

## CEE, ARI agree to pursue national HVAC database

The Air-Conditioning and Refrigeration Institute (ARI) has agreed to develop a national database of residential and small commercial HVAC systems that meet CEE specifications.



**Deborah Miller and Karim Amrane of ARI have been working with CEE.**

In a March 30 vote, the ARI Product Section approved an earlier ARI subcommittee recommendation to offer such a database to CEE or other organizations that are willing to pay for this service.

In order to qualify for CEE's database, equipment must meet the Energy Efficiency Ratio (EER) requirements as set forth in CEE's HVAC initiatives.

The individual EER values for each qualifying system, however, will not be made public.

The CEE Board of Directors voted on April 7 to pursue the ARI offer while maintaining the option for CEE to develop this type of database with a contractor. CEE is anticipating a written offer from ARI within two weeks and, should it

meet CEE approval, the actual database could be operational in two months.

While this is certainly good news for CEE members running HVAC programs, the specifics of ARI's offer have yet to be established.

Over the next few weeks, CEE will work with ARI to finalize the proposal.

"We are very encouraged by ARI's proposal," said Ed Wisniewski, CEE Deputy Director for Programs.

"The proposal, as currently understood, would meet critical program needs heading into the cooling season while maximizing manufacturer participation, minimizing risk to CEE and providing high levels of data accuracy."

If the two sides can agree on this proposal, it would also strengthen CEE's working relation-

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## Program evaluation a hot topic at MT Symposium

Evaluation of energy-efficiency programs has become increasingly important, especially in light of the recent wave of state budget cuts. Thus the improvement of program evaluation and evaluation's role in the future of market transformation were recurring themes at this year's MT Symposium.



**MARIAN BROWN**  
SoCal Edison

Southern California Edison (SCE), presented the new draft framework for evaluating energy-efficiency programs in California. This study has wide-ranging and long-term implications for energy-efficiency evaluation.

As California moves toward greater reliance on energy efficiency to meet future demand, "there is a need for more rigorous impact evaluation," said Brown. "There are large numbers of implementers who may be unfamiliar with the goals and requirements of good evaluation."

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At a March 2 working session, Marian Brown, Manager of Measurement and Evaluation for

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## CEE workshop begins important link to ENERGY STAR C&I

On March 3, CEE sponsored a workshop that examined the ways member programs and ENERGY STAR® can take advantage of each other's work with commercial buildings.

Entitled *Aligning Commercial Sector Strategies for Delivering Energy Efficiency*, the workshop was attended by CEE members and ENERGY STAR regional and national sector managers. It is the latest outgrowth of CEE's ENERGY STAR Linkages project, an effort designed to engage members with ENERGY STAR in the commercial sector.

Out of 40 attendees, 16 were CEE member program managers.

"This is the first time we've brought together energy-efficiency program managers and ENERGY STAR program administrators to work together," said CEE Commercial Program Manager Denise Rouleau, who organized the event. "We educated each other. The background information we exchanged in the morning provided for a good discussion in the afternoon."

CEE Executive Director Marc Hoffman and EPA's Jean Lupinacci, Director of ENERGY STAR's Commercial and Industrial Program, made presentations about the partnership between their respective organizations. Rouleau and Doug Gatlin of EPA, representing ENERGY STAR's Commercial Building Program, facilitated the afternoon breakout sessions.

Three EPA program managers – Stuart Brodsky, Clark Reed and Melissa Payne – presented information about their respective sectors: commercial real estate, healthcare and schools. CEE members Mark Tuffo (Northwest Energy Efficiency Alliance) and Ruth Horton (NYSERDA) described how ENERGY STAR had been integrated into their commercial building programs, and why it was an important component.



**CEE's Denise Rouleau organized the March 3 workshop and EPA's Doug Gatlin represented ENERGY STAR's Commercial Buildings Program.**



Joe McGee, Commercial Program Manager for the Southwestern Area Commerce & Industry Association of Connecticut (SACIA), discussed the use of the ENERGY STAR benchmarking tool by his organization's membership. The tool, he said, has been valuable in generating interest among large business decision-makers about the efficiency of their buildings.

SACIA members, many of which are Fortune 500 companies, were motivated to increase the efficiency in their facilities after finding out these buildings were performing poorly.

These businesses and SACIA are working together with Northeast Utilities to address whole-building performance. Restricted electricity distribution in some regions of Connecticut is a major driver in the motivation to benchmark.

William Leahy, Associate Executive Director of the Institute for Sustainable Energy, briefly talked about his experience in measuring, tracking and improving the energy performance of schools.

All of the presentations are available on the CEE Web site ([www.cee1.org](http://www.cee1.org)).

Brodsky, Reed and Payne shared their goals and strategies across each of the three market sectors – healthcare, schools and commercial real estate.

The goals are relatively consistent:

- Recruit new partners (not as critical in the schools sector)
- Increase number of properties being benchmarked
- Upgrade and measure progress by re-benchmarking
- Communicate success and provide recognition

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## CEE, ARI agree to pursue national HVAC database

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ship with ARI. CEE and ARI are currently working together on several other efforts, including quality installation of HVAC equipment.

A qualifying products database from ARI should also pave the way for ENERGY STAR® to reinstate EER into its specification requirements.

CEE and ARI have been working on this issue for more than a year, and much progress has been made. Many CEE members feel strongly that an

EER requirement in HVAC programming is critical to peak demand reduction.

Equipment manufacturers, however, have been opposed to the public release of actual EER values because SEER is the only federally recognized efficiency requirement.

In November of 2002, ARI discontinued the listing of EER values in its national equipment database. ENERGY STAR subsequently suspended EER as a requirement for its voluntary equipment specification.

CEE initiated talks with ARI in an attempt to resolve the stalemate and ARI's willingness to compromise is significant.

"I have been impressed by ARI's genuine efforts to address our needs and extremely pleased with their members' decision to work together with efficiency programs on this issue," said CEE Executive Director Marc Hoffman.

"We hope this is a harbinger of productive partnerships on other common interests, such as quality installation."

# MARKET TRANSFORMATION CALENDAR

Date	Event	Contact
April 21-25	Energy Efficiency & the HVAC/R Industry ALBANY, NEW YORK	518-885-0630 <a href="mailto:eka2004.tripod.com">eka2004.tripod.com</a>
April 26-May 1	Affordable Comfort Annual Conference MINNEAPOLIS	800-344-4866 <a href="http://www.affordablecomfort.org">www.affordablecomfort.org</a>
June 9-10	CEE Program Meeting BOSTON	617-589-3949, ext. 200 <a href="http://www.cee1.org">www.cee1.org</a>
June 11	CEE Board of Directors Meeting BOSTON	617-589-3949, ext. 200 <a href="http://www.cee1.org">www.cee1.org</a>
June 20-23	Electrical Apparatus Service Association (EASA) Convention WASHINGTON, D.C.	314-993-2220 <a href="http://www.easa.com">www.easa.com</a>
Aug. 22-27	ACEEE Summer Study on Energy Efficiency in Buildings PACIFIC GROVE, CALIFORNIA	302-292-3966 <a href="http://www.aceee.org">www.aceee.org</a>
Sept. 8-9	CEE Program Meeting DALLAS	617-589-3949, ext. 200 <a href="http://www.cee1.org">www.cee1.org</a>
Dec. 1-2	CEE Program Meeting SAN FRANCISCO	617-589-3949, ext. 200 <a href="http://www.cee1.org">www.cee1.org</a>
Dec. 3	CEE Board of Directors Meeting SAN FRANCISCO	617-589-3949, ext. 200 <a href="http://www.cee1.org">www.cee1.org</a>

## CEE's June meetings return to Boston

CEE's summer Program Meeting will be held June 9-10, followed by the Board of Directors Meeting on June 11.

Meetings will be held at:

**Hyatt Harborside**  
101 Harborside Drive  
Boston  
617-568-1234

CEE's discounted room rate is \$169 for a single or a double. The deadline for reserving a room at this rate is May 19.

All meeting attendees are required to register. See the CEE Web site ([www.cee1.org](http://www.cee1.org)) for a



registration form. The deadline for submitting meeting registrations is May 19.

For further information, contact Laura May at [lmay@cee1.org](mailto:lmay@cee1.org) or 617-589-3949, ext. 200.

### CEE NEWSLETTER, SPRING 2004 EDITION

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The CEE Newsletter is published quarterly by the Consortium for Energy Efficiency as a means for distributing energy-efficiency news to CEE members and other interested stakeholders. Material in this newsletter may not be reprinted without written permission from CEE.

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# CEE members honored at ENERGY STAR awards banquet

Three dozen CEE members were recognized for their outstanding achievements at the annual ENERGY STAR® Awards Dinner, held March 2 in Washington, D.C. A summary is provided below. Additional information about the ENERGY STAR awards can be found at [www.energystar.gov](http://www.energystar.gov).

## Energy Efficiency and Environmental Education Awards

The four California IOUs – **Pacific Gas & Electric**, **San Diego Gas & Electric**, **South California Edison** and **Southern California Gas** – were honored for their work in the California ENERGY STAR New Homes Program. In this statewide initiative, the market penetration of ENERGY STAR-qualified homes rose to 17 percent in 2003. The program offers technical training and incentives to encourage builders to construct energy-efficient single-family and low-rise multifamily homes. In addition, these utilities are also promoting ENERGY STAR-labeled appliances.

In 2003, **Nevada Power** and **Sierra Pacific Power** launched pilot programs for home appliances and residential lighting, reaching a total of more than 1 million customers. As of last fall, 1.4 million kWh had been saved as a result of the appliance program and 60,000 ENERGY STAR-qualified CFLs had been passed on to consumers.

The **New England Joint Management Committee (JMC)**, which includes 12 CEE utility members, received an award for its support of the ENERGY STAR Homes Program. In 2003, 10 percent of the new homes in the JMC service territory qualified for the ENERGY STAR and 18 percent of the new home starts for 2004 committed to ENERGY STAR. These 12 utilities developed a technical field guide for participating builders, sponsored a series of builder education seminars and published an ENERGY STAR homebuyers guide.

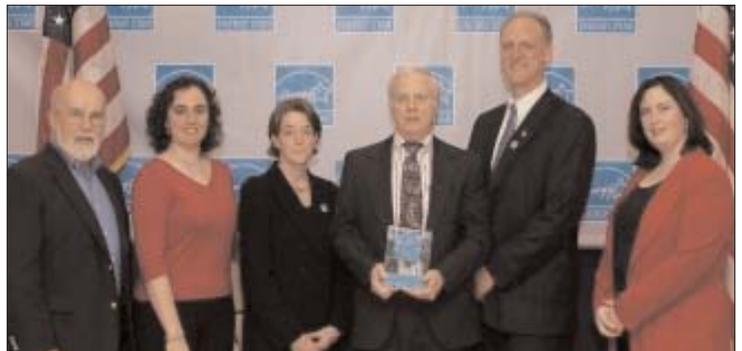
**NYSERDA** was recognized for its continuing work with the ENERGY STAR Program for New Homes and Home Performance with ENERGY STAR. More than 300 contractors have been certified through the home performance program and nearly 6,000 energy improvement jobs have been completed (or are in progress). NYSERDA's other residential efforts have resulted in a 50 percent market penetration of ENERGY STAR-qualified appliances and a 24 percent penetration of ENERGY STAR-labeled fixtures.

Eleven sponsoring utilities of the **Northeast Energy Efficiency Partnerships (NEEP)** were honored for their promotion of ENERGY STAR home appliances and residential lighting. Radio and newspaper advertisements accounted for 56 million media impressions, resulting in increased market share for appliances and lighting.

The **Northwest Energy Efficiency Alliance** was cited for the expansion of an already successful residential lighting program. The Alliance now engages distributors, showrooms and specialty stores to encourage the sales of ENERGY STAR-qualified lighting products. In addition, the Alliance provides education and training, retail field support and cooperative marketing.



U.S. Secretary of Energy Spencer Abraham, third from left, congratulated (left to right) SMUD's Rick Kallett, Janis Erickson and Jim Parks.



EPA's Kathleen Hogan, third from left, and Doug Faulkner of DOE, second from right, presented Efficiency Vermont's award to (left to right) Ron McGarvey, Leigh Winterbottom, Bill Bowman and Sarah Smith.

**Oncor Energy Delivery** earned an award for success in its ENERGY STAR Homes Program. Approximately 13,500 homes in the Dallas/Fort Worth area qualified for the ENERGY STAR in 2003, nearly doubling the previous year's total.

In 2003, **Sacramento Municipal Utility District's** residential lighting program increased the market penetration of ENERGY STAR-qualified CFLs and fixtures. Cooperative marketing strategies leveraged the resources of manufacturers and retailers, encouraging them to promote efficient lighting. According to SMUD estimates, this program has saved 5.5 million kWh and 889 kW of summer peak load.

Working through **Efficiency Vermont**, the Vermont Energy Investment Corporation and Vermont Gas jointly administered the Vermont Energy Homes Service. More than 25 percent of new home starts (and 70 percent in the Vermont Gas service area) qualified for the ENERGY STAR. This program provides one-on-one assistance to participating builders and homebuyers. It also offers incentives for the installation of ENERGY STAR-qualified appliances and lighting.

**Wisconsin Focus on Energy's** efforts in 2003 resulted in a 30 percent increase in ENERGY STAR-qualified homes. The program also contributed to increased market penetration of ENERGY STAR-labeled refrigerators, clothes washers and qualified lighting.

## National Product Campaign Award

**Efficiency Vermont** and three partners were honored for their community-based role in ENERGY STAR's *Change a Light* campaign.

## Portfolio management is becoming increasingly important

A widespread blackout, funding raids on public benefit charges and the success of energy efficiency as a response to California's 2001 energy crisis have raised the visibility of energy efficiency and made the concept of portfolio management increasingly important.

"It's a strategy – not a list," said Dan Violette of Summit Blue Consulting during a March 1 working session at the Market Transformation Symposium. "Portfolio management is an approach you take to deal with uncertainty."

Some of the underlying characteristics of a robust portfolio include:

- clear public goals and objectives
- identified performance metrics consistent with planning horizon and relative to objectives
- secured funding congruent with approaches to achieve objectives
- clearly identified limitations on program types

Portfolio management under these conditions would enable energy-efficiency programmers to analyze and quantify risk, and would likely contribute to a substantial improvement in impact.



**KENNETH JAMES**  
PG&E

Violette explained the importance of using a model to establish a portfolio. "The model formulates an assessment about the likelihoods of different scenarios," he said. "This can help you organize information for making decisions."

Ideally, Violette said, the process of reviewing objectives and assumptions is repeated on an annual basis. "We have tools that can assess a portfolio of supply-side and demand-side options," he said. "The challenge is to get program planners to develop better representations of uncertainty."

Kenneth James, filling in for Steve McCarty, related some of his experiences as a Senior Policy Analyst at Pacific Gas & Electric. "Energy efficiency is a resource," he said. "Measurement and evaluation are at the heart of optimizing energy efficiency."

Optimization of energy efficiency is critical in achieving demand reduction objectives.

James highlighted the major points of McCarty's presentation. "Measurement and evaluation identify energy-efficiency opportunities, monitor the effectiveness of programs and help you optimize your resource portfolio," he said.

M&E not only evaluate programs but provide cost analysis, best practices, market assessment, market penetration and an assessment of customer needs.

## Opening plenary takes a look at MT: past, present and future

The opening plenary of the eighth annual ACEEE-CEE National Symposium on Market Transformation featured three experts who examined market transformation in the past, present and future.

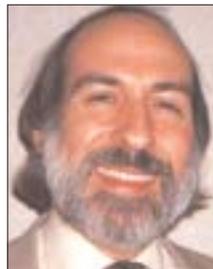
ACEEE Executive Director Steve Nadel started the session by looking at the past. "Market Transformation is 12 years old," he said.

"We've had quite a few successes and we've also had many learning experiences."

Residential clothes washers and ENERGY STAR® exit signs were singled out by Nadel as markets that have been "largely transformed" while substantial progress has been made in 17 categories of products and/or services.

CEE Executive Director Marc Hoffman examined the current state of the energy-efficiency industry, calling it a "dichotomy of outstanding accomplishments and remaining challenges."

He credited ENERGY STAR as a "juggernaut for residential products" while also making important inroads in commercial



**Presenting at the opening plenary were (left to right) Steve Nadel, Marc Hoffman and Ken Keating.**

and industrial markets.

"After decades, high efficiency in appliances and lighting has finally taken hold," Hoffman said.

"Kudos go to EPA and DOE for working together and bringing us ENERGY STAR, our national brand for energy efficiency."

There are still several remaining challenges, however. Hoffman urged that efficiency program administrators start thinking "outside the box" and seriously pursue the efficiency opportunities associated with practices in all sectors.

Examples of practices that have the potential to save huge amounts of energy include HVAC installation, home renovation, new construction, motor system management and energy management of commercial buildings.

In the closing segment, Ken Keating of Bonneville Power Administration underscored this strategy in his assessment of market transformation's future.

"Widgets are easier to move than services," he said. "But our prior successes create a foundation for the future. It can be done."

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# Member programs improve in-field performance of rooftop units

## NYSERDA and NW Alliance working with contractors to assess and address HVAC issues

Addressing a highly complex market, two CEE members – NYSERDA and the Northwest Energy Efficiency Alliance – are running programs to improve the in-field performance of small commercial rooftop HVAC units.

Both programs are addressing performance of these units by working with HVAC contractors to improve efficiency of existing units through upgraded contractor services. NYSERDA's Priscilla Richards and Dana Banks of Portland Energy Conservation Inc. (representing the Alliance) shared their respective program results during a March 1 breakout session at the Market Transformation Symposium.

CEE has been exploring an integrated approach, incorporating operation and maintenance improvements as well as encouraging the manufacture of more reliable, efficient and easily maintained equipment.

"We still think that there's room to improve the units themselves," said Program Manager Rachael Shwom, who is coordinating CEE's efforts in commercial HVAC. "With better units, the frequency of these problems will be reduced and when there is a malfunction, contractors can remedy the situation more easily. The programs by the Alliance and NYSERDA are a big part of finding the solution."

NYSERDA's *Unitary HVAC Advanced Diagnostics* program provides financial incentives, assessment tools, training and marketing materials as a means to encourage contractor participation. Advanced Diagnostics workshops, run by NYSERDA, explain the program's benefits and make a business case for its implementation.

In addition to a two-day course on building tune-ups, marketing and sales training are offered through the program, which addresses only the air conditioning component of the system.

"We're selling it as an efficiency-oriented business strategy," said Richards, a Senior Project Manager at NYSERDA. "We analyze and verify the diagnostic assessments. The tools can provide a credible third-party validation of properly-executed field work."

In order to participate, a contractor signs a Memorandum of Understanding and purchases one of the two approved diagnostic systems. NYSERDA subsidizes training and other costs. The contractor then performs a diagnostic assessment of the building and submits the data to NYSERDA. A \$50-per-unit incentive is paid to the contractor.

As of February 2004, NYSERDA has subsidized 616 assessments on 458 HVAC systems. "About 36 percent of the



units had the potential to increase efficiency through maintenance services," said Richards.

Although the program provides real benefits to the end-user, many contractors have been hesitant to get involved. "Contractors want proof that the use of these tools makes sense for them financially," said Richards.

NYSERDA plans to go forward with Advanced Diagnostics for the upcoming cooling season, evaluating participation and results.

The Northwest Alliance launched AirCare Plus as a pilot program in 2002. Before the program was implemented, the Alliance researched issues surrounding commercial rooftop units for one year. A total of 125 rooftop units in 58 buildings were assessed.

Rebates from 14 utilities provided the incentive for virtually all of the contractors who performed the three-hour assessment of rooftop units.

This service protocol included a check of the refrigerant charge, airflow, economizer and thermostat. Test procedures were customized for various types of equipment.

The Northwest Alliance also provided contractors with tools, training, technical support, sales training and marketing materials. Savings were monitored and verified by the Alliance.

What was learned from this project? "There are savings and value for the customer," said Banks. "But there are four important components necessary to establish AirCare Plus as a viable program: demonstration of compelling energy savings, streamlined protocol, strong utility support and sustained efforts by service providers."

The Alliance is discontinuing the funding of this program, with the hope that utilities will assume the financial responsibility and keep it running.

## CEE committee is developing High-Performance T8 specification

With several CEE members currently running commercial lighting programs, CEE's Commercial Lighting Committee is moving forward with the development of a specification for 4-foot, High-Performance T8 (also known as "Super T8") lamps and ballasts. The committee is developing a draft specification in mid-April, with the goal of finalizing it by June. At that point, the specification would be sent to manufacturers and other stakeholders for comment.

"Our challenge is to develop a specification that is simple but will have an impact on the market," said CEE Program Associate Afroz Khan, who is co-chairing the committee (with Tom Coughlin of National Grid USA).

The Illuminating Engineering Society of North America (IESNA) and the National Electrical Manufacturers Association (NEMA) will be working with the Commercial Lighting Committee in the review of the T8 specification.

Joe Howley, Manager of Industrial Relations for General Electric and chair of NEMA's Lighting Committee, believes that industry will support a specification for High-Performance T8s as long as it is simple.

The need for an industry-accepted specification for High-Performance T8s was discussed during a March 2 working session at the Market Transformation Symposium. Robert Sardinsky, a nationally known lighting consultant, and Coughlin, who helps manage National Grid's commercial lighting



**Lighting consultant Robert Sardinsky, left, and Tom Coughlin of National Grid discussed commercial lighting strategies.**

program, were the featured speakers.

"We need consensus on performance criteria in qualifying certain products as Super T8s," said Sardinsky, "and we need to consolidate the product offerings."

Programs currently promoting High-Performance T8s are using varying criteria to define qualifying products. In developing a uniform voluntary specification, CEE is attempting to reduce confusion in the market.

### **National Grid's program**

Sardinsky helped design the High-Performance T8 component of National Grid's commercial lighting program, which was launched in the fall of 2003. Over the past several months, the program has modified its parameters after receiving input from manufacturers and customers. National Grid's minimum specifications for 4-foot High-Performance T8 lamps are 90 mean lumens per watt, 94 percent lumen maintenance and 80 CRI.

National Grid offers a prescriptive rebate for efficient lamps and fixtures (T8s, T5s and High-Performance T8s). Rebates up to 40 percent of total cost (labor and material) are available for retrofits. For new construction, rebates up to 60 percent of incremental costs are offered.

Participants in this program are recruited by National Grid account managers. Local lighting distributors and area contractors (who have been pre-qualified by National Grid) are also drumming up commercial customers for efficient lighting.

At this time, approximately 10 percent of the fixtures rebated include High-Performance T8s. An additional \$5 per fixture rebate is available for the High-Performance T8 lamp/ballast/fixture combination.

National Grid, which has approximately 203,000 commercial, industrial and government customers, estimates that more than 60 percent of them have taken advantage of the company's commercial lighting rebate program at some point.

"The T8 is currently the industry standard for new construction," said Coughlin. "Our goal is to go beyond that. We have our own definition of High-Performance T8s, but we're working with the CEE committee to establish a nationwide specification. Once the High-Performance T8 is branded and defined, you'll see more customers asking for it."

## ENERGY STAR resources helpful in assessing building performance

Mark Tuffo, Project Coordinator at the Northwest Energy Efficiency Alliance, and Jim Rooney, Vice President of Sales for ei<sup>3</sup> Corp., discussed their usage of ENERGY STAR® resources to improve building efficiency during a March 1 working session at the Market Transformation Symposium.

Rooney's company provides on-line engineering support and data services for businesses. This includes energy consumption, costs, forecasts and best practices. As part of this service, ei<sup>3</sup> offers ENERGY STAR benchmarking as an added service to its customers. The energy data gathered across a customer's buildings provides the information needed to assess the cost-effectiveness of upgrade decisions.

The Northwest Alliance is currently running a pilot program called Building Performance Services (BPS), which targets medium- to

large-sized commercial buildings with complex HVAC systems. The immediate objective is to quantify and reduce energy consumption in the building; the long-term goal is to transform the market so this becomes a regular practice.

The Alliance is working with three partner utilities in a screening process to determine 15 test sites. Through the program, utilities will work with local contractors to develop a consistent and ongoing approach for increasing building performance.

After an energy audit, three options are presented: a building tune-up, commissioning and/or enhanced operations and maintenance practices. Equipment replacement is recommended if the system is obsolete or unreliable. The program recommends using ENERGY STAR's *Guidelines for Energy Management* and on-line training resources.

# Funding 'raids' are an everpresent danger to programs

## Symposium session examines the situations in Wisconsin, Illinois and Connecticut

Maintaining energy-efficiency program funding is an ongoing issue for all program administrators. Three states that were hardest hit by funding "raids" – Wisconsin, Illinois and Connecticut – were the focus of a March 3 concurrent session at the Market Transformation Symposium.

The presenters were Marty Kushler (ACEEE), George Edgar (Wisconsin Energy Conservation Corporation), Alecia Ward (Midwest Energy Efficiency Alliance) and Steve Cowell (Conservation Services Group).

A common theme expressed by Edgar, Ward and Cowell was the need to lobby and demonstrate tangible success to justify the existence of efficiency programs.

"Decisions to decrease funding for energy efficiency are unilateral and political," said Kushler, Director of Utility Programs at ACEEE. "Any state with a budget deficit is vulnerable."

One such state is Wisconsin, where newly elected governor Jim Doyle took \$27.5 million of energy-efficiency funds to balance the FY2005 budget. Last year, the state legislature shifted \$18 million of energy-efficiency funding to non-energy programs.

WECC has mobilized a constituency of market actors and large customers to communicate their support of energy-efficiency programming. In response, Doyle has formed an Energy-Efficiency Renewable Task Force to review future initiatives.

"We need effective program efforts that can be proven," Edgar said. "It's a mega-watt or a never-watt."

The Illinois Clean Energy Community Foundation (ICECF) has filed suit against the State of Illinois for claiming \$100 million of funds earmarked for energy efficiency. The ICECF is an independent 501(c)(4) foundation established by ComEd under the 1997 Illinois electric industry restructuring laws.

## CEE workshop begins link to ENERGY STAR C&I

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The key strategies for achieving these goals include working with national associations and top industry leaders (those with the most square feet, name recognition and influence.)

In the afternoon, the group did some brainstorming about how they could work together. A number of interesting ideas were generated and these will be considered by the CEE ENERGY STAR Linkages Committee as potential work



George Edgar (left), Alecia Ward and Steve Crowell addressed the issue of budget cuts.

ICECF's lawyers claim that it is a unique private foundation and the energy-efficiency funds cannot be transferred to the state's general fund. "This is a unique example," pointed out Ward, "and is not applicable to other states."

Ward also cautioned that funding in Michigan and Ohio appears to be unstable. Energy-efficiency funding in Minnesota and Iowa seems to be secure at this time.

Cowell, CEO of Conservation Services Group (a major contractor for energy-efficiency services in New England), provided a status report on funding in the Northeast. "After the state budget claimed \$12 million in 2002, Connecticut Governor John Rowland eliminated all energy-efficiency programming for 2004 and 2005," he said.

The Northeast Energy Efficiency Council took a leading role in protesting the budget cuts. NEEC initiated an intensive lobbying campaign, hired a lawyer and publicized the energy-efficiency cuts through the media.

"We created a Web site ([www.ratepayer.net](http://www.ratepayer.net)) and met with every legislator," said Cowell. "The governor was reluctant to shift his position but we worked out a compromise with legislative leaders."

Under the agreement, energy-efficiency budget cuts were spread out over seven years, saving \$48 million of programming. "We learned not to get caught flat-footed," Cowell said. "Get involved early and demonstrate a verifiable impact. If you don't have data, no one will believe you."

in the upcoming months.

"This workshop was a good first step," said Rouleau. "The member program managers and the ENERGY STAR sector managers had never met before.

"Now people are starting to connect and brainstorm some ideas. This is a great opportunity to work together in a coordinated fashion. We look forward to building on this effort."

# CEE Survey shows heightened awareness of ENERGY STAR

According to the latest CEE ENERGY STAR® Survey, awareness and understanding of ENERGY STAR increased substantially in 2003.

The survey report, available on the CEE and ENERGY STAR Web sites, revealed that 56 percent of the sample recognized the ENERGY STAR label, compared with 41 percent in 2002. Half the sample showed a high understanding of the label, and 63 percent demonstrated at least a general understanding.

Recognition of the label in areas with a high degree of ENERGY STAR promotion also increased, from 57 percent in 2002 to 67 percent in 2003.

This heightened understanding among American households appears to have influenced sales of qualifying products. Overall, 22 percent of the sample reported buying at least one ENERGY STAR-qualified product in the past year. Of this group, more than half of the respondents claimed that the label had influenced their purchase.



For the fourth consecutive year, CEE and sponsoring members developed and fielded the survey. Sixteen CEE members sponsored the effort, with several members funding oversampling in their states or cities. As in previous years, EPA has made a major contribution by analyzing the results and preparing the final survey report.

"I'd like to acknowledge the CEE sponsors," said Miriam Goldberg of KEMA-XENERGY in presenting the results of the EPA analysis at the MT Symposium on March 1. "This wouldn't have happened without them."

Not only that, but CEE members have actively promoted ENERGY STAR on a number of fronts, contributing to the significant jump in the label's awareness. "The publicity enables recognition and understanding to increase over time," said Goldberg, "We need to continue the publicity and the programs. Regional partnerships and sales training are also a big part of this success."

Lynn Hoefgen of Nexus Market Research underscored the findings of the survey by presenting the results of another study, which assessed the effects of Massachusetts utility programs on ENERGY STAR-labeled appliance sales.

"The utility appliance programs are working," Hoefgen said. "and the savings are substantial. Sometimes it takes a while for the effects to be measurable. So be patient."

The ENERGY STAR survey is fielded on an annual basis and CEE is seeking sponsors for 2004. Contact Monica Nevius at [mnevius@cee1.org](mailto:mnevius@cee1.org) for details.

## Program evaluation a hot topic at MT Symposium

*Continued from page 1*

The framework study clarifies the necessary components in designing evaluation protocols for California's efficiency programs, laying out decision-making factors for different types of programs in a step-by-step fashion.

SCE is coordinating this project under the auspices of CALMAC (the California Measurement Advisory Council) for the California Public Utilities Commission. The other California IOUs (Southern California Gas, Pacific Gas & Electric and San Diego Gas & Electric) are very active members of the Project Advisory Group that is guiding the development of the framework. A draft of this comprehensive 406-page study is currently available on the CALMAC Web site at [www.calmac.org](http://www.calmac.org). (To find the study, click on the CALMAC link, then on Filings.)

While it is designed for California, the framework should be highly relevant for evaluators and program administrators in many other areas.

The Regional Roundup, held earlier in the day at the Symposium, underscored the importance of evaluation to the future of market transformation programs, especially given recent energy-efficiency funding problems.

Wary of potential raids on system benefit charges, program administrators from around the country see improving MT evaluation as a critical element in the justification of energy-

efficiency program funding. While market transformation programs funded by system benefit charges appear to be stable in New York, NYSERDA's Rick Gerardi noted that "measuring market effects through traditional evaluation efforts may be the biggest challenge to continuing or growing MT" in the state.

George Edgar of the Wisconsin Energy Conservation Corporation emphasized the need to show near-term savings from MT programs to maintain funding through budget crises. Mona Mosser of the New Jersey Board of Public Utilities said that some New Jersey regulators have expressed concern about the higher marketing and administrative costs of market transformation programs. She advised the efficiency community to make greater efforts to gather MT intelligence and make appropriate, convincing comparisons between the impacts of MT and more traditional efficiency programs to help overcome these concerns.

"There is increased pressure on energy efficiency to address multiple goals like meeting growing energy needs and reducing peak load," said Monica Nevius, CEE's Manager of Research and Evaluation. "These goals require tighter, more reliable estimates of energy savings. We also need to help regulators understand issues around how evaluation data are collected and how to interpret the results for planning purposes. Efforts our members are making to clarify evaluation protocols are crucial to the future of efficiency programs."

# 1-2-3 Approach to Motor Management is now available

## Innovative tool can be used in member motor programs

On Feb. 24, *Motor Decisions Matter* (MDM) sponsors launched the *1-2-3 Approach to Motor Management*, an innovative software tool that demonstrates how industrial and commercial facility managers can reduce downtime and save energy by proactively managing their motor fleets.

Managed by CEE, *Motor Decisions Matter* is a national awareness campaign that promotes effective motor management.

MDM campaign sponsors – including motor manufacturers, motor service centers/distributors (EASA members) and 11 CEE members – developed the 1-2-3 Approach to demonstrate the financial impact of common motor-related decisions. The tool is now available on-line, making it easy for all CEE members to incorporate it into their commercial and industrial programs.

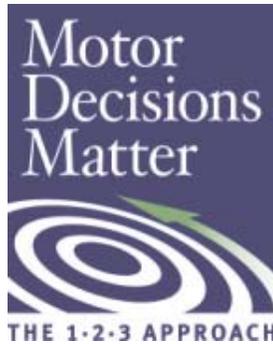
One MDM sponsor, NYSERDA, is planning to integrate the 1-2-3 Approach into its motors program because it delivers a clear and compelling message: motor management makes sense.

“We’re partnering with our customers and encouraging them to avoid crisis decision-making,” said Ruth Horton of NYSERDA. “This tool makes it easier. It also offers vendors a business opportunity.”

The new tool, in the form of a Microsoft Excel spreadsheet, is easy to use and provides information quickly. “It’s a good starting point for small to medium-sized companies that might not have the resources to develop a motor management plan,” said CEE Industrial Program Manager Ted Jones, co-manager of MDM.

“By integrating the 1-2-3 Approach into their motor programs, CEE members can demonstrate the benefits of motor management to these types of companies.”

In addition, MDM’s national publicity efforts help generate greater customer awareness, which can save promotional program dollars.



Using a limited amount of customer input, the tool calculates annual motor operating costs and presents financial data for future decisions based on life-cycle costing. In this way the 1-2-3 Approach user can make an informed decision on whether to repair or replace a motor *before it fails*, and plan accordingly. The tool also helps to educate motor users about other issues to help optimize their motor systems.

### What the tool can do

- calculate energy cost and potential energy savings
- calculate (and compare) the financial impact of repairing or replacing motors
- determine the payback periods for NEMA Premium motors
- calculate return-on-investment and net present value
- print tags that identify the best repair/replace options for each motor
- generate a summary report

The *1-2-3 Approach to Motor Management* is available through participating sponsors and on the MDM Web site ([www.motorsmatter.org](http://www.motorsmatter.org)). It is designed to team the facility manager with a “motor expert” – a representative from

local motor distributor, service center or distributor, utility or energy-efficiency organization.

### How to use the 1-2-3 Approach

The first step is for the customer to contact his/her local motor representative or participating sponsor, set up a meeting and work together to provide the necessary data (selected nameplate data, hours of operation and facility electric rates) for the 1-2-3 spreadsheet. Information generated by the spreadsheet then analyzes the energy usage and potential energy savings of the motors.

Based on these results, the customer is able to make an effective proactive repair/replace decision (instead of a last-minute, panic-driven choice). The spreadsheet also enables the customer to generate tags that designate the repair/replace decision for each motor. Tagging motors makes proactive decisions explicit to others in the facility, reducing confusion and saving valuable time when the repair/replace decision needs to be made.

The 1-2-3 Approach is the first step in developing a motor management plan. It demonstrates the energy savings and other benefits of proactive planning, and can be used to make a persuasive business case to senior-level management. Supporting materials, including an instruction manual, sponsor contact list and a press kit, are also available on-line.

For additional information about the *1-2-3 Approach to Motor Management*, see the MDM Web site ([www.motorsmatter.org](http://www.motorsmatter.org)) or contact Ilene Mason ([imason@cee1.org](mailto:imason@cee1.org)) or Ted Jones ([tjones@cee1.org](mailto:tjones@cee1.org)).

### 1-2-3 Approach introduced to sponsors via Webcast

CEE introduced the 1-2-3 Approach to Motor Management to MDM sponsors and their field representatives through Webcast presentations on Feb. 18 and March 18. More than 100 people from across the country participated and the presentations were well received.

Judging from those who have downloaded the tool and participated in the two training sessions, the 1-2-3 Approach has been particularly popular among EASA members, motor manufacturers and distributors, and energy-efficiency program administrators.

# CEE furthers exploration of water and wastewater initiative

Two working sessions at the Market Transformation Symposium highlighted opportunities to improve the energy performance of water and wastewater facilities. Both sessions provided useful insights to CEE's water and wastewater committee, which is currently exploring a national initiative in this area.

The first session addressed market transformation opportunities and successful program strategies within the pump industry. Representing the Hydraulic Institute (HI), Bill Taylor of ITT Fluid Power noted that 80 percent of pumps in the industrial sector are oversized, wasting a good deal of electricity and often leading to maintenance problems.

Taylor noted that HI had convened a Market Transformation Committee to help identify opportunities for the pump industry to educate customers about the importance of pump system selection, sizing and performance. HI is interested in partnering with the energy efficiency community, including CEE, ACEEE and the Department of Energy in this effort.

"Users can benefit from energy-efficient pumping through energy savings, increased reliability and reduced maintenance costs," he said. "Maintenance savings can exceed energy savings by a significant amount. Furthermore, pump system efficiency is a potential business opportunity for manufacturers to replace old systems with new efficient equipment, and to provide services for this equipment."

Although there are many technical resources available to program administrators on pump systems, finding a workable program design that is effective and affordable remains a challenge.

In working with NYSEDA, Wisconsin Focus on Energy, Southern California Edison and the Oregon Energy Trust, Tom Giffin of Science Applications International Corporation (SAIC) has learned that focusing on key markets (such as wastewater) and key applications (such as aeration) is an important strategy to help make programs cost effective.



Pump system performance, said Giffin, is especially important to water treatment facilities since pumping often represents more than 80 percent of a typical water treatment facility's energy use. Thus targeting pump system optimization in municipal (or industrial) water treatment facilities can be an effective program strategy.

The second session addressed program strategies and partnership opportunities within the water and wastewater industry. Giffin described a Wisconsin Focus on Energy pilot project in which the approach was particularly effective among municipal water treatment and wastewater treatment facilities. He noted several challenges associated with municipal facilities.

Giffin found that most water and wastewater facility operators don't care about energy use because energy efficiency is not a mandated requirement. Water quality, on the other hand, is mandated and regulated. "Only 5 percent of facility operators ever see the electric utility bills and only 1 percent understand them," he said.

Representing California's Municipal Wastewater Process Optimization Program, Derrick Rebello of Quantum Consulting told the group that direct, persistent marketing works best with water and wastewater facilities.

"It is important to get initial buy-in from operations staff," he explained, "and then include the facility director or financial staff as a next step." Rebello cited several successful projects in California where savings of \$24,000 to \$40,000 were realized.

Representing the interests of 1,000 members, Ken Kirk, Executive Director of the Association of Metropolitan Sewerage Agencies noted that there is a \$500 billion gap between what communities spend now for water/wastewater services and what they will need to spend over the next 10 years. This figure assumes a 20 percent improvement in efficiency each year.

Every one of his members is trying to address higher energy costs, which often represent 10 percent or more of their operating budget. The greatest challenge in the future, said Kirk, is addressing (and changing) facility management culture. "There is a need for assistance with strategy and planning in these facilities," he said. "It is a nascent, but growing area."

For further information about CEE's efforts in water and wastewater, contact Ted Jones at [tjones@cee1.org](mailto:tjones@cee1.org) or 617-589-3949, ext. 230.

## Survey indicates need to educate facility managers

Last year, *Motor Decisions Matter* (MDM) surveyed readers of *Plant Engineering* magazine to determine the level of understanding and awareness of key motor management and motor-related issues. A summary of these results, as well as the final survey report, is posted on the MDM Web site ([www.motorsmatter.org](http://www.motorsmatter.org)).

The survey revealed that awareness and understanding of basic motor management issues is relatively low. For example, only 12 percent of the respondents understood the relationship between a motor's operating costs and its purchase price. More than

half of those surveyed did not have a purchasing policy that took energy efficiency into account and only 43 percent used life-cycle costing in their motor-purchasing process.

The survey results indicate a continuing need to educate commercial and industrial facility managers – as well as upper-level management – about the opportunity to improve productivity and their bottom line by effectively managing their motors. The MDM campaign has been extended for an additional three years to continue disseminating this important message.

# QUALITY INSTALLATION

## Market stakeholders weigh in on key issues

While it is generally agreed that a quality installation of residential HVAC equipment saves energy and optimizes performance, the promotion of this concept is not yet widespread. In addition, there is a lack of complete agreement among key stakeholders as to who should be providing the sales pitch, to whom and how.

**'The best way to get the contractor to change is educating consumers so that they are demanding a quality job.'**

Warren Lupson  
ACCA

A March 2 working session at the Market Transformation Symposium provided the viewpoint of contractors and technicians, the people who are delivering these services.

The featured speakers were Warren Lupson, representing the Air Conditioning Contractors of America (ACCA), and Pat Murphy, Director of Technical Development for North American Technician Excellence (NATE).

Quite often a quality installation is a tough sell because it requires additional time and involves greater up-front cost. Specific tests are necessary to ensure that the installation is being done properly, and the work itself is often more complex.

Since a low bid is attractive to the homeowner, many contractors have trouble justifying a quality installation on its energy-saving merits alone.

"Health, comfort and safety are the main selling points," said Lupson.

A quality installation provides all of the above. The payback for incremental costs, however, is generally not quick although it is usually less than the life of the equipment (this varies depending on the climate). A key

issue discussed during the session was how to convince homeowners that an energy-efficient HVAC installation is worth the money. And who should be the target for a campaign to improve installations.

Lupson firmly believes that marketing and education campaigns should target consumers, not contractors. "You won't get a contractor that is currently making a profit to change his behavior easily," he said.

"The best way to get the contractor to change is educating consumers so that they are demanding a quality job. The efficiency community should target consumers."

Most stakeholders agree that changing consumer demand is an important component of transforming the market. It may be asking too much of the average homeowner, however, to know enough to ask for a blower-door or Manual J test.

"You can't expect a consumer to understand these things," said Chris Neme of the Vermont Energy Investment Corporation. "It's very unlikely the majority of consumers will ever demand the necessary services that constitute a quality installation. We need to build an infrastructure to deliver the services, then take steps to support the quality contractors and technicians."

Contractor incentives for quality installation are often ineffective because the paperwork is burdensome and the monetary return is relatively small. "Equipment rebates are more of an incentive," Lupson said. "Generally speaking, small cash incentives to perform a Manual J will not be effective."

Murphy agreed, predicting that the market will transform only when a quality installation is in the self-interest of the contractor. He said that certifying capable technicians (who can be readily identified) is an important step. NATE, a national organization that provides a certification exam for HVAC technicians, has worked with

CEE for the past several years to incorporate energy efficiency into its testing materials. Although NATE's current certification exam includes some questions about efficiency, the organization is also working on an energy-efficiency specialty test that is expected to be rolled out this fall.

In addition to the increased competency expected of technicians certified by the exam, NATE also offers a liaison with manufacturers. Because HVAC manufacturers have a vested interest in seeing their equipment installed properly, they support NATE's certification efforts.

"Technician certification is important but it's not the whole picture," said Murphy. "Accreditation of contractors would be a major step."

**'We need to know which stakeholders are best equipped to bring about the necessary market changes and determine a logical sequence for taking action.'**

John Taylor  
CEE

NATE does not accredit contractors and there is no national accreditation program in existence. The Building Performance Institute (BPI) does accredit contractors in New York, but only those who use the "whole-house" approach.

Some local utilities and/or energy-efficiency organizations post a list of participating contractors on their Web sites. Murphy also pointed to ISO-IEC 17024, an international standard for personnel-certifying organizations, as an appropriate guideline for any future contractor accreditation program.

Another possible strategy is an ENERGY STAR® quality installation brochure for consumers. A brochure could ease

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## Contractors present their views about the whole-house approach

Residential retrofit building contractors tend to specialize in just one of the many aspects of work that address energy efficiency and comfort. Typically, homeowners hire a separate contractor to seal their basement, install their HVAC system, add insulation or replace windows.



There are also contractors who take a “whole-house” approach, addressing all of the above components of efficiency and comfort. While this practice is not widespread, the whole-house approach, in theory, is the best (and most cost effective) way to ensure energy efficiency and comfort.

But is it practical for one contractor to provide all of these services? And is there consumer demand for a contractor that can do it all?

That was the topic of discussion during a March 1 working session at the Market Transformation Symposium. Two contractors – Richard Kornbluth of Entherm, Inc., and Joe Kuonen of Comfort Diagnostics and Solutions – shared their experiences with the whole-house approach.

Entherm is one of many New York companies that participate in NYSERDA's Home Performance with ENERGY STAR® program. Per NYSERDA's program requirement, Entherm is accredited by the Building Performance Institute (BPI), a certification and accreditation organization for whole-house contractors. To measure consumer benefits and program effectiveness, pre- and post-testing is required on all jobs. Records are kept from all tests.

NYSERDA provides a number of incentives for both the contractor and consumer. None is more important than the 5.99 percent financing offered to the homeowner. “Financing is what makes it work for us,” said Kornbluth. “There is a cost to become accredited [with BPI] and it's a lot of paperwork but it's worth it because the financing offered

by NYSERDA makes it easier to close the sale.”

Other incentives include a 10 percent discount for cash customers, a 50 percent subsidy (up to \$5,000) for qualified customers and contractor rebates. Contractors are reimbursed for 5 percent of the first \$10,000 of work and 2 percent of the total job. In addition, the program is promoted through radio, television and the print media.

Kornbluth estimates that BPI accreditation translates into \$100-200 worth of paperwork and software per job, \$900 for each certified technician and annual dues of \$1,200. NYSERDA offsets a portion of these costs.

“We're doing the right thing in treating the whole house,” Kornbluth said. “And there's an opportunity to up-sell the job so we can justify the [certification] expense by increasing our revenues. Customers have been very satisfied.”

Over in Arkansas, Kuonen has been running a successful whole-house contracting business without any efficiency program support. His company, Comfort Diagnostics and Solutions, has thrived primarily because of consumer satisfaction and the resulting word-of-mouth recommendations.

As a former home energy auditor and rater, Kuonen used to refer homeowners to a wide array of contractors for the necessary home improvements. “There was no one who could do all the work,” he said. “So we started a business that looked at home performance holistically.”

Kuonen markets his business extensively, offering a comprehensive energy audit for \$96, a loss-leader that generally opens the door for a whole-house contracting job.

He also hosts a local radio program, “House Calls,” which is similar to the “Car Talk” show heard on NPR.

“The radio program is very important both in terms of generating leads and lending credibility to our sales staff,” he said. “Many consumers don't know what they're missing or the problems that can arise due to poor home performance. Avoided pain is harder to sell than experienced pain.”

## New compressor technology saves electricity in refrigerators

LG Electronics, a Korea-based manufacturer with worldwide distribution, has introduced a new compressor technology that enables its new line of refrigerators to reach very high levels of efficiency. According to Daniel Lee, LG's Director of Marketing and Communications, some of the new models are 30 percent more efficient than the current federal standard.

That would place the new LG Side-by-Side refrigerator among the elite few to have qualified in Tier 3 of CEE's Super-Efficient Home Appliance

Initiative. Currently, six products qualify at this level.

Instead of the typical reciprocating compressor found in most refrigerators, the new LG model uses a linear compressor, which does not require a crank mechanism to change the rotary motion into a reciprocating motion. This significantly reduces the compressor's energy loss and improves the motor efficiency. The linear compressor technology also has potential applications in room air conditioners although no product offerings are imminent.

LG is marketing the 26 cubic-ft. Side-by-Side refrigerator as a high-end niche product, combining high efficiency with a number of gadgets and features (a 20 cubic-ft. model will also be available). Models range from \$1,249 to \$1,799 and include temperature and humidity sensors and controls as well as an LED digital display. LG has also incorporated the linear compressor technology into its “Multi-Media Internet Refrigerator,” which has a TV, radio, digital camera, computer and an electronic calendar built in. It retails for \$7,499.

# Lighting design competition winners to be announced May 17

## Top prize of \$10,000 will be awarded in Las Vegas

*Lighting for Tomorrow's* highly successful two-year run will peak with a May 17 award ceremony, but its impact on the residential lighting industry should last for years.

*Lighting for Tomorrow*, a national fixture design competition, is managed and sponsored by the American Lighting Association, CEE and the U.S. Department of Energy (represented by the Pacific Northwest National Laboratory). Nineteen CEE members are co-sponsors.

The competition has achieved its primary objective of pulling attractive, high-efficiency lighting fixtures into the market. Scores of designers and manufacturers submitted entries to the competition's first judging cycle in 2003.

Finalists were identified by a multi-stakeholder judging panel and were invited to submit prototypes earlier this year. In total, 18 prototypes and production-quality fixtures were assessed by the judging panel in February.

Some of the finalists are already being manufactured and should soon be available in lighting showrooms. Several are currently pursuing ENERGY STAR® qualification.

In addition, publicity from the competition has increased awareness of ENERGY STAR-qualified fixtures among both consumers and the lighting industry.

"The competition has helped to open the eyes of manufacturers and designers, encouraging them to produce more decorative, efficient fixtures," said Terry McGowan, ALA's Director of Engineering and Technology.

"Showroom managers and salespeople are also far more aware of the energy-efficient options than they were when we began the project. *Lighting for Tomorrow* has made a big impact on this market."



Winners (including the \$10,000 grand-prize winner) will be announced at the American Lighting Association Annual Conference in Tucson, Ariz., on May 17. David Garman, Department of Energy Assistant Secretary of Energy Efficiency and Renewable Energy, will speak at the awards ceremony.

CEE members are invited to attend the May 17 awards ceremony, which will be held at the Westin La Paloma Hotel in Tucson. A special working session following the awards ceremony will focus on establishing and maintaining successful efficiency program-showroom partnerships. An agenda for this session is currently in development.

"It's very exciting to see the competition come to a conclusion," said CEE Residential Program Manager Rebecca Foster. "We've seen a tremendous amount of enthusiasm and seen so many innovative fixture designs.

"From this point forward, homeowners and builders can go to lighting showrooms and choose from a much wider array of attractive fixtures that are also energy efficient."

In addition to the ALA Conference, the winning fixtures will be displayed at the Designers Lighting Forum of New York (June 23), the Dallas Lighting Market (June 25-29) and the ACEEE Summer Study (Aug. 22-27).

For further information, contact CEE's Rebecca Foster at [rfoster@cee1.org](mailto:rfoster@cee1.org) or 617-589-3949, ext. 207.

## Department of Energy conference examines water heating issues

In order to critically examine recent innovations in residential water heating, the Department of Energy hosted a "Water Heating Roadmap Development" meeting Feb. 25-27 in Baltimore. DOE uses technology roadmaps to guide its investment into research and development and to align its activities with industry-identified priorities. Attendees included DOE staff, national laboratory researchers, water heater manufacturers, academics, system installers and efficiency representatives.

The meeting was jointly sponsored by DOE's Building Technologies Program and the Solar Energy Technologies Program. The initial goal for water heating, as formulated by DOE, is to

"double the efficiency of water heaters or decrease the amount of energy used for water heating by half by the year 2015." Paths to achieve this goal vary from radical "all-solar" scenarios to a more moderate plan relying on a combination of the most efficient traditional technologies, system improvements and renewables.

On the first day, Gary Klein of the California Energy Commission presented interesting data on the typical energy losses due to inefficient water heating systems. His message to "follow the water" emphasized the importance of looking beyond the water heater when increasing efficiency. Klein explained that there is great energy-

saving potential in changing the system layout, pipe size and length, and by using heat-recovery technologies.

The second and third days involved smaller breakout sessions focusing on specific technologies and the various market, institutional, and technical barriers to greater efficiency.

DOE hopes to have a draft of the roadmap completed within the next several months.

For more information on the meeting and/or CEE's work with residential water heating, contact Stephanie Jones at [sjones@cee1.org](mailto:sjones@cee1.org) or 617-589-3949, ext. 202.

# MARKETING ENERGY EFFICIENCY

## Ad Council targets campaign at pre-teens

During a March 2 lunchtime presentation at the Market Transformation Symposium, Kathy Crosby, Senior Vice President of the Ad Council, described a rather unique energy-efficiency campaign targeted at 8- to 13-year-olds.

The Ad Council is a non-profit government agency that selects public issues and promotes them through various communication channels.

The focal point of the three-year campaign is a Web site, [www.energyhog.org](http://www.energyhog.org), that includes five interactive video games about saving energy at home. By playing the games, children learn about "Energy Hogs" and what they can do to stop them.

After entering "Hog Busters Training Camp," you'll see five rooms in the house. Clicking on different parts of a room reveal energy-saving tips but only one launches a video game. The games involve replacing incandescent bulbs with CFLs, turning old refrigerators into ENERGY STAR® models, caulking windows, rolling out insulation and using less hot water.

"It's very engaging and the information is very useful," said Priscilla Natkins, Executive Vice President of Campaign Management for the Ad Council.

"The games enable kids to become more energy conscious and we're counting on them to be the messengers to their parents. This strategy has been very successful in several of our other campaigns."

The Energy Hog campaign, launched March 9, is sponsored by the Dept. of Energy, Home Depot and Energy Outreach Colorado. It will be promoted through television and radio public service announcements as well as Internet banners. A video news release is also being made available to television stations around the country.

"It's very new," said Natkins, "but the initial response has been great."

Successful marketing was also the theme for a concurrent session at the Symposium that featured Chaz Miller of the



ENERGY HOG

National Solid Wastes Management Association and Brad McCormick of Ruder Finn, Inc. By presenting the highlights of successful national campaigns, they provided the principle strategies involved with changing consumer behavior through marketing.

Miller pointed out that recycling has evolved into a multi-billion dollar industry because its relevance and public awareness have increased.

"In the past 30 years," he said, "the incidence of recycling has gone from 6 percent to 30 percent."

Media events, such as Earth Day, and other outreach efforts have elevated recycling into the mainstream. "It is similar to energy efficiency because you're changing an institutionalized behavior and changing a way of life," said Miller.

His organization's approach is similar to the strategy undertaken by *Motor Decisions Matter*, a CEE-managed campaign that promotes effective motor management. By promoting a few basic messages, MDM is working to change the motor management practices of senior-level executives at industrial and commercial facilities.

McCormick presented an overview of cause-related marketing, which he defined as "the alliance of a public cause and the private sector."

By using the tools of the private sector, said McCormick, a public message can be advanced.

"As prices fall and technology improves, it's becoming more difficult for a product to stand out solely on its quality," he said.

"More and more we see individuals relying on purchases to express their personal core beliefs."

Examples are organic produce, hybrid automobiles and resource-efficient clothes washers. These items have become popular because consumers relate to a cause represented by the product.

## Opening plenary takes a look at MT

Continued from page 5

Hoffman and Keating stressed the need for building regulatory support for energy-efficiency programming. Measuring success, however, remains a big challenge.

"The tradition has been, 'Show me the savings,'" said Hoffman. "Quantifying the savings from market transformation is inherently more difficult but we are working on it and making progress."

Another theme common to all three presenters was the importance of partnership with industry. Many successes have resulted from working with other industries.

Hoffman acknowledged that these partnerships also "present a challenge to our community. Industry-to-industry partnerships require trust but the federal standards process often creates adversarial relationships, which pose difficulties for pursuing partnerships."

**Rachael Swain joins CEE**

Rachael Swain joined CEE in February 2004 as a Program Assistant and will support CEE's program staff.

Prior to joining CEE, Rachael was a case manager for Work Inc., where she obtained job placements for adults with physical and mental disabilities.

She graduated from Boston University with a Bachelors degree in Film Production and a minor in Environmental Policy.



**RACHAEL SWAIN**

**ENERGY STAR drafts power supplies spec**

ENERGY STAR® has developed a draft specification for external power supplies. Andrew Fanara of EPA outlined this specification during a March 2 breakout session at the Market Transformation Symposium.

The draft specification and supporting documentation can be found on the ENERGY STAR Web site at [www.energystar.gov/powersupplies](http://www.energystar.gov/powersupplies).

EPA is now accepting comments and expects to finalize the specification in late summer 2004.

External power supplies are the devices that convert line voltage AC to the low voltage DC power required by laptop computers, cordless and cellular telephones, and 150-200 other consumer products. The best power supplies are more than 90 percent efficient but some are only 20-40 percent efficient, wasting the majority of the electricity that passes through them. As a result, today's power supplies consume at least 2 percent of all U.S. electricity production. More efficient power supply designs could cut that usage in half.

The California Energy Commission's PIER (Public Interest Energy Research) program has funded Ecos Consulting, EPRI's Power Electronics Applications Center and the Energy Innovation Institute to assess the efficiencies of modern power supplies and recommend strategies for improving them. For further information about these efforts, see [www.efficientpowersupplies.org](http://www.efficientpowersupplies.org).

**SMUD's appliance program goes beyond ENERGY STAR**

Through its Super-Efficient Home Appliances Initiative (SEHA), CEE has been promoting appliance performance levels that exceed ENERGY STAR® since 1997. During a March 2 breakout session at the 2004 Market Transformation Symposium, Rick Kallett of SMUD gave the utility perspective on this type of energy-efficiency program.



**RICK KALLETT**  
SMUD

This kind of member program typically utilizes the CEE-established tiers of efficiency that exceed ENERGY STAR. The purchase of appliances meeting higher tiers is encouraged by financial incentives. In most cases, the ENERGY STAR base levels are also promoted with education and/or rebates, but not always. SMUD uses the SEHA tiers as the basis for providing rebates.

"By offering incentives for the most efficient products," explained Kallett, "it pulls higher-efficiency products into the market. But it is important to minimize the number of rebate levels so customers don't get confused."

CEE launched the SEHA Initiative – which addresses clothes washers, dishwashers, room air conditioners and

refrigerators – in an effort to move the market toward higher efficiency, setting reasonable future targets for manufacturers. Due in part to the efforts of CEE members, and the fact that manufacturers have been willing to improve appliance efficiency, ENERGY STAR levels have become more efficient over the years.

In 2004, SMUD will be offering rebates of \$75 and \$125 for residential clothes washers exceeding the ENERGY STAR performance levels. Similarly, a \$50 rebate is provided for room air conditioners. SMUD's total rebate budget for 2004 is \$59,200.

A marketing budget of \$18,280 will promote this program and SMUD representatives will visit retailers on a regular basis to educate salespeople on their tiered approach to promoting efficient products. This retail support is critical in a tiered-efficiency program, as it helps to lessen consumer confusion over the different rebate levels.

"Our experience tells us that this type of program works well," said Kallett. "We are promoting the ENERGY STAR levels in general and providing incentives for higher performance levels. It works better regionally and works best nationally."

**Quality installation**

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some of the burden from contractors and technicians by lending third-party credibility to the concept of a quality installation. At this point, however, there is no national consensus on a means for promoting quality installation.

"To move the market towards quality

installation, we likely need to be engaging consumers, contractors, distributors and manufactures simultaneously," said CEE Residential program Manager John Taylor.

"The challenge is identifying the market conditions that must exist for QI to become more prevalent. We need

to know which stakeholders are best equipped to bring about the necessary market changes and determine a logical sequence for taking action. ACCA and NATE are two organizations making real headway on improving installation practices but there are other organizations that will ultimately need to be involved."