



**2006 National Symposium on Market
Transformation
“Market Transformation: The Next 10 Years”**



*Sponsored by the
American Council for an Energy-Efficient Economy
and the Consortium for Energy Efficiency
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Monday, March 20

**PLENARY SESSION
8:30 to 10:00 am**

Conference Welcome

Hampton Ballroom

Marc Hoffman, Executive Director, Consortium for Energy Efficiency

Steven Nadel, Executive Director, American Council for an Energy-Efficient Economy

**The Next Ten Years – Will We Face a Continuing Energy Crisis and What Can
Market Transformation Deliver?**

*Moderator: Steven Nadel, American Council for an Energy-
Efficient Economy*

*Presenters: Neal Elliott, American Council for an Energy-Efficient Economy
Mike Weedall, Bonneville Power Administration
Rick Morgan, District of Columbia Public Utilities Commission*

Discussant: Marc Hoffman, Consortium for Energy Efficiency

Description: The opening plenary will elaborate on the overall theme for this year’s conference, “The Next 10 Years.” Speakers will present an update on projections for natural gas, electricity, oil and coal markets over the next ten years, and the impacts that efficiency can have on these markets. Participants will then hear perspectives from a utility commission president and a utility vice president on what they see as most likely directions for the next ten years with regard to energy efficiency and market transformation, both for their own states and companies and for those in other states. Discussion will follow.

CONCURRENT SESSION I
10:30 to 12:00 noon

Concurrent Session 1A

Hampton Ballroom

Program Marketing & Return on Investment: Lessons from Advertising and Social Marketing

Moderator: Monica Nevius, Consortium for Energy Efficiency

*Presenters: Gregory Niblett, Academy for Educational Development
Earl Taylor, Marketing Science Institute*

Description: The energy efficiency industry is not alone in trying to market programs designed to elicit change, nor is it alone in needing to assess the impacts of program advertising and marketing in the absence of ideal data. The fields of social marketing and commercial advertising routinely deal with the types of program design and evaluation questions with which energy efficiency program administrators and evaluators struggle. Presenters in this session will explore alternative approaches from these fields that could help the efficiency industry better design program advertising and marketing and identify viable alternative measures of program impact or market progress.

Concurrent Session 1B

Blue Prefunction Room

Integrated Demand-Side Management: Views from Procurement Planners and Customer Service Leaders

Moderator: Duane Larson, Pacific Gas and Electric Company

*Presenters: Norm Stone, Pacific Gas and Electric Company
Mike Weedall, Bonneville Power Authority
Bruce Cenicerros, Sacramento Municipal Utility District*

Description: Integrated Demand-Side Management (IDSMS) is designed to increase savings, reduce costs and increase customer satisfaction. The goal of this panel is to educate the audience about IDSMS, describe recent IDSMS efforts, and facilitate audience discussion to get feedback on existing efforts and to generate ideas on new directions for IDSMS. Speakers will discuss how procurement planners view and characterize demand-side versus supply-side resources, describe how IDSMS can improve the performance of the utility procurement portfolio, and take a look at tools that PG&E and other California utilities plan to develop during the 2006-2009 demand-side portfolio cycle.

WORKING SESSION I
1:30 to 3:00 pm

Residential Programs Track

Hampton Ballroom

R1: The Evolution of Performance Specifications Under ENERGY STAR

Facilitator: David Lee, U.S. Environmental Protection Agency

*Presenters: Sam Rashkin, U.S. Environmental Protection Agency
Rachel Schmeltz, U.S. Environmental Protection Agency
Marci Sanders, Northwest Energy Efficiency Alliance*

Discussant: Rich Karney, U.S. Department of Energy

Description: The ENERGY STAR program is continually responding to the changing marketplace. This session will highlight recent changes in both the ENERGY STAR New Homes and residential product labeling programs, and how they reflect changes in technology and the market. Attendees will learn about the challenges of working with multiple stakeholders to develop increasingly complex specifications and how new specifications impact local and regional programs and program operators using ENERGY STAR in their offerings.

Discussion Topics:

- How do ENERGY STAR product specifications continue to evolve with changes in technology and changes in the marketplace?
- What implications do the recently announced changes to the ENERGY STAR New Homes specification have for today's program administrators?
- What lessons have EPA and DOE learned through their experiences working with stakeholders to develop new specifications?
- What issues would it be helpful to address during specification revisions from a program operator perspective?

Commercial Programs Track

Blue Prefunction Room

C1: Commercial Packaged HVAC: It's Not Just What's on the Roof

Facilitator: Jon Linn, Northeast Energy Efficiency Partnerships

*Presenters: Ed McGlynn, KEMA, Inc.
Mark Cherniack, New Buildings Institute*

Description: The efficiency community is exploring the next level of savings opportunities in packaged commercial HVAC systems. The CEE Tier 1 efficiency spec was retired in 2002, and CEE is now developing Tier 3 in anticipation of success in promotions of Tier 2. Several program administrators have ventured pilot programs for in-field performance improvements. Panel members will present status, results and lessons learned in recent in-field performance programs in the Northeast and the

Northwest. There will also be a brief update on the status of the DOE rule-making and ASHRAE standards for commercial HVAC systems taking effect in the near future. The discussion will help session participants develop or adjust activities as they promote energy-efficient equipment and practices for commercial packaged HVAC systems.

Discussion Topics:

- What are some of the pilot or experimental programs to improve in-field performance?
- What can be learned from the successes and pitfalls of current technologies and programs?
- What are next steps for implementing measures for in-field performance?

Industrial Programs Track

Calvert Room

II: Leveraging Funding from Section 9006 in the 2002 Farm Bill

Facilitator: [Stefanie Aschmann, U.S. Department of Agriculture](#)

Presenters: [Rich Hackner, Wisconsin Focus on Energy](#)
[William Hagy, U.S. Department of Agriculture](#)

Description: This session will explore the challenges associated with determining the best possible allocation of funds provided in Section 9006 of the 2002 Farm Bill, the Energy Efficiency and Renewable Energy Grant and Loan Program. Topics revolve around how to address the general uncertainty of federal funds authorized in Section 9006, including how to make the best use of local funding, how to identify other opportunities that might leverage federal funds, and how to ensure that potential grantees get their “fair share” of the limited available resources.

Discussion Topics:

- How do we address the need for a public awareness campaign by USDA about opportunities and funding for energy efficiency or renewable energy?
- How do we address the need for energy audits to identify these opportunities?
- How do we address the gaps in financial and technical assistance available in different states for project development? Are state capability-building grants a possibility?
- How do we address the growing concern that there is limited ability to educate and provide technical assistance to rural communities?

E1: Long-Term Monitoring and Tracking of MT Effects

Facilitator: Phil Degens, Energy Trust of Oregon

Presenters: Kevin Cooney, Summit Blue Consulting, Tracking for Northwest Energy Efficiency Alliance
Rachel Harcharik, Itron, Tracking for Southern California Edison

Description: Long-term tracking of a program's market effects is especially important for market transformation programs, as many market effects are realized many years after the program has officially ended. Speakers in this session will present an overview and current status of two existing long-term tracking and monitoring projects currently being used and considered by organizations around the country. The two short presentations will lead into discussion comparing methodologies and the costs and benefits associated with the different approaches.

Discussion Topics:

- How can data collection priorities best be set? What are the appropriate data collection methodologies?
- How frequently should project tracking and monitoring be updated?
- What are the costs and benefits of different approaches?
- Should long-term savings "true-ups" be used and how?

CC1: Resource Acquisition with Market Transformation as End Game

Facilitator: Norm Stone, Pacific Gas and Electric Company

Presenters: Duane Larson, Pacific Gas and Electric Company
Ruth Horton, New York State Energy Research & Development Authority

Description: This session will look at successful resource acquisition programs that have transformed residential and non-residential retrofit and new construction markets in measurable ways. After presenting acquisition program success stories, presenters will lead a discussion on the program elements central to success, including principles that help to overcome conflicts between the objectives of resource acquisition and market transformation programs. Participants will ultimately develop a list of recommendations on how to transform markets with resource acquisition programs.

Discussion Topics:

- What program elements are most important, either within a particular market or across all markets, to enable resource acquisition programs to transform markets?
- When do resource acquisition and market transformation objectives conflict and what principles are invoked to resolve conflicts?

WORKING SESSION II
3:30 to 5:00 pm

Residential Programs Track

Hampton Ballroom

R2: Current Efforts to Overcome Barriers to Quality HVAC Installation Programs and Inform Future Program Design

Facilitator: John Taylor, Consortium for Energy Efficiency

Presenters: Dale Hoffmeyer, U.S. Environmental Protection Agency
Elizabeth Titus, Northeast Energy Efficiency Partnerships

Description: Efficiency program administrators have long recognized that improved HVAC installation practices would yield significant energy savings. Market barriers to creation of quality installation efficiency programs include the lack of a definition of quality installation that is supported by key stakeholders, the absence of a brand or symbol that represents a quality installation, and lack of data regarding the energy benefits of technician training and certification. In this session, presenters will highlight two current efforts by the ENERGY STAR program and the State Technologies Advancement Collaboration (STAC) that will help address these barriers and inform future program design.

Discussion Topics:

- What are the findings of recent field studies on the energy saving and peak demand reduction potential of quality installation?
- What are the desired characteristics of a future ENERGY STAR Quality Installation Program?
- What are viable program strategies for verifying if a quality installation is achieved?
- Local, regional, and national market transformation strategies to improve installation practices and the role of the efficiency industry

Commercial Programs Track

Blue Prefunction Room

C2: Public Sector Approaches to Green Buildings: Green for Le\$\$

Facilitator: Denise Rouleau, Consortium for Energy Efficiency

Presenters: Katy Hatcher, U.S. Environmental Protection Agency
Paul Zeigler, Pennsylvania Governors Green Government Council

Description: This session will cover the latest information about the Federal Green Buildings memorandum of understanding and how the agencies have agreed to move forward. Speakers will address how the federal government, states, and local governments are integrating ENERGY STAR, LEED, and other key strategies into their green building initiatives, as well as the potential challenge of reconciling local energy codes and other high performance energy targets. Speakers will discuss lessons learned

from states that have planned to formally implement these strategies and explore how others can approach this opportunity.

Discussion Topics:

- How do ENERGY STAR, LEED and other programs help green building initiatives ensure life-cycle savings opportunities for high performance buildings?
- How does implementing these strategies help high performance green buildings stay within their conventional construction budgets?
- How do these strategies help states and localities ensure that new buildings achieve both local energy codes and other high performance energy targets?

Industrial Programs Track

Calvert Room

I2: Capturing Pump and Fan System Efficiency Opportunities: Lessons Learned from Industry and Efficiency Programs

Facilitator: Christopher Russell, Alliance to Save Energy

Presenters: Bill Adams, Flowserve Corporation
Bob Helm, Northwest Energy Efficiency Alliance

Description: Improving pump and fan system efficiency is a major opportunity for industry and efficiency programs. The Northwest Energy Efficiency Alliance has begun a comprehensive industrial energy management initiative addressing pump system optimization through pump system education. The session will: 1) introduce the Northwest Industrial Alliance, a program for motor-driven systems targeting pump, compressed air, and fan systems, 2) provide a pump manufacturer's perspective on pump system optimization opportunities and 3) present a program administrator's perspective on pump and fan system programs. Finally, the session will explore the potential benefits of developing a motor system initiative for industrial fan systems based on the lessons learned from pumps, compressed air, and motor management.

Discussion Topics:

- What can utilities add to this initiative, and how can they benefit?
- What can NGOs add to this initiative, and how can they benefit?
- What can the audience share with the Pump Systems Matter™ sponsors in the way of lessons-learned from similar initiatives, such as Motor Systems Matter and Compressed Air Challenge?
- Given that market transformation initiatives currently exist for motors, compressed air systems, and now pumping systems, is there a need or an interest in an initiative for industrial fan systems?

E2: Evaluation Results: The Growing Difficulty of Measuring Attribution in Light of Multiple Initiatives Targeting the Same Markets

Facilitator: *Monica Nevius, Consortium for Energy Efficiency*

Presenters: *Marvin Horowitz, Demand Research*
Mitch Rosenberg, KEMA, Inc.
Oscar Bloch, Wisconsin Division of Energy

Description: The attribution of energy savings is a growing issue for all kinds of programs. Changes in technology, energy (and other) prices, consumer behavior, and the availability of products and services can lead to energy savings with or without the support of efficiency programs or tax treatments. As programs proliferate and markets become more volatile, attributing savings has become a complex and sometimes intractable challenge. In this session, presenters will describe several general approaches to determining attribution as well as some new and/or particularly successful methods, including a decision model that was recently developed in Wisconsin for selecting estimation approaches. The presentations and discussion will also touch on the future of attribution given the likelihood of increased program and market activity.

Discussion Topics:

- Can current evaluation methods estimate program impacts given the volatility of energy prices? What are some of the limitations?
- How can we take into account lagged effects of past programs?
- How can the effects of different programs be estimated if they are marketed in a complementary fashion?
- What are the costs associated with some methodologies and data collection, and do they allow programs to remain cost-effective?

CC2: Energy Efficiency and Demand Response as Part of a Comprehensive Demand-Side Management Portfolio

Facilitator: *Dan York, American Council for an Energy-Efficient Economy*

Presenters: *George R. Edgar, Wisconsin Energy Conservation Corporation*
Martin Kushler, American Council for an Energy-Efficient Economy

Description: Energy efficiency and load management/demand response programs have long been options available for demand-side management. However, in recent years, there have been concerns raised that these two options could be used in a manner that fails to maximize potential benefits. This session will describe the opportunities and ways to integrate energy efficiency and demand response into a comprehensive demand-side portfolio to maximize benefits. This will include a consideration of appropriate rate designs and resource planning policies, overcoming barriers to such options (such as

impacts of utility revenue requirements), and developing cost-effective programs considering current and expected technology and communication costs.

Discussion Topics:

- What are the practical issues regarding and obstacles to integrating energy efficiency and load management/demand response programs?
- How does one optimize the relationship between integrated demand response programs and market transformation?
- What is the cost-effectiveness of demand response programs considering technology and communications costs?
- What types of rate designs, regulatory policies, and resource planning efforts would best integrate energy efficiency and demand response efforts?

**2006 National Symposium on Market Transformation
“Market Transformation: The Next 10 Years”**

Tuesday, March 21

**CONCURRENT SESSION II
8:00 to 10:00 am**

Concurrent Session 2A

Hampton Ballroom

**Regional Roundup: An Update on Major Changes in 2006 to Policy Trends,
Programs and Budgets for MT across North America and What to Expect for the
Next Ten Years**

Moderator: Marc Hoffman, Consortium for Energy Efficiency

*Presenters: Sue Coakley, Northeast Energy Efficiency Partnerships
Jeff Harris, Northwest Energy Efficiency Alliance
Wendy Jaehn, Midwest Energy Efficiency Alliance
Anne Wilkins, Natural Resources Canada
Howard Geller, Southwest Energy Efficiency Project
Harry Misuriello, Alliance to Save Energy
Roland Risser, Pacific Gas & Electric Company*

Description: The purpose of this session is to provide insight about the major changes from 2005 and set expectations about the future in six North American regions in policy, efficiency programs and budgets. Participants will be able to compare and discuss recent changes across the U.S. and Canada to identify underlying trends that are likely to affect the next 10 years in market transformation.

Concurrent Session 2B

Blue Prefunction Room

Emerging Technologies: Next Big Ideas 2006

Moderator: Harvey Sachs, American Council for an Energy-Efficient Economy

*Presenters: Peter Banwell, U.S. Environmental Protection Agency
Neil Moyer, Florida Solar Energy Center
Paul Vrabel, ICF Consulting
Peter Turnbull, Pacific Gas & Electric
Abby Vogen, Energy Center of Wisconsin
David Hewitt, New Buildings Institute*

Description: Technology development and dissemination are continuing processes. As our market transformation programs move new technologies and practices into the mainstream, new energy-saving technologies emerge to succeed them. This session will

introduce some of the most promising technologies and practices coming down the pike, including residential cogeneration, residential air distribution improvements, advanced lighting technologies, tankless water heaters, daylighting, and cool roofs.

CONCURRENT SESSION III
10:30 to 12:00 noon

Concurrent Session 3A

Hampton Ballroom

MT Programs for Short-Term Gas Savings

Moderator: Wendy Jaehn, Midwest Energy Efficiency Alliance

*Presenters: Duane Larson, Pacific Gas & Electric Company
Margie Harris, Energy Trust of Oregon
Bruce Johnson, Keyspan Energy*

Description: Given the significant increase in natural gas prices across the U.S. and the assumption that prices are likely to stay high, this panel will focus on market transformation programs that will help reduce natural gas demand in the short term. Speakers will present examples of programs from California, the Northwest, the Midwest and the Northeast, emphasizing the short-term and long-term impacts of these programs as well as lessons learned from their successes.

Concurrent Session 3B

Blue Prefunction Room

Federal Energy Legislation: Using the 2005 Act; Possibilities for Additional Legislation in 2006

Moderator: Kara Rinaldi, Alliance to Save Energy

*Presenters: Steven Nadel, American Council for an Energy-Efficient Economy
Brian Henderson, New York State Energy Research & Development Authority
Kyle Pitsor, National Electrical Manufacturers Association*

Description: This session will focus on the federal Energy Policy Act of 2005 and the opportunities this law provides for local energy efficiency programs. We will also briefly discuss ideas for additional legislation that Congress may enact by 2007. The session will begin with a presentation on key efficiency provisions in the 2005 law, items in play in 2006/2007, and how these affect regional, state and local programs. Participants will then hear from a statewide program administrator and a manufacturer trade association on how they are thinking of using these new provisions to promote their goals, and what they would recommend to other program operators.

WORKING SESSION III
1:15 to 2:45 pm

Residential Programs Track

Hampton Ballroom

R3: Residential Tax Credits: How to Leverage These Credits for Long-Term Market Transformation

Facilitator: Steven Nadel, American Council for an Energy-Efficient Economy

Presenters: Glenn Reed, Vermont Energy Investment Corporation
Philip Fairey, Florida Solar Energy Center
Steve Cowell, Conservation Services Group

Description: The federal Energy Policy Act of 2005 provides tax credits for efficient new homes, appliances, furnaces, air conditioners, and water heaters and also provides tax credits for upgrading insulation and windows. Our speakers will introduce these tax credits and discuss their thoughts on how these credits can be leveraged to produce long-term market transformation. Discussion will then focus on an array of issues including how the tax credits can be used by local programs to further their objectives and what other complementary approaches are needed to achieve market transformation goals in areas covered by the tax credits.

Discussion Topics:

- How can the new tax credits complement existing program approaches?
- What approaches are needed at the local and regional level to complement the tax incentives?
- How can we best leverage market transformation in these three areas?
- What should happen when the credits expire on Dec. 31, 2007?

Commercial Programs Track

Blue Prefunction Room

C3: Enhanced O&M through Building Performance Monitoring and Benchmarking

Facilitator: Jeff Harris, Lawrence Berkeley National Laboratory

Presenters: Karl Brown, California Institute for Energy and the Environment,
University of California Office of the President
Brenna Walraven, USAA Realty Company and BOMA International

Description: Earlier views that reliable, sustained energy savings can be achieved with a one-time intervention are increasingly coming into question. This session will present an improved model for maintaining and improving energy performance based on a continuing flow of information, improved decision tools to compare trends with performance norms and benchmarks, and an ongoing process of intervention-as-needed. Through the lens of state-sponsored market transformation, public institution energy management, and private sector asset management, the discussion will explore how benchmarking and operation and maintenance practices converge to provide a more accurate reading of building performance.

Discussion Topics:

- What other models of enhanced O&M are being tested or considered?
- What policies and other actions are needed to transform the market for O&M services, including the parallel development of technology and tools to better inform operating decisions, a supply of operating personnel trained at a higher level, and the expansion of market demand for their services?

Industrial Programs Track

Calvert Room

I3: Industrial MT Programs: Recent Experiences in Targeting Vertical Markets in the Pacific Northwest and Wisconsin

Facilitator: Neal Elliott, American Council for an Energy-Efficient Economy

Presenters: [Bob Helm, Northwest Energy Efficiency Alliance](#)
[John Nicol, Wisconsin Focus on Energy](#)

Description: This session will provide an overview of two current industrial market transformation programs that are targeting vertical markets or market clusters: the Industrial Efficiency Alliance (IEA), funded by the Northwest Energy Efficiency Alliance (NEEA), and the Wisconsin Focus on Energy (WFOE) Industrial Program. Both programs focus on specific vertical markets using different approaches. WFOE focuses on pulp and paper, metal casting, plastics, food/dairy and water/wastewater industries. NEEA focuses on pulp and paper and food processing. Recent experiences, success, and progress gained towards the programs' goals will be presented and discussed.

Discussion Topics:

- What barriers and opportunities exist in targeting vertical/cluster markets?
- What are some successful approaches that have been used, and how do we best leverage other resources and programs?
- What are the long-term and short-term progress indicators?
- Are there risks and reliability issues associated with lessons learned? What would you do differently?

Evaluation and Market Research Track

Capitol Room

E3: Strengthening the Linkages between Market Research and Evaluation for MT and Other Energy Efficiency Programs

Facilitator: Valerie Richardson, Pacific Gas and Electric Company

Presenters: [Liz Hicks, KEMA, Inc.](#)
[Ingo Bensch, Energy Center of Wisconsin](#)

Description: In this session, participants will consider how market research activities and evaluation activities for energy efficiency programs could better support each other, and explore what this relationship implies for the planning and implementation processes

enhanced lighting (SEL), and plug load reduction. Recent studies at DOE and Snohomish PUD, respectively, suggest that substantial energy savings are achievable in commercial buildings that incorporate SEL and high-efficiency power supplies. This session will report on the preliminary results of the latest studies, the market status of these products, and challenges facing their adoption.

Discussion Topics:

- What is the strongest evidence available to date that visual acuity is improved under SEL? What factors might make SEL an inappropriate choice for office lighting?
- What additional research is needed to show that SEL is a viable strategy?
- Are there any utilities starting to promote SEL?
- Can efficient power supplies for personal computers (PC's) be used as a resource acquisition program?
- Can efficient power supplies help reduce new commercial construction costs? Can they reduce the need for expensive electrical upgrades in existing buildings?

Industrial Programs Track

Calvert Room

I4: ENERGY STAR's Water/Wastewater Focus: A National, Collaborative Approach to Enhance Energy Performance within Municipal Facilities

Facilitator: [Ted Jones, Consortium for Energy Efficiency](#)

Presenters: [Katy Hatcher, U.S. Environmental Protection Agency](#)
[Gregory Lampman, New York State Energy Research and Development Authority](#)

Description: Rising energy costs and more energy-intensive water treatment technologies are leading water agency managers and the managers of energy efficiency programs to discover a mutual interest in energy efficiency and energy management. This topic is also gaining momentum at the national level. The proposed working session will explain: 1) why leading water agencies are increasingly motivated to manage facility energy consumption, 2) how ENERGY STAR plans to increase national awareness levels in the municipal water and wastewater sector, and 3) how local and regional energy efficiency programs can leverage national resources and support the adoption of best practices in the sector.

Discussion Topics:

- What are the major opportunities for energy savings within the sector (energy and peak demand)?
- What are the major obstacles to achieving energy savings within the sector?
- What role should local and regional programs play given the increased support for energy efficiency in water and wastewater facilities at the national level? What are the implications for program design and direction?
- What opportunities are there for energy efficiency programs to partner with water and wastewater agencies on efficiency?

Discussion Topics:

- What are the key obstacles to energy efficiency activities being an appropriately valued element in environmental compliance efforts?
- How can the need for effective M&V for energy efficiency efforts be met?
- What are the key opportunities for energy efficiency to be properly valued as an element in environmental compliance efforts?
- How do regional and state initiatives fit into emissions and CO₂ trading markets?
- What is the potential role of public benefits programs with environmental programs?