

THE GRAPEVINE

ACEEE Summer Study at Asilomar, California

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Cars: The More Things Change...

by Therese Langer



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fuel economy of new autos...um... didn't decline? EPA seemed pleased to announce this last fact with the release of its annual account of U.S. fuel economy trends, but others may find it unsettling. Flat fuel economy would indicate that vehicle efficiency technologies are still being consumed in the beefing-up of the U.S. auto fleet. So, if and when Washington does get around to adopting a policy to increase fuel economy, the least expensive efficiency technologies will have already been absorbed in creating and realizing new expectations for vehicle luxury, power, and spaciousness among American car buyers.

The past year has been a good one for automobile efficiency technologies—hybrid vehicles passed the 1%-of-market milestone, variable valve timing and cylinder deactivation became household words (well, almost), consumer tax credits of up to \$3,400 for hybrids and advanced diesels went into effect, and the average

In reality, EPA's announcement of steady fuel economy is based on projected purchases of 2006 models and apparently reflects the wishful thinking of struggling U.S. auto manufacturers. It looks like the bottom really is falling out of the gas-guzzler market, at least for the time being, and the 2006 model year may yet show a substantial increase in average fuel economy over last year. Ironically, failure to increase CAFE standards over the past 20 years has achieved what opponents to standards said CAFE would do, namely to disadvantage U.S. automakers relative to foreign ones by allowing them to drop out of the race for better fuel economy.

From an energy perspective, where will we be if SUVs remain outré? Fuel economy could climb to 30 mpg, today's average for passenger cars. That saves us a million barrels of oil a day (MBD) in 2025. Not bad, but what about the other 10+ MBD we'll be burning in our cars?

So back to the drawing board. Everyone's talking about biofuels and plug-in hybrids. U.S. manufacturers have pledged to double their production of vehicles that can run on 85% ethanol by 2010. But due to a loophole in fuel economy standards, greater production of ethanol-capable vehicles increases U.S. oil consumption—meaning this pledge will be costing us 100,000 extra barrels of oil daily by 2010. Here bad policy nullifies first steps toward a potentially significant gasoline substitute. As for plug-ins, with rapid and sustained progress on batteries, they could materialize some time in the next decade, bringing perhaps 40% gasoline savings relative to today's efficient hybrids. Our bet for the best way to make that happen? Aggressive fuel economy standards, of course. So let's throw some good policy after bad—technology and the market still need help.

We Are the Champions (of Energy Efficiency)

Last night ACEEE honored four outstanding groups or individuals with Champion of Energy Efficiency Awards, which recognize leadership and accomplishment in the energy efficiency field. Seven people were actually given the awards, because one of the champions is actually a four-person team. Winners were selected based on demonstrated excellence in program implementation, research and development, energy policy, private sector initiatives, or international initiatives.

Cheryl Harrington, the director of the Regulatory Assistance Project, was awarded a Champion of Energy Efficiency Award for her lifelong leadership on energy efficiency policies in the utility field. The Regulatory Assistance Project, led by former state utility commissioners, researches energy policy issues and educates utility commissioners around the country on key policy issues. Richard Sedano accepted the award on Cheryl's behalf.

The Bonneville Power Administration was named as a Champion of Energy Efficiency for its long-term and renewed commitment to energy efficiency as an electricity resource. Bonneville Vice President Mike Weedall, who accepted the award, is responsible for many of the organization's innovations over the last 25 years.

Four Champions of Power Supply Efficiency were also named. These were Chris Calwell of Ecos Consulting; Andrew Fanara of the U.S. Environmental Protection Agency; Noah Horowitz of the Natural Resources Defense Council; and John Wilson of the California Energy Commission. The Champions of Power Supply Efficiency were recognized for their research, advocacy, management, and partnership abilities in working to transform a key technology market. This team's efforts promise to transform the ubiquitous electronic-device power supplies that festoon our electrical outlets.

Don Fisher, of Fisher-Nickel, Incorporated, was also named a Champion of Energy Efficiency for his leadership in changing national markets for energy-efficient food service technologies. Supported by Pacific Gas & Electric and other organizations, Don has blended technical skills, innovation, and persistence into an outstanding record of accomplishment.



Chris Calwell, John Wilson, and Andrew Fanara accept their Champion of Energy Efficiency awards for their work in promoting power supply efficiency. Noah Horowitz was not present.



Jon Livingston, Judy Nickel, and Bev Alexander congratulate Don Fisher on his award for his food service technology energy efficiency efforts.

These winners were nominated by their peers and selected by a committee of ACEEE's Board of Directors. Selection criteria were based on the nominee's impact, innovation, and leadership in the energy efficiency field.

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 ekarl@homeenergy.org.

Announcements

Box lunches

Today by Noon is your last chance to order a box lunch, which will be ready for Friday consumption, from ACEEE staff in Surf and Sand.

Today's data center demonstration tour has been cancelled.

Monterey Bay Aquarium

Tonight at 7:30 pm–10:30 pm

Enjoy a private dessert reception among over 300,000 undersea creatures at the Monterey Bay Aquarium.

Free shuttle buses will begin boarding at 7:15 pm in front of Phoebe A. Hearst Social Hall, and they will return to Asilomar beginning at 10 pm.

Each Summer Study full-week registrant has received one ticket to the Aquarium social event. Additional tickets (for family members) are available at the Summer Study office in Surf and Sand until today at 11 am. Tickets cost \$65 for adults and \$35 for children ages 2–12.

Jobs, Jobs, Jobs

The California Public Utilities Commission is seeking senior analysts in the Energy Division's Energy Efficiency Section to assist in energy efficiency program oversight and evaluation. To learn more about these opportunities, please contact Natalie Walsh at nfw@cpuc.ca.gov or call her at (415) 703-1622.

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

Cars on a Low Carbon Diet



Appalachian State University students won a 2006 P3 award for the conversion of this biodiesel bus, which they drove to Washington D.C.

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 e-mail your stories to ekarl@homeenergy.org.

Free Hot Water? Almost!

With less than \$10 worth of common materials, you can build a solar water heater that will reach 140°F or more. Pit your design skills against your colleagues in a race against time, fog, and declining supplies of fossil fuels. Join Chris Calwell and Rick Diamond for the first ever Summer Study Solar Water Heater Design Competition—Wednesday at 10:30 am at the Fred Farr Forum.

Steering Committee Meeting

The Super Efficient Gas Water Heater Appliance Initiative (SEGWHAI) steering committee will gather for meeting #3 today, Wednesday, from 1 pm to 6 pm in Toyon/Northwoods. If you come a bit early, food will be served at 12:30.

In Memoriam

Ted Bradshaw, a UC Davis professor of community development who helped California communities grapple with base closures, energy issues and creating healthy social systems, died August 5 while jogging near his home in Oakland. He was 63.

Trained as a rural sociologist, Bradshaw came to the Department of Human and Community Development as an assistant professor in 1995 after a nearly 20-year career as a researcher and lecturer at UC Berkeley. He made full professor in June. He was a true advocate of energy efficiency and a good friend and great husband and father. The energy community will sorely miss him.

Today's Energy Tip

If you're concerned about your energy use while watching TV and you have a plasma screen TV, you can save energy by watching *Lord of the Rings* and other dark movies, rather than sports programming or cartoons, which tend to be more brightly lit. If you have an LCD TV or cathode ray tube, your choice of programming won't affect your energy use. Ask Lloyd Harrington for details.

Getting to the Historical Roots of Efficiency

Ever hear of the magazine *Personal Efficiency*? Unless you were a subscriber in the early 20th century, chances are that your first glance at this periodical came courtesy of Tom Princen, assistant professor of natural resources and environmental policy at University of Michigan, who explored the history of efficiency with aplomb, humor, and fascinating visuals at Tuesday night's plenary presentation.

Princen noted that when he started researching sufficiency about a dozen years ago, he kept encountering the concept of efficiency. Though he resisted adding this topic to his research, knowing that it would take up a lot of time and energy, he dutifully explored it, only to be surprised to find that there was virtually nothing published on the subject. "I have to say that to this day I'm still perplexed by this.... after all, efficiency is a core concept in modern life," said Princen. "How could it be that there was no history of this?"

Princen then offered the audience his abbreviated history of the concept of efficiency, relating the story of Frederick Taylor, father of productivity, who believed that economic gains through surplus were enough of a benefit to justify turning workers into voiceless automatons. Taylor's work prompted the "efficiency craze" of the early 20th century, which resulted in such groups as the Efficiency Society of New York and inspired church groups to explore the topic of "efficient devotion." Efficiency was not only about industrial betterment, but also about social uplift, personal benefit, and gain for all.


This idealistic notion in reality was not quite the utopia Taylor had championed. There were conflicts between labor and management, losses in government and standards of living, and the association of efficiency with economic growth. Efficiency became manipulated for political gains, and the country shifted from celebrating the simplicity of efficiency to the gluttony of consumption.

Princen segued into the topic of sufficiency by stating that we must learn to differentiate between the sense of enough-ness and too-much-ness. We must learn, as a society, to recognize the "right size" for ourselves, whether it be apportioning our lunchtime meal or deciding on the square footage of our homes. We have been told for too long that more is better, but we know that this is an unsustainable concept.

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Tuesday's Poster Panels

If you missed the poster sessions on Tuesday, take a look at the topics covered. There will be many more exciting presentations to check out at Thursday's display session as well.

NREL Buildings Research on Optimization Strategies
Mary Colvin

Biomimicry: A Tool for Efficient Environmentally Benign Building Design
Katherine Wang
Alexis Karolides

Cost Effective Shared Energy Accounting for Small Public Institutions
Kyra Epstein
Tim Rosenfeld

Do Apartments Really Use Less Energy than Single Family Dwellings?
Dennis Nelson

The House the Economist Built—Getting Beyond "Green as a Feature"
Peter Schneider

Energy Efficiency Retrofits of Canadian Housing Stock
Louise Roux
Diane Francoeur
Anil Parekh

Design, Construction and Performance Analysis of a Passive Solar House, South Africa
Golden Makaka

Non-Energy Benefits
Lisa Skumatz

National Impact Lifestyle Leadership: Green Homes, Green Residents
Vincent O'Grady

Preliminary Results from the 2005 Residential Energy Consumption Survey
Eileen O'Brien

Enabling Demand Response in Multifamily Housing
Michael Bobkers
Daniel Harris

Overcoming Barriers to Innovation: The Hot-Dry Air Conditioner
Bob Knight

Energy Consumption in Large Homes
Dennis Nelson

Utilizing Wireless Sensor Networks to Reduce Residential HVAC Energy Consumption
Nathan Ota

Information Resources for Better Building Controls
John House

The Premium Economizer—An Idea Whose Time has Come
Reid Hart

ORNL Buildings Technology Center
Jeff Christian