, but energy consumption still rises inexorably. We've exploited technical solutions, studied economic analyses, and invented market transformation. With Energy Star and other programs, we've addressed consumer motivations, striving to complement our elegant concept with methods that work in the market. One of our guiding principles has been "strength from weakness"—we've learned to ally with much larger efforts to help incorporate efficiency into the mainstream market. As an example, California's success in maintaining constant kWh per capita for about 30 years shows the power of codes, standards, and engaging utilities fully.

In the midst of our progress, *sustainability* has emerged as a major organizing principle. Sustainability is providing for the needs of the present without detracting from the ability to fulfill the needs of the future. Of course, sustainability is an ethical perspective, not a technical metric. On the other hand, doesn't sustainability measure planet-wide efficiency, emphasizing resource conservation over throughput? The popularity of USGBC and its LEED program for environmental ratings of buildings is a testament to the expanding perspectives of decision makers. The American Institute of Architects is calling for a 50% reduction in fossil energy use in new buildings by 2010. ASHRAE has completely realigned its efforts in order to support sustainability. DOE is working toward net-zero buildings, and Energy Star at EPA is insisting on benchmarking building performance.

I believe that sustainability will require reducing absolute consumption, not just increasing consumption efficiency. To bridge the gap between efficiency and sustainability, we can follow Thomas Princen (tonight's plenary speaker) and consider the concept of "sufficiency." Sufficiency does require abandoning "bigger" and "more" as cultural benchmarks. It will also challenge us to reject self-contradictory icons with disproportionate environmental footprints, such as "energy-efficient" McMansions and Hummers.

ACEEE is working with EPA and DOE, ASHRAE, the Consortium for Energy Efficiency (CEE), the New Building Institute (NBI), USGBC, and many utilities and states. We're working very hard on appliance and equipment standards and discovering that many of the underlying tests need major updating to be relevant for predicting field performance. We're prodding the code process, and actively working on market transformation, emerging technologies and practices, and building performance.

You, we, and efficiency are all necessary for sustainability to succeed. Just as sustainability's visibility as concept and program will help our cause immeasurably, we will be challenged to think more broadly about reduced consumption as a requirement for long-term success.

Let's Try Energy Efficiency—It Works

Although not enough is happening on the national level, Monday's plenary speakers highlighted an abundance of energy efficiency activity on the state level. Dian Grueneich, of California's Public Utility Commission, started off the evening with an overview of what's happening in the state with the most aggressive energy efficiency goals of them all—Vermont. No, she talked about California, the recently dethroned leader in the aforementioned category, but a proud number two.

California's Energy Action Plan II puts energy efficiency at the top of its list. From 2004 until 2013, the state has pledged to cut 25,506 GWh/year, 5,000 MW of peak power, and 444 million therms/year, eliminating the need for 10 new power plants and cutting 9 million tons of CO_2 emissions. Grueneich tells people that energy efficiency is the "largest economic development program in the state." Energy efficiency will provide a net savings of $10 billion to consumers by 2014.

Because California is among the top dozen producers of greenhouse gases (GHGs) in the world, it takes responsibility for emissions outside its own borders. If the state receives a portion of its electricity from out-of-state providers, the emissions associated with producing that electricity become part of California's total emissions. By 2050, according to the state's Climate Action Team report, California will reduce its emissions of GHGs to 80% of 1990 levels. And yet even this goal is not as much reduction as what would have been required by the Kyoto agreement, which the federal government failed to sign. "We can't wait for the federal government to act," says Grueneich. "I have two 13-year-old children. I used to think that we would make it through most of their lifetimes before we would begin to feel the effects of climate change. Now I don't think we even have 10 years." We have to act now. She urged the audience to be activists now and take the largest steps they can to reduce greenhouse gases. "You folks are the leaders out there that this country needs."

Richard Sedano, director of the Regulatory Assistance Project (RAP), shared that sense of urgency, and let us know that all of us are in this together, especially the northeast states…and Arkansas, which, if not exactly doing great things with energy efficiency, is at least talking about it. "PUCs are active everywhere," says Sedano. He emphasized that measurement and verification are key to assuring utilities that energy efficiency is a dependable resource, as dependable as other resources that utilities are used to calling up at the push of a button.

Sedano summed up programmatic efforts in several states, including Connecticut, where 1% of energy sales have to be matched by white tag credits—credits earned from energy efficiency measures—this year, and increasing 1% a year, up to 4% of total sales by 2010. And that's not all RAP has been tapped to help out on. In a separate program, RAP has been called on to assist several northeast states in meeting their air quality requirements. Through energy efficiency, Sedano asserts that we can get better air quality and electric reliability.

Sedano ended his talk by reiterating common themes he shared with Grueneich. Making a difference for our children and our future will take commitment and innovation. Legislation matters. "We need to talk to our legislators all year long," says Sedano. Leadership matters. And both Grueneich and Sedano strongly emphasized that incentives matter. And both urged action now.

For more information:

For more on California's Energy Action Plan II, go to www.cpuc.ca.gov/PUBLISHED/REPORT/51604.htm.

For more on California's global warming initiative, go to www.climatechange.ca.gov.

To find out more about the Regulatory Assistance Project, go to www.raponline.org.

For information about the National Action Plan for Energy Efficiency, go to www.epa.gov/cleanenergy/eeactionplan.htm.

Join Us at the Pacific Grove Golf Links!

A few tee times still exist for the golf outing that KEMA has organized during "free time" on Wednesday afternoon, August 16th, for anyone who is interested.

Pacific Grove Golf Links is located seven blocks north of the Asilomar conference center gates. Check it out at www.ci.pg.ca.us/golf/. You really can't beat the location.

If interested, sign up in the Surf and Sand to reserve one of the few remaining tee times.

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 to karl@homeenergy.org.

Enough Already!

Come get your values fine-tuned at tonight's plenary when Thomas E. Princen, associate professor of Natural Resources and Environmental Policy at the University of Michigan, will speak on "Efficiency, Suffiency, and Economy." Princen co-founded the Alternative Consumption Research Community, a multidisciplinary network of researchers who share an interest in issues of overconsumption and consumerism and in alternative consumption practices such as sufficiency, sustainability, and voluntary simplicity. Tonight's edifying events will start with the presentation of ACEEE's Champions of Energy Efficiency awards in Merrill Hall at 7:30.

Princen is the author of *The Logic of Sufficiency* (MIT Press, 2005) and co-editor, with Michael Maniates and Ken Conca, of *Confronting Consumption* (MIT Press, 2002), which won the International Studies Association's 2003 Harold and Margaret Sprout Award for the "best book in the study of international environmental problems." Princen is co-author with Matthias Finger, of *Environmental NGOs in World Politics: Linking the Local and the Global* (Routledge, 1994) and author of *Intermediaries in International Conflict* (Princeton, 1992/1995).

Princen is an Aldo Leopold Leadership Fellow at the University of Michigan. His research has also been recognized through a Pew Faculty Fellow for International Affairs and a MacArthur Foundation Post-Doctoral Visiting Research Fellow in International Peace & Security. He received his Ph.D. in Political Economy and Government from Harvard University in 1988.

Cars on a Low Carbon Diet

digi-help.com

The K1 Attack is a hybrid car designed and built by students of West Philadelphia High School's Academy for Automotive and Mechanical Engineering that runs on fuel from soybeans, and gets more horsepower than some Porsches, as well as more gas mileage than a Toyota Prius.

Electric? Biodiesel? Hybrid? What makes your car (and your conscience) a little less carbon heavy? We want to hear all the details. We'll publish the results and selected stories in an upcoming issue of the Grapevine. Drop us a note at the Grapevine Office (Room 509 in the Pirates' Den) or email your stories to ekarl@homeenergy.org.

Neal Elliott, Raphael Friedmann, and Lauren Lutzenhiser discuss policy and parties.

Heather Karch and Katy Janda enjoy refreshments at the 14th Summer Study's first gathering.

Announcements

Box lunches
Box lunches may be ordered 48 hours in advance from ACEEE staff in Surf and Sand. The last day you may order a box lunch is Wednesday by noon for Friday consumption.

Data Center Demonstration on Wednesday
On Wednesday at Noon at the West side of Phoebe A. Hearst Hall there will be a free bus to see Sun Microsystems' campus for a demonstration of energy-efficient direct-current distribution systems for data centers. Please sign up at Surf and Sand no later than 10:30 am today. A box lunch will be provided.

Informal Sessions

2:00 pm–4:00 pm

U.S. Manufacturing and Global Warming: The Elephant in the Living Room?
Neal Elliott, Aimee McKane
Location: Curlew

Comparing and Contrasting Best Practices in Energy Efficiency in Europe and North America
Adam Hinge, Paul Warde, Phil Fairey, Steve Baden
Location: Marlin

The Top Ten Reasons Your Proposal Was Not Accepted in California
Pierre Landry, Tim Drew
Location: Chapel

Behavior and Decision-Making Research: Find Ways to Support a Sustainable Effort
Carl Blumstein
Location: Dolphin

Empowering a Global Resource: The Energy Standards Information System
Peter Dupont
Location: Oak Shelter

Evaporative Technologies: High Potential for Low Energy Cooling
Cathy Higgins, Howard Reichmuth
Location: Kiln

Bridging the Design/Actual Energy Performance Gap in LEED
Mike Opitz
Location: Heather

Applying Cooper's Stage-Gate Process to DOE's Buildings R & D Portfolio
Andrew Nicholls, Jim Rannels, Ed Pollock
Location: Scripps

Climate Migration and Energy Efficiency Issues for Efficiency to "Deal With"
Steve Schiller
Location: Nautilus

California Commercial End Use Survey
Bob Ramirez, Tom Mayer
Location: North Longview

Developing a New Testing Protocol for Measuring the Performance of Showerheads and Aerators
Robert Mauris
Location: Marlin

What's Up w/MEEA? Come Get the Update on Regional Progress
Alecia Ward
Location: South Longview

The Next Frontiers for Energy Code Development, Adoption, and Enforcement
Harry Misuriello, Kate Offringa
Location: Manzanita I

Zero Peak Communities
1. Are affordable zero peak communities here today?
2. What are the electric utility benefits of zero peak communities?
3. What are the right utility incentives to encourage zero peak communities?
Lew Pratsch, Rob Hammon, Jeff Christian
Location: Triton

80 Plus Program Update—Where Are We Now with Efficient Desktop Computers and Servers?
Kent Dunns
Location: Manzanita II

Open Meeting: Planning for ACI Northwest: Where Performance Hits Home, February 21–22, 2007, Portland, OR
Linda Wigington
Location: Willow Inn II

Moving Toward Commercial Whole Building Performance
Denise Rouleau
Alexandra Sullivan
Bill Von Neida
Location: Oak Knoll I

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Job Listings

The San Francisco Department of the Environment is hiring an **Energy Efficiency Specialist** to assist in the 2006–2008 program cycle.

Interested parties should apply through CCSF Department of Human Resources.

A full description of the position and how to apply can be found at www.sfgov.org.

Many more job listings can be found at the ACEEE headquarters located in Surf and Sand.