

## SESSION 4A

### WORKING LIKE CLOCKWORK? EVALUATIONS OF TOU DEMAND RESPONSE PROGRAMS FROM ACROSS THE U.S.

*Moderator: Jeremy Newberger, National Grid*

#### PAPERS:

#### **Residential Time-of-Use with Critical Peak Pricing Pilot Program – Comparing Customer Response and Demand Impacts of an Information-Only Program to a Technology-Assisted Program**

Jeff Erickson, Summit Blue Consulting, LLC  
Michael Ozog, Summit Blue Consulting, LLC  
Elaine Bryant, PSE&G  
Susan Ringhof, PSE&G

#### **New Paradigm, Same Players: The Relationship Between Reliability and Price-Responsive DR Program Participants in California**

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Mike Rufo, Itron, Inc.

#### SESSION SUMMARY:

Time-of-use programs are gaining increasing prominence as utilities and grid operators look for ways to reduce demand at specific times to aid in managing price spikes and improving system reliability. There are many different kinds of TOU programs: targeting different market segments, requiring different levels of customer participation, offering different kinds of incentives, targeting various customer groups, employing different kinds of notification. While a specific TOU program is often tailored to meet the needs and characteristics of the specific system, much can be learned from the experience of others who have launched and evaluated TOU programs of their own.

The first paper discusses the experiences with a residential TOU pilot program in the eastern U.S. The basic TOU rate incorporated low, medium, and high-cost time periods as well as an extra high cost period, called the Critical Peak Price (CPP). The first segment in the pilot program tested how well customers would respond to TOU/CPP when given advance warning and educational information only. The second segment offered customers the same rate and advanced warning, but also provided customers with a free programmable thermostat that received price signals from the utility and could be programmed to adjust air conditioning set points in response to changes in the price signals. This paper compares the two segments on program recruitment issues, participant satisfaction, and demand impacts, as well as other factors.

Many TOU programs are developed to build on enrolling customers who were on pre-existing demand response or rate programs. The second paper presents the results of an in-depth analysis of the Demand Bidding Program (DBP) participant population in California with a focus on interruptible service customers enrolled in DBP. The investigation highlights two important but conflicting participation trends. First, a significant portion of reliability customers have adapted their curtailment planning and actions from the infrequent, compliance-driven framework of reliability programs to the more frequent, voluntary framework of price-responsive programs. However, the fact that a significant portion of participation in price-responsive programs is coming from existing reliability customers also

indicates that the level and growth of participation in price-responsive programs from customers who had not previously participated in any DR program is significantly less than it would otherwise appear.