



THE GRAPEVINE

ACEEE Summer Study at Asilomar, California

Wednesday, August 21, 2002

The Human Dimensions of Energy Efficiency

by Sandy Smith



ACEEE Human Dimensions Program Director Sandy Smith

Studies of the potential for energy efficiency often separately estimate technical potential and achievable potential. If markets were efficient and if market participants behaved as rational economic decision-makers, there would be no gap.

We tend to explain the difference between the two estimates as the result of market barriers. The gap itself reflects the inadequacy of a simple model of rational economic behavior.

Each market actor believes that he or she is acting rationally. Each could provide us with a logical explanation of their actions, based on cultural values, social norms (including those related to family, friends, and colleagues), and personal variables. A better understanding of these factors will aid our understanding of market actors and their energy-related behavior. There are hypotheses we can test so that we can be more effective and start to close the gap between program experience and rational economic behavior. For this, we need the human dimensions—the stuff that social scientists routinely scrutinize.

The social science aspects of energy efficiency have been studied for decades and are well represented at this Summer Study. For those who have not been following the Human Dimensions track, here's a preview of some of the work we are doing in this area and the issues that are starting to come into focus.

In our own human dimensions program, we're wrapping up work on how consumers see and use

continued on back page

ACEEE Presents Energy Efficiency Champion Awards

ACEEE honored four individuals and three utilities with its Energy Efficiency Champion Award on Monday and Tuesday nights at the start of the plenary events.

On Monday night, Blair Hamilton received the coveted award for his 30-plus years of work in the field. Hamilton leads Efficiency Vermont, an organization that provides conservation services to reduce load and save energy.

Also receiving Energy Efficiency Champion Awards that evening were three California utilities, PG&E,



Affordable Comfort's Linda Wigington

Sempra Energy Services, and SCE, that proved to the rest of the country that energy efficiency is a resource available in times of crisis as well as in periods of business as usual.

On Tuesday night, ACEEE declared Linda Wigington, Howard Learner, and Steve Selkowitz Energy Efficiency Champions.

Wigington is the founder, program coordinator, and inspiration of the annual Affordable Comfort Conference. Every spring weatherization staff, utility managers, state and federal program policy makers, HERS raters, and a wonderfully odd selection of other housing folks beat a path to Affordable Comfort in order to learn the latest techniques, see new gadgets, and meet old friends. In 2003, the conference will be held in Kansas City.

Howard Learner is the executive director of the Environmental Law and Policy Center, a Chicago-based environmental advocacy group. He received the award for years of devotion to improving the environment through energy conservation and because of his work this year on including the clean

continued on back page



Did You Miss the Free Food?

Tuesday afternoon Barbara Pierce and Pat Love (pictured at left) hosted the display presentations in Merrill Hall. If you weren't there, you missed viewing fascinating posters on projects from around the country as well as free eats.

Not to worry. Barbara and Pat will be doing it again on Thursday afternoon from 4 pm - 6 pm with a new set of posters.

What about Climate Change?

Choose collaboration over confrontation was the message that Assistant Secretary for Energy Efficiency and Renewables David Garman brought to Monday night's plenary. His spirit-of-cooperation message and his trumpeting of bipartisan successes was appreciated. However, his failure to mention climate change left some non-U.S. attendees disgruntled. The number of international participants at Summer Study has declined over the years, and some are attributing this falloff to Americans' limited approach to efficiency matters. The United States is a leader in the world economy and should take on a leadership role in climate change, said one unhappy attendee. Next week the Sustainable Development Summit will take place in Johannesburg, yet hardly any mention of this conference and its goals have occurred. Yes, developing ENERGY STAR standards for water heaters is a laudable goal, and the erection of 14 zero-energy homes on the Mall will be impressive, but some foreign attendees feel that self congratulations aren't in order quite yet.

Project Coordinator Position

Strategic Energy Innovations (SEI) is a nonprofit corporation located in San Rafael, California, that helps communities design and implement energy efficiency projects. SEI is looking for a suitably qualified person to act as a program representative working with communities and affordable housing constituents to manage existing projects and develop new opportunities. Go to the SEI Web site (www.seiinc.org) or stop by *The Grapevine* office to look at a more detailed job description. Applicants can apply via e-mail at Sei@seiinc.org or via fax at (415) 507-1975.

Times in Triton

The presentation by Dennis Pearson on the non-energy benefits of commercial programs, which was originally scheduled for an 8:30 am session, is trading its slot with a presentation by Jennifer Webb and Cyane Dandridge on energy smart schools. That talk, which had originally been scheduled for 10:30, will now be presented at 8:30. Bob talks, which are part of Panel 4, will take place in Triton.

Abstracts Due for ECEEE Summer Study

In spite of all the fuss about the difficulties in reaching the Kyoto commitments, it is time to realize that Kyoto compliance is only the beginning! National and international policies should not be limited to reducing the energy growth rate, but instead should start focusing on ways to reduce total energy use. Recognizing this, the EU has issued a call for Europe to take the lead in sustainable development and in addressing the multitude of challenging issues within the energy arena. This initiative is called Energy Intelligent Europe.

The theme of the ECEEE 2003 Summer Study, taking place in Côte d'Azur, Southern France, June 2-7, 2003, has been developed in keeping with that spirit. The ECEEE invites you to submit abstracts no later than September 27, 2002, for refereed papers or posters that

address topics within the sessions listed below:

- Energy efficiency: a strategic choice for Europe;
- Comfort and energy use in buildings;
- Land use, transportation and mobility;
- Building the bridge from lab to customer;
- Market-based instruments; and
- Dynamics of consumption.

Submit abstracts to abstracts-papers@ecee.org.

For detailed descriptions of the six panels and information about abstract submission, go to www.ecee.org or meet Anita Eide, ECEEE board member, and Hans Nilsson, ECEEE advisory board member, on Thursday between 1:30 pm-2:00 pm outside the Asilomar Administration Building.

Technology Showcase Exhibits

Booth	Manufacturer	Product
2	The Delfield Company	Vantage 6000 Line of Reach-In Refrigerators and Freezers
3	Engineered Web Information Systems	Tools for Local and Remote Monitoring and Data Visualization
4	Florida Solar Energy Center	Energy Efficient Relocatable Classrooms with Roof-Integrated Skylights
5	ACT, Inc. Metlund Systems	Residential Hot Water Demand Distribution Systems
6	ECR International, Inc.	WatterSaver Residential Heat Pump Water Heater
7	DuPont Tyvek Weatherization Systems	Reducing Building Envelope Air Leakage with the Tyvek Weatherization System
8	Florida Solar Energy Center	Gossamer Wind Ceiling Fan Technologies
11	Tactical Partners Consulting	Networked Demand Control: The New "Power Plant" Infrastructure
12	Digi-Log Technologies, Inc.	Digi-Log PTAC Power Controller Unit
13	Light Corp.	The Berkeley Lamp—A New Way to Look at Lighting
14	Pacific Northwest National Laboratory	High-Efficiency Residential Lighting Technologies
15	Pacific Northwest National Laboratory	High-Performance Commercial Unitary Rooftop Air Conditioners
16	Davis Energy Group	The NightBreeze System
17	CMC Energy Services	The Snug-Shade—An Energy Efficient Residential Window Shade System
18	SAGE Electrochromics, Inc.	Electronically Tintable Glass
19	Cardinal Glass Industries	Selective Surface Low-E Glazing
20	Sunoptics Prismatic	Skylights and Daylighting Controls

Technology Showcase Preview

Don't miss today's technology showcase, which will be held from 1:00 pm–5:00 pm in Merrill Hall. Here's a further sampling of some showcase offerings.

Booth 5: Metlund Systems

ACT Incorporated Metlund Systems is a development corporation specializing in energy-and-water-saving technologies for residential and commercial applications. Established in 1992, ACT has received certificates from The U.S. DOE's Office of Building Technology and has been featured as a Success Story in the Office of Industrial Technologies. The exhibit demonstrates three basic technologies: Hot Water Demand Pumping Systems, efficient Flue Dampers, and Heat Traps.

Booth 7: DuPont Tyvek Weatherization Systems

The Tyvek Weatherization System is a family of air barrier/weather resistant barrier building wraps (HomeWrap, StuccoWrap and CommercialWrap), and flashing tapes

for sealing windows and penetrations (FlexWrap and StraightFlash). This showcase will not only exhibit the products, but also show you how to install these products to form an effective air/water barrier system.

Booth 3: Engineered Web Information Systems

Engineered Web Information Systems (EN-WISE), a mechanical consulting company located in Oakland, California, will demonstrate a Java-based remote monitoring system. This system provides data visualization and control functions with the aim of improving building operation, energy performance, and occupant comfort. The demonstration will include a live connection to a San Francisco office building.

Stop and Shop

Be sure to stop by the ACEEE bookstore, located in Surf and Sand, and check out all our invaluable publications. If we don't have what you want in stock here at Asilomar, we would be more than happy to ship all requested items. And, don't miss the chance to pick up an order form for Howard Geller's new book, *Energy Revolution: Policies for a Sustainable Future*, which is scheduled for publication this fall.

All the News

Did you read the *New York Times* yesterday? The Science section contained an article, "Economic Interests Keep Drive for Renewable Energy Stuck in Neutral," by Neela Banerjee, about the global economic challenges to the increased use of renewable energies. Sounds like an ACEEE kind of thing, and it is. Take a look at the article graphic, "Efficiency and Conservation," and notice who supplied the expertise.

Call For Abstracts —Due December 2, 2002

The International Energy Program Evaluation Conference (IEPEC) is soliciting 1-page abstracts (peer reviewed) for paper, panel, or poster sessions at its Evaluation Conference and for publication in the conference proceedings. The conference will be held at the Renaissance Madison Hotel in Seattle, Washington, August 20–22, 2003. Authors who wish to be placed on the conference mailing list to receive the abstract submission package or conference information and registration materials can mail or fax their name, organization, and contact information to:

2003 International Energy Program Evaluation Conference

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Ready for Some Volleyball?

Those interested in a game of volleyball will be meeting today at 3:00 pm in front of Surf and Sand.

Got Extra Tickets?

If you're leaving today, please don't forget to leave your Aquarium tickets with the ACEEE staff at Surf and Sand.

The Asilomar Environment

Choose which of the following phrases best describes your roommate's snoring:

- a) deep silence d) *The Sound and the Fury*
b) soothing canyon breeze e) dog sonics
c) scherzo in A minor

Survey Says

Proctor Engineering Corporation has a survey on energy efficiency in residential buildings. You can read all about the project, "Marketplace and Engineering Perspectives on System Integration for Low-Rise Residential Structures," in the Summer Study Proceedings. The questionnaire will be available in the Chapel or it may be pressed on you by Joe Pira. Please take the time to fill it out and return it to the Sand and Surf office or fax it to (415) 451-2491.

The Human Dimensions of Energy Efficiency

continued from front page

EnergyGuide labels. This fall we will petition the Federal Trade Commission to adopt more effective labels. We're also starting work on such questions as:

- How can an improved knowledge of decision-making processes lead to more focused program activity and more effective market transformation within the existing commercial buildings sector?
- How can energy information be presented in a manner that makes energy a visible commodity and enables users to manage their energy use better?
- Can the endorsement of energy efficiency technologies by key members of professional groups influence the uptake of technologies?

With the insights gained from our and others' work in this arena, we can sharpen our messages so that they are both framed and presented more effectively. We can learn to use peer influence to shift behavior and attitudes to energy efficiency, especially by utilizing high-profile individuals. We can also use people and groups with high credibility within each particular market to carry our message. This will strengthen our collaborative approach to working with industry partners and other stakeholders.

Energy efficiency is ultimately about systems of energy use, and people are an integral part of these systems. Human dimensions work is about optimizing the human part of these systems. After all, implementing energy-efficient technologies requires that a person buys them and operates them optimally. We have all experienced the effect of human dimensions on technology while riding in a car. The fuel efficiency of any car is strongly dependent on the design of the car, but it's also dependent on the person behind the wheel.

Award Recipients

continued from front page

energy components in the recent Farm Bill, a piece of breakthrough legislation.

Steve Selkowitz is a familiar face at the Summer Study. Best known for his work in improving the efficiency of windows, Selkowitz's research at Lawrence Berkeley National Laboratory in many energy technology fields has carried him to become a department head at that legendary RD&D institution.

THE GRAPEVINE

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