

“All Systems Go!”

Marriott Wardman Park Hotel - Washington, D.C. - April 1-3, 2012

Sunday, April 1

1:00 to 5:00 pm

MT 101

Wilson ABC

"MT101" is an introductory course for those new to the field who want to learn the fundamentals of market transformation. The session will cover a range of topics including an overview of market transformation as one strategy for driving energy efficient products and services, administrative models for the delivery of market transformation programs, various program models used to serve different market segments, and program evaluation.

Monday, April 2

8:30 am to 10:00 am

Plenary Session

T.M. Ballroom South-West

Welcome:

Steve Nadel, American Council for an Energy-Efficient Economy (ACEEE)

Introduction:

Ed Wisniewski, Consortium for Energy Efficiency (CEE)

All Systems Go!

Presenters:
Susan Coakley, Northeast Energy Efficiency Partnerships
Elizabeth Craig, U.S. Environmental Protection Agency
Mark Frankel, New Buildings Institute

Hastened in part by stimulus spending, expedited and more aggressive action on standards and codes, and greater initiative at the state and local level, market transformation efforts have made significant progress in recent years. This progress has illuminated a growing opportunity to achieve even deeper savings across the economy: improving integration among market players; regulatory frameworks; and within energy-consuming equipment, buildings, and facilities. In this session, a panel of experts will discuss how a systematic approach to energy efficiency is the next frontier for energy savings and ways that we can accelerate change. We will hear about the interaction between codes and standards, governments and utilities, and the importance of evaluating energy consumption in buildings holistically.

10:00 to 10:30 am

Break

T.M. Ballroom Foyer

10:30 am to 12:00 pm

Concurrent Sessions

Session 1A

T.M. Ballroom South

Life After ARRA: The Energy Efficiency Market in a Post-Stimulus World

Moderator: **Steve Morgan**, Clean Energy Solutions, Inc.

Panelists:
Danielle Byrnett, U.S. Department of Energy
David Terry, National Association of State Energy Officials
Mark Shanahan, New Morning Energy LLC

The large infusion of federal funds for efficiency under the American Recovery and Reinvestment Act of 2009 (ARRA) has now mostly run its course. Three years out, the question is: "How has ARRA transformed the energy-efficiency market, and how can we move forward from here?" In this session, panelists will begin the discussion, drawing on experience gleaned from states, municipalities, utilities, and their partners. Speakers will identify specific examples of advances, setbacks, and future opportunities. Panelists will address the following key questions:

- What worked, what didn't work, and how can successful ARRA programs and activities be continued?
- What are the next steps for whole-building retrofit programs initiated by the Recovery through Retrofit initiative?
- Where do states stand in implementing policy reforms conditioned by ARRA (e.g. utility business-case reforms and building code implementation)?
- What role will consumer financing and private capital investments play in the next generation of efficiency adoption?

*Session 1B**T.M. Ballroom West***Progress with Utility Involvement with Building Energy Code Compliance**

Moderator: **Harry Misuriello**, American Council for an Energy-Efficient Economy (ACEEE)

Presenters: **Isaac Elneave**, Midwest Energy Efficiency Alliance
Carolyn Sarno, Northeast Energy Efficiency Partnerships
Garrett Stone, Brickfield, Burchette, Ritts & Stone, P.C.
Sarah Stellberg, Institute for Market Transformation

This session will provide an update on recent efforts to determine appropriate roles for building energy codes within energy efficiency program portfolios. A number of efforts are beginning to take root in nearly every region in the United States that address this issue with varying depth and breadth. The session will include brief regional updates on these initiatives followed by a panel discussion that will address regulatory issues, energy savings attribution and M&V procedures, and programmatic approaches of interest to program administrators.

12:00 to 1:30 pm**Lunch***T.M. Ballroom North-East*

Keynote Address: **Commissioner Jeanne M. Fox**, New Jersey Board of Public Utilities

1:30 to 3:00 pm**Working Sessions***Commercial Track**T.M. Ballroom South***C1: Strategies for Green Lease Adoption – Market Perspective**

Presenters: **Mark Jewell**, Energy Efficiency Funding Group, Inc.
Gregory Tomasso, Akridge

Facilitator: **Adam Sledd**, Institute for Market Transformation

Green leases are increasing in visibility, but for the concept to advance in the market, attractive solutions must be identified for tenant, owner and manager. This session will identify, based on actual market experience, the barriers to adoption and strategies to overcome those barriers. The session will also cover how the lease and related documents can be used to bring the landlord and tenant together on sustainability issues. Participants will leave with actionable ideas that can assist the advancement of green leasing in their own markets.

Discussion Questions:

- What are some of the key barriers to green leasing and how are they being addressed in the marketplace?
- What education efforts are underway and what are their expected outcomes?
- The office sector appears far ahead of other sectors in green leasing. What are the opportunities for and barriers to green leases for retail and other spaces?
- What are some ways to drive tenant demand for green leases?

P1: The New Policy Landscape for Successful Programs

Presenters: **Jim O'Reilly**, Northeast Energy Efficiency Partnerships
 Jensen Adams, Metropolitan Energy Center (MO/KS)

Facilitator: **Nikolaas Dietsch**, U.S. Environmental Protection Agency

In the past few years, several factors including funding from the American Reinvestment and Recovery Act (ARRA), volatile energy prices, high power plant construction costs, and questions about the possibility of carbon costs have contributed to a sense of urgency about the need for greater energy efficiency. Many state policymakers have responded by setting new and aggressive energy savings goals, including those aimed at achieving "all cost effective" efficiency and unprecedented efficiency resource requirements. This session will examine factors that will ultimately determine the success or failure of these efforts in transforming the market and achieving aggressive new goals. Speakers will illustrate that there is no single 'magic bullet' solution, rather a handful of elements that need to be in place to ensure that states can meet the efficiency challenges they face.

Discussion Questions:

- What are the policy and regulatory barriers to long-term success with energy efficiency implementation?
- How do start-up states establish the policy and regulatory framework for effective oversight, management, and expansion of ratepayer-funded EE programs?
- What other factors help ensure that EE programs continue to be successful over the long term?
- What are the rate impacts associated with programs that reach deeper and broader savings?

A1: The New Frontier in Lighting: Opportunities and Challenges for Efficiency Programs

Presenters: **David Bend**, Pacific Gas and Electric Company
 Mahima Gupta, Navigant Consulting

Facilitator: **Elaine Miller**, Northwest Energy Efficiency Alliance

New standards for residential and commercial lighting equipment take effect this year and have caused efficiency programs to develop new approaches to meet their increased savings targets. In addition, technology in the lighting market is going through arguably its most rapid transformation ever. This session will provide participants with an understanding of the current regulatory and market conditions impacting lighting in both the commercial and residential sectors. Attendees will also hear from an efficiency program administrator on lighting portfolio plans for commercial and residential programs in light of these new conditions. Participants will have the opportunity to discuss promising program approaches and the appropriate channels to help deliver these programs.

Discussion Questions:

- What impact will lighting market conditions have on energy efficiency programs and other industry stakeholders?
- Given the current market conditions, what new program approaches can help reach savings goals? Are there key partnerships that efficiency programs should be leveraging?
- How can industry stakeholders support these new program approaches? What are the best channels to deliver these program messages?

B1: Code Creep: How Green is Making its Way into Codes and What it Means for the Future of Codes and Incentive Programs

Presenters: **Jeremy Sigmon**, U.S. Green Building Council
 David Conover, Pacific Northwest National Laboratory

Facilitator: **Sean Denniston**, New Buildings Institute

With the advent of CalGreen, ASHRAE 189.1, and the IgCC, "Green" is making its way from above-code programs into building codes. Both kinds of Green standards (code and above-code) carry the promise of Green, but there are fundamental differences between what can be done in building codes and what can be done with above-code programs. This session will address the differences between an above code Green program or standard and a mandatory Green Code. It will also use the energy efficiency portion of the IgCC to discuss the ways that codes are advancing into territory formerly belonging solely to above-code programs and standards, the new topics that codes are bringing into the "code baseline," and the ways that codes are beginning to include provisions—such as metering requirements—explicitly created to enable the activities of above-code programs and standards.

Discussion Questions:

- How can above-code programs leverage the code to create opportunities rather than just take over former above-code territory?
- Is the energy efficiency in Green being neglected in the Green Creep?
- How can the ability to directly address "outcomes" be used to differentiate above-code standards and programs?
- What are the disadvantages of using Green standards and even Green codes as stretch codes?

T1: What if ZNE Works? Options for Sustainable Utility Business Models in a ZNE World

Speakers: **Steven Kline**, Pacific Gas and Electric Company
 Virginia Lacy, Rocky Mountain Institute

Facilitator: **Peter Turnbull**, Pacific Gas and Electric Company

If the US achieves anything close to various stated goals for Zero Net Energy (ZNE), distributed renewable generation (DG), and simply deep energy savings in buildings, utilities will be left with significantly lower kWh and therm sales. Even in states with revenue decoupling, there would be significant rate impacts, as fixed system costs become recoverable over steadily declining units of sales, forcing progressively higher costs onto "non-participating" ZNE/DG customers. Somewhat ominously, the current profile of the ZNE/DG adopter in residential market is, on average, relatively affluent compared to the non-adopter, leading to a rates scenario where lower income customers subsidize renewable power installations at the homes of higher income customers. On top of this trend is the broader notion that the "Smart Grid"--the great enabler of ZNE and DG renewables--is going to require a lot more infrastructure investment.

Discussion Questions:

- As commodity sales decline, what viable business models are under consideration to:
 - Assure fairness in rate design?
 - Provide adequate funding and business incentives to spur investment in the "Smart Grid?"
 - Keep IOUs and POUs "whole" financially?

3:00 to 3:30 pm

Break

T.M. Ballroom Foyer

3:30 to 5:00 pm

Working Sessions

Commercial Buildings Track

T.M. Ballroom South

C2: Using Benchmarking and Building Performance Data to Transform the Commercial Real Estate Market

Presenters: **Al Skodowski**, Transwestern
 Jeffrey Perlman, Bright Power

Facilitator: **Caroline Keicher**, Institute for Market Transformation

Policies requiring the disclosure of building energy performance information will impact more than 4 billion square feet of commercial floor space over the next several years. While energy transparency will improve significantly, its full potential to drive market transformation is yet to be determined. This session will explore how benchmarking is beginning to spur market transformation in the commercial and multifamily sectors. Panelists will discuss the impact on the energy services sector, and how energy considerations are expected to come into play for different sectors, building classes, tenant types and audiences.

Discussion Questions:

- How can disclosure be structured to meet its full market transformation potential?
- What are the best delivery mechanisms for this information into the market, and at what point in the transaction does energy information have the most impact?
- How will the different audiences, including businesses, investors, residents and students, relate to and utilize this information?

Program Design Track

T.M. Ballroom West

P2: Importance of Baselines for Programs

Presenters: **Margaret Song**, Cape Light Compact
 Rebecca Foster, Vermont Energy Investment Corporation

Facilitator: **Peter Banwell**, U.S. Environmental Protection Agency

In order to measure the gains achieved by programs, especially market transformation programs that rely on having indirect effects on the market, an appropriate baseline must be determined from which all savings/benefits are calculated. This session will provide participants with examples of markets with a difficult baseline to determine as well as show how they compensated for markets that were still emerging. Key takeaways will include best practices as well as pitfalls to avoid. Participants will have the opportunity to discuss promising approaches and particular markets of difficulty.

Discussion Questions:

- How difficult can it be to obtain the necessary data to establish a baseline?
- Are there any scenarios where establishing a baseline is not possible? Is it possible to address a market where a baseline may not be obtainable?
- What can program staff do better to support the establishment of baselines?
- Is a baseline an evolving target over time or something that has to be determined from the outset?

A2: Assessing the Impacts of Furnace Efficiency Standard Increases on Efficiency Programs

Presenters: **Bruce Grossman**, South Jersey Industries, Inc.
Adam Bartini, Energy Trust of Oregon

Facilitator: **Tony Gross**, Consortium for Energy Efficiency (CEE)

The new *regional*/federal minimum standards for residential furnaces (set to take effect in May, 2013) will increase the baselines that energy efficiency programs are permitted to use to determine the energy savings delivered by their program measures. Successful transformation of the furnace market presents challenges for programs striving to meet increasing efficiency goals established by regulators and legislators in many states and provinces. This challenge is particularly acute in the northern US, where minimum efficiency standards for gas furnaces increase from 80% to 90% AFUE. In light of the new standards, programs must find new ways to meet their efficiency goals (some residential programs derive ~75% of their savings from their furnace measures) while addressing the increased complexity and cost of furnace installations for many households.

This session will provide participants with an understanding of the technical, market, and regulatory changes impacting furnaces and furnace programs in the residential sector. Attendees will also be exposed to a number of perspectives to better understand the challenges related to this transition and potential program approaches moving forward.

Discussion Questions:

- What additional information is needed about the increased specifications and the resulting installation and program challenges?
- How can installation complexity and risks be mitigated and safe installations ensured?
- How can programs collaborate with and train installers to perform safe installations and promote high-efficiency choices?
- What approaches will enable programs to pass cost-effectiveness tests and meet increasing savings targets?
- What is needed to enable these types of program approaches to be adopted on a large scale (e.g. new metrics to reflect the resulting savings, different consumer education messages, changes in how programs are evaluated, greater recognition of non-energy benefits)?

B2: Using Energy Codes to Extend and Deepen Savings in Renovations and Retrofits

Presenters: **Jim Edelson**, New Buildings Institute
Don Vigneau, Northeast Energy Efficiency Partnerships

Facilitator: **Maureen Guttman**, Building Codes Assistance Project

As of 2012, nearly 30% of the U.S. housing stock and 25% of the commercial, institutional and public building stock is 55 years old or older. Not only does this represent a substantial portion of the U.S. building inventory, but it represents a significant potential for energy savings. From 1995-2009, the home remodeling market nearly doubled in size and is expected to expand at a rate of 3.5% per year through 2015. Similar growth can also be anticipated in the commercial remodeling markets. Each building undergoing a renovation is likely to trigger mandatory energy conservation measures as covered under the International Energy Conservation Code and ASHRAE Standard 90.1. However, these energy conserving measures are often overlooked because of a lack of understanding of the application of energy codes to building renovations. This session will address the application of energy codes to building renovations, the need for education, training and code changes, the potential for energy savings, the role of utilities, and strategies to improve compliance rates.

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Discussion Questions:

- What codes apply to renovations of existing buildings?
- What are the potential energy savings for building code compliance?
- Are there any current initiatives for education and training?
- What changes need to be made to the model codes and how can they improve compliance and energy savings?
- What role can utilities play?

*Tactics and Strategies Track**McKinley***T2: Switch from Component Replacement to System Analysis and Performance Upgrades**

Presenters: **Drake Erbe, Air Xchange**
 Sean Denniston, New Buildings Institute

Facilitator: **John Taylor, Consortium for Energy Efficiency (CEE)**

While easier to measure, widget-based efficiency measures for lighting, HVAC, and electronics risk leaving substantial savings on the table. Further, manufacturers in some industries have increased efficiency (and cost) of their equipment platforms, and may be approaching "max tech" under some operating conditions. Additional metrics have recognized the performance at part load since most buildings operate there. In HVAC, hybrid systems are emerging that cannot be characterized using the current metrics. During this session, attendees will learn about efforts within the building codes community and HVAC equipment certification bodies that could enable more effective voluntary energy efficiency programs. Attendees will discuss the IgCC--which requires different systems loads to be segregated and metered together with the sub-metering requirements in ASHRAE 189.1 that are more equipment-centric. This session will build on the discussion at last year's MT Symposium session on Net Zero Buildings and recent CEE member discussions with industry on combined efficiency. The presentations from last year's session are available online: <http://www.aceee.org/conferences/2011/mt/program>

Discussion Questions:

- What is the efficiency potential of moving from widget-based programs to whole-system performance programs?
- What regulatory barriers exist for moving towards whole-system performance?
- What data/information is necessary from the industry to be seen as credible in this new environment?
- What metrics can be used to provide common "language" to allow characterizing systems?
- Are metering and "outcome-based" metrics the only way to get at whole-system performance or are there other "asset-based" metrics?
- How do we set performance requirements for systems when performance is so occupant behavior dependent?
- More metering is not always better metering, how do we maximize the utility of metering?
- What modeling would be regarded as credible to insure that efficiencies are properly represented?

6:00 to 8:00 pm**Cocktail Reception***T.M. Ballroom North-East**Sponsored by ICF International*

Tuesday, April 3**8:30 to 10:00 am****Concurrent Sessions***Session 2A**T.M. Ballroom South***Measuring Market Transformation: Implications for Energy Efficiency Targets & Demand Forecasting***Moderator: Julie Michals, Northeast Energy Efficiency Partnerships**Presenters: Michael Wickenden, Vermont Energy Investment Corporation
Daniel Hurley, Maryland Public Service Commission
Arthur Maniaci, New York Independent System Operator*

Aggressive energy efficiency savings targets are being established by a number of leading jurisdictions. An important element in meeting these targets is the effort to increase future savings impacts from market transformation initiatives. But market transformation effects have been difficult to quantify and forecast for incorporation into prospective resource planning. Meanwhile, they are also subject to retrospective adjustments embodied in issues raised by attribution in assessing the net program accomplishments of a program administrator.

This session will present how different jurisdictions around the country are addressing both the prospective and retrospective assessments of market transformation savings impacts. The prospective assessment will focus on current system planning approaches to reflect net program effects in resource planning efforts. The retrospective assessment will identify current and emerging policies and frameworks/methods to estimate long-term market transformation impacts. For example, this retrospective assessment includes a consideration of the appropriate applications of benefit/cost tests; multi-year program periods; or assessing market effects at a portfolio as well as a program level to promote market transformation impacts while employing effective methods for assessing long-term savings from market transformation efforts.

*Session 2B**T.M. Ballroom West***Emerging Technologies: Next Big Ideas***Moderator: Jennifer Anziano, Consortium for Energy Efficiency (CEE)**Presenters: Ellen Petrill, Electric Power Research Institute
Sam Rashkin, U.S. Department of Energy
Paul Armstrong, Gas Technology Institute*

Efficiency programs across the country are facing a greater need to identify new program opportunities to deliver savings to their customers. Two driving forces behind this effort are the rapidly increasing savings targets and an increased rate of standards development. During this session, DOE, EPRI, and GTI will highlight various emerging technologies they are exploring as new big energy savings opportunities for efficiency programs. The DOE Building America Program focuses on new residential technologies and systems for improving the energy efficiency of new and existing homes throughout the US, while EPRI and GTI explore electric and gas technologies, respectively, across all building sectors. Session participants will leave with a broad overview of several technologies, systems, or whole building approaches that might be ripe for future program consideration.

10:00 to 10:30 am**Break***T.M. Ballroom Foyer***10:30 am to 12:00 pm****Concurrent Sessions***Session 3A**T.M. Ballroom South***Energy Efficiency Finance Programs in the Real World: What has Worked, What has Not, and What is Next?***Moderator: Casey Bell, American Council for an Energy-Efficient Economy (ACEEE)**Presenters: Diana Lin, National Association of State Energy Officials
Greg Kats, Capital-E
Todd Conkey, Wisconsin Energy Conservation Corporation**Continued on next page*

The incorporation of financing mechanisms into energy efficiency programs for residential and non-residential building retrofits has been a popular trend, notably since the availability of federal stimulus dollars for such efforts under ARRA. Despite the promise of this renewed interest and innovation, financing programs still struggle to increase their scope to the level of their desired program objectives and augment overall energy savings. This session will provide a review of recent financing program efforts and analyze those attributes that limit the scaling of such efforts while identifying those attributes that could provide a foundation for more robust energy savings results in the future. This discussion will review the spectrum of publicly and privately funded financing tools available from the use of loan loss reserves to leverage private capital, revolving loan funds, Property Assessed Clean Energy (PACE), on-bill repayment mechanisms, integrated models using bonds such as Qualified Energy Conservation Bonds (QCEBs), the HUD Power Saver model to non-residential project financing opportunities. Non-financial program attributes that may increase the effectiveness of financing mechanisms will also be a primary topic of conversation.

*Session 3B**T.M. Ballroom West***Regional Roundup**

Moderator: Ed Wisniewski, Consortium for Energy Efficiency (CEE)

*Presenters: Howard Geller, Southwest Energy Efficiency Project
Susan Stratton, Northwest Energy Efficiency Alliance
Tim Melloch, Commonwealth Edison Company
Jan Berman, Pacific Gas and Electric Company
Jeremy Newberger, National Grid
Jenah Zweig, Southeast Energy Efficiency Alliance*

This session will explore notable changes in state legislative and regulatory policies, changes in program objectives, and featured program successes across regions of the US. We have incorporated a range of perspectives through our panel composition that includes policy advocates, program coordinators and implementers. The session will provide results of CEE's annual budgets and impacts report for regions of the US and aggregated US and Canadian figures.

Attend this session to learn more about the emergence of the Program Administrator Industry, policy and program developments, cross-cutting topics affecting programs, and to pose questions for panel consideration.

12:00 to 1:15 pm**Lunch***T.M. Ballroom North-East*

Lunchtime Address: Nick Sinai, Senior Advisor to the Federal Chief Technology Officer, Office of Science and Technology Policy

1:15 to 2:45 pm**Working Sessions***Commercial Buildings Track**T.M. Ballroom South***C3: Building Performance with ENERGY STAR: Early Experience**

*Presenters: Tom Rooney, TRC Energy Services
Matthew Matenaer, Franklin Energy Services*

Facilitator: Andrew Schulte, ICF International

Building Performance with ENERGY STAR (BPwES) extends a nationally recognized brand and successful business-to-business program model of the U.S. Environmental Protection Agency to utilities and other energy efficiency program sponsors to help them meet efficiency program goals through greater and persistent energy savings in commercial buildings. BPwES provides a framework for regional energy efficiency programs to use to align their financial incentives and technical assistance with a comprehensive approach to improve building performance through behavioral, management and capital measures. Program administrators will use BPwES to help business customers strategically plan and implement energy efficiency improvements over time, helping them use the right programs at the right time. This session will provide a national overview, along with two specific case studies of BPwES pilot initiatives from the NJ Clean Energy and WI Focus on Energy programs.

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Discussion Questions:

- In what ways does the BPwES strategy uniquely meet the needs of commercial & industrial customers?
- How do C&I customers view whole building programs? Complicated, compelling, or a little of both?
- What are the greatest challenges associated with implementing a whole building program?
- What kind of financial incentives are employed in your programs and have they been structured to encourage comprehensive upgrades and deeper savings?
- A goal of BPwES is to develop a network of trade allies that promote a whole-building approach to energy savings. What strategies can be used to engage trade allies?

*Program Design Track**T.M. Ballroom West***P3: Pursuing Demand-Side Management in an Era of Increasing Complexity and Diverse Demands**

Presenters: *Taresa Lawrence, District Department of the Environment*
 David Cawley, Vermont Energy Investment Corporation

Facilitator: *Scott Johnstone, Vermont Energy Investment Corporation*

As traditional DSM programs pick the low-hanging fruit, we must innovate to continue to achieve cost-effective results. This session will explore non-traditional models for implementing DSM programs as well as approaches to codes and standards that will help to achieve new levels of performance. Among the approaches explored are efficiency utilities as an alternative or complement to utility-administered DSM programs. Additionally, this session will address the necessary complexity of demand side management required today, from demonstrating job creation and impact on local economy, helping manufacturing plants and commercial establishments compete in a global market, and new unprecedented levels of commitment to serving low-income communities as goals. The work is getting more complex and with it the support for moving forward grows.

Discussion Questions

- What are new complexities entering demand side management and how are they challenging how you do your work? What benefits do you see?
- Given that we are being asked to address a number of important societal goals in many DSM programs today, how do those get addressed while not losing sight of energy savings?
- What new approaches to building codes and benchmarking pathways offer to new models and complex goals? Can we legitimately gain attribution for the savings?

*Financing Track**Madison A***F1: No Subsidies Needed: Making Commercial Deep Energy Retrofits Fully Bankable**

Presenters: *Scott Wisdom, U.S. Bank*
 James Finlay, Wells Fargo

Facilitator: *R. Peter Wilcox, Northwest Energy Efficiency Alliance*

Conventional wisdom today is that, with the industry's limited current activity, traditional bank real estate lending will not be an effective source of capital to enable Deep Energy Retrofits (DER's) of commercial buildings as that market grows to scale, contributing to the rapid proliferation of alternative investment and lending products under development nationally. In this session, leading banking industry speakers will explore these widely held assumptions, looking not only at innovative ways to overcome existing barriers, but whether banks might in fact help create a sense of market urgency and become significant market transformation drivers of DER's.

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Discussion Questions:

- What are the most effective strategies to overcome barriers to conventional bank lending for deep energy retrofits commercial buildings?
- What tools or even market segments are needed to get DER conventional lending ramped up and the market moving toward transformation?
- How might banks become not only be enablers, but market drivers for expanding and transforming the deep energy retrofit market?

*Residential Buildings Track**Madison B***R1: Revamping the Manufactured Housing Sector**

Presenters: **Michael Lubliner**, Washington State University
 Tom Eckman, Northwest Power & Conservation Council

Facilitator: **Jacob Talbot**, American Council for an Energy-Efficient Economy (ACEEE)

There are nearly nine million manufactured homes in use in America, yet energy efficiency in manufactured housing has always lagged behind that of site-built homes. The economic impact of inefficiency is compounded by the fact that the majority of residents of manufactured homes are low-income. There is a substantial and largely-untapped potential for energy savings through retrofits of existing homes and improvements to the design and construction of new homes. This session will discuss the technical potential for energy savings in manufactured housing through implementation of specific cost-effective measures. We will then examine utility experience with and future roles for utilities in addressing energy efficiency in manufactured homes, with the goal of identifying real strategies for bringing manufactured housing in line with site-built homes.

Discussion Questions:

- What are the main challenges to improving manufactured housing through retrofits and new construction?
- What measures should programs pursue in retrofits? How do these measures vary by region and climate?
- What strategies have been most effective for utilities trying to reach residents of manufactured homes?
- Why hasn't the new construction market adopted energy saving technologies and practices?

*Industrial Facilities Track**McKinley***I3: Energizing Industrial Market Transformation: The Implications of Federal Initiatives for State and Local Market Transformation Programs**

Presenters: **Andre de Fontaine**, U.S. Department of Energy
 Elizabeth Dutrow, U.S. Environmental Protection Agency

Facilitator: **Ted Jones**, Consortium for Energy Efficiency (CEE)

Improving industrial productivity and energy performance are clear priorities for the Obama Administration. Last year the President announced two new manufacturing initiatives: the Advanced Manufacturing Partnership (AMP) and the Better Buildings, Better Plants initiative. Better Buildings, Better Plants is the industrial component of the Better Buildings Challenge – a Presidential leadership initiative that aims to make commercial and manufacturing facilities 20% more energy efficient by 2020. These efforts complement long standing federal industrial programs that are producing meaningful results, such as EPA's ENERGY STAR for Industry program. During this session two presenters will provide a brief overview of the Better Buildings, Better Plants initiative and the ENERGY STAR for Industry program, highlighting recent achievements and opportunities to partner with state and local market transformation efforts. Discussion will focus on opportunities for state and utility market transformation and energy efficiency programs to leverage these federal programs when working with industrial customers.

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Discussion Questions:

- How do ENERGY STAR for Industry and Better Buildings, Better Plants address market transformation? What are their market transformation objectives?
- What opportunities are there for federal, state and local industrial programs to coordinate their support activities at the corporate and plant level?
- Is there a need for common messaging and outreach to industrial customers when it comes to industrial efficiency and energy management opportunities, and if so, what are those messages?
- What is the best way for market transformation organizations to communicate with the two federal programs presented today and stay informed on their activities?
- What is the best way for federal programs to know about and communicate with local and regional market transformation organizations?

2:45 to 3:00 pm**Break***T.M. Ballroom Foyer***3:00 to 4:30 pm****Working Sessions***Commercial Buildings Track**T.M. Ballroom South***C4: Rating and Disclosure Laws: Lessons Learned from Early Adopters**

Presenters: **Hillary Beber**, *New York City Mayor's Office*
 Jens Laustsen, *Global Buildings Performance Network*

Facilitator: **Cliff Majersik**, *Institute for Market Transformation*

Mandatory building energy efficiency rating and disclosure laws are a rapidly emerging trend around the world. Over the past five years in the U.S., the states of California and Washington, the cities of Austin, New York, San Francisco and Seattle, and the District of Columbia have enacted policies requiring the rating and disclosure of energy performance of privately-owned commercial building. In some cities the laws also apply to large multi-family residential buildings. Utilities are playing a key role in supporting implementation of these laws and catalyzing market transformation, including providing access to whole building energy consumption data. There are early indications that these laws are spurring investment in energy efficient operations and retrofits as well as increasing participation in DSM programs. This session will highlight the challenges of implementing new reporting requirements and lessons learned from leaders in the field.

Discussion Questions:

- What are lessons learned from jurisdictions that have already implemented rating and disclosure laws?
- What can the U.S. learn from international experience in building energy rating and disclosure?
- Have international rating and disclosure programs motivated improved operations, retrofits and other desired outcomes?
- What can be done to maximize the market transformation impacts of these policies?
- Should jurisdictions seek to coordinate their policies?
- What role can utility and other DSM program administrators play in the success of these policies? How can these policies complement DSM programs?

*Program Design Track**T.M. Ballroom West***P4: The Search for New Technologies that are Program Ready**

Presenters: **Kurt Roth**, *Fraunhofer Center for Sustainable Energy Systems*
 Nathaniel Taylor, *San Diego Gas & Electric*

Facilitator: **Jennifer Anziano**, *Consortium for Energy Efficiency*

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During the "Emerging Technologies: Next Big Ideas" concurrent session, presenters shared a variety of technologies and data regarding their technical readiness. This session will delve into a broader set of considerations for program readiness, including the savings potential, performance and reliability, market readiness, and cost effectiveness of an opportunity. Assessing all these aspects of program readiness based on one's own aspects of value for efficiency better positions programs to identify those opportunities ripe for successful program adoption.

In this session, Kurt Roth will present on Fraunhofer's research of several residential opportunities and what that research tells us about the relative readiness of the opportunities. Nate Taylor will then provide a program administrator perspective of considerations for emerging technology assessments and highlighting a couple promising opportunities that San Diego Gas & Electric is assessing. Participants will have the opportunity to engage with the panel about the highlighted technologies and discuss the potential roles for our community to work towards successful program adoption of these, and other, opportunities.

Discussion Questions:

- Are there other aspects of program readiness that are important for your program?
- What experiences, if any, have people had with these technologies that might provide more perspective on their relative program readiness?
- Understanding what remains to be known about these technologies, how might we move forward to accelerate the assessment and introduction into efficiency programs?

Financing Track

Madison A

F2: Integrating Energy Efficiency in the Mortgage Process

Panelists: **Michelle Winters**, NeighborWorks America
Bill Garber, Appraisal Institute

Facilitator: **Robert Sahadi**, Institute for Market Transformation

This session will explore efforts to integrate energy efficiency considerations into the home purchase process, particularly focusing on older homes. This will include the valuation of energy efficiency in home appraisals; the introduction of energy efficiency fields into community multiple listing services (MLS); modifications to underwriting calculations to include energy efficiency; and the mortgage financing of energy improvements. Panelists will highlight recent developments, including the SAVE Act, Green MLS, the Appraisal Institute's Green Addendum and examples of financing green foreclosed properties.

Discussion Questions:

- What are the prospects for the greening of the large number of foreclosures that will come into the market in the next few years?
- What are the prospects for the Green Multiple Listing Service? National availability, data issues, reliability?
- How will the Green Appraisal Addendum impact values with lenders and investors that are largely skeptical?
- There have been major shifts to green in new construction, but why are existing homeowners still reluctant to invest despite record levels of home improvement?
- Will the SAVE Act or other proposed legislation or Administration action be of help?

R2: Residential Energy Upgrades—In Search of the “Easy-Button”

Presenters: **Chuck Wilson**, Small-Town Energy Program for University Park, MD (STEP-UP)
Wendy Koelfgen, Clean Energy Works Oregon
John Walsh, Western Massachusetts Electric Co.
Martha Jane Murray, Clinton Climate Initiative – Home Energy Affordability Loan Program

Facilitator: **Danielle Sass Byrnett**, DOE Better Buildings Neighborhood Program

After 30 years of experience with federal and state, utility, and local community programs aimed at saving energy by retrofitting existing homes and multifamily buildings, a fair amount has been learned about multiple market constraints and possible motivators for building owners to take action. Still, a large fraction of existing homes lack efficiency upgrades that would be highly cost-effective, and many retrofit projects fall well short of optimal efficiency investments. Of the 127 million households in US – which represent roughly 20% of U.S. energy use and greenhouse gas emissions – fewer than 1% per year are benefiting from programs to help with energy efficiency improvements.

In this session we report on results of recent projects that are testing new strategies to increase the number of homeowners willing to pursue home energy upgrades without increasing incentives – rather by making it easier to complete them. These programs go beyond the conventional energy-audit-plus-incentive approach to help homeowners by reducing the effort and risk involved in making a retrofit decision and then carrying through with the process. Our panelists will engage each other and the audience in a lively discussion of current approaches to “finding the easy-button” for efficiency upgrades: a consumer energy coach model, the on-line software model, a utility-sponsored model, and an employer-assisted model. The goal with each of these program approaches is to find a path towards market self-sufficiency or sustainability.

Discussion Questions:

- How does your approach make it easier for the consumer to complete and upgrade? How does it make it easier for a contractor to sell an upgrade?
- Which of these program models (or others, or combinations) seem most likely to address the market barriers in your jurisdiction, and achieve a transition to a sustainable market model that continues to produce in-depth efficiency upgrades at scale?
- How does each model engage contractors as market allies, and help build up the technical capabilities and market credibility of local contractors, in moving toward a self-sustaining market?
- Which market barriers or specific sub-markets are not likely to be addressed effectively by any of these models?
- Is there a logical sequence of these models that represents a scale-up or replication path? Is a small-scale, community-based initiative always the starting point, and a contractor-driven model the logical end-game for transition from program to market?

I4: The Future of CHP in Industry: A Program Perspective

Presenters: **Joseph Smith**, Philadelphia Gas Works
Joanne Bachmann, Vermont Energy Investment Corporation
Bruce Hedman, ICF International

Facilitator: **Richard Meyer**, American Gas Association

Combined Heat and Power (CHP) is a huge opportunity for manufacturing facilities (as well as large commercial and institutional buildings) to have greater control over both their energy consumption and supply. Whether conventional cogeneration or waste heat recovery, CHP offers significant improvements in energy efficiency for companies. According to a 2008 Oak Ridge National Laboratory report, CHP currently makes up 8.6 percent of U.S. total generating capacity, but has the potential to achieve 20 percent generating capacity by 2030.

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Many of the barriers to CHP are not related to technology, but instead lie in selling CHP to the end user, making the investment case to the company, and dealing with the interaction with the utility regulatory system. Additionally, recent changes in the domestic natural gas markets are spurring more interest in the technology. Both electric and natural gas energy efficiency programs must design programs that address these issues and develop ways to finance CHP projects. This panel will highlight two organizations with novel (and/or established) CHP deployment programs and discuss how other organizations could incorporate these best practices.

Discussion Questions:

- In what areas are programs likely to achieve success?
- Where should programs put their resources to be most effective?
- What financing mechanisms are available for CHP projects?
- How can natural gas utilities promote CHP?
- What opportunities are viable in the current economic climate?
- How are recent developments in natural gas markets affecting CHP deployment?
- How are electric utilities being incentivized or encouraged to stimulate new CHP projects in their service territories?

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