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# EVALUATION: PROVIDING ANSWERS TO TOUGH QUESTIONS

2001 INTERNATIONAL ENERGY PROGRAM EVALUATION CONFERENCE

August 21-24, 2001 Salt Lake City, Utah

PROGRAM SESSIONS



The Tenth International Evaluation Conference

# **SESSION 1 A**

# From the Leading Edge: New Evaluation Designs Addressing Tough Questions

Moderator: Faith Lambert, U.S. Department of Energy

### PAPERS:

# New Means for New Ends: Adopting Evaluation Strategies for a New Generation of Market Transformation Programs

Jennifer Ellefsen and Priscilla Richards, New York State Energy Research and Development Authority

Brad Kates, Opinion Dynamics Corporation

Steve Lacey and Michael Mernick, ICF Consulting

Priscilla Richards, New York State Energy Research and Development Authority

# A Comprehensive Approach to Program Information and Evaluation – Nonresidential New Construction

Douglas Mahone and Catherine Chappell, Heschong Mahone Group

Marian Brown, Southern California Edison Co.

Roger Wright and Matt Brost, RLW Analytics, Inc.

Corina Jump, Quantum Consulting Inc.

# Improving the Methods Used to Evaluate Voluntary Energy Efficiency Programs

Martin Schweitzer and Marilyn A. Brown, Oak Ridge National Laboratory

# Multi-Attribute Valuation for Cost Effective Evaluation of Market Transformation and Other Hard to Quantify Programs

James Woods and M. Sami Khawaja, Quantec, LLC

# **SESSION SUMMARY:**

The four papers in this session focus on the use of new methodologies, designs and approaches to energy program evaluation, in particular assessing the effectiveness of long-term market transformation efforts, where traditional evaluation techniques may not capture the whole story.

The first paper uses the **New York Energy \$mart<sup>SM</sup>** Small Commercial Lighting Program to illustrate key considerations and effective approaches to evaluating market transformation programs. The second paper presents findings from California's state-wide market assessment and evaluation study of the the non-residential new construction (NRNC) sector. The authors have gathered and analyzed a wealth of information to 1) characterize the NRNC market and how it functions, 2) assess the strengths of market barriers to energy efficiency, 3) assess actual building performance and characteristics, and 4) show how energy use in the NRNC sector has changed over time. The authors of the third paper were asked to review existing literature and identify the best methods available for future evaluations of three national voluntary energy efficiency programs. They present various alternatives and make some very interesting recommendations. The final paper in this session introduces Multi-Attribute Valuation as an effective way to evaluate complex programs, dealing effectively with uncertainties and even disagreements among stakeholders about how programs work. The authors present a creative way to make use of expert opinions, results from other evaluations, and the program logic.

# **SESSION 1 B**

# THE CHANGING ENERGY INDUSTRY: NEWS FROM EVALUATORS ON THE FRONT LINES

Moderator: Les Baxter, Pew Charitable Trust

### PAPERS:

Towards Evaluation of Deregulation: Market Experiments vs. Guided Markets – Implications for Energy Policy

H. Gil Peach, Scan America John Mitchell, Scan America

Energy Restructuring and Environmental Issues: A Report from California

Edward L. Vine, California Institute for Energy Efficiency

**Evaluators and Regulators: The Brave New World** 

William P. Saxonis, New York State Department of Public Service

The Remaining Energy-Efficiency Opportunities in Massachusetts

Kate Evans, Northeast Utilities

Thomas Ledyard, RLW Analytics, Inc.

Curt Puckett, RLW Analytics, Inc.

Shel Feldman, Shel Feldman Management Consulting

Julie Michals, Massachusetts Division of Energy Resources

# **SESSION SUMMARY:**

This session features wide-ranging examples of how evaluators are participating in the changing energy industry. Evaluators assess energy efficiency opportunities, monitor retail-choice programs, and propose a framework to evaluate the policies that are shaping the nation's energy marketplace.

# **SESSION 1 C**

# INCORPORATING NONENERGY BENEFITS INTO PROGRAM DESIGNS AND EVALUATIONS

Moderator: Marilyn Brown, Oak Ridge National Laboratory

### PAPERS:

# Valuing Hardship: Developing a New Cost Effectiveness Test for Low Income Energy Efficiency Programs

Mary O'Drain, Pacific Gas and Electric Company

Nicholas P. Hall, TecMRKT Works

Lisa A. Skumatz, Ph.D., Skumatz Economic Research Associates, Inc.

# Evaluating Multi-Resource Audit Programs to Demonstrate Sustainability, Payback, and Customer Benefits: Incorporating Non-Energy Benefits (NEBs)

Lisa A. Skumatz, Ph.D., Skumatz Economic Research Associates, Inc.

Brian Coates, Seattle City Light

Dennis A. Pearson, Seattle City Light

John Green, Skumatz Economic Research Associates, Inc.

# A Standardized Cost Effectiveness Analysis for Market Transformation Projects

Kenneth Anderson, Northwest Energy Efficiency Alliance

# Quantification of Environmental Benefits for Wisconsin's Focus on Energy Pilot Program

David Sumi, PA Consulting Group

Stephen Meyers, Lawrence Berkeley National Laboratory

Chris Marnay, Lawrence Berkeley National Laboratory

Diane Fisher, Lawrence Berkeley National Laboratory

Jeff Erickson, PA Consulting Group

# **SESSION SUMMARY:**

Energy programs often provide ancillary benefits that are as important as energy impacts. For this reason an increasing number of program evaluations are stretching their scope to incorporate nonenergy costs and benefits. Along these lines, one author examines the economic development and environmental benefits of a Wisconsin energy program, another presents an elaborate life cycle cost analysis tool that incorporates non-electricity impacts, and a third reviews methodologies for incorporating comfort, health, and safety benefits into cost-effectiveness tests. Explicitly incorporating nonenergy benefits into program designs is one way to make programs more appealing to consumers and potentially more cost-effective. The fourth paper evaluates such a program: a multi-resource audit program that recognizes the interwoven nature of energy, economic, environmental impacts.

# **SESSION 2 A**

# PROVIDING THE BEST TO THOSE WITH THE LEAST – ADVANCES IN LOW-INCOME PROGRAMS

Moderator: Sharyn Barata, B & B Resources

### PAPERS:

# Low-Income Refrigerator Replacement Selecting the Worst of the Worst

James Mapp, Wisconsin Division of Energy Jim Cavallo, Kouba-Cavallo Associates Rick Morgan, Morgan Marketing Partners

Kathy Schroeder, Cinergy Corporation

# Low-Income Programs for Single Family, Multi-Family, and New Construction Sectors as Seen Through the NSTAR Evaluation

Lori Megdal, Ph.D., Megdal and Associates Tina Torres, NSTAR Electric Scott Albert, GDS Associates, Inc. Sharyn Barata, B & B Resources Martin Morse, MHM Consulting

# Low-Income Programs: The Best Practices, Products and Services

Jeff Riggert, TecMRKT Works Nicholas P. Hall, TecMRKT Works

# **SESSION SUMMARY:**

As energy prices spiral upward across the country, a greater emphasis is being placed on programs targeted towards low income customers. While utilities continue to serve this load; this segment is often the most in need of energy efficiency products and services, yet they are the least likely to obtain them on their own. This gap results in larger energy bills for a segment that is most likely to be in arrears. Programs targeted to this segment can have large across-the-board benefits. This session will focus on Cinergy's Low-Income Refrigerator Replacement Program; NSTAR's Programs for low-income single, multi-family and new construction sectors; and a final paper that will provide attendees with 16 best practices for low-income programs.

# **SESSION 2B**

# Looking For The Big Picture: 3 Macro Evaluations Of Public Benefit Energy Efficiency Portfolios

Moderator: Martin Kushler, ACEEE

**PAPERS:** 

A Comprehensive Examination of the Market Effects of a Public Benefits-Sponsored Pilot Program: Lessons Learned from Wisconsin's Focus on Energy

David Sumi, PA Consulting Group Ralph Prahl, Prahl and Associates

Developing a Performance Assessment Framework for Canada's Energy Efficiency Programs: Results and Challenges

Mallika Nanduri, Natural Resources Canada, Office of Energy Efficiency

Early Results of New York's Public Benefits Program: New York Energy Smart
Paul DeCotis, New York State Energy Research and Development Authority
Mark Coleman, New York State Energy Research and Development Authority
Jennifer Ellefsen, New York State Energy Research and Development Authority
Helen Kim, New York State Energy Research and Development Authority
Scott Albert, GDS Associates, Inc.

Lori Megdal, Megdal and Associates, Inc.

# **SESSION SUMMARY:**

This session provides a unique opportunity to hear about the overall evaluation approach for three of the largest public benefit energy efficiency efforts on the continent: the state of New York; the State of Wisconsin; and the nation of Canada. Each paper provides a macro-level overview of the rationale, methodologies, and results of the evaluations conducted for their portfolio of programs, including a discussion of how the evaluation results are being used. This is a great opportunity to compare and contrast some of the major evaluation efforts in the industry today.

Two of the papers in this session have a particular focus on the issue of assessing the market effects of their portfolio of market transformation oriented programs. The paper by Sumi and Prahl discusses the use of a theory-based evaluation approach being employed in Wisconsin, and provides numerous program-by-program examples of their initial market effects assessment. The paper by Nanduri focuses on the performance monitoring approach that has been developed for Natural Resources Canada's portfolio of energy efficiency programs, with detailed examples of establishing and monitoring program performance indicator metrics. Finally, the paper by DeCotis, et. al., presents a detailed summary of the evaluation results for the portfolio of New York Energy Smart energy efficiency programs, with additional helpful information about lessons learned and about how the evaluation results are being utilized by NYSERDA.

# SESSION 3 A

# SPOTLIGHT ON LIGHTING AND APPLIANCE PROGRAMS

Moderator: Elizabeth Hicks, National Grid USA

# PAPERS:

Testing the Causal Linkage Between Training of Sales Personnel in Retail Lighting and Appliance Stores and Changes in the Market Share of ENERGY STAR – Qualifying Equipment

Richard Ridge, Ridge and Associates Kathleen McElroy, Xenergy Rob Rubin, San Diego Gas and Electric

Shedding Light on ENERGY STAR Markets: Evaluation Lessons from a Retail Lighting Market Transformation Program

Stephen Grover, ECONorthwest David Cohan, Northwest Energy Efficiency Alliance

**Lighting Quality and Lighting Measurement Assessment** 

Catherine Chappell, Heschong Mahone Group Douglas Mahone, Heschong Mahone Group

# **SESSION SUMMARY:**

This session contains three papers that evaluate different aspects of lighting programs as well as appliances in one case. The first of these looks at identifying the sustainability of program actions in a residential ENERGYSTAR CFL program. The second paper will examine the linkages between the training of sales personnel, changes in the shopping experience and the market share for ENERGYSTAR qualifying equipment. The last paper estimates the energy savings in nonresidential buildings relative to Title 24 in a sample of buildings in California and examines the relationship between savings and lighting quality.

# **SESSION 3 B**

# EVALUATING MARKET EFFECTS PROGRAMS: AVOIDING THE "OOPS! WE THOUGHT WE KNEW WHAT TO EVALUATE!"

Moderator: Nicholas P. Hall, TecMRKT Works

### PAPERS:

An Evaluation of Energy Relevant Decision-Making in Office Organisations

Lukas Weber, Swiss Federal Institute of Technology (ETH)

Merging Program-theory and Market Theory In the Evaluation Planning Process

Nicholas P. Hall, TecMRKT Works

John Reed, TecMRKT Works

An Improved Model for New Commercial Office Building Markets: Implications for Market Research and Evaluation

Rick Kunkle, Washington State University Energy Program Loren Lutzenhiser, Washington State University

# **SESSION SUMMARY:**

Planning market effects evaluations may benefit from a different process than evaluators are traditionally used to. In the past, most program evaluation planning efforts spun directly off a logic model detailing how the program is to produce intended changes. In these evaluations the program designer's logic model is used to plan and prioritize the evaluation efforts. This process may need adjusting for market effects programs. Markets are typically more complex than program designers reflect in their logic models. As a result, key elements that impact a program's ability to effect a market change can be missed unless the evaluation planning efforts are grounded in the operations of the market rather than the logic model. This session reviews two papers presenting examples of how the program theory missed key market aspects followed by a presentation of a method for incorporating market theory into the evaluation planning process.

# **SESSION 4 A**

# HOW BRIGHT DOES THE ENERGY STAR SHINE?

Moderator: Patrick Meier, Wisconsin Division of Energy

### PAPERS:

# **ENERGY STAR Awareness as a Function of Survey Method**

Bobbi Tannenbaum, Energy Center of Wisconsin Shel Feldman, Shel Feldman Management Consulting

# Federal Insights from the CEE ENERGY STAR Household Awareness Survey

Maureen McNamara, United States Environmental Protection Agency Tim Pettit, The Cadmus Group, Inc.

# Counting the Stars in America's Eyes: The ENERGY STAR Household Survey

Miriam Goldberg, Xenergy, Inc.

Mitchell Rosenberg, Xenergy, Inc.

Marc Hoffman, Consortium for Energy Efficiency

Tim Pettit, The Cadmus Group, Inc.

Maureen McNamara, United States Environmental Protection Agency

# **SESSION SUMMARY:**

The Environmental Protection Agency, Department of Energy, and increasingly; local, state and regional organizations are making substantial investments in the Energy Star Campaign. The underlying assumption is that increased consumer awareness and understanding of the Energy Star logo and brand image will influence energy related purchases. Ultimately, this should lead to energy savings and pollution prevention.

The three papers in this session explore methodologies and results of efforts to validate the underlying theory and value of the Energy Star program.

One paper will discuss bias and definition issues and how they differ by media used in the survey work. Another will discuss the recent Center for Energy Efficiency sponsored household survey of Energy Star awareness, understanding, and influence including issues related to the survey instruments as well as the results of that survey. The third paper will discuss the role and value of the many partnerships currently being used to promote Energy Star products.

# **SESSION 4 B**

# EVALUATION RESEARCH FOR DEMAND REDUCTION PROGRAMS

Moderator: Ken Keating, Bonneville Power Administration

### PAPERS:

Cost Effective Estimation of the Load Impacts from Mass-Market Programs: Obtaining Capacity and Energy Payments in Restructured Markets for Aggregators of Mass-Market Loads

Dan Violette, Summit Blue Consulting

Frank Stern, PA Consulting Group

Residential Peak Corps Market Study: An Application of Choice-Based Conjoint Analysis Using Hierarchical Bayes Estimation

Vikki Wood, Sacramento Municipal Utility District

Rajan Sambandam, The Response Center

Ed Kolodziej, The Response Center

Demand Responsive Programs – An Emerging Resource for Competitive Electricity Markets?

Grayson C. Heffner, Ph.D., Lawrence Berkeley National Laboratory Charles A. Goldman, Lawrence Berkeley National Laboratory

# SESSION SUMMARY:

The first presentation will cover five case studies of actual programs, highlighting the research issues. The second paper will examine how conjoint analysis was used to re-design an ongoing residential load control program to improve participation. And, finally, the third paper will argue for targeting the greater reliability and precision of peak reductions from diversified small customers as opposed to the usual focus on large C/I firms.

# **SESSION 4 C**

# INNOVATIVE ENERGY SERVICE SOLUTIONS FOR PUBLIC BENEFITS PROGRAMS

Moderator: Fred Sissine, Library of Congress

### PAPERS:

# **Electric Water Heater Conversions – Dancing with the Devil**

Pamela Rathbun, PA Consulting Group George Penn, Global Energy Options James Mapp, Wisconsin Division of Energy

# Strategies for Promoting Innovation Through PGC-Funded Programs

Robert D. Bordner, Energy Market Innovations, Inc. Robert M. Wirtshafter, Wirtshafter Associates, Inc. Lester Baxter, Pew Charitable Trusts Martin Kushler, American Council for an Energy Efficient Economy

Pierre Landry, Southern California Edison Company

# Finding the Promised Land in Non-Energy Programs? An Evaluation of Three Approaches to Harvest Energy Efficiency from a Non-Energy Program

Ingo Bensch, Energy Center of Wisconsin Lori Megdal, Megdal and Associates George Penn, Global Energy Options Darren Schauf, Opinion Dynamics Corporation

# **SESSION SUMMARY:**

Regulatory agencies and utilities across the country are wrestling with ways to spur innovation and new program concepts to promote energy efficiency. The three papers in this session describe innovative approaches for promoting energy efficiency. The first paper provides a review and assessment of alternative organizational and programmatic designs that can be used to solicit truly innovative proposals in the delivery of energy-efficiency services. The second paper presents the results from an evaluation of a one-year electric water heater conversion program offered to residential customers. While the benefits of fuel conversion programs are widely acknowledged, an effective program is difficult to implement when the parties involved have little interest in the program's success. The third paper evaluates the partnership between an energy efficiency program and an assessment program. While promising, there are challenges in ensuring that the partnership serves as the foundation for energy-efficiency program delivery to the industrial sector.

# **SESSION 5 A**

# INTERNATIONAL ENERGY PROGRAM EVALUATION

Moderator: Edward Vine, Lawrence Berkeley National Laboratory

# PAPERS:

# Harmonization of Evaluation Methods for Energy Programs within Europe

Harry Vreuls, Novem, The Netherlands

Working with Program Designers and Implementers to Design a Cost-Effective Evaluation: The Design of a Monitoring and Evaluation Framework for FIDE's Market Development Program

Lark L. Lee, PA Consulting Group David H. Sumi, PA Consulting Group

# Thailand's Evaluation of Market Transformation Program

Napaporn Phumaraphand, Electricity Generating Authority of Thailand Natchamai Maharattanawong, Electricity Generating Authority of Thailand

### SESSION SUMMARY:

This session covers different types of evaluation activities being conducted abroad in Thailand, Mexico and the European Community. The first paper summarizes impact evaluation studies of four Thai DSM programs during the period 1993-2000. The second paper presents a comprehensive evaluation plan for evaluating Mexico's first national energy efficiency program targeting commercial and industrial customers in Mexico over a period of five years. The third paper describes the process for developing an evaluation guidebook for coordinating evaluation methods in Europe.

# **SESSION 5 B**

# TO SAVE OR NOT TO SAVE – MOTIVATIONS FOR ENERGY EFFICIENCY

Moderator: Bobbi Tannenbaum, Energy Center of Wisconsin

# PAPERS:

Why Don't People Save More Energy? Lessons in Motivation from the 1999 Residential Characterization Study of Wisconsin Households

Monica J. Nevius, Consortium for Energy Efficiency

I Can Do It! The Role of Self Efficacy in Motivating Changes in Attitudes and Behavior Relating to Energy Efficiency and Renewables

Jane S. Peters, Research Into Action, Inc. Shel Feldman, Shel Feldman Management Consulting

# **SESSION SUMMARY:**

What motivates buyers and sellers to save energy or use renewables? One paper addresses the role of "self-efficacy" in energy related attitudes and behavior across three sets of studies. Another explores the link between attitudes and behavior. This author found that beliefs about the efficacy of various energy-saving actions diverge from reality.

# **SESSION 5 C**

# THE SALMON PERSPECTIVE: TARGETING UPSTREAM MARKET ACTORS

Moderator: Ben Bronfman, Northwest Energy Efficiency Alliance

# PAPERS:

# **Market Transformation from the Bottom-Up**

Ross DePaola, Integrated Energy Services/WESTLab

James Mapp, Wisconsin Division of Energy

Mary Meunier, Wisconsin Division of Energy

# Market Effects Study and Evaluation of PG&E's 2000 Time of Sale Energy Renovation Program

Allen D. Lee, Xenergy, Inc.

Julia Larkin, Xenergy, Inc.

Mary Kay Gobris, Pacific Gas and Electric Company

Brian Thompson, Pacific Gas and Electric Company

James Staples, Staples-Hutchinson

# Market Transformation and Awareness: The Best Program May Be the One Nobody's Heard Of!

Scott Dimetrosky, Quantec, LLC

M. Sami Khawaja, Ph.D., Quantec, LLC

Connie Colter, Quantec, LLC

Philipp Degens, Ph.D., Northwest Energy Efficiency Alliance

# **SESSION SUMMARY:**

The focus of this session is to report on evaluation of market transformation programs that targeted market actors upstream of consumers. Two papers examine efficient windows initiatives where the intent was to influence manufacturers to change product offerings. The third paper deals with a program designed to influence residential purchasing decisions through training of real estate agents and lenders. The evaluations show that each of these programs had significant effects on the target markets.

# **SESSION 5D**

# ASSESSING THE MARKET FOR INDUSTRIAL ENERGY EFFICIENCY

Moderator: Jean Shaffer, Seattle City Light

### PAPERS:

California Industry and Energy Efficiency: Opportunities and Past Programs

Rafael Friedmann, PG&E, and Fred Coito, XENERGY Consulting, Inc.

A Novel Method for Assessing Large Customer Wants and Needs

Angela Jones, Southern California Edison Co., Shel Feldman, Shel Feldman Management Consulting, Pierre Landry, Southern California Edison Co., Michael Sedmak and Marissa Meyers, Quantum Consulting, Inc.

# **SESSION SUMMARY:**

The industrial sector can be a challenging target for energy management. Firstly, industrial users are often very large—among the largest customers for most utilities. Secondly, industrial end uses, particularly industrial processes, are complex and specialized, frequently with proprietary equipment and technologies. As a result, the industrial sector is a key target market, but one with particular opportunities and challenges.

This session focuses on two studies that characterize the California industrial sector, its component customer segments and end uses, and potential conservation opportunities. The first paper, authored by Friedmann and Coito, provides a comprehensive examination blending secondary data from utility, academic, governmental, and non-governmental sources. Energy savings potential is analyzed according to Standard Industrial Classification groups and according to end uses. These findings are compared with utility conservation program evaluation results to yield insight into opportunities for additional energy efficiency.

Once untapped conservation potential is established, it is essential to identify an effective marketing strategy to persuade customers to act. The second paper by Jones et al. describes a research approach relying on industry experts to provide insight into factors affecting conservation decisions by large customers. The authors use five industrial segments to demonstrate the value of their approach: semiconductors, hospitals, aerospace, biotechnology, and preserved fruit and vegetable processing. Such information from industry experts, when married with a thorough knowledge of sector characteristics, can offer a solid foundation for conservation program design.

Taken together, the two papers in this session provide powerful information and tools to tackle industrial energy efficiency in a strategic and effective way.

# SESSION 6 A

# ENERGY PRODUCTS – NEW TECHNOLOGIES AND INNOVATIVE PROGRAMS

Moderator: James Mapp, Wisconsin Division of Energy

### PAPERS:

Managing Innovation in Your Energy Efficiency Programs – Putting Theory Into Practice Derrick Rebello, Ph.D., Quantum Consulting

Beyond Duct Tape: An Innovative Approach to Identifying Breakthrough Energy Product Opportunities

Patricia Garber, Ph.D.

Marshall Keneipp, Summit Blue Consulting

Can a New Technology Jump-Start a Slow Market Transformation? The Case of the MagnaDrive Adjustable Speed Drive

Philipp Degens, Northwest Energy Efficiency Alliance

Ken Seiden, Quantec, LLC

**Evaluating Emerging Technology Programs: Unique Challenges and Opportunities** 

Richard Ridge, Ridge and Associates

Angela Jones, Southern California Edison

Pierre Landry, Southern California Edison

Greg Ander, Southern California Edison

# **SESSION SUMMARY:**

New energy products, new technologies and innovative programs present unique challenges and new opportunities for changing the energy market. The four papers in this session will explore increasing the effectiveness of innovative programs through the introduction of new technologies and new approaches to evaluation. One paper demonstrates the use of real-time adaptive management to increase the likelihood of a project's success. A second paper will review a set of research tools to assist in the identification of unarticulated customer needs for the development of new energy service products. An example of a new product is the MagnaDrive Coupling. This product is the subject of the third paper that will review the responses from early adapters and how to overcome market barriers. The final paper will tie the session together by discussing the challenges and opportunities Emerging Technology Programs.

# **SESSION 6 B**

# A RANGE OF EVALUATION ISSUES ACROSS A SPECTRUM OF MARKET TRANSFORMATION STRATEGIES

Moderator: Marc Hoffman, Consortium for Energy Efficiency

### PAPERS:

# **Evaluating a Poster Child: Contributions of the Consortium for Energy Efficiency to the Residential Clothes Washer Initiative**

Shel Feldman, Shel Feldman Management Consulting

Marc Hoffman, Consortium for Energy Efficiency

Jane S. Peters, Research Into Action, Inc.

Mitch Rosenberg, Xenergy, Inc.

# **Coordinating Market Transformation And Local Utility Conservation Efforts**

David Cohan, Northwest Energy Efficiency Alliance

# What Are the Likely Impacts of Recent Changes in California's Residential New Construction Standards on Construction/Compliance Practices and Utility RNC Programs

Alan Fields, Regional Economic Research, Inc.

Robert Ramirez, Regional Economic Research, Inc.

Rachel Weber, Regional Economic Research, Inc.

Heather Micelli, Regional Economic Research, Inc.

Mary Kay Gobris, Pacific Gas and Electric Company

### SESSION SUMMARY:

The papers in this session address evaluation of a full spectrum of market transformation interventions. The interventions include new construction with building codes change, market transformation with concurrent resource acquisition and a decentralized model for national initiatives. Each has its specific evaluation requirements. Explore what evaluation issues are common across these different types of interventions and what are peculiar to each type of intervention.

# Session 7A

# **Evaluation and System Reliability**

Moderator: Ralph Prahl

# **PAPERS**

Using a Community Energy Co-op to Address Electric Distribution System Reliability: A Description and Assessment of Initial Experience in Chicago Martin Kushler, American Council for an Energy Efficient Economy

Achieving and Measuring Demand Reduction Through Compressed Air System Efficiency Measures

Mitchell Rosenberg, Xenergy, Inc.

# **Business Customer Outage Costs**

Iris M. Sulyma, BC Hydro International Ltd.

# **SESSION SUMMARY:**

By the Summer of 2001, electric system reliability had become an urgent public policy concern in many parts of the U.S. Efforts were underway in several regions to mitigate system reliability problems through energy efficiency programming, but few evaluations of these efforts had yet been performed. This session provides some early news from the front, including a process evaluation, an impact evaluation, and a study of the costs imposed on business customers by service interruptions.

Kushler describes and provides an early assessment of lessons learned from a community energy co-op developed to administer energy efficiency programs targeted at the amelioration of distribution system reliability problems in the Chicago area. Rosenberg discusses M&V efforts being implemented in conjunction with one of the emergency energy efficiency programs developed in response to California's electricity crisis. Finally, Sulyma explores the costs imposed on business customers by actual system outages in British Columbia, thus helping to shed some light on the potential benefits of energy efficiency programs targeted at system reliability problems.

# **SESSION 7B:**

# LARGE STOCKING AND SATURATION STUDIES: METHODOLOGICAL AND APPLICATION ISSUES

Moderator: Robert Wirtshafter, Wirtshafter Associates, Inc.

### PAPERS:

California Statewide Residential Lighting and Appliance Saturation Study Matt Brost, RLW Analytics, Inc.

# Market Shares of High Efficiency Measures in California's Residential Sector

Frederick Sebold, Ph.D., Regional Economic Research, Inc.

Alan Fields, Regional Economic Research, Inc.

Susan Bortstein, Regional Economic Research, Inc.

Phong Vu, Regional Economic Research, Inc.

Rachel Weber, Regional Economic Research, Inc.

Richard Pulliam, Southern California Edison

Rick Ridge, Ridge and Associates

# **SESSION SUMMARY:**

Several state have initiated large stocking and saturation studies to gather market baselines and to track market effects. These papers, reporting on such studies in California and Massachusetts, explore the methodolical issues such as sample selection, selection bias, an consistency in data collection. Papers also address the applicability of these types of studies when applied across individual programs, and even at a national level.

# **SESSION 7C:**

# **ENERGY E-BUSINESS – ARE WE HITTING THE TARGET?**

Moderator: Peggy Plate, Western Area Power Administration

### PAPERS:

# **Evaluating a Campaign to Increase Demand for Energy Efficient Commercial Buildings**

Jane Gordon, Northwest Energy Efficiency Alliance

Jane S. Peters, Research Into Action, Inc.

Linda Dethman, Dethman and Associates

# The Energy Efficiency Search Engine: The Energy Ideas Clearinghouse

Philipp Degens, Northwest Energy Efficiency Alliance

Scott Dimetrosky, Quantec, LLC

# Usability Testing of Betterbricks.com: An Informational Web Site to Foster Highly Energy Efficient Commercial Buildings

Linda Dethman, Dethman and Tangora, LLC

Jane S. Peters, Ph.D., Research Into Action, Inc.

Jane Gordon, Ph.D., Northwest Energy Efficiency Alliance

# **SESSION SUMMARY:**

This session features three presentations from the Pacific Northwest that look at the effectiveness of reaching energy professionals and other groups through a multi-modal marketing approach. With the advent of the internet, we are all using web-delivery mechanisms in our marketing along with more traditional mass media marketing. The first two papers look at a web-based information program to increase demand for highly efficient commercial buildings, using the web site to improve it. The final paper looks at the Energy Ideas Clearinghouse (EIC), an energy information web site and evaluates how well the services are being delivered.