

Panel 6 Introduction

Policy

Since the first ‘energy crisis’ of 1973, a variety of tools have been used to implement energy efficiency in buildings. Starting with residential solar tax credits and public appeals for reduced thermostat settings in the 1970s, moving through audits and bill stuffers in the early 1980s, and focusing on integrated resource planning (IRP) and market transformation in the early 1990s, energy efficiency policies and programs have become increasingly focused, aggressive, and successful. This continual improvement has come in part from the willingness of the energy efficiency community to take a critical look at what we’ve done in the past, and to think imaginatively about what might work in the future.

This panel continues in this tradition. Our sessions cover a range of policy approaches—including Demand-Side Management (DSM), Integrated Resource Planning (IRP), and codes—and discuss both what we have learned from experience to date and what we might accomplish in the future.

New Markets for DSM and IRP

DSM and IRP have made a significant impact on building energy use in the U.S. This session addresses the potential of using these strategies in other locations and in different contexts. Berko looks at demand-side management in developing countries where utilities often operate in an entirely different context than those in the United States. Colton, Sachs, and DeBarros identify barriers to low income housing weatherization and suggest two models for using demand-side management programs to address these issues. Hopkins and Einhorn suggest how such programs could work for local gas distribution companies.

Deregulation and IRP: What Have We Learned?

The first results from utility deregulation are coming in—and there are some important lessons to be learned for other countries, including the U.S., considering similar steps. Gibson and Hille report on the evolving utility structure in Poland—where central planning was, until recently, the norm for all industries. Poland is moving towards the United Kingdom’s utility structure, although important details such as cost recovery are still being worked out. Swisher compares deregulation experience in several countries, and finds that, although deregulation has made DSM more difficult in some cases, there are ways to harness market forces to further DSM. Haaland and Wilhite summarize the effects of Norway’s utility deregulation on demand-side management (DSM) and show that DSM activities by both government and utilities has dropped dramatically.

Measuring the Unmeasurable

As utility planning becomes increasingly sophisticated, more attention is being paid to incorporating attributes such as resource flexibility, environmental externalities, equity effects, and so on that, although very important, can be frustratingly difficult to quantify. Baechler et al. quantify the environmental impacts of the Western Area Power Administration’s adoption of IRP. LeBlanc explores the interesting concept of charging for energy services (heat, cool, light, etc.) rather than for kilowatt-hours. Violette and Olsson discuss methods to quantify uncertainty and flexibility of resources when conducting IRP.

Code Compliance and Evaluation

There was a time when it was assumed that once an energy-efficiency building code was in place, that was what was built, it worked, and savings persisted. The three papers, Czeschin et al., Perich-Anderson and Dethman, and Schuldt et al., in

this session take a critical look at what is actually happening. These studies provide recommendations on how to improve the codes and their implementation. They also implicitly suggest that further evaluation is warranted.

Regulation and Incentives: What's the Proper Mix?

There are two fundamental approaches to implement energy efficiency: regulation (such as building codes and appliance standards) and incentives (such as rebates and low-interest loans). Each has its strengths and problems; the challenge is to make optimal use of both. True explores how incentive programs can reveal hidden costs, thereby supporting future standards-setting. Tempchin, LeBlanc, and Wu argue that accelerating energy-efficient products into the marketplace requires a careful balancing of regulation and competition.

Code Development: The Next Generation

As building energy efficiency codes move beyond our initial efforts of the mid-seventies and early eighties, our analyses of both what new criteria to incorporate and how to implement and enforce those codes becomes much more thorough and important. Conner et al. look at criteria for the development of upgraded residential codes. Eley et al. report on the Australian experience, where the political perspective on codes is a bit different than in the U.S. Finally, Madison et al. report on Washington's approach to these issues for commercial codes.

Low-income Housing: What Works?

Where is low income weatherization going from here? Berry and Brown's study of the mature Weatherization Assistance Program (WAP) identifies a consistency in measures associated with high levels of savings and shows significant potential savings. Chandrasekar et al. argue for a state utility partnership and a realization of the broader benefits of weatherization as a demand-side management option. Riorden argues for a cost effective performance target rather than a focus on specific measures.

Market Transformation: Implications for DSM

What is market transformation and when do you know you have it? Goldstein addresses the issue and reviews the results of some successful utility programs. Prah and Schlegel look at the compatibility of market transformation with resource acquisition. Rashkin looks at California's effort to move new technologies into the marketplace from a different perspective.

Spotlight

Our spotlight session addresses one of the most contentious issues in energy efficiency policy—the effects of utility deregulation on DSM and IRP. Two opposing viewpoints are presented here: Wiel argues that there is nothing inherent in competition or privatization that need limit IRP or DSM, while York and Cohen argue that deregulation of electric utilities to allow retail competition will likely lead to the demise of IRP and greatly diminish DSM. Understanding how these two seemingly contrary viewpoints are reached provides insight into this crucial policy debate.

Interactive

Our interactive session explores further the contentious issue of utility deregulation and its effects on DSM and IRP. Lang and Haydel report on a survey of IRP efforts, and explore how DSM and IRP differ in the natural gas and electricity sectors. Smyser takes a closer look at IRP under deregulation and suggests specific aspects of IRP which are best suited to survive deregulation. Warwick and Bailey explore a 'regulated competition' scenario that could result in continued DSM investments as well as lower electricity prices.

Concluding Thoughts

The papers in these sessions provide valuable insight into how we can further improve policies for implementing cost-effective energy efficiency in buildings. Many thanks to the authors for their hard work and dedication.

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