



## 2008 National Symposium on Market Transformation



### “Using Market Transformation to Address Climate Change” Marriott Wardman Park Hotel • Washington, D.C. • March 30–April 1, 2008

**Monday, March 31**

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

**Plenary Session**

*Thurgood Marshall (TM) Ballroom South-West*

#### **Welcome**

*Marc Hoffman, Executive Director, Consortium for Energy Efficiency*

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

#### **The Role of Market Transformation in Addressing Climate Change**

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

*Presenters: Joel Beauvais, U.S. House of Representatives Select Committee on Energy Independence & Global Warming*

*William Chandler, Carnegie Endowment for International Peace*

The opening plenary will cover policy drivers to support more aggressive market transformation approaches directed toward climate change mitigation. Speakers will discuss U.S. and international policy addressing climate change and the role for market transformation in meeting national and global needs.

**10:30 to 12:00 am**

**Concurrent Sessions**

*Session 1A*

*TM Ballroom South*

#### **Meeting “Stretch” Goals for Energy Efficiency**

*Moderator: Karin Corfee, KEMA, Inc.*

*Presenters: Cathy Fogel, California Public Utility Commission*

*R.K. Stewart, Former President, American Institute of Architects*

*Paul Waide, International Energy Agency*

Many state, regional and national organizations are establishing ambitious strategies for substantial energy use reductions, including stretch goals that send strong, long-term signals to the marketplace. Setting the foundation to achieve aggressive energy-saving goals requires a significant paradigm shift from how we've traditionally done business in the energy efficiency industry. This session includes panelists that are actively involved in developing bold initiatives on an international, national and regional basis. Presentations will cover California's groundbreaking 2020 Energy Efficiency Strategic Plan; the Architecture 2030 Challenge; and a broad overview of strategies already underway in Europe and Asia. Speakers will focus on how these initiatives are working to transform the market, what is being done to gather widespread support, and what institutional barriers have been encountered.

**Emerging Technologies: Systems Thinking to Drive Further Efficiency**

*Moderator:* **James Rannels**, Building Technologies Program, U.S. Department of Energy

*Presenters:* **Michael Keesee**, Sacramento Municipal Utility District  
**Carol Jones**, Pacific Northwest National Laboratory

Market transformation efforts have proven adept at accelerating adoption of technology upgrades such as high performance T-8 lighting, resource-efficient clothes washers and CFLs. However, as programs push hard for deeper savings to reduce carbon emissions, simple upgrades to state-of-the-shelf technologies may prove insufficient. New construction and major renovations create opportunities to go beyond technology upgrade levels and bring spaces to "state of the art." Moving to a systems-based approach is more complicated, and creates new challenges and uncertainties. In this session, presentations will focus on bridging the significant market and knowledge gaps to allow energy efficiency programs to deliver more comprehensive technology solutions.

**12:00 to 1:30 pm****Lunch****The Clean Energy Project Exchange**

*Roger Duncan*, Interim General Manager, Austin Energy

The Clean Energy Project Exchange (CEPEX) is a web-based tool that will assist utilities, policy-makers, and businesses in prioritizing energy projects cost-effectively with the goal of reducing carbon. The CEPEX will be a public and free website with an energy project matrix that lists generating technologies and the different criteria for comparison used to analyze these energy projects. The matrix will contain public, transparent data that will be updated regularly. Additionally, it will include a Carbon Return on Investment Index that calculates and then lists the generating technologies that reduce the most carbon for the least cost. The CEPEX will also allow the user to run specific scenario analyses, plug in actual bids to use as data, and contact vendors that advertise their services on the site.

**1:30 to 3:00 pm****Working Sessions****B1: Where Can We Get With Advanced Commercial Codes?**

*Presenters:* **David Hewitt**, New Buildings Institute  
**Ron Jarnagin**, Pacific Northwest National Laboratory

*Facilitator:* **David Cohan**, Northwest Energy Efficiency Alliance

The objective of this session is to characterize at a high level what an energy code that is 30% and 50% more efficient than ASHRAE 90.1-2004 might include with respect to technical opportunities (envelope, lighting, equipment, etc.). The session will also discuss the implications and issues the market transformation community would face in supporting the adoption, implementation, and enforcement of such a code.

*Discussion Topics:*

- How might the market transformation community best support advanced energy codes?
- What minimum efficiency levels would be required in walls, ceilings, windows, equipment, etc. for buildings that are 30% and even 50% improved over the current national code? Are there alternative approaches to yield similar ends – controls, ongoing maintenance, design, etc.?
- Would the number of simulations per building increase, and would simulations be required more often?
- What is the relative importance of advanced energy codes as a means to achieving savings?

*Technologies Track**Harding***T1: Capturing Energy Savings from Consumer Electronics**

*Presenters:*        **Mark Sharp**, Panasonic Corporation of North America  
                              **Doug Baston**, North Atlantic Energy Advisors

*Facilitator:*        **Margie Lynch**, Consortium for Energy Efficiency

Consumer electronics currently represent an estimated 11–13% of residential electricity use, a number that is growing as existing products use more electricity and new products proliferate. The purpose of this session is to provide a better understanding of the trends affecting the energy use of electronics products and the opportunities presented for capturing energy savings through efficiency programs. This will be accomplished through presentation of technical, market and program information.

*Discussion Topics:*

- Why have efficiency programs been reluctant to address these end-uses and what is changing now?
- What information is in hand and what information is needed to design and deploy successful electronics programs?
- What steps are industry, government, and energy efficiency programs taking to reduce energy consumption?
- What are the most promising opportunities for capturing energy savings in the design, manufacture, sale and operation of consumer electronics equipment?

*Industrial Programs Track**Wilson C***I1: Out of the Lab and into the Marketplace: Near-Term Opportunities for Super-Efficient Industrial Technologies**

*Presenters:*        **James Quinn**, U.S. Department of Energy  
                              **Miriam Pye**, New York State Energy Research and Development Authority  
                              **Brian Platt**, New York State Energy Research and Development Authority

*Facilitator:*        **Ted Jones**, Consortium for Energy Efficiency

Reducing the energy requirements of manufacturing in the future requires investment in R&D that targets inefficiencies within specific manufacturing processes, and crosscutting R&D that targets enabling technologies that are common to many industrial processes. Unfortunately, commercialization and market acceptance for emerging technologies can be slow. During this session we will take a look at top energy-saving industrial technologies, systems and practices that are ready for market delivery. The speakers will give an overview of the process used (or planned) to bring new technologies to market and discuss opportunities to accelerate the commercialization and market delivery process.

*Discussion Topics:*

- Are the most exciting energy-saving technologies cross-cutting or sector-specific?
- What are the necessary and sufficient conditions required to enable the desired level of market acceptance over a specified period of time? What aspects could efficiency programs address?
- In terms of commercializing new technologies, what has worked well in the past that we should hold up as a model? What pitfalls in the past should we stay away from?

*Program Tools Track**Wilson B***P1: How to Help States Start Efficiency Programs**

*Presenters:*        **William Prindle**, ICF International  
                              **Robert Balzar**, Seattle City Light

*Facilitator:*        **Ben Taube**, Southeast Energy Efficiency Alliance

States across the U.S. are challenged with how to effectively start energy efficiency programs that truly seek to reduce energy consumption from across multiple sectors and markets. This session explores the instrumental elements

needed to start state energy efficiency program. A panel of experts will share their perspectives on the structure, policy, and implementation strategies that define successful programs.

*Discussion Topics:*

- What are the political and financial prerequisites to ensure a sustainable program?
- What programs are best to help get things started?
- How many years should be allowed for ramp-up of a broad array of programs that are achieving substantial impacts?
- How many staff are needed to start programs and where can programs find experienced staff?

*Market Research & Evaluation Track*

*Wilson A*

**E1: Evaluation as a Second Language**

*Facilitators:*        **Bobbi Tannenbaum**, KEMA Inc.  
                              **Kathy Kuntz**, Wisconsin Energy Conservation Corporation

With active participation from attendees, this session is designed to improve our understanding of the language barriers in and outside the energy community, especially between energy evaluators and program implementers, and energy professionals and the media. Following an introductory exercise designed to demonstrate the variation in definitions for what may seem like basic, straightforward energy terminology, the session will feature several examples of evaluation results that have been (mis)reported in the news media. Participants will then be asked to discuss and develop a list of solutions for addressing or avoiding the problems highlighted in the scenarios.

**3:30 to 5:00 pm**

**Working Sessions**

*Whole Buildings Track*

*Coolidge*

**B2: Measuring Whole-Building Performance**

*Presenters:*        **Cathy Turner**, New Buildings Institute  
                              **Doug Mahone**, Heschong Mahone Group  
*Facilitator:*        **Cathy Higgins**, New Buildings Institute

This session will explore what we know about whole building performance issues, what strategies are being put in place to track whole building performance and what needs to happen with measured performance to rapidly advance commercial building energy performance. Cathy Turner from NBI will present their recent study of the energy efficiency of LEED buildings, and the results of current efforts (involving ASHRAE, USGBC, AIA, EPA, DOE and others) to expand and better coordinate measured performance efforts in the commercial building sector. Doug Mahone, who leads the Benchmarking Working Group in California, will discuss recent efforts in that state to benchmark and track the energy use of all state buildings and the initial steps in responding to a state law requiring utilities to supply data to customers in a format compatible with EPA ENERGY STAR Buildings benchmarking.

*Discussion Topics:*

- How can the energy performance of buildings be improved through better feedback and monitoring?
- How can we better predict the energy performance of new buildings?
- What data are needed to help reduce the market risk or perceived benefits of measured, energy efficient commercial buildings?
- How can utilities participate in broad benchmarking strategies, and what are the benefits of such strategies?
- What does the design community need to know to reduce performance risks?

**T2: Keeping Pace with High Tech: Framing Energy Efficiency Program Opportunities in Data Centers**

*Presenters:*        **Andrew Fanara**, U.S. Environmental Protection Agency  
                             **Jason Erwin**, Consortium for Energy Efficiency

*Facilitator:*        **Ed Wisniewski**, Consortium for Energy Efficiency

Data centers and servers used over 1% of U.S. electricity in 2005 – about 45 billion kWh — and the growth of digital information is expected to increase this electricity consumption significantly over the next five years. Recent reports indicate that there are many energy efficiency opportunities in data centers including improving IT equipment efficiency and utilization, and enhancing facility infrastructure and operational management practices. While opportunities abound, the industry is moving quickly and energy efficiency programs are challenged to develop models that meet both core IT business and energy efficiency objectives. In this session, speakers will discuss opportunities and challenges to improving energy efficiency in this fast-paced market, initial roles and current initiatives of the federal government, and initial roles and potential strategies for the energy efficiency program community.

*Discussion Topics:*

- Can we generalize the various data center components and associated energy savings?
- What key barriers have energy efficiency programs discovered in trying to engage data center owners and high-tech firms?
- What are some examples of successful data center programs?
- In addition to the role of government and utility programs, what additional stakeholder groups can help accelerate change in the industry?

**I2: Measuring Market Transformation Across North America: Current Status and New Frontiers**

*Presenters:*        **Neal Elliott**, American Council for an Energy-Efficient Economy  
                             **Raymond Monroe**, Steel Founders Society of America

*Facilitator:*        **Miriam Pye**, New York State Energy Research and Development Authority

If programs for the industrial sector are to be effective, it is important that industrial decision-making be understood by program designers and implementers. Industrial energy users, particularly manufacturers, do not make investment decisions like residential and commercial energy users. Most investments are made as part of an overall plant investment cycle that can range from a few years to a decade or more, with limited opportunities for retrofitting existing equipment outside of that cycle. However, when efficiency investments are made as part of an overall plant refit, the savings can be highly cost effective. Macro-economic indicators suggest that we may be poised to enter a major new cycle of manufacturing investment, and programs should be positioned to take advantage of that opportunity.

*Discussion Topics:*

- What criteria are used by industry in evaluating investment decisions? How much can decisions vary from one company to the next?
- What non-quantifiable factors have contributed to project success?
- What is the current investment environment like? What is the near-term and long-term outlook?
- How can MT programs most effectively work with industrial customers to encourage energy efficiency investments?

**P2: Tools for Advancing Market Transformation for Emerging Technologies**

*Presenters:* **Marshall Hunt**, *Western Cooling Efficiency Center*  
**Stephen Selkowitz**, *Lawrence Berkeley National Laboratory*  
**Kristin Taddonio**, *U.S. Environmental Protection Agency*

*Discussant:* **William Hoover**, *A.O. Smith*

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

Market transformation programs work with relatively efficient products that already have a significant market share. In the wings, several emerging technologies promise large efficiency gains, but do not yet have enough market share to warrant conventional incentive- and information-based programs. Kick-starting such technologies is the key to offering a new generation of MT programs. In this session, we will address two distinct approaches: competitive bidding for advanced commercial lighting systems; and purchase commitments for high efficiency climate-optimized roof-top commercial air conditioners. The latter is the most recent effort patterned on the early SERP (super-efficient refrigerator program) approach, and has been followed in other areas as well.

*Discussion Topics:*

- Why aren't present mechanisms—like incentives—working to bring emerging technologies to market?
- What are some important technologies with efficiency discontinuities or market acceptance gaps?
- What are the most important program design features?

**E2: Improving Cost-Effectiveness Tests: Counting Market Transformation Effects**

*Presenters:* **Mike Sherman**, *Massachusetts Division of Energy Resources*  
**Bob Knight**, *Bevilacqua-Knight, Inc.*

*Facilitator:* **Jennifer Thorne Amann**, *American Council for an Energy-Efficient Economy*

Cost-effectiveness criteria are critical elements in decision-making regarding adoption of energy efficiency policy and programs. Widely used cost-effectiveness tests, such as the Total Resource Cost test and its variants, have limitations when it comes to the evaluation of market effects. In practice, strict adherence to these tests can restrict the adoption of energy efficiency programs that are designed to stimulate long-term market transformation. Furthermore, differences in how the tests are administered from state to state can have implications for regional policy implementation. This session will address issues related to the selection and application of widely-accepted cost-effectiveness methods from the policy and program perspective. Specific opportunities for improving the measurement and evaluation of comprehensive retrofit programs that deal with installation of long-lived measures, provide significant participant non-energy benefits, and allow for continued savings growth through market creation and transformation will be presented.

*Discussion Topics:*

- What are the primary limitations to traditional cost-benefit tests when analyzing market transformation programs?
- How have these limitations impacted adoption of market transformation programs and the funding available for these programs?
- What implications can the selection and practical application of cost-effectiveness methods have in a changing policy environment for energy efficiency (e.g., requirements for implementing "all cost-effective energy efficiency")?
- How can cost-benefit tests be improved to incorporate externalities, including the value of carbon emissions reductions?
- What is the most effective strategy for getting improved cost-benefit tests adopted by decision makers in the regulatory community?

**Tuesday, April 1****8:30 to 10:00 am****Concurrent Sessions***Session 2A**TM Ballroom South***Regional Roundup: Perspectives on Addressing Climate Change with Market Transformation Programs***Moderator: Marc Hoffman, Consortium for Energy Efficiency*

*Presenters: Gene Rodrigues, Southern California Edison  
 Chuck Farmer, Ontario Power Authority  
 Ben Taube, Southeast Energy Efficiency Alliance  
 Susan Coakley, Northeast Energy Efficiency Partnerships  
 Jay Wrobel, Midwest Energy Efficiency Alliance  
 Howard Geller, Southwest Energy Efficiency Partnerships*

The purpose of the session is to share and compare experiences from various parts of North America on the role for market transformation programs in addressing climate change. Each speaker will provide an overview of how their region's interest in climate change has impacted energy efficiency policy and funding, and what can be expected from energy efficiency to achieve climate change goals. They will report on any expansions or changes in efficiency programs, compare state and regional activity, and share their perspective on how support for energy efficiency programs compares to support for other climate change mitigation strategies.

*Session 2B**TM Ballroom West***Changes in the Corporate Boardroom***Moderator: Jean Lupinacci, ENERGY STAR Commercial and Industrial Branch, U.S. Environmental Protection Agency*

*Presenters: Elizabeth Dutrow, ENERGY STAR, U.S. Environmental Protection Agency  
 Steve Coppinger, California Portland Cement Company  
 Bruce Bremer, Toyota Motor Engineering and Manufacturing North America, Inc.  
 Steve Fugarazzo, Raytheon Company*

U.S. corporations are beginning to value energy differently than they have in recent decades. Specifically, there is more systematic and high-level attention being paid to the business impacts of future uncertainty in energy supply, climate change and environmental policies. The Global Business Network – a group of participating corporations in collaboration with the U.S. EPA – recently developed a set of high-level strategies that senior executives can use to guide their businesses toward energy security in the face of potential economic, geopolitical and energy supply changes. The results of this collaboration are presented in a new report: *Energy Strategy for the Road Ahead: Scenario Thinking for Business Executives and Corporate Boards*. In this session, a panel of business representatives who participated in the report will present highlights from the process, including the role of energy efficiency in their own strategic thinking and what is needed for new business strategies to take hold on a broad scale.

**10:30 am to 12:00 pm****Concurrent Sessions***Session 3A**TM Ballroom South***Driving Energy Efficiency Investments at the Local Level: A New Generation of Strategic Partnerships***Moderator: David Hewitt, New Buildings Institute*

*Presenters: Kathy Baczko, Clinton Climate Initiative  
 Steve Morgan, Clean Energy Solutions  
 Blair Hamilton, Efficiency Vermont*

Many cities have made commitments to reduce their carbon impact and are exploring new strategies to drive market change, in many cases involving coalition-building that engages the business community, schools, political leadership, and other social groups. This session will feature presentations on select initiatives that are pursuing the same goal from three different angles. Attendees will hear from the Clinton Climate Initiative on carrying out a top-down approach,

working with city leadership, building owners, banks and energy service companies to improve efficiency in existing buildings in large cities. A second presentation will focus on the City of Cambridge, Massachusetts, which has created an alliance of local players in order to implement a comprehensive, detailed plan for reaching the city's emissions reduction commitments. Finally, a third presentation will discuss how Efficiency Vermont is successfully expanding outreach and efficiency services to smaller communities by deploying community-based marketing techniques that can improve both the depth and breadth of local involvement in energy efficiency.

*Session 3B*

*TM Ballroom West*

### **Growth in Gas Programs**

*Moderator: Kara Rodgers, Consortium for Energy Efficiency*

*Presenters: Bruce Johnson, Keyspan Energy Delivery  
Michael Brophy, Enbridge Gas  
Subid Wagley, Pacific Gas and Electric Co.  
Angela Klein, Centerpoint Minnesota*

In the last few years, utility gas programs have grown dramatically as have their goals. Additionally, electric and gas programs have begun to coordinate activities to lower costs and achieve greater savings. These developments demonstrate an expanding need for new efficient gas technologies in all the major end-uses, and a need for getting existing efficient technologies from the custom and niche markets to the mass market (e.g., condensing water heaters, condensing commercial gas RTUs, tankless water heaters). The state of the gas utility market will be discussed as well as examples of existing gas programs, characteristics of successful programs, challenges and benefits of delivering gas and electric programs and the challenges programs have in meeting state and national goals.

**1:00 to 2:30 pm**

**Working Sessions**

*Whole Buildings Track*

*Coolidge*

### **B3: Green Grow the Buildings...Sector by Sector**

*Presenters: Donald Fudge, Northeast Energy Efficiency Partnerships and TRC Solutions  
Marjorie McRae, Research Into Action*

*Facilitator: Tracy Narel, U.S. Environmental Protection Agency*

This session will review and assess examples of energy-efficient buildings resulting from programs that target commercial buildings at the sector level. Specific successes from high performance school programs in the Northeast as well as programs targeting grocery stores and hospitals in the Northwest will be presented. Speakers will draw upon implementation and program experience to distill lessons learned that will assist stakeholders in establishing next steps in these sectors, as well as setting priorities and identifying opportunities for addressing other building sectors.

*Discussion Topics:*

- What are some of the key differences among sectors that influence efficiency and green potential?
- How do the issues and opportunities compare for achieving energy efficiency or other green building goals and minimizing carbon footprints in each sector?
- What are the reasons for similarities and differences, and what can we learn from this comparison to improve and develop future program designs?

**T3: Commercial Lighting**

*Presenters:*        **Tom Coughlin**, National Grid  
                          **Doug Avery**, Southern California Edison

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

There are large energy savings opportunities in commercial lighting relative to now well-established systems such as T8 lamps/electronic ballasts and metal halide lighting systems. Opportunities include Super T8 and T5 fluorescent systems, advanced metal halide systems, HID electronic ballasts, increased use of lighting controls such as occupancy sensors and dimming/load shedding systems, and movement toward task-ambient designs. This session will explore ways to accelerate market adoption of these technologies and practices, including long-term exit strategies to complete the transformation.

*Discussion Topics:*

- What are next steps for spurring market transformation for advanced commercial lighting technologies? For lighting design practices?
- What's the long-term exit strategy?
- What steps should be pursued in between? How long will this take?
- How does LED lighting affect these strategies?

**N1: Green Collar Jobs**

*Presenters:*        **Adele Ferranti**, New York State Energy Research and Development Authority  
                          **Dan Seligman**, Apollo Alliance  
                          **Bob Wendling**, Management Information Services, Inc.

*Facilitator:*        **Ruth Horton**, New York State Energy Research and Development Authority

There is a growing recognition that expanded efforts to advance clean energy will only be successful if there are enough people with the skills necessary to meet the demand for quality services. New job opportunities are emerging in procurement, design, installation, inspection, diagnosis, and maintenance of more sophisticated building systems. Program administrators can play an important role in building workforce training, skills, and experience in order to meet shortcomings in the market for quality home performance services. This session will present a model for workforce development delivered primarily through the community college network. It will also review a national effort comprised of business, labor unions, local governments, academic institutions, and other organizations to put millions of Americans to work in a new generation of well-paid, green collar jobs so that America can become a global leader in clean energy products and services.

*Discussion Topics:*

- What is behind the growing interest in workforce development as part of the "green" economy?
- Which approaches and models are working?
- What is an appropriate role that program administrators can play?
- Who are the stakeholder organizations with which administrators should collaborate?
- What are the opportunities and the challenges that we face as we get more involved with workforce development?

*Program Tools Track**Wilson B***P3: Transforming the Market from the Inside**

*Presenters:* **Chris Bataille**, Simon Fraser University and MKJA Consulting  
**David Calabrese**, Association of Home Appliance Manufacturers

*Facilitator:* **Julia McNally**, Ontario Power Authority

The purpose of this session is to stimulate a discussion about the ways the energy efficiency community can support the value chain that makes and sells equipment. The value chain is already transforming in response to business decisions that anticipate the market value of efficient products, as a result of program support and regulation. Within the context of appliances and residential retail, this session will gauge what market transformation is naturally occurring, discuss the primary drivers, and explore the potential of market-based tools such as performance contracts, niche market regulations, and trading regimes to help guide and accelerate this transformation.

*Discussion Topics:*

- What are other examples of “natural” market transformation?
- How can this effort be harnessed or accelerated to achieve specific energy goals? Is there a role for utilities, other program administrators, and government?
- Can we use market-based solutions to drive buildings and equipment?
- Do these approaches strike a reasonable balance between economic efficiency and energy efficiency?

*Market Research & Evaluation Track**Wilson A***E3: Communicating to the Public: Exploring an “Extreme Makeover” for Energy Efficiency**

*Presenters:* **Christina Nichols**, SunEdison  
**Linda Dethman**, Dethman & Associates

*Facilitator:* **Monica Nevius**, Consortium for Energy Efficiency

As the public, legislators, and others ask “What can we do to address climate change?” research has shown that energy efficiency is among the most cost-effective, high-impact solutions for reducing greenhouse gas emissions. Studies have found, however, that consumers generally do not understand energy efficiency. They tend to associate it with curtailment or sacrifice, conflate it with renewable energy, or fail to make the connection between energy consumption and climate change. With the selling of carbon offsets becoming a viable business, energy efficiency may have a new opportunity to fulfill its promise as a powerful greenhouse gas abatement tool by exploring new ways of framing and marketing its value. This session offers insights from other disciplines on messaging techniques for intangible, difficult-to-visualize concepts and a review of marketing examples that have successfully connected energy efficiency and global climate change. We’ll then discuss the potential benefits of reframing energy efficiency and explore possible ways that this could be accomplished.

*Discussion Topics:*

- Does energy efficiency really need to be reframed?
- If efficiency needs to be reframed and marketed differently, what should its new framing be?
- How should efficiency be communicated to different population segments?
- What can we as efficiency professionals do to improve communication around energy efficiency?
- What efforts are already underway to reframe energy efficiency? What are the prospects for coordination of frames and marketing?

2:45 to 4:15 pm

Working Sessions

*Whole Buildings Track**Coolidge***B4: Existing Homes: Beyond Business as Usual***Presenter: Linda Wigington, Affordable Comfort, Inc.**Discussants: Karin Corfee, KEMA, Inc.  
Laura McNaughton, National Grid  
Blair Hamilton, Vermont Energy Investment Corporation**Facilitator: Ben Adams, MaGrann Associates*

Given high energy prices and the urgent need to reduce greenhouse gas emissions, it is time to re-examine our assumptions about the levels of energy reductions achievable in existing homes. While some experience gained from energy and utility programs supports implementing a deep energy reduction paradigm, traditional approaches in the residential sector make it more difficult to obtain deep energy reductions. This session will discuss opportunities, barriers, and strategies that will lay a foundation for achieving a much higher level of energy performance in existing homes over the next twenty years.

*Discussion Topics:*

- How can programs support a deep energy reduction paradigm for the residential retrofit market?
- How can deeper levels of investment be justified in order to achieve more comprehensive, long-term savings?
- What are transitional strategies that provide for longer-term deep reductions?
- What are the key programmatic, financial, institutional, and regulatory barriers to implementation?

*Technologies Track**Harding***T4: Building Visibility for Solid-State Lighting***Presenters: Jeff McCullough, Pacific Northwest National Laboratory  
Karen Marchese, Akoya**Facilitator: Elizabeth Titus, Northeast Energy Efficiency Partnerships*

Several recent and near future activities seek to transform the market for solid-state lighting (SSL). This session will describe these initiatives and review opportunities to further leverage the efforts. Presentations will cover ongoing research and development activities, including the CALIPER test program and NIST standards, and other activities underway to ensure LED product quality and disseminate information on products and appropriate applications. The session will also look at results from LED demonstrations including successful new applications such as street lighting, refrigerator case lighting, and public display lighting. Participants will discuss barriers that have been overcome, consumer satisfaction issues, and energy and environmental impacts, as well as communications and media outreach about the technology.

*Discussion Topics:*

- How is the energy efficiency community using the lessons learned from the introduction of CFLs to ensure a successful rollout of SSL products?
- Does media coverage of SSLs communicate adequately and effectively to consumers and other key audiences? What else is needed to advance the market for SSLs?
- What are appropriate 2–5 year goals for the role of SSLs in addressing climate change?

**N2: Using Markets and Trading to Create New Value for Energy Efficiency**

*Presenters:*        **Richard Cowart**, *Regulatory Assistance Project*  
                              **Sheldon Fulton**, *Ontario Power Authority*

*Facilitator:*        **George Edgar**, *Wisconsin Energy Conservation Corporation*

This session will explore ways to create new or additional “value” for efficiency measures through the creation of markets for trading the energy savings and/or environmental benefit attributes of energy conservation and efficiency. This session will examine the opportunities and challenges of capturing the values of energy conservation and efficiency in three distinct types of “market” opportunities: capturing the energy savings value in the form of “white tags;” capturing the environmental benefit value through the use of efficiency in “offset” markets; and capturing the environmental benefit value of efficiency in a “cap and trade” regime.

*Discussion Topics:*

- What is the theoretical impact of each of these regimes and what is the actual evidence in practice?
- Does trading substitute or complement utility incentive programs?
- Who has jurisdiction to create these trading opportunities; and how can utility or conservation planners facilitate the creation of new markets for conservation?
- What are the pros and cons of voluntary versus mandatory regimes?
- Are these trading regimes administratively and/or politically feasible?
- What is the impact of each regime on reaching energy reliability as well as climate change goals; in particular do offset regimes undermine the achievement of climate change goals?

**P4: Making Energy Efficiency Profitable for Utilities**

*Presenters:*        **David Pickles**, *ICF International*  
                              **Wayne Barndt**, *Pepco Holdings*

*Facilitator:*        **Joe Bryson**, *Climate Protection Partnership Division, U.S. Environmental Protection Agency*

Traditional utility regulation provides a strong financial disincentive to the implementation of effective energy efficiency programs by utilities. It is estimated that for every 1% reduction in energy sales a utility will lose 5% or more in profits. Regulatory options exist to put energy efficiency on a level playing field with traditional utility investments in supply-side resources. Evidence is surfacing that such policies can lead to substantial shifts in the role of energy efficiency program management within a utility's broader business strategy. This session will present findings from the National Action Plan on Energy Efficiency on policy options to align a utility's financial interests with the delivery of cost-effective energy efficiency programs. In addition, a leading utility will discuss how implementation of these approaches has led to changes in their corporate culture.

*Discussion Topics:*

- What is a utility's typical attitude toward EE programs? How does this attitude—and internal operations—change when policies are in place to address financial disincentives to efficiency?
- What stands in the way of adoption of these policy approaches by state utility commissions?
- What are the key stakeholder perspectives in advancing utility incentive policies?
- Are there other options for addressing this problem?
- What are the strengths and weaknesses of the different approaches?

**E4: Behavior Research and Programs**

*Presenters:*        **Karen Ehrhardt-Martinez**, *American Council for an Energy-Efficient Economy*  
                             **Alex Laskey**, *Positive Energy*

*Facilitator:*        **Marsha Walton**, *New York State Energy Research and Development Authority*

Should market transformation efforts exclusively rely on economically rational decision-making processes as a means for change? Do decision makers always act in economically rational ways? How important are other factors in determining behavior and technology adoption? This session addresses these questions by exploring the ways in which behaviors are shaped by the social context within which individuals operate, including the social rules and resources that shape individual patterns of energy consumption and technology adoption. As such, this session considers how the actions of *socially*-rational actors differ from those of *economically*-rational actors, how individuals glean information regarding “appropriate” behavior from their own observations and interactions in a social context, and how the social forces that shape behavior can be used to shape market transformation program strategies.

*Discussion Topics:*

- Which contexts are likely to be the most fruitful for using an approach based on social incentives?
- What types of social incentives have been or could be tapped to reduce energy consumption? Which are likely to provide the biggest savings?
- How might existing social groups and group memberships be a resource?
- How can social rationality be combined with other efforts to reduce energy consumption?

## CONFERENCE SPONSORS

Host Sponsor:

U.S. EPA/DOE ENERGY STAR® Programs

Contributor:

ICF International

Supporters:

KEMA, Inc  
Lockheed Martin

## NOTES

## NOTES

